POLICY AND MANAGEMENT LESSONS FOR DAIRY EXPORTERS AND INVESTORS IN FOREIGN DAIRY-FOOD BUSINESSES--WHAT DID WE LEARN IN THE PAST DECADE?

by
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Established in 1991, the Babcock Institute for International Dairy Research and Development conducts studies on international dairy marketing and trade and dairy science issues that have international dimensions. The Institute's international dairy marketing and trade work--the focus of this paper--has produced case studies of dairy exporting firms and/or industry studies for New Zealand, Australia, the U.S., Canada, Mexico, Argentina, Ireland, Denmark, The Netherlands, Russia, and Kazakhstan. The Institute also has contributed financially to development of a world dairy trade model. A few noteworthy dairy trade policy and management lessons for dairy exporters and investors in foreign dairy-food businesses are discussed in this paper. These lessons emerged from studies carried out by Babcock Institute analysts during 1991-2000.

Dairy Trade Policy Lessons

The World Dairy Model

The Cox-Zhu World Dairy Model has generated results that provide a useful backdrop for a discussion of dairy trade policy lessons [9,45]. The Cox-Zhu model, a mathematical programming model that reflects four years of modeling work, includes the following characteristics:

- Major Regions: Western Europe, Eastern Europe and the Former Soviet Union, North America, South America, and Oceania.
- Major Exporters: Western Europe, Oceania, Eastern Europe and Former Soviet Union, North America, and South America.
- Major Importers: Western Europe, Japan, East Asia, Mid-East/North Africa, Central/South America, North America, and Mexico.
- Major Products: Whole Milk Powder, Skim Milk Powder, Butter, Cheese, Casein, Whey Proteins, Evaporated/Condensed Milk, Soft Products, and Fluid milk.

The model uses FAO production and trade figures for 1989-94 as base period data. Tariff and non-tariff barriers and constraints agreed to under the Uruguay Round GATT negotiations are included in the model. While the model fails to take account of certain market imperfections--especially the influence of large traders and investors, it reflects many of the underlying economic forces operating in world dairy markets.

Results for three scenarios (GATT/WTO 2000, GATT/WTO 2005, and Free Trade) are summarized here. Scenario GATT/WTO 2000 analyzes the impact of the Uruguay Round GATT/WTO agreement and assesses how well the model projects beyond the data used to construct it. GATT/WTO 2005 extrapolates from 2000 to 2005 certain provisions of the agreements on dairy (minimum access, tariff changes, and reductions in export subsidies) made under the GATT/WTO Uruguay Round. The Free Trade scenario depicts what world dairy markets might be like in the absence of tariff and nontariff barriers to dairy trade.

Results for GATT/WTO 2000. The big gainers under this scenario were milk producers in Australia, New Zealand, and the Southern Cone of South America and consumers in regions where prices fell. There was little or no impact on the U.S. dairy

industry under the scenario. Cox characterizes the result for the U.S. as "We (the U.S.) got as much as we gave up [9]." There were modest effects on the other protected regions (The EU, Canada, and Japan).

Results for GATT/WTO 2005. Cox characterizes the of GATT/WTO 2005 scenario as one which produces sizeable losses for milk producers in Western Europe, modest changes in Japan, Canada, and the U.S., and gains for low cost exporters. While major market distortions remain after GATT/WTO 2005, the model indicates that the world would move about half way to "Free Trade" by 2005. In Western Europe over quota tariff levels under this scenario substantially limit access to imported whole milk powder but not skim milk powder and butter imports. Farm milk prices fall 13% to 14% in Western Europe, increase by 8% to 9% in Oceania, and change relatively little in the U.S. under this scenario.

Free Trade. As expected, results under this scenario are more dramatic. Milk and dairy product production expand in the low-cost producing areas. Dairy exports originating in these same areas increase and decline in high cost countries. The percentage changes in farm milk prices from base period figures under the Free Trade scenario are shown in Table 1.

Table 1. Percentage Change in Farm Milk Prices from Base Period Levels Under Free Trade Scenario.*

Region or Country	% Change in Farm Milk Prices
Western Europe	-26%
Japan	-36%
Canada	-32%
U.S.	No Change
Mexico	-17%
Australia	+23%
New Zealand	+51%
Argentina	+17%

*Source: Cox [9].

The results under the three scenarios correspond broadly to industry expectations. Even the results for the Free Trade scenario confirm what dairy exporters have understood in a general way for a generation. For example, several dairy exporters have expressed the view that U.S. farm milk prices would not change much under free markets. W.S.J.M. Buck, an officer of Friesland-Coberco Dairy Foods in the Netherlands, differed modestly with the results under GATT/WTO 2005 [16, p. 16]. Buck figures that both whole milk powder and butter prices in the EU would experience downward pressure from imports under over quota tariffs akin to those that would exist under the GATT/WTO 2005 scenario.

Implications of the Scenarios. While the results are perhaps not surprising, they do have important implications. The prospect of little gain for U.S. dairy farmers from

freer trade or free trade in dairy products partially explains the lack of interest on the part of most U.S. dairy cooperatives in dairy trade liberalization. Given the price reductions in store for EU milk producers under scenarios similar to GATT/WTO 2005 and Free Trade, it is even less surprising that many EU dairy farmers show little eagerness for additional dairy trade liberalization.

There are of course other reasons for the EU's reluctance to enter negotiations for further dairy trade liberalization. These relate to a possible build up of EU dairy surpluses and EU accession. Under provisions agreed to in the 1999 Berlin Summit, the EU will increase milk quotas by about 1.4 million tons in five member states during the early 2000's without a matching price cut. This quota increase will coincide with the final stages of the Uruguay Round GATT/WTO agreement during which restrictions on dairy export subsidies become increasingly binding because there can be no carry over of unused quantities of export subsidy from previous years. The prospect of enlargement of the EU to include Poland, Hungary, the Czech Republic, Slovenia, Estonia, and possibly Slovakia could add another 1.6 million tons to the EU's market surplus, according to an EU dairy industry source. This in turn could lead to major increases in EU stockpiles of butter and skim milk powder by 2004/05 [1].

Such comments assume that CAP policies would apply in the expanded territory much as in the EU-15. This is far from assured. For example, it is unclear how milk quotas would be allocated to Poland and other Eastern European countries. Poland would be a problem because milk quotas would be difficult to administer effectively for that country's estimated two million mostly small dairy farmers.

Actions taken in the Berlin Summit of 1999 to effectively extend EU milk production quotas until 2008, delay price reductions until 2005-2006, and delay the "mid-term" review of the milk quota system until 2005 are regarded by many as actions that will have to be revisited within a relatively few years [16, p. 15]. There is speculation that the EU will conduct a mid-term review of the milk quota and milk pricing system beginning as early as 2002. Among the options available to the EU for dealing with domestic dairy policy reform and accession issues relating to dairy are the following:

- Fine tune existing CAP dairy policies--reduce dairy support prices by small amounts, use nontariff barriers to limit dairy imports, expand subsidized dairy exports by finessing GATT/WTO limits on dairy export subsidies, and delay EU enlargement.
- Discontinue milk quotas, lower milk price supports, and compensate present EU dairy farmers for losses in income associated with eastward expansion of the EU under a non-quota and lower dairy price support regime. This compensation would be made under the assumption that eastward expansion of the EU would occur during the mid-2000s. Concurrently, relax the budget constraints on CAP spending to permit the compensation called for under this option.
- Expand the EU but delay giving Eastern European farmers full access to payments under the CAP. This option would allow milk quotas to remain in the EU-15 but not be extended to Eastern European countries added to the EU.

Pursuing any of the options would be complex and time consuming. The bottom line is that the EU is not likely to be willing to consider any substantial dairy tariff reductions, increases in dairy market access, and reductions in dairy export subsidies until

it has decided how to revise its domestic dairy policies and accommodate the entry of the Eastern European countries into the EU.

Thus it is no surprise that EU dairy organizations have implicitly and, in one case explicitly, invited the U.S. to join the EU in doing nothing to change dairy trade policies in the current WTO negotiations [16]. While the U.S. will decline the invitations and, at a minimum, seek additional reductions in dairy export subsidies in the WTO negotiations, there is little indication that this initiative will be successful. The EU is simply not in position to make more than minor dairy trade concessions in negotiations given its current domestic dairy policies and the upcoming EU expansion.

U.S. dairy policy makers don't face dairy policy problems as complex as those facing the EU. However, depressed U.S. farm milk prices caused the U.S. Congress and Administration to delay ending the USDA's dairy price support program, which was scheduled to expire on December 31, 1999. That program is now likely to continue at least through 2002. The low U.S. farm milk prices of late 1999 and 2000 make consideration of additional access to U.S. dairy market access a tough sell for proponents of dairy trade liberalization. The U.S. is exceedingly unlikely to open the country's dairy markets to more imports in the absence of similar actions from the EU and other restricted markets.

There is a lesson here. It is likely that significant additional access to the EU and U.S. dairy markets, if obtained at all, will be preceded by compensation for dairy farmers in these two large blocks. Proposals for deregulation and additional market access simply are likely to be nonstarters without producer compensation. More analysis is needed on how such compensation might be provided most effectively.

Deregulation and Compensation: The Australian Dairy Industry Model

Australia's dairy deregulation initiatives of 2000--which include compensation for milk producers--provide a noteworthy model [13]. Australia's dairy industry became arguably the most deregulated in the world effective July 1, 2000. In the 1990s, Australia's state fluid milk pricing programs generated farm milk prices for fluid milk that were about twice as high as those for manufacturing milk. Fluid milk quotas undergirded the fluid milk pricing systems in New South Wales, Queensland, and Western Australia. Under Australia's Domestic Market Support Scheme, levies on fluid milk producers and on processors for manufactured milk products sold domestically were collected and distributed to manufacturing milk producers.

Victoria's powerful dairy groups--which produce mostly manufacturing milk and which account for nearly two-thirds of all milk produced in Australia--proposed to end government regulation of milk prices in part because:

- Dairy export markets were regarded as the growth markets and Victoria's dairy groups thought they could be more competitive in export markets if domestic price supports were ended, and
- State milk control practices had prevented or discouraged Victoria's dairy industry from selling fluid milk in other states.

Milk producers in Australia's fluid milk states (Queensland, New South Wales, South Australia, and Western Australia) were powerless to resist deregulation, mainly because Victoria's producer organizations presented them with an offer that was difficult

to refuse: Either accept deregulation of state milk pricing with compensation or get deregulation without compensation.

Australia's Dairy Farmer Compensation Package. The compensation package made available to Australia's milk producers to help them adjust to a deregulated environment included the following features [13]:

- Restructuring payments will be made to eligible dairy farmers in the amounts of AU 46.23 cents/liter (U.S.$ 11.70/cwt) for fluid milk and AU 8.96 cents/liter (U.S.$ 2.27/cwt) for manufacturing milk produced in the 1998/99 base year. The average milk producer in the relatively high fluid utilization state of Queensland will receive about AU$110,000 (U.S.$63,250) to help him/her adjust to a deregulated industry.
- The AU$ 1.74 billion (U.S.$ 1.0 billion) required to finance the restructuring package will be provided by an AU 11 cent/liter (U.S. 6.3 cents/liter) government levy on all fluid milk products sold in Australia's domestic market.
- Restructuring payments will be made quarterly for eight years, beginning July 1, 2000.
- The Australian Dairy Industry Council negotiated with banks to establish an industry facility that will permit an individual farmer to obtain the discounted present value of his/her quarterly payments as an upfront payment regardless of whether the farmer plans to stay or leave the industry.

Impacts of Dairy Industry Deregulation and Compensation In Australia. Prior to deregulation, architects of the restructuring package developed an estimate of the size of the consumer transfers under state milk pricing that was used for figuring the size of the restructuring payment to market milk producers. The consumer transfer (value of the ability to trade in the market) was estimated to be about AU 15 cents per liter for fluid milk. Thus, the compensation package will pay Australian fluid milk producers the equivalent of three plus years of fluid premium. Government officials and dairy farmers hope that this package will help finance the exit of some farmers from the industry and restructure the industry to be more competitive in international markets.

As a result of deregulation, milk production almost certainly will become concentrated on larger farms in low cost production areas within Australia. The number of dairy farms in fluid milk states is expected to decline by 25% to 30% after deregulation. The combined effect of the increased size of farmers remaining in business and exit of smaller farmers is expected to cause the country's milk production to decline for a few years and then resume the upward trajectory of the 1990s.

Close parallels to the situation that forced deregulation of Australia's dairy industry do not presently exist in the EU, U.S., or Canada. In particular, there are no producer organizations in the latter countries with market and political clout comparable to that wielded by Australia's Victoria groups. Thus, the governments and dairy industries of these countries will not be under strong pressures to deregulate their dairy industries in the immediate future.

What is the lesson for regulated-protectionist dairy industries? Immediate gains for U.S., EU, and Canadian milk producer organizations from maintaining high border protection and pricing regulations will come at a cost. Australian dairy exporters--probably linked still more closely with New Zealand firms--will gain additional early

mover advantages in Asian growth markets for dairy products, making it more costly for North American and EU exporters to expand sales there. In the U.S. and EU, growth-oriented dairy firms will take market share from weaker firms in the domestic market rather than seek export markets. For example, lacking export markets three California firms that plan to expand that state's cheese processing capacity by 40% within five years will turn inward and compete for market share against firms in the Upper Midwestern U.S.

The WTO's Decision on Canada's Dairy Export Subsidy Programs

The 1999 WTO panel decisions on Canada's Class 5 pricing system has sweeping implications for dairy trade policy [11]. In particular, the decision helps to clarify what constitutes a dairy export subsidy under Article 9.1 of the WTO Agreement on Agriculture. It also may short-circuit any U.S. plans for adopting a Class IV dairy exporting arrangement and proposals for two-tier dairy export subsidy programs advocated by a Danish dairy organization.

Objections to Canada's Class 5 Pricing System. Canada's transition to end use pricing and pooling in August 1995 produced a system that had characteristics and impacts similar to producer levies that were subject to explicit subsidy reduction commitments under Article 9.1 of the WTO Agreement on Agriculture. When Canada chose not to count dairy exports made with the benefit of its end use pricing and pooling arrangement against WTO constraints on subsidized dairy exports, the country invited a challenge under the WTO by the U.S. and New Zealand.

The U.S. and New Zealand were primarily concerned with the impacts of Canada's Class 5(d) and 5(e) prices. Canada's Class 5(d) system prices specific negotiated exports including cheese under quota destined for the U.S. and UK markets, evaporated milk, whole milk powder and niche market exports. The Class 5(e) provision prices milk entering products used for surplus removal.

The WTO panels found that Canada's dairy export sales made under Class 5(d) and 5(e) were subsidized exports within the meaning of Article 9.1 of the WTO's Agreement on Agriculture. The WTO concluded that the lower prices afforded exporters for Class 5(d) and 5(e) milk constituted payments in kind financed by virtue of government action and accordingly should be considered export subsidies. Canada argued that government intervention in the country's pricing and pooling system did not approach the level required under Article 9.1(a) of the WTO's Agreement on Agriculture. The WTO panels rejected this argument.

Implications. Absent a WTO challenge, Canada's Class 5 pricing system would have allowed that country to make essentially unlimited exports of subsidized dairy products. The system would have invited imitation by other countries and reduced the effectiveness of limits on dairy export subsidies agreed to under the Uruguay Round GATT/WTO agreement.

If the Class 5 pricing system had survived the WTO challenge, the system would have been particularly beneficial to Canada as a "small country" exporter. Under the scheme, Canada could make essentially unlimited subsidized exports without sharply depressing world dairy product prices. If the U.S. or EU used a similar scheme, this

would depress prices in thin international dairy markets and eliminate a portion of the benefits for U.S. and EU farmers.

It apparently will not be feasible for the U.S. to employ a Class IV export class under which proceeds from dairy export sales at world prices would be priced and pooled under federal milk orders. (A Class IV system was considered for inclusion in the 1996 U.S. farm bill but did not become part of that legislation.) The Class IV pricing and pooling arrangement for dairy export sales would be similar to the one described as an export subsidy in the WTO decisions on Canada's Class 5 pricing system.

The U.S.'s National Milk Producers Federation has suggested that a producer-financed program could be used to subsidize the export of part of the country's structural surplus of nonfat dry milk. The Federation had in mind using producer financing to subsidize the exports of surplus U.S. nonfat dry milk that cannot be exported under the USDA's Dairy Export Incentive Program and that the USDA does not purchase for food assistance programs. Arguably a program could be constructed that would be WTO-compatible if the government was not involved in operating the program and participation by producers was voluntary, conditions that would be difficult to achieve. At a minimum, such a program might attract a WTO challenge.

Proposals to employ a two-tier dairy export subsidy program--of the type advocated by the Danish Dairy Board in particular--will be discouraged by the WTO panel decisions regarding Canada's program. Although the two-tier arrangement would not necessarily involve pooling of surplus EU milk sold at world prices, such sales could still be considered an export subsidy--at least that is what the WTO's decision with respect to Canada's Class 5 pricing system suggests.

In addition to lessons noted above, the episode reminds us to expect delays in achieving mutually acceptable resolutions to WTO challenges. While the WTO has spoken regarding Canada's Class 5 pricing arrangement, it is not clear that Canada will respond in ways that satisfy the U.S. and New Zealand. Canada, the U.S., and New Zealand agreed in 1999 to a December 31, 2000 deadline (later extended to January 31, 2001) for Canada to comply with the WTO ruling. The plans put forth by Canada apparently would leave Class 5(d) and Class 5(e) pricing systems intact but would transfer system operations to the provinces. Canada argues that the changes exclude governments and marketing boards from export transactions. The U.S. has complained that Ottawa is preparing a new system of identical provincial payments which merely disguises the old. When the dispute will be fully resolved is unclear.

Reduced Roles for State Trading Enterprises

With the notable exception of the New Zealand Dairy Board (NZDB), export marketing boards and other state trading enterprises (STE) are playing a smaller role in the world dairy industry. Evidence of the reduced roles of dairy STE's includes the following:

- When Ireland considered joining the then European Economic Community (EEC) in 1971, the monopoly nature of Ireland's Dairy Board (IDB) was thought to be legally indefensible and commercially constricting. Accordingly, Ireland gave up the IDB's monopoly exporting privileges when it entered the EEC in 1973. Given freedom to do so, two large Irish dairy

firms--the Kerry Group and Avonmore Foods (now part of Glanbia) chose to export dairy products for their own account beginning in the early 1990s.

- Denmark's Dairy Board had exporting functions in its earlier years but relinquished the exporting role when MD Foods (now part of Arla Foods amba) and other Danish firms grew in size and developed strong exporting capabilities.
- The commercial exporting roles of Ausdairy and the Australian Dairy Corporation (ADC) have become relatively small. Ausdairy is a wholly owned subsidiary of the ADC which is an STE. Ausdairy focuses on market development and trading on behalf of Australian companies. Sales of the Australian Dairy Corporation totaled AU$ 299 million (U.S.$ 206 million) in 1998, a small figure compared to export sales of big international competitors such as the New Zealand Dairy Board (sales of approximately U.S$ 3.3 billion in 1998-99). Murray Goulburn Cooperative and Bonlac Foods (now owned partly by the New Zealand Dairy Board) have emerged as major dairy exporters, reducing the need for an STE exporter.
- CONASUPO for decades prior to 1999 was Mexico's exclusive importer of milk powders and other food staples for distribution under social programs and to the private sector. This STE now has a much smaller role. Beginning in 1999, the Mexican government slashed the agency's budget and eliminated many of its functions [39, p. 4]. The Mexican agency LICONSA will now directly import milk powder to produce reconstituted milk for low income people in Mexico. Milk powder imports for the private sector will be handled by Mexico's Departments of Commerce and Agriculture. Among other things, the diminished role for CONASUPO reflects the desire of Mexico's government and others to remove a bureaucratic layer from milk powder importing.

The NZDB has felt some of the same pressures that led to reduced roles for dairy STE's in other countries. Indeed, up until early 2000 the organization was scheduled to lose its monopoly exporting privilege and perhaps be merged into a mega cooperative (dubbed "MergeCo") in New Zealand. The mega cooperative would have combined the NZDB, New Zealand Dairy Group, Kiwi Cooperative, and smaller New Zealand dairy cooperatives into one organization that would have been the world's 12th largest dairy marketing organization [1]. That particular New Zealand mega cooperative failed to materialize. However, the boards of directors of the New Zealand Dairy Group and Kiwi Cooperative did agree to merge those two organizations in December 2000. If approved by 75% of the members of the two cooperatives, the merger will create an organization called the Global Dairy Company.

There are plans to combine the NZDB with the Global Dairy Company and eliminate the Board's monopoly exporting privilege. However, these changes will require approval of New Zealand's Commerce Commission and New Zealand's Parliament. It is unclear whether and when these approvals will be forthcoming. Therefore, for the present, the Board's status remains basically unchanged from earlier years.

Arguably, the Board's successes and the quality of its management account for the firm's ability to retain its current structure longer that other STE's. These Board attributes have manifested themselves in prominent ways. The NZDB was named New Zealand's

Exporter of the Year in 1999. From time to time, the CEO's of the NZDB have been listed in business publications ranking New Zealand's top business executives. The NZDB also has garnered about a 31% market share in international dairy markets, up from 19% in 1990 [15, 31]. These are important points. But as noted later, former NZDB Chairman, Graham Fraser, has characterized the New Zealand dairy industry's current structure--including the NZDB--as commercially constricting. This concern is likely to produce sweeping changes in the Board. The lesson for competitors is to expect dairy exporting practices and dairy-food investment practices of the New Zealanders to change significantly in the not-too-distant future.

Management Lessons for Dairy Exporters

This section focuses on management lessons for dairy exporters and firms involved in foreign direct investment in dairy businesses. The lessons emerge primarily from Babcock Institute case studies of Nestle, the NZDB, the Kerry Group of Ireland, and Food Master of Central Asia. The Institute's case studies for Dean Foods (U.S.A.), M.E. Franks (Belgium and U.S.A), the Irish Dairy Board, Danish Dairy Board, Campina Melkunie (Netherlands), Friesland Coberco (Netherlands) and MD Foods (now part of Arla Foods amba) revealed that these firms also have performed effectively as dairy exporters or as foreign direct investors in dairy businesses. However, Nestle, the NZDB, Kerry, and Food Master were selected for emphasis because they represent a cross section of businesses that yield a range of potentially useful management lessons.

Nestle and the NZDB were easy choices to emphasize in the paper partly because these firms were mentioned frequently when the following question was put to officers of case firms studied: Who are your most important competitors? The answer invariably was, "It depends on which products you are talking about". Nestle was frequently mentioned when the competition related to highly differentiated dairy products. The NZDB was often mentioned when the competition was broader, encompassing differentiated or partially differentiated products and bulk dairy products.

Before discussing strategies of Nestle and the NZDB, it is useful to give examples of highly differentiated, partially differentiated, and bulk dairy products:

- Highly differentiated (often branded) products: Specialty cheeses, premium yogurt, premium ice cream, and fluid items.
- Partially differentiated products: Milkfat fractions, whey fractions and other dried whey products, cheese powders, and a host of dairy products used as food ingredients.
- Bulk products: Commodity nonfat dry milk, whole milk powder, butter, and cheese.

Nestle

The company traces its origins to the Anglo-Swiss Condensed Milk Company founded in 1866 in Cham, Switzerland. Anglo-Swiss merged with Farine Lactee Henri Nestle--a producer of infant formula --in 1905 to create the foundation for the modern company. Over the years, the company has developed or acquired such well known brands as Carnation, Klim, Nescafe, Libby's, Stouffer's, Kitkat and Perrier [12,26].

However, these brands understate Nestle's brand presence worldwide. The company has about 8,000 brands, nearly a tenth of which are registered in more than one country. In 1999, the company had about 230,000 employees, 495 factories in 77 countries, and sales of about U.S.$ 45 billion [3, 19, and 33, p. 73].

Nestle's products and sales by geographic areas for 1999 in millions of Swiss francs are shown in Table 2.

Table 2. Nestle's Products and Sales by Region in Swiss Francs, 1999.*

Products	Sales	% of Total	Regions	Sales	% of Total
Beverages	20,859	27.9%	Europe	27,098	36.3%
Milk, Nutrition, and Ice Cream	19,411	26.0	Americas	22,045	29.5
Prepared Dishes & Cooking Aids	20,185	27.0	Africa, Asia & Oceania	13,611	18.2
Chocolate & Confections	10,195	13.7	Other activities	11,906	16.0
Pharmaceuticals	4,010	5.4			
Totals	74,660	100.0%		74,660	100.0%

*Source: Nestle Financial Information [26].

Nestle in 1998 was the world's largest seller of powdered/condensed milk, non-dairy creamers, soluble coffee, mineral water, and chocolate and confectionery products [33, p. 73]. Nestle has emerged as the world's No. 2 seller of ice cream, behind Unilever.

Nestle's Strategies. Nestle's strategies, which are associated mainly with foreign direct investment in dairy and other food businesses, include the following:

- Balance sales between low risk and low growth countries of the developed world and high risk and potentially high growth markets of Africa and Latin America [38].
- Keep brands local and people regional; only technology goes global [34].
- In developed markets, grow and gain economies of scale through foreign direct investment in big companies such as Carnation, Perrier, and Stouffer. In the developing world, grow by manipulating ingredients or processing technology for local conditions, and employ the appropriate (often local) brands [34].
- In developing countries, first establish sales channels by making basic, mass-produced foodstuffs that the locals can afford. Then as consumers in these

countries grow richer, pump higher-valued products through these same channels [17].

- Deepen the pool of Asian managers to gain a cadre of autonomous regional managers who know more about the culture of the local markets than Americans or Europeans [34].
- Employ a wide-area strategy for Asia which involves producing different products in each country to supply the region with a given product from one country [32].
- Strike strategic partnerships when this produces advantages for the firm.
- Engage in nearly constant restructuring and cost-cutting.
- Initiate or join business-to-business (B2B) internet-based systems that offer the firm and competitors in Europe and the U.S. an opportunity to drive down costs by pooling their purchases from commonly used suppliers and by automating certain accounting functions [19].

Nestle derives its prowess from practices in addition to those pertaining to strategies. The author observed Nestle's practices in Mexico during the 1990s. In Mexico, the company exercised both good business practices and was politically well connected. The political connections, it appears, gave Nestle significant influence on Mexico's dairy policies at least during the early to mid-1990s.

Effectiveness of Nestle's Strategies. The effectiveness of Nestle's strategies can be gauged in part from comments of the firm's competitors, suppliers, and others.

Dairy exporters and firms engaged in foreign direct investment in dairy businesses generally had a high regard for Nestle's prowess as a competitor. Several firms interviewed served both as a supplier of bulk dairy products to Nestle and as a competitor of Nestle in differentiated dairy product markets. Nestle was typically characterized as a fair but demanding customer for bulk dairy products and a formidable competitor in differentiated dairy product markets.

The company has been described as a first class innovator in the U.S. market [10]. Examples of recent innovations include Carnation Coffee-Mate liquid fat free creamer, Butterfinger chocolate/peanut butter 2% milk, and ready-to-drink Carnation Instant Breakfast. These products have been achieved partly through large R&D expenditures.

Nestle has been described as having a "formidable world-wide distribution system" which the company can use to market Haagen-Dazs ice cream, a product that the firm acquired the distribution rights for through a 1999 joint venture with Diageo PLC [5]. However, there apparently are weaknesses in Nestle's ice cream business. A Credit Lyonnais report said that Nestle's ice cream unit "lags behind Unilever's dominant global position and doesn't generate profit"[3]. A Dean Foods official described Nestle's business in Mexico as strong in reconstituted milk sales but weak in ice cream sales.

The company's strong cash flow and "comfortable" debt-equity ratio have given it ample muscle for takeovers. However, it also has earned kudos for avoiding the need to make acquisitions to pump up earnings [3]. Nestle's earnings in 1999, for example, exceeded those of Unilever and certain U.S. food manufacturers. Thus Nestle was in a position to pass on the opportunity to acquire Nabisco Holdings Corporation (maker of Oreo cookies, Ritz Crackers, and Planters nuts) in 2000 when Nabisco was placed on the market. One reason for Nestle's lack of interest was that Nestle's product lines and those of Nabisco wouldn't easily mix. Nestle didn't consider Nabisco Holdings products to be

essential to its core businesses such as milk, ice cream, bottled water, confectioneries, and pet food.

What management lessons can dairy exporters and firms investing in foreign dairy-food businesses take from Nestle? Nestle regards Asia, Latin America, and possibly Africa as growth markets for dairy products. Especially now that Asian economies are recovering, it may be profitable for U.S. and European firms to expand sales in these markets rather than fight over market share in the U.S. and European markets which Nestle has characterized as being "flat and fiercely competitive" [36]. A number of other strategies may have appeal, such as balancing sales between low risk and low growth markets of the developed world and high risk but potentially high growth markets of the developing world.

While there are undoubtedly useful lessons in Nestle's strategies that might be emulated by other dairy exporters or those engaged in foreign direct investment in dairy businesses, there is also an ominous factor for suppliers. Nestle's decision to enter into B2B initiatives will doubtless squeeze profits of suppliers of bulk products to the firm.

The New Zealand Dairy Board

The NZDB is an organization in transition. As noted earlier, the Board appears scheduled to become part of a combined organization (the Global Dairy Company) that includes the current New Zealand Dairy Group and Kiwi Cooperative--two cooperatives that process more than two-thirds of the milk marketed in New Zealand. The Board also is scheduled to lose its statutory monopoly exporting privilege when it becomes part of the larger organization. However, it is not clear when and whether the regulatory and parliamentary approvals required to combine the NZDB with the Global Dairy Company will be obtained.

Thus, the NZDB is for the present left substantially unchanged. In its present form, the NZDB is the world's largest specialized, private dairy exporting firm. During the June 30, 1998 to May 31, 1999 fiscal year, the NZDB had sales of NZ$ 7.4 billion (approximately US$ 3.3 billion). It employed 9,800 staff in New Zealand and 98 subsidiary and 19 associate companies worldwide [30]. The firm exports dairy products to over 120 countries and territories worldwide.

The major market destinations for the NZDB's dairy exports and the value of those exports during 1998-99 appear in Table 3.

Table 3. Market Destination and Value of NZDB Dairy Exports, 1998-99.*

Market	Value (NZ$)	% of Sales
Europe/Africa	NZ$ 1,514 million	20.4%
South East Asia	NZ$ 1,572 million	21.2
Middle East	NZ$ 308 million	4.1
Latin America	NZ$ 1,697 million	22.9
North Asia	NZ$ 672 million	9.0
New Zealand/Australia/Pacific	NZ$ 517 million	7.0

CIS		NZ$ 171 million	2.3
North America		NZ$ 970 million	13.1
	Total	NZ$ 7,421 million	100.0%

*Source: New Zealand Dairy Board, Industry Fact Sheet [30]

The NZDB had about a 31% market share (milk equivalent basis) of world dairy exports in 1999 [31]. This placed the Board second only to the EU which had a 37% market share in that year. Australia was a distant third (13% market share) and the U.S. had only about a 4% market share in 1999. The NZDB has increased its market share from about 19% in 1990 to the 31% market share in 1999, mainly at the expense of the EU [15,31].

Early Core and Subsidiary Strategies of the NZDB. Sir Dryden Spring, a former NZDB Chairman, described the Board's core strategy for the early 1990's as follows in 1989 [35]: "Lift the 30% to 40% of milk which is sold as value-added (differentiated or partially differentiated) products to as close to 100% as we can get as soon as possible". Subsidiary strategies included the following [27]: (a) Expand the Board's global own-brand consumer products business, (b) grow the value-added ingredients business, (c) develop further the Board's international food service business, (d) increase dominance of the UK consumer butter and cheese markets, and (e) continue to take advantage of opportunities created in Europe by the GATT/WTO agreement. The core and subsidiary product differentiation strategies were superimposed onto a strategy of being supplied by the world's lowest cost milk producers.

New Strategies of the NZDB. In 2000, the NZDB unveiled an ambitious new strategy. The new strategy is based on work carried out in 1998 and 1999 by New Zealand dairy industry representatives working jointly with McKinsey and Company, a management consulting firm.

The Board reported that it has developed a new 10-year strategy that will create a global dairy business four times larger than today's industry. According to the Board, the new strategy will create value for New Zealand's dairy farmers by manufacturing and marketing products in the following categories [31]:

- Value added dairy products and dairy commodities made from New Zealand milk.
- Dairy products made with milk from other countries using the industry's skills and know-how.

The strategy targets a 15% minimum return on the total gross assets of the businesses, 15% annual growth in revenues, and a 4% annual improvement in productivity from farm to customer.

What lies behind the decision to change strategies? NZDB representatives said the pressure to change the Board's strategies stemmed from a number of external business factors, specifically decreasing long-term commodity prices, increasingly aggressive international competitors, globalization of supermarket chains, and very slow trade liberalization [31, p. 7].

Specifically, the Board noted that competitors--especially those in Australia and Argentina--were achieving productivity gains that outstripped or soon would outstrip those of New Zealand. The key to defending New Zealand's position, the Board claimed,

was to bring about aggressive productivity gains, attaining 4% per year productivity improvements across the value chain from farmer to consumer. According to the Board, the following steps would be required to achieve this productivity growth:

- Send the correct price signal to farmers about the value of additional milk.
- Improve the manufacturing product mix by rapidly sending correct price signals back to manufacturers to encourage production shifts to more profitable products.
- Aggressively improve productivity on the farm, in manufacturing plants, and in marketing operations using technologies (e.g., biotechnology) and international benchmarking to ensure best practices are adopted on farms and in every manufacturing site and marketing office.
- Measure productivity improvement across the value chain.

The NZDB's strategy document contains a strongly worded criticism of New Zealand's dairy industry structure and, by implication, of the Board itself, expressed as follows [31]:

> "The current industry structure has evolved to manufacture, market and hence add value to New Zealand milk. It is not suited to an aggressive global growth strategy. The structure has become complex and politicized leading to drawn out and often inconsistent decision making. In addition, we are not able to take maximum advantage of changes in the way businesses operate using improved communication and transaction technologies."

Former NZDB Chairman, Graham Fraser, elaborated on these comments as follows in early 2000 [29]:

> "We have evolved to the position where we need formal integration of manufacturing and marketing. Our present structure has become slow and unwieldy. It is not conducive to the type of business we wish to be in."

The Board reports that there are three elements to the firm's growth strategy, namely, to (a) pursue an Industry Milks strategy, (b) develop global ingredients businesses to dominate niche markets, and (c) optimize the ingredients network by selling both New Zealand and non-New Zealand dairy products. The Industry Milks element of the growth strategy is new and represents a noteworthy departure from earlier strategies. Fraser explained the rationale for pursuing an Industry Milks strategy as follows [29]:

> "Fast moving consumer companies in the dairy trade supply a range of goods--from the shelf stable products such as ours to the fresh range. Products such as yogurt, pasteurized fresh milk, UHT, fresh cheese, dairy desserts, etc. Our competitors have this full range. If we are serious, and we are, then we must emulate them. To be successful in the global consumer business we are going to have to view it as more than simply an outlet for your milk….This means using local milk where shelf life restrictions rule out NZ product. It also means being prepared to do business in countries to which we are unable to take our product because of tariff barriers."

Among the structural options commented on favorably by New Zealand dairy industry officials was one which would (a) create one company for the collection, manufacturing, and sale of commodities and ingredients, and (b) establish a separate consumer company. "The consumer company was to be initially fully owned by (an organization similar to the Global Dairy Company) but structured in such a way that, *if required, it could attract external equity in the future" [31, p. 16](emphasis supplied)*.

The rub will be for the NZDB (and the Global Dairy Company) to figure out how it can structure a consumer company that would attract outside equity. New Zealand farmers have been skittish about possibly losing control of the Board. Plans to bring in outside equity capital will elevate this concern.

How feasible are the strategies? The Board has marketing infrastructure in place in other countries that could employ milk produced in these other countries for manufacturing products that would carry NZDB brands. This presumably will help New Zealand's dairy industry to expand its network of alliances and joint ventures involving foreign dairy cooperatives and propriety firms. The firm's foreign subsidiaries also will provide a vehicle for purchasing foreign firms, as a recent example illustrates. The Board's Milk Products Holding (Latin America, Ltd.) subsidiary signed an agreement in mid-2000 with the owner of S.A.Fabrica de Produtos Alimenticios Vigor of Brazil to purchase 51% of that company [28]. The Brazilian firm has a strong base in Sao Paulo, Brazil a city of 20 million people. The Brazilian company's product line includes fluid milk, cheese, cultured products, butter, margarine and blends. This acquisition, once it clears due diligence, will be consistent with the NZDB's Industry Milks strategy.

Whether the New Zealand dairy industry can achieve its growth objectives is another matter. As noted later, the Kerry Group of Ireland achieved a 15% average annual growth in revenues during 1994 to 1998 [42]. Hence, this growth rate is within the realm of the possible for New Zealand's dairy industry. Increasing the size of New Zealand's industry fourfold would create an industry about 60% as large as the U.S. dairy industry as measured by milk processed. This appears to be a stretch. Raising the capital required for the industry's consumer company also will be a challenge.

Of course many of these strategies may be modified if at a future time officers of the Global Dairy Company combined with the NZDB see the challenges facing New Zealand's dairy industry differently or choose to address the challenges in fundamentally different ways.

The Kerry Group/PLC

The Kerry Group/PLC of Ireland represents a company that has adjusted well to a challenging business environment, profited from acquisitions, and reduced its reliance on commodity dairy products [42]. The firm is involved in both dairy-food exporting and foreign investment in dairy-food businesses.

Headquartered in Tralee, County Kerry Ireland, the Kerry Group/PLC is a diversified food ingredients and consumer foods company. The firm grew from a small dairy cooperative that had sales of about U.S.$50 million in 1974 to a multinational firm with sales of U.S.$2.4 billion in 1999 that has operations in Ireland, the U.S., continental

Europe, Canada, Mexico, Brazil, Argentina, Chile, New Zealand, Australia, and Malaysia.

Kerry's Core Strategy. Kerry Group/PLC's core strategy has included diversifying and growing the business, emphasizing sales of differentiated (value-added) food ingredients and consumer food products. The firm's strategies have produced a strong emphasis on food ingredients as indicated in Kerry's divisional sales figures for 1998 [42]:

- Kerry Ingredients 63%
- Kerry Foods 34%
- Kerry Agribusiness 3%

As the firm grew into a world leadership position in food ingredients, the sales of Irish-based dairy products declined to about 11% of the firm's total revenues.

Origins of the Kerry Group/PLC. Kerry Cooperative Creameries Ltd. (parent of the current organization) began its legal existence in January 1974. In the early 1970s, a brucellosis eradication program reduced Kerry Cooperative's milk supply by about 20%. Facing this situation, the Kerry Cooperative's management and board of directors concluded that if the firm was to grow it needed to reduce the reliance on commodity dairy products and diversify into differentiated products. The management and board also recognized that the viable options open to firm were to diversify or merge. The firm opted for diversification. As part of this initiative, Kerry Cooperative in 1979-80 bought 19 Irish firms that sold branded food products.

Financing Strategies of the Kerry Group/PLC. The Kerry Group/PLC is sometimes held up as a model for emulation because it changed successfully from a cooperative into a cooperative/public limited company. Kerry Cooperative's conversion into a cooperative/public limited company took place as follows [42]:

- In June 1986, Kerry Cooperative exchanged its assets for majority holding in a PLC, mainly to obtain capital for growth.
- In October 1986, shares of the Kerry Group/PLC were offered to the public and subsequently listed on the Dublin and London stock exchanges.
- Kerry Group/PLC's shares traded for about 52 Irish pence (about U.S.$0.70 per share) when the firm's shares were first issued in 1986. In early to mid-2000, the shares traded mostly in the U.S.$12.00 to U.S.$14.00 range.
- In 1996, Kerry Cooperative reduced its holdings in Kerry Group/PLC below the 51% level. This action allowed the Kerry Group/PLC to float additional shares to obtain needed expansion capital and increase the liquidity of trading in the firm's shares.

Kerry Cooperative and Kerry Group/PLC have effectively handled the conflicts between farmer and non-farmer shareholders that arise when an agricultural cooperative converts to a cooperative/PLC. Kerry Cooperative's farmer members initially were persuaded to accept the conversion partly as a result of effective communication efforts by management. Farmer acceptance became progressively easier for management to achieve as farmer-shareholders witnessed the firm's successes and the share appreciation that made many of them wealthy.

Kerry Group/PLC's Acquisitions. The financing capacity achieved by the firm in part by the move to cooperative/PLC status allowed the firm to accelerate overseas acquisitions. Kerry Group/PLC opened its first overseas food ingredients manufacturing

plant in Jackson, Wisconsin in 1987 and in 1988 acquired Beatreme Food Ingredients (a division of Beatrice Corporation) for U.S.$ 130 million. One of the larger acquisitions, DCA, was obtained from Allied Domecq for U.S.$402 million in 1994. By 1995, Kerry Group/PLC had made about 43 acquisitions, acquisitions that doubled the size of the firm in each of the previous five-year periods. The firm's more recent acquisitions have been for food ingredients firms, most of which generated high profit margins. An example was the February 2000 acquisition of the SFI Group--a specialty food ingredients company with sales in the U.S. and Europe--for U.S.$ 80 million.

While Kerry's early acquisitions were made partly with capital raised in the share market, the bulk of Kerry Group/PLC's acquisitions--especially those made before Kerry Cooperative relinquished majority control in 1996--were made with debt.

Strategies and Practices that Undergird the Kerry Group/PLC's Financing, Expansion, and Diversification Initiatives. Denis Brosnan, the Kerry Group/PLC's long-time Managing Director, argues that to make sound strategic decisions the firm must know which sector it is in or wants to be in, the strengths and weaknesses of competitors, the nature of the market place, how consumer demands are changing and, for an international business, which decisions can be made locally and which must be reserved for the corporate office. With the exception of the last point, these items are orthodox. However, the last point is undoubtedly important for a firm that has become geographically diverse.

Brosnan contends that the food ingredients sector is somewhere between food engineering and pharmaceutical application. The relatively "high tech" nature of the business, he said, has made it necessary for the Kerry Group to make expenditures on R&D equal to 2.0% to 3.0% of sales in order to remain competitive [42,43]. These percentages are a point or two higher than many dairy manufacturers spend on R&D.

The Kerry organization's marketing practices evolved as it morphed from a dairy cooperative into a food ingredients and consumer foods company. One noteworthy change was to end the firm's exports through the Irish Dairy Board. Hugh Friel, deputy managing director of the Kerry Group, explained the decision, saying that producing differentiated dairy products to specification for a foreign buyer is an iterative process requiring extensive consultations between seller and buyer. He argues that an intermediary can't explain the applications and technical characteristics of a differentiated product as effectively as the manufacturer. Thus, Friel claims that it is counterproductive to have a dairy board as an intermediary between the foreign buyer and the processing plant during this process.

How Sustainable are the Successes of Kerry Group/PLC? The firm appears to have a well articulated vision, internally consistent strategies, and strategies that fit well with the external environment. However, it is unclear whether the firm's value creation process--achieved in part by acquisitions of high profit market margin food ingredient companies--will be sustainable over the longer run.

Questions about the sustainability of profits generated by acquisitions are raised by the following points offered by Collis and Montgomery [8, p. 91]:

> "When making an acquisition, managers often lose sight of the fact that acquisitions are purchased in a market--the market for corporate control--that functions reasonably well. Importantly, the going price for a firm reflects not

only the value of the firm as a stand alone concern, but also incorporates the incremental value the market feels the assets would have to a host of potential acquirers. Unless the winning bidder can use the assets in an unusual way, and create value that other bidders could not, it should not expect to earn economic rents on assets it purchases in the market…value created in most mergers is captured by the shareholders of the acquired firm."

Brosnan apparently does not put much stock in such warnings, reporting that "As we go forward, what we say is that if Kerry is to get 15% earnings growth, from our knowledge we can expect to get about 10% of that organically, and Kerry will continue to achieve at least a further 5 to 6% growth through acquisitions" [43].

Kerry Group/PLC's value creation process appears consistent with ideas advanced by Drucker, Prahalad, Hamel and other business strategists who claim that the essence of strategy lies in creating tomorrow's competitive advantages faster than competitors can mimic the ones you possess today. The Kerry Group creates competitive advantage partly be being an early mover in acquiring high profit food ingredient businesses. The firm may continue to find attractive food ingredient businesses to acquire for a few more years, but it is difficult to imagine that these acquisitions can continue indefinitely. This means that at some point, the Kerry Group will need to squeeze more profits out of existing businesses or begin to acquire a different group of high profit businesses. Value creation through such other avenues may be more difficult to achieve.

Kerry's experience provides lessons for firms contemplating expansion into international dairy food markets and to organizations such as the NZDB which are considering fundamental changes in global marketing practices. However, it is evident that unique conditions in the business environment in the 1970s in Ireland, a complex bundle of mutually reinforcing strategies, and early mover advantages (which will make it expensive for others to gain large positions in international food ingredient markets in particular) have contributed to the Kerry Group PLC's successes. Opportunities to assemble this combination of developments and strategies will not occur frequently.

Food Master International

Food Master International (Food Master) is owned by Developed Technology Resources, Inc. and Agribusiness Partners, both U.S. firms [18]. Food Master currently owns a controlling interest in eight dairies, five in Kazakhstan, two in Moldova, and one in Ukraine. Food Master's operations in Kazakhstan--the main focus of this section--began in Almaty, Kazakhstan in 1995 as a joint venture between Developed Technology Resources, Inc. of the U.S. and the Kazak firm Ak-Bulak, Ltd. The business began with the production of yogurt and expanded into fluid milk, fluid cream, kefir, sour cream, ice cream, cheeses, and fruit juices. Challenges associated with operating in Kazakhstan and how Food Master achieved at least limited success in a difficult business environment are illustrated by the firm's experience.

An Abbreviated Description of Food Master's Operations. Food Master has dairy plants located in Kazakhstan in Almaty (Kazakhstan's largest city), Yessyk, Astana (Kazakhstan's capital), Chimkent, and Kurdai. The firm has a 50% to 55% market share of fluid milk sales in the Almaty region. Company sales in Kazakhstan totaled about U.S.$ 14 million in 1998 and were expected to be substantially higher in 1999. However,

Food Master's sales in Kazakhstan fell short of projected levels in 1999 because of depressed consumer demand. Partly as a result of sales shortfalls, Food Master's losses for Kazakhstan, Moldova, and the Ukraine reached U.S.$6.2 million in 1999. A substantially portion of the losses occurred in Kazakhstan.

Mr. John Hupp, President of Developed Technology Resources, Inc., explained the losses as follows [21]:

> "The economic crisis that hit Russia in August 1998 significantly affected our businesses in Kazakhstan, Moldova, and Ukraine in late 1998 and early 1999. The crisis saw the Kazakhstan tenge fall from 82 tenge to the dollar in December 1998 to 139 to the dollar by the end of 1999, with similar devaluations in Moldova and Ukraine. The crisis occurred at the same time Food Master was investing in new dairy assets, including our state-of-the-art aseptic juice and milk packaging factory in Kazakhstan. *Unfortunately the currency devaluation was not matched by internal inflation within these countries, making it impossible to raise prices sufficiently to maintain margins (emphasis supplied).* Demand dropped with price increases, creating over capacity and difficulty in covering overhead expenses, many of which were dollar denominated expenses".

Processing, Distribution and Procurement Practices. Food Master employs orthodox industrial processes for producing and distributing dairy products, many of which are similar to those employed in Europe and North America. Much of its competition is with firms that use equipment and techniques employed in Soviet times and by farmer distributors. In the Almaty area, the firm's products are distributed mainly through large and medium-size supermarkets and other retail stores. Food Master distributes dairy products through about 200 of the 500 stores in the Astana area.

In 1998, Food Master invested about U.S.$ 1.0 million to create milk collection stations for obtaining milk from small producers [18]. Twenty-eight stations were established around Almaty. Each station has a cooling tank that holds one ton of milk, a complement of laboratory equipment, and a power generator. These stations are now a major source of milk for the firm's Almaty and Yessyk plants.

Challenges and Strategies. The challenges facing Food Master in Kazakhstan include (a) keeping an adequate supply of milk, (b) dealing with milk quality and seasonality problems, (c) macro-economic problems of the type described above, e.g., currency devaluation and demand shortfalls, (d) finding suitable personnel, and (e) operating in a business environment where corruption is widespread.

It has been difficult for the firm to keep an adequate milk supply because of the widespread slaughter of the cattle herd in Kazakhstan during the 1990s. Cattle numbers in Post-Communist Kazakhstan have declined sharply--56% from 1991 to 1999 [22]. While dairy cattle numbers held up better than beef cattle numbers in this period, the reduction in dairy cattle was substantial. Food Master set up the milk collection facilities to help small farmers stay in business and produce milk of acceptable quality. The collection facilities and guarantees of prompt payment to farmers in cash have helped Food Master maintain a milk supply. However, the collection facilities have not been as successful as anticipated. Part of the problem is that some small producers mix off-flavor milk--e.g., milk from cows that have grazed on wild onion--in with other milk in

the collection tank, spoiling or reducing the value of the entire tank. The protein content of much of the milk obtained through the collection facilities also has been low.

Problems with milk quality produce a short shelf life for the firm's dairy products. Fresh fluid milk typically has only a two to three day shelf life. This exacerbates problems with returns of unsold milk and adds to the firm's costs.

Food Master has integrated backward into milk production (operates its own dairy farm) on an experimental basis to see if integration would provide a steady supply of high quality milk in a cost-effective fashion. Many food processors in North America have not found similar integration arrangements to be profitable. It remains to be seen how effectively own farm production will work for Food Master in Kazakhstan.

Periods of high seasonal demand for milk do not match periods of high seasonable production in Kazakhstan, creating problems for Food Master and other milk processors. Milk production is high and demand for dairy products weak in the summer. Demand is higher in other seasons and milk production low, especially in winter. In the Astana area, farmer distributors represent strong competition for Food Master in the summer. In the winter as milk supplies decline, many of these farmer distributors cease operations. In winter, milk production drops sufficiently that Food Master has found it necessary to supplement farm-produced milk supplies by making reconstituted milk from butter and milk powder to serve fluid customers.

Erlan Sagadiev, a U.S.-educated Kazak who serves as Managing Director for Food Master in Kazakstan, said that important challenges facing the firm include finding personnel who can be trained to be good managers and skilled marketers. Both Sagadiev and Hupp argued--apparently not in jest--that a good operating rule in Kazakhstan was to "not hire anyone over 30." This rule recognizes the difficulty of getting suitable performance from personnel who obtained their early business experience in firms that operated in the former Soviet Union.

As in much of the former Soviet Union, foreign businesses experience problems with corruption in Kazakhstan. While the Transparency International Corruption Perceptions Index is admittedly an imperfect measure of corruption, it does provide a rough measure of the degree of corruption as seen by business people, risk analysts and the general public. The 1999 Corruption Perceptions Index for Kazakhstan was 2.3 where a score 10 indicates highly clean and 0 equals highly corrupt [37].

Corruption can manifest itself in a number of ways to businesses in Kazakhstan. Erlan Sagadiev said that an important challenge facing Food Master is "gray imports" of competing dairy products (especially ice cream) that enter the country without being subject to tariffs. The gray imports may be a product of generally ineffective border protection. Ineffective border protection could result from a number of factors including border officials who are so poorly paid that they ignore their jobs or officials who receive payments to permit gray imports to enter without tariffs. John Hupp mentioned that after a foreign firm achieved profitability, it may find that the payments to local officials would begin--often exceeding 4% to 5% of revenues [20]. These payments might be required to register the company even if the firm had been previously registered.

Interestingly, Food Master has encountered relatively few problems with corruption because the firm is managed by a well-connected Kazak. Erlan Sagadiev's father was President of Kazakhstan's Academy of Sciences [20]. Erlan himself became a member of the President's advisory board after the firm became successful. These sorts of

connections will allow a firm to be left alone by local officials who would normally solicit bribes.

A Summary of Policy and Management Lessons

A few of the important dairy trade policy and management lessons that emerged during the past decade for dairy exporters and businesses investing in foreign dairy-food businesses are summarized below.

Dairy Trade Policy Lessons

- Possibilities for substantial additional opening of world dairy markets appear limited in the near term. U.S. policymakers have few strong incentives to push for more open U.S. dairy markets. EU policymakers must decide what to do about domestic dairy policies--especially how to include Eastern European countries under the CAP--before they will be positioned to consider substantial further liberalization of Union dairy trade policies.
- Australia's dairy industry experienced unique circumstances that created strong pressures for deregulation and a push for dairy export expansion. The U.S., EU, and Canada face no similar pressures for deregulation. If dairy policymakers in other countries wish to achieve deregulation, they will find that Australia's producer compensation measures represent a noteworthy model.
- The WTO panels' decisions regarding Class 5 pricing system have had chilling effects on proposals such as the U.S.'s Class IV dairy export program and two-tier dairy export programs advocated by the Danes. But the possibility that Canada will resist changing the Class 5 system in ways that are acceptable to the U.S. and New Zealand underscores how glacially slow trade policies change following WTO panel decisions. The dispute over Canada's Class 5 pricing system reminds one of the marathon U.S-EU trade dispute on bananas.
- The New Zealand Dairy Board's decision to adopt strategies that will increase the Board's direct investments in foreign dairy companies and use milk produced in other countries to expand the firm's sales (and presumably increase returns to New Zealand's dairy farmers) reflects in part a lack of optimism on the part of New Zealanders about further opening of world dairy markets. This action speaks volumes about chances for further dairy trade liberalization in the near future.
- The diminished role of STE's in world dairy businesses is old news. However, the changes being forced upon arguably the most important of the STEs--the New Zealand Dairy Board--provide noteworthy lessons. These changes promise to force fundamental changes in the way the Board and other New Zealand dairy exporters operate.

Management Lessons

- Officers of many dairy-food companies point to Nestle as a model to be emulated in the sale of highly differentiated dairy-food products. In particular, Nestle's practices show how a firm can capitalize on size advantages and operate successfully in both

developed and developing economies. B2B initiatives entered into by Nestle and other big food companies promise to squeeze profits of suppliers of these firms.

- The NZDB and Kerry Group/PLC provide examples of what can be accomplished mainly by superior management.
  --The NZDB has been able to cling to monopoly exporting and other long-established exporting practices in part because it has had superior management. How this biggest of the private dairy exporters and other New Zealand dairy organizations will adjust to strong pressures for change is unclear. For example, it is unclear how the Board and the Global Dairy Company that it may be joined with will acquire the capital needed to establish a world-class consumer foods business.
  --Cooperatives in more than a few countries point to Irish cooperative/public limited companies--especially the Kerry Group/PLC--as examples of what can be accomplished by converting to a cooperative/public limited company. An important lesson from the Kerry Group's experience is to not attribute too much of the firm's success to Kerry's decision to convert to a cooperative/public limited company. While Kerry used equity capital raised in the London and Dublin stock exchanges to make some of its highly successful acquisitions, most of the firm's major acquisitions were made with debt. The success of the acquisitions probably is more a tribute to good management than anything else.
- Food Master's experience in Kazakhstan, the Ukraine, and Moldova underscores the difficulties of operating dairy-food businesses (and probably many other businesses) in the former Soviet Union. The Company's businesses appear to be operating in what Michael Porter and Warren Buffett describe as unattractive industries. While Food Master is well managed, the company's experience in Kazakhstan brings to mind the following comment by Warren Buffett [6]:

  > "When a management with a reputation for brilliance tackles a business with a reputation for poor fundamental economics, it is the reputation of the business that remains intact".

  While it may not display political correctness, Food Master demonstrated that it has good reason for saying that in the former Soviet Union it is imperative to "not hire anyone over 30". The over 30 set learned many business practices in the former Soviet Union--not a good place to serve an apprenticeship.

References

1. Agra Europe, "NZ dairy merger talks fail", No. 1892, March 17, 2000, p. N/4.

2. Australian Dairy Corporation, "Australian Dairy Industry in Focus 99", 2000.

3. Beck, E., "Nestle Feels Little Pressure to Make Big Acquisitions--Swiss Food Company, Buoyed by New Products, Seems Content to Tend Its Own Garden", Wall Street Journal, June 22, 2000.

4. Beck, E., "Nestle Sticks to Strategy of Broad Categories of Brands--Despite Some Urgings to Slim Down, No Large-Scale Overhaul is Planned", Wall Street

Journal, September 24, 1999.

5. Branch, S., "Nestle and Pillsbury Are Set to Announce a Cool, Sweet Deal--Joint Venture Announcement Most Probably Involves Haagen-Dazs Ice Cream", Wall Street Journal, August 19, 1999, p. A3.

6. Buffett, W.E., "The Essays of Warren Buffett: Lessons for Corporate America", Selected, Arranged and Introduced by Lawrence A. Cunningham, 1998, p. 47.

7. Christian-Edwards, D., "How Nestle Keeps Growing and Growing", The Reuters Asia Pacific Business Report, September 6, 1994.

8. Collis, D.J. and C.A. Montgomery, Corporate Strategy--Resources and the Scope of the Firm, Irwin, McGraw-Hill Publishing, 1997.

9. Cox, T., "An Economic Analysis of the Effects of Trade Liberalization on the World Dairy Sector", Comments presented at the Invitational Workshop for Dairy Economists: "The International Dairy Trade Puzzle", October 18-19, 1999, Seattle Washington.

10. Dexheimer, E., G. Doeff, D.Groski, J. Mans, and J. Reiter, "8th Annual Movers and Shakers, 1994", Dairy Foods, April 1994.

11. Dobson, W.D., "Canada's Class 5 Pricing System, The EU's Dairy Export Restitution Program, and the U.S.'s DEIP--An Update on Impacts of Dairy Export Subsidy Programs", Babcock Institute Discussion Paper 99-1, 30 pages.

12. Dobson, W.D., "Competitive Strategies of Leading World Dairy Exporters", Babcock Institute Discussion Paper No. 95-1, 30 pages.

13. Dobson,W.D. and J. Wagner, "The Deregulation and Rationalization of Australia's Dairy Industry--Implications for the U.S. and World Dairy Industries", Babcock Institute Discussion Paper No. 2000-3, 29 pages.

14. Dobson, W.D., "The Evolution of New Zealand's Dairy Board: Implications for the Board's Single Desk (Monopoly) Exporting Privilege", Babcock Institute Discussion Paper No. 97-1, 31 pages.

15. Dobson, W.D., "The New Zealand Dairy Board--Will the Board's Monopoly Exporting Privilege Survive?" Choices, First Quarter, 1998, pp. 8-13.

16. Dobson, W.D., "Views from the European Union on the Competitiveness of the U.S. Dairy Industry", Babcock Institute Discussion Paper No. 99-2, 18 pages.

17. The Economist, "How to Conquer China (and the world) with Instant Noodles", July 17, 1995, p. 67.

18. Esenova, S. and W.D. Dobson, "Changing Patterns of Livestock, Meat, and Dairy Marketing in Post-Communist Kazakhstan", Babcock Institute Discussion Paper No. 2000-1, 24 pages.

19. Frick, K., "E-Commerce (A Special Report): On the Battlefield--Food Fight: Nestle has grand plans to create a business-to-business marketplace", Wall Street Journal, July 17, 2000.

20. Hupp, J.P., Comments made during interview conducted by W.D. Dobson in Madison, Wisconsin, U.S.A. on July 5, 2000.

21. Hupp, J.P., Letter to Developed Technology Resource Shareholders, April 30, 2000.

22. Kazak Research Institute of Feed and Pastures, "Statistics on Changes in Livestock Numbers in Kazakhstan, 1991-1999", 2000.

23. Kerry Group plc, Corporate Information, Company Research Report, Winthrop Corporation, Milford, CT, August 25, 2000.

24. Kerry Group, PLC, http://www.kerrygroup.com.

25. McGrath, B., "Acquisitive Kerry Still on the Lookout for Targets to Grow Group", The Irish Times, March 15, 2000, p. 17.

26. Nestle, http://www.nestle.com/all_about/at_a_glance/aag-main_brands.html, Nestle at a Glance, Financial Information.

27. New Zealand Dairy Board, Annual Report, 1994.

28. New Zealand Dairy Board, "Board Targets Market Player in Brazil", 6 September, 2000, http://www.nzmilk.co.nz.

29. New Zealand Dairy Board, "Graham Fraser's Expo 2000 Speech", Address by Graham Fraser, Chairman, New Zealand Dairy Board, at Dairy Expo, 26 January 2000.

30. New Zealand Dairy Board, "Industry Fact Sheet", wysiwyg://11/http://www.nzmilk.co.nz/facts/industry.html.

31. New Zealand Dairy Board, "New Industry Strategy vital to dairy farmers and New Zealand", http://www.nzmilk.co.nz.

32. The Nikkei Weekly, "Nestle Nurtures Fast-Growing Asian Market", August 22, 1992, p. 15.

33. Rabobank Group, Corporate Finance Division, "Report on Processing Capacity in the Western Australia Dairy Industry", 20 December 1999, 103 pages.

34. Rapoport, C., "Nestle's Brand Building Machine", Fortune, September 19, 1994.

35. Spring, D., Statement made at Dairy Industry Towards 2000 Conference in Hamilton, New Zealand, August 1989, reported in Agra Europe, September 1, 1989.

36. Templeton, J., S. Toy, and D. Lindorff, "Nestle: A Giant in a Hurry", Business Week, March 22, 1993, p. 50.

37. Transparency International, "1999 Bribe Payers Index, 1999 Corruption Perceptions Index", wysiwyg://61/http://www.transparency.de/documents/cpi/index.html.

38. Turner, G., "Inside Europe's Giant Companies: Nestle Finds a Better Formula", Long Range Planning, Vol. 19, No. 3, 1986, pp. 12-19.

39. U.S. Dairy Export Council, "International News and Trends--Mexico's Liconsa, Secofi to import milk powders", Export Profile, Vol. 9, No. 1, April 1999, p.4.

40. U.S. Dairy Export Council, "The U.S. Dairy Trade Balance", Vol. 6, No.4, August 2000.

41. van de Ven, A., "Outlook 2000--Delayed reform 'disaster' for EU milk market", Agra Europe, No. 1892, March 17, 2000, p. M/1.

42. Wagner, J., Y. Chandera, and W.D. Dobson, "The Evolution of Ireland's Kerry Group/PLC--Implications for the U.S. and Global Dairy-Food Industries", Babcock Institute Discussion Paper No. 2000-2, 22 pages.

43. Wall Street Journal, CEO/Company Interview, Denis Brosnan, Kerry Group plc, The Wall Street Transcript, January 31, 2000.

44. Wright Investors' Service, Corporate Profiles, August 25, 2000.

45. Zhu, Y., T.L. Cox, and J.P. Chavas, "An Economic Analysis of the Effects of the Uruguay Round Agreement and Full Trade Liberalization on the World Dairy Sector", Canadian Journal of Agricultural Economics, Vol. 47 (1999), pp. 187-200.