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The Canadian Dairy Commission: an empirical survey on its relevance in today's civil society

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Abstract

The current function of the Canadian Dairy Commission (CDC) raises important public policy issues that have implications for wealth redistribution, administrative law, and civil liberty. The CDC's purported economic relevance in Canadian society serves as a facade for a short-sighted management approach that is devoid of the rudiments of a market mechanism. 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 prices in Canada, our evidence shows that consumers know very little about the processes behind marketing milk in Canada, especially with the price setting powers of the CDC. This study indicates that future policies should address this lack of consumer awareness. As global dairy markets evolve, policies designed to protect against domestic and foreign competition will most likely become less effective. Protectionist policies can be detrimental to a country's long-term prosperity as opportunities for new products, adoption of new technologies and faster responses to consumer demands are squandered. The study's limitations and implications for practice and future research are described.

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

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Introduction

For decades, Canada has employed supply management boards to control the prices, production levels and imports of several agricultural commodities, two of which are fluid and industrial milks. The results have been controversial. Over the past decades, numerous economy studies have shown that the present system has serious flaws that will only exacerbate over time (Gorecki, 1982; Stanbury, 2002). The recent World Trade Organization talks afforded Canada's dairy supply management system a respite from scrutiny. Many argue that the Canadian government should follow other nations, such as England, Australia, Korea and New Zealand, by eliminating milk support prices and production quotas (Carman and Sexton, 2005; Gifford, 2005a; Hart, 2005). These countries' dairy industries now operate under a deregulated and open industry, exporting on average over 55% of their production overseas (Dairy Australia, 2004). According to Hart (2005, p. 3), the current level of dairy exports in Canada is less than 3 percent of its production level.

When the Canadian Dairy Commission Act was created in 1966, the quota system was designed to benefit milk producers. It assured them a stable income and protected them from the vagaries of the marketplace. The Canadian dairy industry is the fourth largest of the agrifood sector of the economy, and employs about 38,000 people (Gifford, 2005a). However, the modus operandi of the Canadian Dairy Commission (CDC) has remained static throughout its 40 years of existence. CDC does not sufficiently inform Canadian consumers about dairy prices as well as the entire food industry about its intentions and obligations. The CDC reports only to Parliament through the Minister of Agriculture and Agri-Food Canada. Funded by the federal government, the CDC's current mandate is to strike a balance and serve the interests of all dairy producers, food processors, exporters, consumers and other government agencies. Yet, considering its cost-of-production approach to price fixing, 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 (Baylis, 2006). After all, average cost of production approach, ensures that the least productive milk supplier will remain in business. Moreover, the per capita milk consumption has dropped by 15% since 1983, and productivity has gone up with half as many cows now producing "the same volume of milk as 30 years ago; the average farmer milks three times as many cows, and produces five times as much milk" (Hart, 2005, p. 4). With rising productivity combined with a fall in demand one would expect milk prices to be lower. Yet 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). The existence of the CDC has distorted the usual relationship between supply and demand (Carman and Sexton, 2005).

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 both secondary research and quantitative measurement to offer a unique perspective in the way the marketing of dairy products to consumers in Canada is done. The study also has public policy implications about the democratic process as it applies to the CDC, a government institution. 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 consumers of dairy product.

This paper 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 are extrapolated to posit implications for future public policy and reform readiness.

Overview of the CDC

Created through the Canadian Dairy Commission Act of 1966, the CDC was intended to confirm to the federal government's commitment of maintaining a strong and prosperous dairy industry in Canada (Furtan, 1987). The CDC reports to Parliament through the Minister of Agriculture and Agri-Food Canada (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, food processors, exporters, consumers and various levels of government. This regulatory agency has a yearly budget of about 6 million \$CAN and governs the dairy supply management schemes that are in place across the country. Specific milk quotas, valued at 20 billion \$CAN in 2005, are managed at the provincial level by milk marketing boards and agencies (Doll, 2006).

The CDC is composed 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.

After the passage of the CDC Act in 1966, the CDC came into existence a year later to regulate industrial milk prices, effectively creating a self-regulated monopoly, a supply marketing management scheme that has been the key to the dairy industry's financial success. The collaboration of the CDC with the dairy industry's stakeholders has thus far been critical in ensuring the continued strength and prosperity of dairy farmers in Canada.

Source of Conflict

For some time, the CDC has been a source of conflicting interests amongst certain stakeholders of the dairy industry in Canada. Some argue that the current regulatory system prevents retail prices of dairy products from rapidly fluctuating. According to some studies, retail dairy prices are increasing, but not anywhere near price increases observed in countries where there are no regulatory systems (Gouin, 2004). According to Stanbury (2002), farm gate milk prices in Canada are 41% higher than in the US and 135% above the world reference price set by New Zealand.

Regardless, internal market forces and globalization 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 ratification, 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, with the support of the Federal government, have exhibited much resistance to any change and are adamantly against any suggested reform put forth by WTO members.

Some interest groups support current policies while 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 milk 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 Association 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. Contrary to dairy farmers, dairy processors are not a homogeneous, single interest group. They are fierce competitors in the market place and often support opposing policy alternatives. The dairy processing industry is responsible in generating revenues up to 10B. \$CAN annually. However, these food processors, which represent dairy farmers' principal clientele, have historically been largely excluded from dairy policy development. In recent years, however, steps have been taken to permit their input into redesign efforts, but they have never been granted a policy-making role. Decisions related to dairy 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 public's 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 Procedure and Participants

A sample of consumers was randomly selected from the Canadian province of Saskatchewan. The questionnaires 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 questionnaire. Names of respondents were 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 respondents. This is considered to be an acceptable sample size for this type of exploratory consumer survey on a food related topic (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 had been done to survey consumer attitudes about food products. Particularly useful were research carried out by Kirkpatrick and Tarasuk (2003) and Fearne and Bates (2003).

The second step was questionnaire design. The questionnaire was designed so as to elicit ease of response from respondents. To this end, all the questions were closed and the length of the questionnaire was restricted in order to encourage 100 percent completion. The study consisted of nine items 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) focused on purchasing and consumption behaviour of dairy products in general. The second section of the questionnaire (questions 4 and 5) focused on the willingness to pay for dairy products and pricing comparisons with U.S. dairy products. The third section dealt with attitudes towards and knowledge and perception of the CDC. Questions 6 and 7 considered consumer knowledge on the CDC, its role and function. A fourth and final section (questions 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 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 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 consumed 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, 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 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).

The standard statistical analysis of cross-table by Chi-square test was also performed. The following table shows the Chi-square test p-values for corresponding questions (since Table 1 is symmetric, we provide only the upper triangular part of the matrix).

Table 1:

q2	q3	q4	q5	q6	q7	q8	q9	
<.0001	0.6969	0.0825	0.0957	0.0999	0.0509	0.0019	0.4036	q1
	0.2929	0.1925	0.3295	0.8057	0.0707	0.0049	0.9983	q2
		0.1109	0.0860	0.6080	0.1237	0.0096	0.2836	q3
			<.0001	0.0545	0.0048	0.4689	0.4831	q4
				<.0001	<.0001	0.0462	0.6441	q5
					<.0001	8365	0.8365	q6
						0.0115	0.5069	q7
							0.4995	q8

As usual, we would reject the null hypothesis where characteristics defined by a pair of questions are independent, if the corresponding p-value is less or equal than 0.05. That level of significance was chosen given that the present study was exploratory.

Some of the cross-table is of special interest for our investigation. We reject the null-hypotheses when the items are independent. Hence, a high correlation was detected between the following items of interest: the impact dairy product price on buying decisions (q3) and age of the buyer (q8); personal perceptions about dairy price in the future (q4) and personal belief that milk is less expensive in Canada, compared to the U.S. (q5); personal belief that milk is less expensive in Canada, compared to the U.S. (q5), with age groups (q8); knowing the existence of the CDC (q6) and the proper description of the organization (q7); the proper description of the CDC (q7) and age groups (q8); whether the respondent consumes milk or not (q1), with age groups (q8); consumption of different types of dairy products (q2), with age groups (q8); and finally, the proper description of the CDC (q7), with personal perceptions about dairy prices in the future (q4).

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.

Discussion and Public Policy Implications

The findings of our survey indicate that there seems to be a contradictory relationship between dairy supply and consumer demand in Canada. Respondents in our field study were ambiguous as to what should be done with dairy retail prices in Canada. The number of respondents that answered “*prices should increase*”, “*stay the same*”, or “*decrease*” was 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 discontentment related to retail prices of dairy products 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 more 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 be a source of dissatisfaction. However, to dispel the notion that Canadian consumers may be paying high prices for dairy products, a recent survey carried out by the Dairy Farmers of Canada claimed that Canadians pay less for their dairy products than Americans (Dairy Farmers of Canada 2004). The survey’s methodological inconsistencies did not warrant such a sweeping conclusion. Nevertheless, the results (and not the methodological shortcomings) were widely disseminated throughout the media. Such public relations efforts are aimed to desensitize the consumer over the high prices they actual pay for dairy products. Reguly (2004b) concluded that Dairy Farmers are perhaps the only group to claim Canadian prices of milk are reasonable.

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 priced in Canada.

It also seems that age groups have an impact on the perception of milk marketing systems. Five questions have high positive correlations with the questions related to age groups, which suggest that the older respondents were, the more they knew about milk marketing systems 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, 2004a). 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 small market sector is no guarantee of longevity. After all, the 20,000 or so dairy farms represent less than 0.26 percent of the population (Stanbury, 2002). Yet the CDC and the marketing boards, through their government-mandated price fixing powers, enable them to impose a form of 'tax' on all Canadian dairy consumers to the tune of over \$2.5B USD per year. In other words, high prices for dairy products amount to an indirect income transfer from consumers to producers, and the present study is evidence that consumers are largely unaware (Forbes, 1982, p. 28). The CDC replaces market mechanisms in order to ensure greater income to dairy farmers. In this age of market globalization and accelerated market dynamics, the CDC is perhaps vulnerable. If it does not adapt, the CDC may become anachronistic and, as a result, this sector of the Canadian economy may suffer due to a lack of competitiveness and consumers may 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). Considering the need for better food supply governance, empirical results from our exploratory study stress a new orientation toward including the interests of consumers in public policy decision related to the dairy industry, along with other international institutions. While the inclusion of consumer interest in marketing boards has long been recognized by the Federal government, nothing has been done to limit the price fixing powers of the CDC dominated by dairy producers (Canadian Research Council, 1974). If the public interest and not just producer interest were considered, it would be 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 high 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 strategy for market dominance and protection from foreign market forces. 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 real 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 increases sales for dairy products and concomitant economic prosperity for farmers. The interdependencies within the milk industry in Canada are so great that to ignore demand requirements is to leave the entire system vulnerable.

We must also consider the lingering but false nostalgic attitudes towards dairy farming in Canada. Many stakeholders, notably urban consumers, believe in the myth that farming is more than just a business. It is a way of life, and farmers are exemplars of civic virtue (Stanbury, 2002, p. 12). Such enduring sentiments suggest that if a farmer fails, the soul of the country fades away (Hart, 2005). Future dairy marketing policies in Canada will not only need to disengage themselves from such misleading falsehoods, they will also need to include the interests of all stakeholders, including urban consumers.

In today's civil society, a reform of the CDC will need to consider the consequences on consumers of the high prices of dairy products as well as the impact global market forces have on dairy prices. After all, the oil industry functions that way and oil is undoubtedly more important to the survival and economic well being of the nation than the 0.26% of the population represented by dairy farmers.. World markets exist for all types of dairy products, and it's about time the Canadian public is cognizant of this fact. The current dairy supply systems needs to be more in tune with Canada's global environment and consumers' modern needs. It is unbelievable that in this 21st c., an advanced economy, like Canada, industrial milk prices are set by the state to the benefits of dairy farmers. The repercussions on the price of all other dairy-based products are not taken into consideration. High dairy prices have increased the value of milk quotas to unprecedented level estimated to be \$29,000 CND for each cow. It is now more expensive to buy milk quotas in Canada than what it costs to operate a dairy farm, including the cost of equipment,

feed, and so forth. The high milk prices have distorted the value of milk quotas to the point that farmers, after paying for the milk quotas, can ill afford to invest in modern machinery, new technology, invest in new product development or to sharpen their managerial skills. It has led to limited product choices (e.g. butter not available in different package sizes) or to certain dairy products (cheeses) to be unaffordable for many, with the end result of lower milk consumption and the switch to lower cost substitutes on the part of some consumers.

The results of this survey do not, however, support any specific type of reform of the CDC. Even though some results of the survey were unsurprising, such a study was never actually conducted before. This study is evidence that consumers are disconnected from the milk industry in Canada and policy makers should take note. The survey was intended only 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, specifically younger ones, know very little about how milk is marketed in Canada, and perhaps less about whether dairy products are fairly priced. The results imply that consumers are largely unconcerned about dairy product prices, and unfamiliar about the role and function of the CDC.

Historically, the CDC was created for legitimate underlying reasons. The creation of the CDC has largely been due to the concern for rural development, sustainability of agricultural systems and food sovereignty. But times have changed and the current structure of the Canadian milk marketing system is arguably inhospitable to consumers' perceptions. As a result, many stakeholders, especially consumers, have become apathetic about public policies related to the marketing of dairy products in Canada.

For policymakers, 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 enough. Yet, their interests must be taken into account because market apathy, arguably, has maybe led to opportunistic behaviour by dairy industry authorities, which may detract from the industry's standing in the future.

Limitations

It is important to critically evaluate the results and the whole study. The present study has certain limitations that need to be taken into account when considering the study and its contributions. One of the major limitations of the study is the bias from the younger educated sample. The sample is limited in scope. The effects of the survey could be assumed to be different for older consumers with different educational backgrounds. It would therefore be very enriching to conduct a similar survey with a more significant sample of consumers of age 25-50 years. In general,

it would be valuable to use multigroup analysis to see how different perceptions are amongst demographic groups. Further research is also needed on the concept of food sovereignty. As this concept appears to be a prime prerequisite for the existence of marketing boards, perceptions on food sovereignty in a global context should be measured. Research in this context should reveal consumers' preferences in terms of domestic supply schemes and how they believe these schemes should be structured.

Another limitation of this study is the perspective adopted. Instead of trying to understand the market process in general, this study has been first and foremost limited to the consumer's perspective. Although the study has also taken into account other views along the conceptual analysis, the main perspective from which conclusions are drawn is that of the consumer. This can thus be seen as a limiting factor in this study. We believe that these limitations can be seen as fruitful avenues for future research under the same theme.

Conclusion

Canada is presently not a significant dairy market on the international scene—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 for certain Canadian dairy products, such as dry milk powders. These and some others would like to capitalize on their competitive advantage in dairy products and expand their markets abroad but they cannot. 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 well be international opportunities for the Canadian dairy sector in the future. But the current system controlled by the CDC does not encourage the industry to seek such opportunities (Troughton, 1989). Consumers could possibly gain from a dairy industry that actively seek new markets and acquire market intelligence. In turn, the industry would have the capacity to offer new innovative products to domestic markets.

If reform occurs in Canada, foreign direct investment in Canadian dairy production may contribute to the continued strength of the domestic market 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, food processing firms and eventually, consumers.

As global dairy markets evolve, policies designed to limit foreign competition and restrict internal competition by imposing supply quotas will most likely become less relevant. Moreover, protectionist policies can only 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 industry's structure. Nevertheless, to remain competitive in a global setting, the efforts of Canadian milk producers, food processors, and others need to adopt more to market forces not only to the benefit of Canadian consumers but also to dairy farmers themselves. Their future prosperity may well be at stake.

It is true that for dairy farmers, the CDC provides stability in an uncertain environment. While other stakeholders of the food industry may not be subject to erratic and unpredictable market forces as many commodity markets are, most dairy farmers still believe themselves to be part of a domestic agricultural sector that needs to be protected at all cost. In reality, they are part of a much larger global food market which includes consumers themselves. Canadian dairy farmers need to recognize very quickly that the insulated market position and price fixing powers they now enjoy divorce them from domestic consumers needs.

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