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PROSPECTS FOR U.S. DAIRY EXPORTS

W.D. Dobson *

U.S. dairy companies and cooperatives have long been minor players in international dairy markets, exporting the equivalent of only 2% to 4% of domestic milk production. There are good reasons for this behavior. Sales opportunities in the large domestic market and prices offered by the USDA under the dairy price support program typically make export markets unattractive to U.S. dairy firms.

However, this situation appears to be changing. U.S. dairy firms are showing interest in developing export markets and other new markets, for reasons noted below:

1. The 25% decline in U.S. dairy support prices (about 50% in real terms) from 1981 to current levels established in 1990 has made the government a less attractive market for dairy products.
2. The slower increase in per capita consumption of American and other cheeses in the U.S. suggests that the domestic market for these products is maturing.
3. The surge in U.S. commercial nonfat dry milk (NFDM) exports in 1988-89 when international prices for NFDM rose to U.S. prices for the product identified the U.S. as a potentially important commercial exporter of NFDM.
4. Successes scored by a few U.S. firms in selling differentiated dairy products in Japan, Mexico, and other foreign markets.
5. Expanded use of the USDA's Dairy Export Incentive Program (DEIP) in 1992, 1993, and 1994.
6. Congressional approval of the (a) North American Free Trade Agreement (NAFTA) in 1993 and (b) GATT agreement in 1994.

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These developments create incentives and opportunities for expanded exports of U.S. dairy products. The NAFTA and GATT trade agreements, in particular, signal the beginning of a gradual opening of domestic and international markets for dairy products. Thus, U.S. firms that gain exporting experience are likely to find opportunities in the Mexican market as a result of the NAFTA, especially over the longer-run when problems created by the 1994-95 peso devaluation become less severe. They also would discover that exporting experience would be useful for defensive purposes, equipping them to retain U.S. markets in competition with expansion-minded foreign firms.

This leaflet discusses the quantity and nature of recent U.S. exports of bulk and differentiated dairy products, the competitiveness of U.S. exporters, future exporting opportunities, and how dairy exporting might evolve in the future.

Recent U.S. Dairy Exports

U.S. exports of butter, cheese, and NFDM for 1980-1994 appear in Table 1. The figures probably conceal as much as they reveal since they include bulk, largely undifferentiated dairy products and differentiated (value-added) dairy products, commercial exports, and subsidized exports. The butter exports appearing in the table are mainly subsidized exports, direct product sales made by the U.S. government, and shipments made under U.S. government food aid programs. In recent years, a large percentage of U.S. NFDM exports have been subsidized--in 1992-94 DEIP exports of U.S. NFDM were equivalent to about 89% of total U.S. exports of the product. However, during 1988-89 when world NFDM prices rose to U.S. levels the NFDM exports consisted mainly of commercial exports. The relatively small U.S. cheese exports apparently are mainly commercial exports. DEIP exports of cheese during 1992-94 were equivalent to only about 21% of total U.S. cheese exports. Presumably the unsubsidized U.S. cheese exports consist primarily of differentiated cheeses which can be sold in foreign markets

without subsidy. Average U.S. exports of butter, cheese and NFDM (on a milk equivalent total solids basis) were equal to about 3.3% of domestic milk production during the recent 1992-94 period.

More information on 1993 U.S. dairy exports appears in Table 2 which contains U.S. Census Bureau figures on the destination, amount, and value of subsidized and nonsubsidized exports. The Census figures for total butter and NFDM imports from the U.S. for 1993 differ from USDA figures on total U.S. exports of these products in 1993 (Table 1) and the DEIP export totals for these products for 1993 (Table 3). The Census totals differ from the DEIP totals partly because the DEIP figures represent bid acceptances for a given year rather than actual exports. Thus, for example, a portion of the DEIP bid acceptances for 1993 were not actually exported until 1994. Accordingly, use of bid acceptance figures for 1993 could, under certain circumstances, overstate DEIP exports for that year. By way of further explanation, FAS-USDA officials said that Census figures tend to understate actual U.S. dairy exports because private exporters and the USDA do not register or report all dairy product exports to the Census Bureau. Moreover, the officials claimed that the Census Bureau had little incentive to secure the unreported data. This consideration, which explains why the Census Bureau may underestimate U.S. dairy exports by sizable amounts, suggests that the Census figures should be regarded as a sample of actual U.S. dairy exports. Despite being only a sample, the Census figures provide additional insights about U.S. dairy exports.

The export destinations for bulk, subsidized products (butter and NFDM) differ from those for differentiated (ice cream) and partially differentiated (dried whey) products (Table 2). In 1993, butter and NFDM were exported to Mexico and Algeria mainly for use in government programs that provide subsidized dairy products for low-income people and to Russia to compensate for domestic production shortfalls. Ice cream—which is exported without subsidies—was mainly exported to Japan, Mexico, France, the United Kingdom, and Hong Kong.

Premium ice cream sales by companies such as Borden and Häagen-Dazs are included in these figures. Dried whey—which is also exported without subsidy—was marketed mainly in Japan, Mexico and Canada.

USDA Programs to Expand Bulk Dairy Exports. The USDA uses subsidies to expand bulk exports of U.S. dairy products. These USDA subsidies help keep Commodity Credit Corporation stockpiles of dairy products at manageable levels, increase milk prices for U.S. milk producers, provide dairy products to needy people in foreign countries, and achieve other objectives.

The GSM-102 Export Guarantee Program represents one program used to expand U.S. bulk dairy exports. This program allows "high risk" foreign purchases to arrange financing to buy U.S. dairy products. For the 1994 fiscal year, $122 million in credit guarantees for dairy exports were made available for 10 countries under the GSM-102 program.

The DEIP program authorized under the 1985 Farm Bill and extended to 1995 by the 1990 Farm Bill represents a second mechanism for expanding dairy exports. While it was little used in the late 1980s and early 1990s, the DEIP became an important supplement to the USDA's dairy price support program beginning in 1992. The DEIP was employed to sell in foreign markets 155 thousand, 157 thousand and 174 thousand tons of dairy products in 1992, 1993, and 1994, respectively. Annual budget outlays for export subsidies under the DEIP averaged about $140 million during 1992, 1993, and 1994.

Under the DEIP, domestic and foreign private firms qualify for export subsidies by submitting bids to the USDA. These bids typically equal a large percentage of the difference between the U.S. price and the world price for milk powders, butteroil, butter, and selected cheeses. The USDA awards the DEIP export subsidies to qualified low bidders.

With a few exceptions, DEIP exports have been concentrated in the hands of U.S. subsidiaries of foreign firms during 1992-94. For example, the four largest exporters of NFDM

in 1992 under the DEIP were M.E. Franks (owned by Ecoval of Belgium), Hoogwegt (Netherlands), Union Commerciale (France) and Ireland's Dairy Board. These four firms accounted for about 84% of DEIP-subsidized exports of NFDM in 1992. The situation changed only modestly in 1993 and 1994. In 1993, FMI, U.S.A.--a French firm--displaced the Irish Dairy Board from the top-four exporters of NFDM under the program. In 1994, Luxor of California--a U.S. firm which accounted for 13% of DEIP-subsidized exports of NFDM during the year--displaced FMI, U.S.A. from the top-four sellers. The top-four firms accounted for about three-fourths of DEIP-subsidized exports of NFDM in both 1993 and 1994.

DEIP exports increase U.S. milk and dairy product prices whether the exports are made by U.S. or foreign firms. However, if foreign firms do most of the exporting under the DEIP, U.S. firms will get little exporting experience under the program. Exporting experience would be useful to U.S. firms for developing commercial foreign dairy markets.

Competitiveness of Bulk Exports. The chart showing the relationship between U.S. and world dairy product prices for 1984-mid 1994 reveals why U.S. dairy products typically are not competitive in world markets in the absence of subsidies. Except for parts of 1988 and 1989 when European Union (EU) milk production quotas helped to reduce subsidized EU dairy exports and shrink international dairy product supplies, U.S. wholesale prices for butter, cheese, and NFDM at Midwestern locations were substantially higher than prices F.O.B. North European ports (proxy for world prices). Even in those years, only U.S. NFDM prices became competitive in world markets. Although reductions in U.S. dairy prices supports and other developments have narrowed the gap (especially for butter), U.S. dairy product prices remained substantially above world prices in recent years. In 1993, for example, U.S. cheese and NFDM prices averaged 60% above world prices. Butter prices, on the other hand, exceeded world prices by only 21% in 1993. The relationship was similar during the first half of 1994 when U.S. cheese, NFDM, and butter prices exceeded world prices by 64%, 69%, and 18%, respectively.

The price gaps reflect the effects of several factors including U.S. dairy import quotas, the domestic dairy price support program, and subsidized EU dairy exports which depress international prices for these products. The Australian Dairy Corporation describes in its 1992 Dairy Compendium the EU's role in establishing world dairy product prices in these terms:

> "Owing to its dominant position in terms of supply of most major products, the EU tends to set traded prices in those international markets which are not subject to quota restrictions. Typically, export prices in non-quota markets tend to equate to the internal supported price for these products in the EU less the available EU export refund."

Until world dairy supplies tighten again, U.S. prices for bulk dairy products are likely to remain above world market prices. Hence, U.S. firms will require subsidies to export these products for the foreseeable future. A tightening of markets which would lessen the need for export subsidies is possible since EU milk production quotas will hold the Union's milk production in check and the GATT agreement will lessen EU subsidized dairy exports.

Exporters of Differentiated (Value-Added) Dairy Exports. Certain U.S. firms have a lengthy history of selling differentiated dairy products in foreign markets. Companies involved in such sales range from Fortune 500 firms to smaller niche marketers. Some U.S. companies serve foreign markets from plants located in the countries where the sales are made. Thus, those sales do not appear in U.S. dairy export statistics.

The Borden Company, selling under the KLIM brand, has long ranked alongside Nestle and the New Zealand Dairy Board as a leading producer and exporter of packaged milk powder. Kraft sells branded, specialty cheeses in a number of foreign countries, including Mexico, Venezuela, Japan, Hong Kong, Taiwan, and Australia. However, it is not necessarily exporting U.S. cheese. Operating somewhat like an international grain company, Kraft appears to source cheese for sale or further processing in foreign markets from the cheapest available supplier—often one of Kraft's own plants located in a foreign country. Thus, for example, a

survey of Japanese and Hong Kong retail foods stores in 1990 showed that Kraft branded cheese was sourced from the U.S., Australia, Denmark, Japan, and the Philippines.

Additional examples of dairy exporting initiatives by U.S. firms can be readily found. Mid-America Dairymen of Springfield, Missouri has supplied parmesan cheese to supermarkets and pizza stores in Taiwan. Foremost Farms (formerly Wisconsin Dairies), through its Foremost Ingredients Group, exports pharmaceutical lactose to Latin America, Pacific Rim countries, Europe, and Africa. The National Dairy Board began efforts in 1991 to help U.S. firms expand sales of differentiated dairy products (mostly cheese and frozen desserts) to Japan.

While these initiatives promise to expand the U.S. presence in dairy export markets, U.S. companies will start from low market share positions in important Asia-Pacific markets. For example, U.S. companies had only about one percent of the Japanese cheese market in 1993. The relatively large share of the Japanese market held by Australian firms (31%) and the New Zealand Dairy Board (28%) in 1993 reflects the longer-term market development efforts of firms in those countries, low milk production costs in Australia and New Zealand, and proximity advantages. Danish and other European firms have acquired substantial shares of the Japanese cheese market partly through careful, sustained market development efforts, including development of flyers, nutrition information and recipes—all in the Japanese language.

Competitiveness of Differentiated Dairy Exports. How competitive will U.S. firms be for expanding exports of differentiated dairy products? In one sense, their prospects for exporting these products are better than those for expanding unsubsidized exports of bulk undifferentiated dairy products because price will be a less important competitive factor. For example, Kraft branded cheeses marketed in small consumer packages in Japanese supermarkets sold for the equivalent of $8.50 to nearly $10.00 per pound in 1990. Cheese carrying well known European brands sold for roughly similar prices in those stores. On the other hand, certain Australian and New Zealand cheeses sold unbranded or with less familiar brands sold for less ($4.50 to about

$6.25 per pound). Prices for well known U.S. branded cheeses marketed in small consumer packages sold for less ($4.50 to about $6.25 per pound) in Taiwan and Hong Kong supermarkets in 1990 but still were priced substantially above prices in U.S. supermarkets.

The Mid-America International Agri-Trade Council concluded that U.S. cheese exporters would be most successful in Japan, Hong Kong, and Taiwan if they concentrated on selling specialty gourmet cheese, cheese spreads, portion packaged cheese, Italian hard cheese, snack cheese, and processed cheese while avoiding efforts to sell bulk cheeses such as cheddar and mozzarella that can be supplied more cheaply from Australia and New Zealand.

Additional considerations make the price advantage for differentiated dairy products less important than might be supposed.

- Nontariff barriers exist in Japan which limit imports of differentiated dairy products into that country. These barriers include marketing arrangements which make it difficult for foreign firms to gain access to existing marketing channels.
- Japanese supermarkets are highly demanding in terms of quality, package design, flavor and uniqueness.
- Finally, while some differentiated dairy products carry high retail prices in foreign markets, the quantities of dairy products sold in this form are likely to be limited.

Future Exporting Opportunities

Future dairy exporting opportunities for U.S. firms will be influenced by a number of developments, including the NAFTA and GATT agreements and the vigor with which the firms pursue export markets. This section focusses on the impact of the trade agreements and opportunities in the important Mexican and Pacific Rim markets.

Impact of Trade Agreements. Over the longer-run, the NAFTA and GATT agreements will reduce subsidized dairy exports, contribute to higher international prices for dairy products,

and provide price incentives for additional U.S. dairy exports. In particular, after 10 to 15 years, U.S. dairy products will enter Mexico markets duty free if the NAFTA is fully complemented. But, during the next few years high tariffs will limit U.S. access to the important Mexican NFDM market. Similarly, EU exporters will reduce subsidized exports of most dairy products under the GATT agreement during the remainder of the 1990s. This development could occasionally push international dairy product prices to levels approaching U.S. domestic prices, creating opportunities for unsubsidized exports of bulk U.S. dairy products. This development is most likely for butter.

However, export-expanding DEIP subsidies must be reduced to satisfy GATT obligations during 1995-2000. By the year 2000, the quantity of dairy products exported with subsidy and budget outlays for those export subsidies must be reduced by 21% and 36%, respectively, from 1986-90 base period amounts. The required adjustment will be greatest for NFDM—the amount that can be exported with subsidy will decline by about 41% in 2000 as compared to average exports under the DEIP in 1992-94 (Table 3). U.S. subsidized cheese exports—which traditionally have been small—will not be affected much by the GATT agreement.

The EU will be affected differently by the GATT agreement. As shown in Table 4, the EU could actually increase exports of subsidized butter under the GATT agreement by 79% in 2000 from the totals for 1992-94. For the EU, the percentage reduction in subsidized exports of NFDM called for by 2000 would be smaller than for the U.S. On the other hand, the required percentage reduction in cheese exports would be 32 percentage points larger than for the U.S. These apparent anomalies arise because of differences in exports during the base period used to compute the 21% quantity reduction in subsidized exports required under the GATT agreement by 2000.

The EU will remain a much larger exporter of subsidized dairy products under the GATT agreement than the U.S. The EU can satisfy requirements of the GATT agreement for 2000 while

exporting with subsidies about 3.5 times as much NFDM and 100 times as much cheese as the U.S. The increase in subsidized exports of EU butter that would be authorized under the GATT agreement probably will not be used. The EU is reducing butter surpluses and is not likely to export as much butter with subsidies as permitted by the GATT agreement.

Exporting Opportunities in Mexico. Mexico represents a large market for U.S. dairy exports which could expand under the NAFTA. In 1992, Mexico's dairy imports from the U.S. were valued at $160 million, equalling 22% of the value of all U.S. dairy exports. U.S. cheese exports to Mexico recorded more than a nine-fold increase from 1989 to 1992. At times, Mexico has been the world's largest importer of NFDM, accounting for about one-quarter of world imports of this product in both 1989 and 1990. Proximity advantages that make it possible to serve the Mexican market by truck rather than ocean freight and experiences U.S. firms have gained in serving Hispanics make it attractive for them to expand into that market.

Under the NAFTA, Mexico converted its import licensing arrangements for milk powder into a tariff rate quota. This arrangement calls for an initial 139% tariff on U.S. milk powder exports to Mexico exceeding 40 thousand tons which will be phased out over a 15-year period. Mexico also eliminated import licensing on cheese imports from the U.S. Cheese exports from the U.S. will be subject to an initial 20% tariff which will be reduced to zero during a ten-year period. Fresh cheeses carry a larger, 40%, initial tariff which will be phased out over 15 years.

While the NAFTA should permit larger U.S. dairy exports to Mexico in the longer-run, the export-enhancing impact of the agreement should not be overestimated for these reasons:

- Mexican tariffs on dairy imports were relatively low prior to passage of the NAFTA. Hence, tariff reductions and other trade-liberalization measures associated with the NAFTA are likely to have limited impacts on U.S. exports of dairy products to Mexico.
- The 40 thousand tons of milk powder that will enter Mexico duty free under the NAFTA is about 5% less than the average of U.S. exports of milk powder to Mexico

during 1989-91. If enforced, the 139% tariff for imports exceeding 40 thousand tons will preclude U.S. firms from making large yearly milk powder exports akin to the 98 thousand ton total recorded for 1989.

- Mexico's government and Mexico's dairy businesses may attempt to short circuit full implementation of NAFTA provisions if they believe the agreement permits excessive damage to Mexico's domestic dairy industry.

U.S. firms planning to export dairy products to Mexico will be affected by the following characteristics of the Mexican market and the competitive environment in that country:

- Only about 30% of Mexico's 85 million people have the purchasing power to be commercial customers for dairy products.
- The devaluation of the Mexican peso that occurred in late 1994 and early 1995 will increase the price of U.S. dairy products to Mexican importers and consumers.
- Consumption and imports of NFDM for use in producing "inferior goods" (reconstituted milk and packaged milk powder) will decline as incomes of Mexican consumers increase. But, because of persistent poverty in Mexico, consumption of "inferior goods" and Mexican imports of NFDM will remain large for the foreseeable future.
- California firms are positioned to expand exports of milk powder to Mexico. Proximity advantages and their product mix position Texas firms to increase exports of fluid milk and ice cream. Wisconsin, Minnesota, and other Northern dairy firms could supply additional aged cheese, whey powder, lactose, and other differentiated dairy products to Mexico.
- Mexico enjoys vigorous competition for its business. U.S. firms exporting dairy products to Mexico will encounter vigorous competition from Nestle, the New Zealand Dairy Board, Uruguayan exporters, and EU firms.

- U.S. firms may be able to extract useful information on exporting to Mexico from practices of Dean Foods Company, The Foremost Ingredients Group of Foremost Farms, Baskin-Robbins, the New Zealand Dairy Board, and M.E. Franks, all of which successfully sell dairy products in Mexico.
- The 15-year adjustment period before the tariff on NFDM imports goes to zero will protect Mexico's domestic dairy industry while it attempts to achieve greater self sufficiency. U.S. firms planning to expand dairy exports to Mexico can gain insights about Mexico's market potential by following that country's progress toward achieving greater self-sufficiency in milk production under the NAFTA.

Opportunities in Pacific Rim Countries. Japanese cheese consumption and cheese imports increased rapidly in the late 1980s and early 1990s. For example, Japanese cheese consumption and imports rose 22% and 20%, respectively, from 1989 to 1993. U.S. companies that can meet the stringent quality, package design, and other specifications for the market may find opportunities in the growing Japanese market for differentiated cheeses.

U.S. exporters have been relatively successful in gaining market share in the Japanese dried whey and lactose markets. In 1991, for example, U.S. firms had 33% of the dried whey market and 26% of the lactose market. They may have good opportunities to expand lactose exports since the EU does not subsidize exports of lactose to Japan. Sparks Companies concluded that to obtain more of the Japanese lactose market, U.S. suppliers must improve the quality image of the product and combat aggressive marketing efforts of EU, New Zealand, and Australian competitors.

The Evolution of Dairy Exporting

Government trade policy decisions will influence U.S. exports of dairy products substantially during the next few years. U.S. exports of subsidized dairy products under the DEIP (or successor programs developed after the DEIP is reviewed in 1995) will be reduced from 1992-94 levels. Probably exports of dairy products for food aid purposes will increase in the aftermath of this development. In the albeit unlikely event that the GATT agreement and other developments make U.S. dairy product prices competitive for extended periods in world markets, U.S. exporters will have incentives to expand bulk dairy exports. If they wish to expand bulk dairy exports following such developments, they will become subject to the discipline facing any commodity exporter. Firms wishing to be competitive sellers of any unsubsidized commodity (steel, cement, or bulk dairy products) in foreign and domestic markets must be low-cost producers. This means that raw product costs, processing costs, transportation costs, and sourcing strategies all will become exceedingly important to U.S. exporters of bulk dairy products who wish to be competitive.

The options will be more numerous for exporters of differentiated dairy products. While U.S. milk costs are higher than those in New Zealand and Australia, these costs are not so high that U.S. exporters of differentiated dairy products would be severely disadvantaged by them.

Mexico and Canada have obvious proximity advantages as markets for U.S. firms wishing to expand dairy exports. However, uncertainties have arisen which will constrain future dairy exports to those countries.

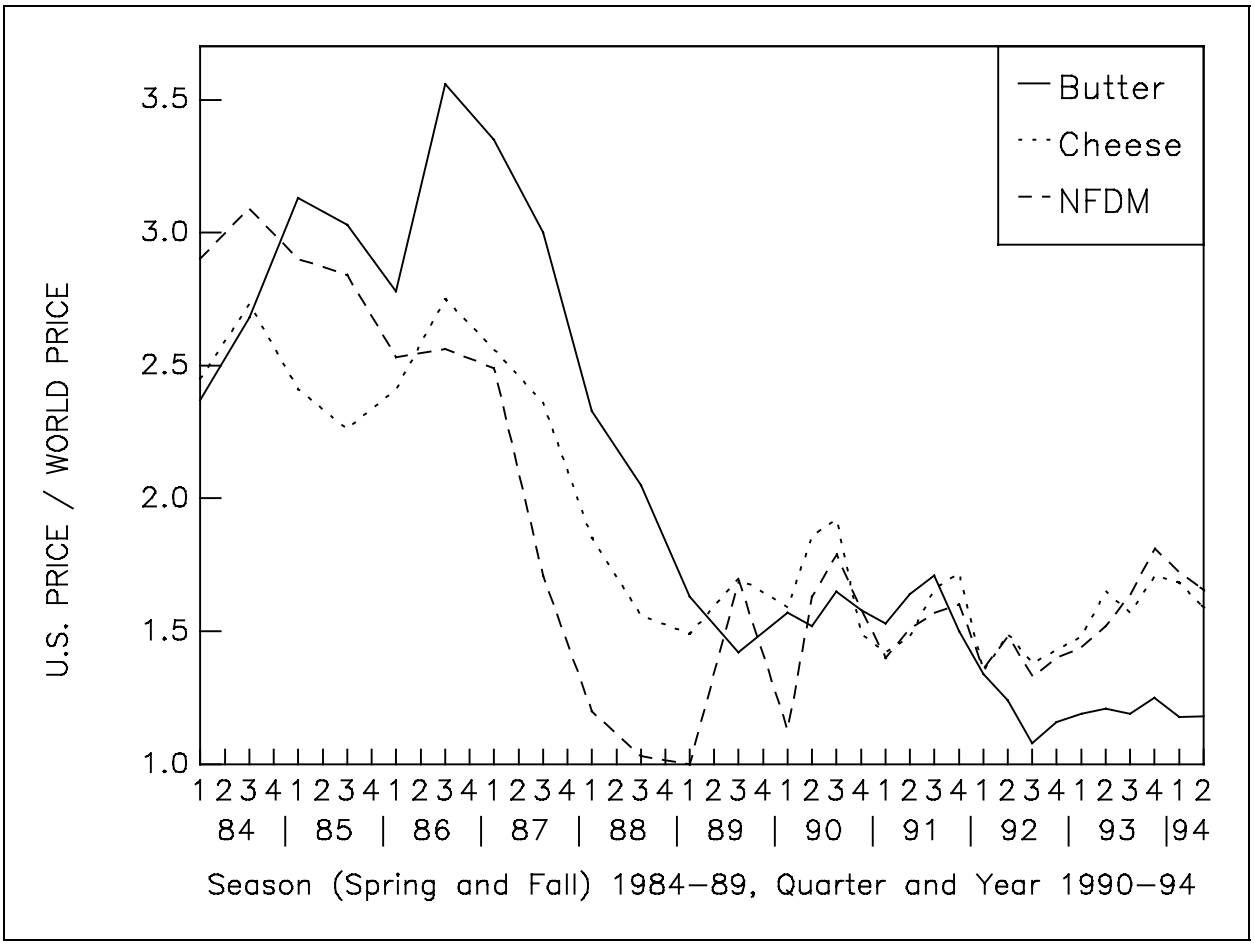
A number of U.S. companies reported that they expanded exports of dairy products to Mexico after the NAFTA became effective. But the expanded exports triggered responses by the Mexican government and Mexican businesses. The response by the Mexican government included imposing a 9% tariff on fresh milk and cream early in 1994. At least some U.S. exporters had not anticipated that this tariff would be employed. In related developments, U.S.

dairy exporters reported additional delays in getting dairy products through Mexican customs and faced Mexican government product labeling proposals requiring that the expiration date for fluid milk sold in Mexico be not more than 48 hours later than the pasteurization date. If implemented, the latter measure would effectively block U.S. firms from exporting fluid milk to Mexico. U.S. exporters contend that these actions or proposals are contrary to the spirit of the NAFTA. A few U.S. dairy exporters also reported that unidentified men thought to represent Mexican firms damaged their trucks, refrigeration equipment, and warehouses in 1994. It is not known how long such nontariff barriers will persist. Presumably, U.S. exporters can develop countermeasures to deal with these barriers. However, actions of the Mexican government, actions of Mexican businesses, and devaluation of the peso doubtless will reduce the rate of expansion of U.S. dairy exports into Mexico.

Trade disputes promise to limit U.S. access to the Canadian dairy market. Canadian officials plan to use the GATT agreement to protect Canada's dairy industry through use of high tariff rate quotas (TRQs) for dairy products. For example, tariffs established under the TRQs for imports in excess of minimum access amounts would be about 350% for butter and 283% for milk. These TRQs would protect Canada's domestic dairy industry nearly as effectively as import quotas used prior to the GATT agreement. U.S. negotiators claim that such TRQs are contrary to the U.S.-Canada Free Trade Agreement and the NAFTA which require approval of the other signatories to the agreements before they can be imposed. Canadian trade officials argue that the GATT agreement takes precedence over the previous trade agreements and allows Canada to impose the high TRQs. Former Agriculture Secretary, Espy, said that the U.S. would challenge Canada's position regarding TRQs on dairy imports before a World Trade Organization panel. It is unclear how this dispute will be settled. It is apparent that the Canadians will fight hard to retain strong protection for the domestic dairy industry. Their resistance will limit U.S. dairy exports to Canada for the foreseeable future.

Firms concluding they can increase profits by exporting in the environment that is unfolding in Mexico, Canada and elsewhere might gain early mover advantages by getting into exporting soon rather than later. Even early movers will face the difficult task of catching up with sophisticated exporters. However, the discipline of learning to export dairy products may carry an important side benefit. It may help U.S. firms to produce the quality and variety of products needed to defend their dairy sales in the North American market, which is being eyed by expansion-minded foreign firms.

Figure 1. U.S. Price Divided by World Price for Dairy Products.*



Source: U.S. Department of Agriculture, "Dairy: World Markets and Trade," "World Dairy Situation," and "Dairy Situation and Outlook," Various Issues, 1985-94.

* World prices equal midpoint of high and low prices for Northern European Ports (F.O.B.). U.S. prices for butter are Chicago Grade A prices. U.S. prices for cheese are prices for 40-pound blocks of cheddar at Wisconsin Assembly Points. U.S. prices for NFDM are Central States prices.

Table 1. U.S. Exports of Butter, Cheese and Nonfat Dry Milk, 1980-94.

Year	Butter	Cheese	Nonfat Dry Milk
		(1,000 metric tons)	
1980	0	6	131
1981	54	6	155
1982	68	22	144
1983	34	17	266
1984	51	17	295
1985	82	39	446
1986	25	27	408
1987	39	20	384
1988	20	17	189
1989	72	10	146
1990	31	12	10
1991	66	6	67
1992	159	15	126
1993 (Prelim)	161	16	147
1994 (Forecast)	90	15	120

Source: U.S. Department of Agriculture, Foreign Agricultural Service, "Dairy: World Markets and Trade" and "World Dairy Situation," Various Issues, 1983-94.

Table 2. Quantity and Value of Selected U.S. Dairy Exports to Top-Five Dairy Importing Countries, 1993.

Product	Destination	Imports from U.S. (1,000 mt)	Value of Imports from U.S. ($1,000)	% of Total Value
Butter & Anhydrous Milkfat	Russian Federation	51.6	$74,194	51.8
	Mexico	10.6	15,326	10.7
	Mongolia	7.3	10,792	7.5
	Albania	5.0	7,197	5.0
	Algeria	3.9	7,016	4.9
	All Others	23.5	28,586	20.0
	Totals	101.9	143,111	99.9
Nonfat Dry Milk	Mexico	48.6	85,291	64.2
	Algeria	13.2	23,236	17.5
	Armenia	0.6	2,520	1.9
	Russian Federation	0.9	2,214	1.7
	Venezuela	1.0	1,680	1.3
	All Others	11.4	17,931	13.5
	Totals	75.7	132,872	100.1
Dried Whey	Japan	12.6	15,795	23.3
	Mexico	17.9	14,171	20.9
	Canada	9.3	13,182	19.5
	Australia	2.0	5,390	8.0
	Taiwan	7.5	3,445	5.1
	All Others	21.3	15,731	23.2
	Totals	70.6	67,714	100.0
Ice Cream	Japan	9.8	20,750	31.2
	Mexico	5.9	10,107	15.2
	France	2.9	7,930	11.9
	Hong Kong	3.6	5,862	8.8
	United Kingdom	1.9	5,390	8.1
	All Others	6.8	16,473	24.8
	Totals	30.9	66,512	100.0

Source: U.S. Bureau of the Census figures reported in U.S. Department of Agriculture, Foreign Agricultural Service, "Dairy: World Markets and Trade," FD 1-94, March 1994, pp. 63-70.

Table 3. 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, pages 49 and 59 and "Calendar Year DEIP Bid Acceptances Summaries for 1992, 1993 and 1994."

Table 4. Quantity of EU Dairy Products Exported with Subsidy in 1992-94 and Maximum Allowable Exports with Subsidy in 2000 Under the GATT Agreement.

Product	1992-94 Average EU Exports	EU Maximum Subsidized Exports in 2000 (1,000 mt)	% Change 1992-94 to 2000[a]
Butter	205	366	+79%
NFDM	283	243	-14
Cheese	488	305	-38

[a] Percent change figures were computed assuming that all EU exports of butter, NFDM, and cheese made during 1992-94 were subsidized exports.

Source: U.S. Department of Agriculture, Foreign Agricultural Service, "Dairy: World Markets and Trade," FD 1-94, March 1994, page 47 and FD 2-94, August 1994, pages 16, 21 and 26.