

# Trade Liberalization and the Canadian Dairy Sector

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## ■ Take Home Messages

- The price and quantity supplied of raw milk in Canada is determined using a supply management system rather than the free interaction of supply and demand.
- The ability of the supply management system to realize dairy policy goals depends on:
  - over-quota tariffs remaining high
  - minimum access levels remaining small
  - restrictions on raw milk supply
- The next round of multilateral trade negotiations will expand minimum access and reduce tariffs.
- Small changes to minimum access and over-quota tariffs will have little impact on the Canadian dairy sector.

## ■ Introduction

The objective of this paper is to describe the effect of trade liberalization on the Canadian dairy industry. To realize its objective, the paper is organized in six sections. The next section describes the physical structure of the industry. The third section identifies the policy framework within which milk and milk products are produced and marketed. The fourth section highlights the pressure to modify the means by which policy goals for the industry are realized. Finally, the last section concludes the paper.

## ■ Physical Structure of the Canadian Dairy Industry

### Primary Production

Eighty-one per cent of Canada's dairy farms are located in Ontario and Québec, 14 per cent in the Western provinces and five per cent in the Atlantic provinces (Canadian Dairy Commission). In 1999-2000, the province of Québec supplied 39.0 per cent of the raw milk in produced in Canada; Ontario supplied 33.2 per cent, the Western provinces supplied 22.5 per cent and the Atlantic provinces supplied 5.3 per cent (Canadian Dairy Commission). There are approximately one million dairy cows in Canada on 20,500 dairy farms (Canadian Dairy Commission). The primary breeds are Holstein, Ayrshire, Jersey, Canadienne, Guernsey and Shorthorn. Total net farm cash receipts from dairying in 1999 stood at \$4 billion, placing the industry third behind grains and red meats (Canadian Dairy Commission).

### Processing

There are 270 dairy processing plants in Canada (Canadian Dairy Commission). In 1999, dairy products shipped from processing plants had a wholesale value of \$8.6 billion, accounting for 14 per cent of all processing sales in the food and beverage industry (Canadian Dairy Commission). The dairy processing sector employs more than 20,400 of the 198,667 employed in food processing (Canadian Dairy Commission). Of the food processing sectors in Canada, only meat processing employs more people than does dairy processing.

Raw milk is marketed in Canada as either fluid or industrial milk. The fluid market (table milk and cream) accounts for 40 percent of the milk produced. The remaining 60 percent supplies industrial markets, and is manufactured into dairy products such as butter, cheese, yoghurt, and ice cream.

### Supply and Disposition

Table 1 depicts the supply and disposition of dairy products in 1995. Most of Canada's production is consumed domestically. Canada exports a small quantity of its domestic production and little of its domestic consumption is satisfied through imports. The United States is Canada's largest trading partner (Canadian Dairy Commission). Canada also trades with Australia, New Zealand, France, Germany, Italy, Holland, the United Kingdom, Mexico, Japan, Brazil, Peru, Cuba, Lybia, Algeria, Philippines, Trinidad and Tobago, South Africa, Taiwan, Hong Kong, Kuwait, United Arab Emirates, Morocco, Egypt and Russia.

**Table 1: Supply and Disposition of Canadian Dairy Products, 1995**

Product Category	Production	Imports	Exports	Change in Stocks	Domestic Disappearance
Fluid Milks (KL)	2,689,056	109	715	0	2,688,450
Butter ('000 kg)	92,515	547	5,705	5,913	81,444
Cheddar Cheese('000kg)	116,869	1,132	5,312	(2,246)	114,935
Other Cheeses ('000kg)	184,267	16,037	6,509	1,495	192,300
Soft Products (KL)	587,503	5,704	7,968	0	585,239
Concentrated and Evaporated ('000kg)	53,000	52	9,842	2,030	41,180
Skim Milk Powder ('000 kg)	71,073	1,947	6,509	2,092	30,774

Source: Statistics Canada Cat. No. 23-001.

## ■ Policy Structure of the Canadian Dairy Industry

### Supply Management

The Canadian dairy industry operates under supply management. Supply management refers to the systematic use of production and border controls to manage national supplies to satisfy projected demand at a target price. The goal of controlling supply so the market clears at the target price is to stabilize and enhance dairy farm incomes. The economic implications of supply management are well known (Barichello, 1981; Forbes, Hughes and Warley, 1982; Schmitz and Schmitz, 1994). Supply management ensures a sizable income transfer from consumers to producers. However, this dairy policy reduces social welfare since the losses to consumers exceed the gains to producers.

### Federal and Provincial Co-ordination

The process of supply control requires co-ordination of areas of Federal and Provincial jurisdiction. Reflecting the division of powers between the Federal and Provincial governments, Canadian dairy policy is divided into two sets of regulations. One set of regulations covers the fluid milk market and the other covers the industrial milk market.

The Federal government sets the price of industrial milk at a level determined by cost of production formulae. To maintain the predetermined price, the level of industrial milk production and imports of industrial milk products must be

restricted. The 1867 British North America Act gives the Federal government the legal authority to limit imports of industrial milk products. The National Milk Marketing Plan sets out the framework to calculate the quantity of industrial milk needed to meet domestic requirements and any planned exports. The quantity supplied of industrial milk in each province is restricted using a Market Share Quota. Each province's Market Share Quota is determined using its historical share of national industrial milk production.

To control the production and marketing of milk at the provincial level, provinces grant their own statutory powers to government agencies or producer run marketing boards. Marketing activities related to industrial milk are carried out jointly between the Federal and Provincial governments according to the National Milk Marketing Plan. The authority to regulate the fluid milk market has been delegated to provincial milk boards by the Federal and provincial governments. Milk boards are responsible for allocating production quotas, licensing producers and establishing producer prices. Fluid milk production and imports are limited to maintain provincial fluid milk prices.

## ■ Pressures for Market Liberalization

The policy goals of increasing and stabilizing dairy farm incomes are achieved through government sanctioned production controls and barriers to trade. Technological change and fiscal restraint are challenging the means by which dairy policy goals are realized. However, the next round of GATT negotiations present a stronger challenge to the viability of supply management.

### **International Trade Agreements**

The Federal government's ability to intervene in dairy markets has been reduced by the Uruguay Round Agreement on Agriculture. Table 2 provides an overview of dairy policy instruments before the Uruguay Agreement. Since the Agreement was implemented six of the eleven policy instruments at the Federal level have been eliminated or are being phased out. These instruments include: the direct Federal subsidy on industrial milk, import quotas, direct export subsidies, the in-quota and over-quota levies to assist exports and the in-quota levy to finance subsidies to further processors.

The instruments upon which the success of supply management depends are production controls and barriers to trade. The Uruguay Round Agreement did not affect the ability to restrict domestic raw milk production but it required a shift in border protection from import quotas to tariff rate quotas (TRQs). Tariff rate quotas are two tiered tariffs. The minimum access quantity is charged a low tariff (in-quota tariff) and any volume of imports above the minimum access quantity is charged a high tariff (over-quota tariff).

**Table 2: Dairy Policy Instruments Before the Uruguay Round Agreement**

Jurisdiction	Policy Instrument				
	Supply Control	Income Support	Import Restrictions	Export Assistance	Demand Enhancement
Federal		Offer-to-purchase program for butter and skim milk powder  Product support prices  Direct subsidy for industrial milk  Industrial milk target return	Import quotas  Tariffs  Licences for importers	Direct export subsidies  In-quota levy to fund planned exports  Over-quota levies to fund additional exports	In-quota levy to finance input subsidies to further processors
Federal-Provincial (Milk Supply Management Committee)	Aggregate industrial milk quota and allocation to the Provinces			Approval of producer levies recommended by the Canadian Dairy Commission	Approval of demand enhancing programs
Provincial	Allocation of industrial milk quota to producers  Determination of fluid milk quota and allocation to producers  Plant supply quotas	Discriminatory pricing to milk processors depending on end use  Fluid milk pricing formula  Wholesale or retail price controls			

Source: Ewing (1994).

Table 3 describes the tariff rate quotas for dairy products. Over-quota tariffs on dairy products are large and the minimum access quantity is small relative to domestic consumption. The tariffication process has therefore not generated an increase in competitive pressure from imports.

**Table 3: Tariff Rate Quotas for Dairy Products<sup>1</sup>**

PRODUCT	1995 Within quota TARIFF	1995 Over-quota TARIFF	1995 Quota Quantity ('000 kg)	Quota as a% of Domestic Disappearance
Milk	17.5 %	283.8%, minimum \$40.6/hl	64,000	2.3%
Cheese	\$0.0661 / kg	289.0%, minimum \$4.15/kg	20,412	6.6%
Butter	\$0.2646 / kg	351.4%, minimum \$4.71/kg	1,964	2.4%
Yoghurt	15 %	279.5%, minimum \$0.55/kg	332	< 1%
Ice cream	15.5 %	326.0%, minimum \$1.36/kg	456	< 1%
Skim milk powder	\$0.0772 / kg	237.2%, minimum \$2.36/kg	4,345	14.1%

Source: GATT - Dairy Fact sheet, Agriculture Canada, 1993.

Tariffs are effective August 1, 1995. By 2001, within quota tariffs will be reduced by 57% and the over quota tariffs by 15%.

<sup>1</sup>. The tariff rate that applies is the higher of either the percentage rate or the specific rate (e.g. \$40.6/hl for milk). The percentage rate applies to the value of the imported product at the border.

### Effects on the Supply Management System

The supply management system would be undermined only if there are large changes to either the level of the over-quota tariff, the minimum level of market access, or the restrictions on domestic raw milk production. If over-quota tariffs were phased out over time, there would be no competition from imports initially because the over-quota tariffs are large. At some small tariff level and exchange rate, imports will become competitive. At this point, reductions in the tariff will lower raw milk prices, and the volume of imports could increase or decrease depending on the competitiveness of the industry.

If the minimum level of market access were increased, in the short term the quantity supplied of raw milk would have to be reduced to maintain domestic producer prices. In the longer term, it may be in the domestic industry's interest to reduce raw milk prices to limit imports.

Finally, if the domestic production of raw milk were increased, this would reduce producer prices so long as production was sold within the country. Since the current mix of prices and production presumably generates an optimal level of aggregate producer income, a reduction in price coupled with an increase in supply would likely reduce aggregate dairy farm incomes.

### Trade Controversies

Complying with multinational trade agreements has not been without controversy. The supply management system generates high domestic prices for producers by shorting the domestic market. Producers in lower priced regions therefore look to Canada as a potential destination for exports. That

foreign suppliers face significant barriers to export dairy products to Canada has led to two recent trade disputes.

**WTO Dispute.** In 1997 the United States and New Zealand argued before the World Trade Organization that Canada unfairly prices milk used for export markets. New Zealand and the United States claimed the Canadian two-tier pricing policy indirectly subsidizes exports thus violating Article 10 of the Uruguay Round Agreement commitment on subsidy reduction. The two-tier pricing system helps Canadian dairy products to “compete” in the world market, and is similar in purpose to the export subsidy program before the Uruguay Round Agreement went into effect. The old program made Canadian farmers pay an in-quota levy to finance export subsidies. By subsidizing exports, Canada could sell dairy products on the world market at a lower price than could be realized domestically. Under the new program, farmers accept a lower price for milk used to make products destined for export markets than for milk sold domestically in Canada.

With the new pricing program, Canada neither increased its subsidies nor captured a larger share of the international market. However, the important difference between the old and new pricing schemes in Canada is the old program would have been subject to export subsidy disciplines, while it was hoped the new program was not.

The source of contention was that while the Uruguay Round Agreement included producer funded levies as export subsidies, it made no reference to two-priced or classified pricing systems. The Canadian position was that a two-tier pricing system was consistent with the commitments of the World Trade Organization. The position of the complainants was that Canada circumvented the Uruguay Round limits on export subsidies with its two-tier price system. Producer groups in the United States initiated a 301 process which led to the formation of a World Trade Organization panel to resolve the dispute. The panel began hearings in March 1998.

On March 17, 1999 the panel judged the milk pricing program constituted an export subsidy. Milk price classes 5d and 5e provided milk to processors at less than domestic prices if they promised to export the product. These product classes were therefore export subsidies as defined under Article 9.1(c). During the summer of 1999 Canada unsuccessfully appealed the decision and brought the milk export pricing program into compliance in August 2000.

**NAFTA Dispute.** A second dispute involved a Canadian International Trade Tribunal allowing butter-oil blends to enter the country tariff-free. Butter oil-sugar blend, as its name suggests, is a mixture of liquid butter fat and sugar in a 49%, 51% proportion. The blend is imported from the United States and New Zealand and can be used as a substitute to raw milk in the manufacture of ice

cream. Processors can buy the imported blends for roughly \$1.50/kg less than it can be acquired in Canada. Imports first appeared on the market in 1995 when the tariff on butter oil-sugar blends dropped to zero under NAFTA. Since then the quantity imported has increased in 1998 to 6,600 Tonnes (Agriculture Canada, 1999). According to Dairy Farmers of Ontario, the blends effectively displaced 2.6% of national industrial milk production in 1996-97. The producer group would like the imports of butter oil-sugar blends to be reclassified into another category where tariffs as high as 200% apply.

To that end, the Dairy Farmers of Canada brought the case to the Canadian International Trade Tribunal pleading the tariff-free entry was the product of a bureaucratic error. In a two-to-one vote, the tribunal ruled the tariff that allows the product to enter Canada tariff-free is the correct one. The tribunal was of the opinion that it is not possible to reach a definitive view on the classification of the butter-oil blends, because of the indeterminate and variable nature of the ingredients that may go to making up the processing solids portion of such blends. The Dairy Farmers of Canada want to appeal the ruling.

While Canada has endorsed trade liberalization in those commodities where it has a major export interest, Canada has taken a contradictory position with respect to its supply managed commodities. Canada's commitment to free-trade policies now tend to dominate its protectionist domestic agricultural policies. The two cases described above illustrate the particular sensitivity of the dairy industry to this policy stance. As over-quota tariffs are reduced and minimum access commitments are increased, the stage is set for further dairy trade liberalization. This is likely to happen slowly since over-quota tariffs are large and minimum access is a small percentage of domestic consumption.

### **Other pressures**

Milk yield per cow has been increasing in Canada. In 1988, the average recorded milk yield was 7,164 kilograms per cow. Dairy cows on official milk recording programs now produce an average of 8,738 kilograms of milk. (Canadian Dairy Commission). Technological improvements that reduce per unit cost of production provide an incentive for producers to pay more for production quota, to produce over quota milk or both. Over-quota production is disposed of through the optional export programs in the Maritimes, Québec and Ontario. Western Provinces want excess milk to meet local needs thus displacing industrial milk that now moves from the East which holds 84 percent of the national industrial quota.

The Federal government provides a direct payment to producers of industrial milk. The government's fiscal objectives affected the direct subsidization of industrial milk production. The level of subsidization fell from \$348 million in 1983 to \$211 million in 1995 (Canadian Dairy Commission). The subsidy will be eliminated in 2002.



## ■ Concluding Remarks

The Uruguay Round Agreement required a shift in protection by signatories from non-tariff barriers (in the case of Canada's dairy policy from import quotas) to tariffs. The tariffication process has not generated an increase in competitive pressure from imports because the over-quota tariffs on dairy products are large. However, the renegotiation of the Agreement will include tariff reductions that may affect farm prices in Canada. If tariffs are significantly reduced, an important question to be answered is: What will be the regional impacts resulting from freer trade in dairy products between Canada and the United States?

Unfortunately, quantitative assessments of the likely impacts are quite conflicting. For example, estimates from the United States Dairy Export Council and the National Milk Producers Federation suggest the United States has a potential \$1 billion market in Canada in the absence of trade barriers. Meilke et al (1998) refute this claim and suggest that trade flows are likely to be small.

If over-quota tariffs fall so that imported products are competitive with domestic products or if market access is increased dramatically, both producer and retail prices will change. Price changes will vary by region. An economic problem faced by farmers, processors and retailers is how to interpret information embodied in changing prices and to identify the appropriate response to that information. Increased price variability and reduced supply control suggest a need for an industry strategy directed toward resolving which of the historic policy goals should be achieved and how.

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