The role and function of the Canadian Dairy Commission: an empirical survey on its relevance in today's civil society

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Abstract

The questionable economical functions of the Canadian Dairy Commission (CDC) raise important public policy issues that have implications for wealth redistribution, administrative law, and civil liberty. The CDC's purported relevance in Canadian society serves as a facade for a short-sighted marketing strategy. In order to suggest future public policy developments, an exploratory field survey was conducted and results are presented in this paper. Although the results do not infer that Canadian consumers are discontented with dairy product prices in Canada, evidence shows that consumers are unknowledgeable about the processes behind marketing milk in Canada. This study indicates that future policies should address this lack of consumer awareness. As global dairy markets evolve, policies designed to limit foreign competition will most likely become less effective. Protectionist policies can be detrimental to a country's long-term prosperity as new opportunities are squandered.

Keywords: Canadian Dairy Commission, marketing boards, Dairy industry, milk products

Introduction

For decades, Canada has employed supply management boards to control the prices, production levels and imports of several commodities, two of which are fluid and industrial milks. The results have been controversial. Analysis suggests that the system has serious flaws that will exacerbate over time (Gorecki, 1982). More recently, even though the recent World Trade Organization talks afforded Canada's dairy supply management system a respite from scrutiny, the system must be reformed in the future and many argue that the Canadian government should follow other nations like England, Australia and New Zealand by eliminating milk support prices and production quotas. These countries' dairy industries now operate under a deregulated and open industry, exporting on average over 55% of their production overseas (Dairy Australia, 2004).

When the Canadian Dairy Commission Act was created in 1966, the quota system was designed to benefit milk producers. Currently, the Canadian dairy industry is the fourth largest of the agrifood economy, and employs about 38,000 people (Gifford, 2005a). However, the modus operandi of the Canadian Dairy Commission (CDC) has remained static throughout 40 years of existence, and does not sufficiently inform Canadian consumers and an entire food industry about its intentions and obligations. The CDC reports only to Parliament through the Minister of Agriculture and AgriFood. Funded by the federal government, the CDC's current mandate is to strike a balance and serve the interests of all dairy producers, processors, further processors, exporters, consumers and governments. Yet, considering its cost-of-production approach, many argue that the Canadian Dairy Commission erects an obstacle to competition throughout the Canadian dairy industry by penalizing the most dynamic and efficient producers via expensive quotas. Domestically, milk consumption in Canada has declined in recent years and the existence of the CDC has perhaps prevented an asymmetric relationship between supply and demand (Carman and Sexton, 2005). The price of milk at farmgate rose by 49% from 1994 through 2005 (Canadian Dairy Commission, 2006a), while inflation during the same period was below 25% (Doll, 2006).

Very little academic research has investigated marketing boards and the CDC, especially from a managerial and marketing perspective. To address this shortcoming, the current study provides critical insight into consumers' perception and knowledge of the CDC and its role within the Canadian dairy industry. The methodological orientation of the study combines secondary research and quantitative measurement components to offer an innovative contribution to public policy discussions about democratic engagement on marketing dairy products to consumers in Canada. Notwithstanding that the CDC is a federally funded agency that operates under the Canadian supply management scheme, the current study provides a template for consultative research specifically targeting dairy product consumers.

This article is presented in three parts. The first part discusses a brief historical overview of the CDC and related current issues. In the second, we present results from a survey that measures consumer perceptions about dairy product pricing policies and the purpose of the CDC. In the third, the data is extrapolated to posit implications for future public policy and reform readiness.

The Canadian Dairy Commission (CDC)

Role and historical overview

Created through the Canadian Dairy Commission Act of 1966, the CDC was intended to confirm the federal government's commitment to maintaining a strong and prosperous dairy industry in Canada (Furtan, 1987). The CDC reports to Parliament through the Minister of Agriculture and Agri-Food (Crown and Heady, 1972). It is funded by the federal government, producers and the marketplace, and strives to balance and serve the interests of all dairy stakeholders - producers, processors, further processors, exporters, consumers and governments. This regulatory agency employs a yearly budget of about 6 million \$CAN to govern dairy supply management. Milk quotas, valued at 20 billion \$CAN in 2005, are managed by the provincial milk boards and agencies (Doll, 2006).

The CDC's staff is comprised of policy analysts, agricultural economists, financial marketing, communications specialists, and support personnel. The functions of this staff include assisting the dairy industry in developing dairy policies, assessing the changing demand and production of milk and dairy products, and overseeing the pooling of milk revenues and market sharing systems. The Chairman, Vice-Chairman and Commissioner (all are called Commissioners) lead the CDC, all of whom are appointed by the Minister of Agriculture. Once appointed, the staff leaders have the authority to set dairy prices. The Commissioners are chosen based on their experience within the dairy industry and, as a result, are commonly former dairy farmers or individuals closely related to dairy farming.

At first, the CDC continued the government's price support programs for certain dairy products, such as butter, skim milk powder, and cheese. The federal government provided the CDC with a subsidy payment that was, in turn, disbursed to industrial milk and cream producers. Provincial milk marketing organizations worked with the CDC to manage the production of industrial milk, and to generate the funds needed to cover the cost of exporting surplus dairy products.

Subsidy Eligibility Quotas (SEQs) were the predecessors to the current Market Sharing Quota. These SEQs were intended to limit the amount of milk products that dairy producers could ship. However, the establishment of the SEQs did not effectively control dairy production and shipment amounts. Dairy producers were allowed to ship amounts of milk in excess of their SEQ limit. Furthermore, some producers did not have a quota, and these producers were allowed to enter the market at any time.

Levies were then used to support the export of dairy products. These levies were deducted from the federal subsidy that was paid on production, up to each producer's SEQ level. Since these producers were permitted to ship amounts greater than their respective SEQ limits, these surplus amounts could not be deducted from the subsidy that the government was required to give industrial dairy producers. This meant that the federal government was burdened by higher subsidy payments.

The failure of the SEQs led to the establishment of the Canadian Milk Supply Management Committee (CMSMC). On August 1, 2001, all ten provinces entered the National Milk Marketing Plan and the Comprehensive Agreement on Pooling of Milk Revenues. The provinces agreed to collect the funds needed to offset the costs of disposing surplus dairy products from their producers. These funds would then be given to the CDC. The National Milk Marketing Plan's most important function is to maintain the Market Sharing Quota, which is the national production target for industrial milk in Canada. In addition, the CDC works with the CMSMC in developing and refining the current milk supply management system in Canada (Barichello, 1981).

Much of the CDC's past efforts have been directed towards refining the price support program to ensure a fair return for efficient dairy producers in Canada. Support prices are defined as:

> "The prices at which the CDC buys and sells butter and skim milk powder in order to balance seasonal supply and demand changes in the domestic market" (CDC, 2006).

In 1975, a Returns Adjustment Formula was devised to better estimate producer costs. This estimation was used to determine the necessary support prices for dairy products. However, the formula was deemed ineffective.

In 1991, the CDC announced that product support prices and producer target prices would be based on the advice of a Consultative Committee and of other dairy stakeholders. The CDC worked with these stakeholders to help the dairy industry meet the changing needs of the marketplace. The initiatives of this collaboration were:

a) The provision of producer-financed assistance payments for exports of dairy products, and;

b) Rebates, which encouraged the increased use of Canadian dairy ingredients in products, sold both domestically and abroad.

Both of these initiatives were effective for a short period of time, but both were eliminated on July 31, 1995 (Canadian Dairy Commission, 2006a).

After these eliminations, the dairy industry adopted a new system of pricing and pooling market returns. Under this system, industrial milk was classified at prices according to the end use of the product. This meant that prices would be more indicative of what the final product's costs were, rather than of the costs to produce them. This new pricing and pooling system would ensure that revenues from dairy products would be shared both nationally and regionally.

Since the inception of the CDC in 1966, effective supply management has been the key to the dairy industry's success. The collaboration of the CDC with the dairy industry's stakeholders has thus far been critical to ensuring the continued strength and prosperity of the dairy industry in Canada.

Source of divergence

For years, the CDC has been a source of diverging interests amongst stakeholders of the dairy industry in Canada. Many argue that the current regulatory system prevents retail prices of dairy products from rapidly fluctuating. According to some studies, retail prices of dairy prices are increasing, but not anywhere near price increases observed in countries where there are no regulatory systems (Gouin, 2004).

Regardless, external forces are compelling the industry to reform. The Uruguay Round at the World Trade Organization led to significant changes in supply management. The federal government ended its direct subsidies, and switched to higher tarification, in excess of 299 percent on certain dairy products (Lippert, 2001). Following the Uruguay Rounds, the mandate for the Doha Round of global trade negotiations, which started in 2002 and may last until 2012, is to eliminate farm export subsidies, in an effort to reduce trade-distorting domestic support and improve access to global markets. At this juncture, it is possible to anticipate results with a fair degree of precision. However, dairy farmers have exhibited resistance to any change and are adamantly against any suggested reform put forth by WTO members.

Some interest groups support current policies; others do not. The Dairy Farmers of Canada, for example, lobbies the CDC to maintain current marketing policies, in order to protect farmers' earnings and promote dairy products. For example, the CDC supply management system was established to countervail power domination throughout the supply chain, and protect farmers against the hefty cost of over-production. To this end, forecasts are used to control production (Canadian Dairy Commission, 2006b). Hence groups such as The Dairy Farmers of Canada advocate the policies of the current system to parliament (Baylis, 2006). Yet, dairy product prices have steadily increased over the last 10 years, while the cost of milk production continues to decrease (Consumers' Association of Canada, 2006).

When analysing the CDC and its industrial milk-pricing scheme, conflicting political positions become evident. The Dairy Processors Associations of Canada is one such notable interest group. It is comprised of the top dairy processors in Canada: such as *Kraft, Agropur, Ultima Foods*, and *Danone*. As opposed to dairy farmers, dairy processors are not a homogeneous, single interest-focused group. They are fierce competitors in the market place and often support opposing policy options. This aggressive dairy processors, who represent dairy farmers' principal clientele, have historically been largely excluded from dairy policy development. In recent years, steps have been taken to permit their input into redesign efforts, but they have never been granted a decision-making role. Decisions related to dairy product price fixing remain the purview of farmers and the CDC.

Several other groups play significant roles within the dairy industry. The Canadian Council of Grocery Distributors (CCGD), the Canadian Independent Grocers (CIG), the

Consumers Association of Canada (CAC), and the Food and Consumer Products Manufacturers of Canada (FCPMC) are worth discussing.

The CCGD and the CIG represent the function of the supply chain closest to consumers. The goals of the CCGD and the CIG are to advance and promote the grocery and foodservice distribution and retailing industry in Canada. In addition, they advance industry best practices for the benefit of its members and Canadian consumers. A similar group is the FCPMC, which enhances growth and competitiveness in the food and consumer products manufacturing industry. We can also include in this category the Confectionery Manufacturers Association of Canada, which endorses the interests of Canadian confectionery manufacturing by furthering the business interests of its members and increasing confectionary consumption in Canada. These four groups have similar goals and are habitually against any industrial milk price hikes. They are all chiefly focused on the sustainability of their own industries and members as well as promoting their products to end consumers.

The CAC directly represents consumers by supporting the publics' right to food information, safety, quality, and choice. Also, the CAC provides consumers a voice at the government industry table. Because of the current legislative architecture, the CAC is required to go through the CDC if it wishes to intervene in the industrial milk marketing process (Veeman and Veeman, 1974). Since it is not as well structured and resource-plentiful as the Dairy Farmers of Canada, the CAC is often challenged by the complexity of milk marketing systems in Canada, a difficulty which hinders the CAC's efforts to muster consumers in support of key issues.

In recent years, the Canadian Restaurant and Foodservices Association (CFRA) has been overtly in opposition to recent industrial milk price increases. Since its founding in 1944, CRFA has grown to more than 31,000 members, and represents restaurants, bars, cafeterias and social and contract caterers, as well as accommodation, entertainment and institutional foodservice. They, too, support a fundamental reform of the CDC (Canadian Restaurant and Foodservices Association, 2006).

Many groups are not in favour of current marketing systems. Policy-makers can safely ignore dairy product consumers' interests because the consumer is known to be politically ineffective (Stanbury, 2002). Since almost every consumer in Canada consumes dairy products, we argue that their viewpoint is vital to future policy-making related to dairy product marketing systems. In the next section, we review the methodology and results of an exploratory survey that was conducted to measure consumers' current knowledge and understanding of how dairy products are marketed in Canada.

Method

Survey Procedures and Participants

A sample of consumers was randomly selected from the Canadian province of Saskatchewan. Surveys were given to trained investigators along with a letter addressed to potential respondents to explain the purposes of the study. The Research Ethical Board of the University of Regina approved all research procedures and instrumentation. Consent was implied by return of the completed survey. The list of questionnaire numbers with the sample names was kept in a locked file cabinet separate from the received questionnaires so that responses could remain anonymous. Returned questionnaires were kept locked in the offices of the principal investigator and were destroyed when the data analysis was completed. The data analysis was conducted using the Statistical Package for the Social Sciences version 11.5 for Windows.

The final sampling was comprised of 267 individual consumers. This is considered a common sample size for consumer-focused exploratory studies with field surveys on food related topics (Stanton and Tucci, 1982).

Survey Instrument

The process of developing the survey instrument involved two distinct steps. The first step was desk research. This involved the analysis of existing published data on market trends across the whole range of processed dairy products. This analysis established the size and structure of the various market sectors and the shares of the major players. More than two dozen publications were reviewed to learn what previously has been done to survey attitudes about food products. Particularly useful in this regard were articles by Kirkpatrick and Tarasuk (2003) and Fearne and Bates (2003).

The second step was the design of the survey. The questionnaire was carefully designed, with an emphasis on ease of response. To this end, all the questions were closed and the length of the questionnaire was restricted to encourage 100 percent completion. The form survey in this study consisted of nine items. The survey instrument was designed to take no more than five minutes to complete. Appropriate changes were made based on the comments of the pre-test group. The group was a random sample of the population, but we selected subjects so that gender and age group profiles would be similar to the overall population. Results from the pre-test were not used in the analysis. The survey was conducted all across the province of Saskatchewan from February 10 to March 15 2006.

The inquiries of the survey were categorized into four parts. The first part of the questionnaire (questions 1-3) was concerned with purchasing and consumption behaviour of dairy products in general. The second section of the questionnaire (questions 4 and 5) focused on willingness to pay for dairy products and pricing comparisons with U.S. dairy products. The third section deals with attitudes towards, and knowledge and perceptions of the CDC: Questions 6 and 7 considered consumer knowledge on the CDC, its role and function. A fourth and final section (question 8 and 9) further addressed these specific issues.

In order to establish the extent to which attitudes, perceptions, preferences and willingness to pay might be affected by key demographic variables (e.g. age, gender, occupation, and geographic location) cross-tabulations were computed as appropriate.

Results

There were slightly more female (53.9%, n = 148) than male (43.4%, n = 119) respondents, and 111 respondents identified themselves to be in the 15-24 age group, which was the largest group in the survey. The 35-54 age group represented the second largest cluster with 67 respondents. The university environment in which this survey was conducted easily explains this result. We argue that, for this survey, all age groups were appropriately represented, though the median education level of respondents was likely above the average of the general population.

The sample was dominated by representatives of households in which "*daily* consumption of milk" was reported (70.4%, n = 187). A small portion of respondents stated that they "never consume milk" (2.6%, n = 7). Other respondents reported that they either "consume milk once per week" (5.9%, n = 16) or "two or three times a week" (21.3%, n = 57). As for dairy products, the majority of respondents stated that they consume dairy products "two or three times a week" (58.5%, n = 155). A significant portion of respondents reported that they "consume dairy products once a week" (37.8%, n = 99).

Based on our empirical results, price seems to be inconsequential to the decision-making process of consumers when buying dairy products. Although a significant portion of our sample specified that "*price does have an impact*" on buying decisions related to dairy products (29.9%, n = 80), a slightly higher number of respondents answered that "*price has no impact*" when purchasing dairy products for their households (37.8%, n = 101). More interestingly, a good number of respondents "*never or rarely check retail prices*" on dairy products (32.2%, n = 86). Nonetheless, results of our survey show that many respondents believe that "*dairy product prices should be decreased*" (34.8%, n = 93), while some felt that "*dairy product prices should remain the same*" (32.2%, n = 86). Furthermore, on pricing, a significant portion of our sample "*do not know whether milk is more expensive in the U.S.*" where no marketing board exists (71.9%, n = 192). Our findings suggest that consumers may be indifferent to retail prices of milk. Some

consumers believe "*retail prices of milk in Canada to be more expensive*" (7.4%, n = 20), whereas a greater number of respondents consider "*retail prices of milk in the U.S. to be more expensive*" (19.1%, n = 51).

The third section, related to perceptions and knowledge of the CDC, also offered interesting results. The majority of respondents has "*never heard of the CDC*" (58.4%, n = 156), and a significant portion of our survey participants were unable to accurately describe the CDC's main purpose (80.6%, n = 215). Finally, our empirical results indicate that the correlation between question 6 (knowledge of the CDC) and question 7 (the purpose of the CDC) was particularly significant (0.801).

In the following section of this paper, we interpret results from the survey and consider what these findings may signify for future public policy-making endeavours.

Public policy implications

The findings of our survey indicate that there seems to be a relational disconnect between dairy supply and consumer demand in Canada. In our field study, respondents gave ambiguous results concerning what should be done with dairy product retail prices in Canada. The numbers of respondents that answered, "*prices should increase*", "*stay the same*", or "*decrease*" were almost equally split. Results were the same when asked whether retail prices impact their buying decisions. This outcome was not surprising. The results can be explained in part by milk's inelastic demand. Historically, fluctuations in retail milk prices have little or no effect on quantities demanded, which means that demand for milk is intrinsically inelastic (Garland and Hudson, 1969). That being said, results from our survey did not indicate any widespread discontent related to dairy product retail prices in Canada. Consumers seem to implicitly accept current market conditions.

However, close to 80% of respondents either believe that "Canadian dairy product retail prices are higher in Canada than in the U.S.", or "did not know". Because of liberated

market conditions in the U.S., it is difficult to demonstrate that the U.S. has lower dairy product retail prices, even though many studies claim that U.S. retail prices of dairy products are indeed generally lower (Stanbury, 2002; United States Department of Agriculture, 2005; Eurostat, 2006; Canadian Restaurant and Foodservices Association, 2006). For Canadian consumers, this could perhaps become a comparative source of dissatisfaction. Nonetheless, the majority of consumers surveyed (80.6%) were unable to state the exact purpose of the CDC. Given that the CDC's mandate is to serve the interests of consumers, this is evidence of consumer ignorance about how dairy products are marketed to themselves in Canada.

The questionable economic functions of the Canadian Dairy Commission (CDC) raise important public policy issues that have implications for wealth redistribution, administrative law, and civil liberty. For years, consumers have benefited from globalization by having access to products made from all around the world; but this is not the case with dairy products (Reguly, 2004). Severely criticized by many members of the World Trade Organization, the CDC has demonstrated serious supply management inefficiencies: with its price fixing mechanisms and quota setting powers that limit supply, and with control entry power. Too many dairy producers tend to protect themselves and to balk at the need for market efficiencies in order to protect or provide relief to producers that are weak, unprepared, or unable to upgrade their technological and managerial skills to compete in a more globalized and market-efficient world. Economic institutions of the 21st century require productivity and the ability to adapt and respond quickly to external changes and threats in order to ensure their survival. Certainly, the disproportionate share of wealth and political power enjoyed by this market sector is no guarantee of longevity. In this age of market globalization and accelerated market dynamics, the CDC is vulnerable to change. If it does not adapt, the CDC will become anachronistic and, as a result, Canadians consumers will become poorer (Stanbury, 2002).

In a possible rationalization for the CDC, one can suggest that there seems to be an underlying paradox between the effects of globalization as related to growth and food sovereignty. However, it is not yet clear that globalization increases the risk for domestic dairy industry advocates to be impoverished, or suffer from inequalities in income distribution (Bessler, 1952). In considering the need for better food supply governance, empirical results from our study stress a new orientation toward including the civil interests of society in the discussion about policy making related to the dairy industry, along with other international institutions. This is an important step toward integrating concerns about inclusiveness, poverty, ethics, equity, sustainability and social justice into international trade theory and policy-making. Dairy products are an essential part of many consumers' diets, and elevated retail prices can deter consumers from buying them (Glanville and McIntyre, 2006; Johnson-Down, Ritter, Starkey and Gray-Donald, 2006). Global governance in the 21st century will require defining the interplay between multilateral institutions (reformed or not), state-governments, and civil society. The aims and goals of various stakeholders are bound to differ on many issues, including supply management. At the same time, collective action is required, and consensus building about shared values and development objectives must be pursued. The current structure of the CDC undermines any will to multilaterally develop trades with other countries.

Domestically, the CDC's purported relevance in today's civil society serves as a facade for a short-sighted marketing strategy. Dairy farmers' security is dependent on consumer acceptance of dairy products in a continuously more competitive food supply environment. Based on our survey, Canadian consumers seem to be kept in the dark as to the role and function of the CDC. Knowing that per capita milk consumption in Canada has decreased by 10% since 1990 (Corcoran, 2005; Gifford, 2005b, Canadian Dairy Commission 2006b), market acceptance and understanding are the only assurance of continued dairy growth and concomitant prosperity. The interdependencies within the milk industry in Canada are so great that to ignore demand requirements is to leave the entire system vulnerable.

Moreover, we must consider lingering nostalgic attitudes towards dairy farming in Canada. Many stakeholders in the dairy industry believe that farming is more than just a business. This sentiment suggests that if a farmer fails, the soul of the country fades away (Hart, 2005). Future policy processes related to dairy marketing in Canada would not only need to disengage itself from that misleading paradigm, it would also need to include the interests of all stakeholders mentioned in the first part of this paper. In today's civil society, a reform of the CDC that would embrace the role of consumers and global markets is undoubtedly long overdue. Our marketing systems related to dairy products should be in sync with our global environment and consumers' modern needs.

The results of our survey do not, however, support any specific type of reform of the CDC. Our survey was intended to measure consumers' perceptions at the retail level, whereas the CDC has a direct influence on industrial milk prices only. Our findings infer that consumers know little about how milk is marketed in Canada, and perhaps less about whether dairy products are fairly priced. The results of our survey imply that consumers are unconcerned about dairy product prices, and unfamiliar about the role and function of the CDC. There is no doubt that governments traditionally have been advised by primary producers and their agents. This has largely been due to the concern for rural development, sustainability of agricultural systems and food sovereignty. As a result, many stakeholders, especially consumers, have become apathetic about public policies related to marketing dairy products.

While groups such as the Dairy farmers of Canada and the CDC feel that current methods are sufficiently transparent, many argue thought that the process ought to be more straightforward and inviting to other stakeholders. With international trade imperatives looming worldwide, future public policy-making on national dairy systems should reflect the trade impacts inherent in recent bilateral and multilateral agreements.

The indifference shown by consumers in this study should be taken seriously. As mentioned earlier, consumer groups are rarely well structured and their resources are often scarce. In addition, mobilizing consumers on such elaborate issues is challenging. Yet, their interests must be taken into account because market apathy, arguably, has led to opportunistic behaviour by dairy industry authorities, which may detract from the industry's standing in the future.

Conclusion

Canada is presently not a significant dairy market in the international arena – neither as an importer of certain products or as a source of supplies for export by international dairy firms. However, globalization of dairy markets provides a potential opportunity for producers of certain Canadian dairy products, such as dry milk powders. The sheer size of the North American market and projected higher international prices, which could rise further if the current round of trade negotiations leads to further trade liberalization, suggests that there may be additional opportunities for the Canadian dairy sector in international markets in the future. But the current system controlled by the CDC does not encourage the industry to seek such opportunities (Troughton, 1989).

If reform occurs in Canada, foreign direct investments in Canadian dairy product markets may contribute to the continued strength of domestic markets for Canadian goods produced from Canadian milk. Of course, traditional methods of analyzing trade liberalization scenarios do not readily anticipate the effects of strategic decisions of firms in international markets. Because of international market dynamics, dairy trade liberalization would foster both opportunities and challenges for Canadian milk producers and manufacturing firms.

As global dairy markets evolve, policies designed to limit foreign competition will most likely become less relevant. Moreover, protectionist policies can be detrimental to a country's long-run prosperity as new opportunities are squandered. Certainly, explanations for how trade policy supports Canadian dairy farm income are less clear today than in the past, given rapid changes in the structure of the industry. Nevertheless, to remain competitive in a global setting, the efforts of Canadian milk suppliers, processors, and product marketers should continue to benefit Canadian dairy farmers and consumers.

Reform of the CDC is needed more than ever. It is true that for dairy farmers, the CDC provides stability in a very uncertain environment. While other stakeholders of the food industry are not in a similar situation, most dairy farmers still believe themselves to be

part of a given, domestic agricultural sector. But, increasingly, they are part of a global food industry, and any future policy-making must recognize this reality. Such a greatly needed paradigm shift can trigger profound changes in the way dairy farmers construe their roles in the market, now that globalism is the norm.

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