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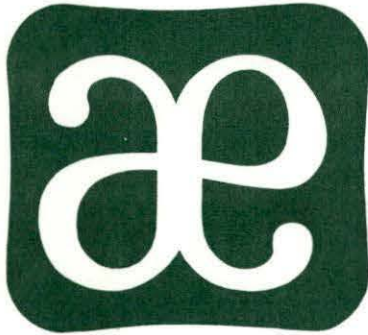
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THE CANADIAN MILK QUOTA SYSTEM: AN ANALYSIS AND COMPARISON TO THE MICHIGAN AND U.S. DAIRY INDUSTRY

By:

Larry G. Hamm
Sherrill B. Nott

Department of
Agricultural Economics
MICHIGAN STATE
UNIVERSITY
East Lansing

Michigan State University
Ag. Econ. Report No. 489

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AND COMPARISON TO THE MICHIGAN
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Larry G. Hamm
and
Sherrill Nott*

*Associate Professor and Professor, Department of Agricultural Economics, respectively, and Extension Specialists, Cooperative Extension Service, Michigan State University.

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INTRODUCTION

Recent U.S. dairy policy turmoil with its associated declining price support levels and various attempts at voluntary supply control have, for the moment, not eliminated U.S. surplus milk production. The prospects of further price declines and emerging technology are spurring many U.S. dairy farmers and industry observers to ask questions about alternative dairy policies. The U.S. dairy industry is searching for a policy which provides adequate rates of return to dairy farm investments while, at the same time, providing for milk production which balances supply and demand. Under current policy, milk surpluses generate U.S. Treasury expenditures. A major goal of any alternative dairy policy is to meet the income goals of the industry by balancing supply and demand in a manner which does not produce significant government expenditures.

One of the most frequently discussed alternatives is some form of mandatory supply control or quotas. Interest in Michigan has been particularly keen because of the State's proximity to Ontario, Canada which has a mandatory supply control program. This paper attempts to briefly explain the operation of the Ontario, Canada milk marketing system and to compare its performance and operation with that of the Michigan milk marketing system.

Comparisons between two markets are always difficult, if not dangerous. This paper is no exception. Every attempt has been made to generate comparisons that are as numerically consistent as possible between Michigan and Ontario. Unfortunately, total consistency is not possible. Therefore, the results of this paper should not be used as specific or absolute comparisons between the two milk marketing systems. Rather, they should be used to show the relative differences that exist between the two systems. Adjustments made have been noted in the footnotes at the end of each table. Throughout the paper Canadian production, consumption, and volume figures have been converted

from metric to English measures. Likewise, all dollar figures have been adjusted by a set of exchange rates appropriate for each of the years involved.

AN OVERVIEW OF THE ONTARIO MILK MARKETING SYSTEM

In the late 1950s and early 1960s milk marketing in Canada was becoming increasingly chaotic. Producers were tied directly to specific processors and therefore returns to dairying were entirely determined by location and the financial health of particular fluid processors. In addition, excess Grade A fluid milk was being placed into industrial (manufacturing) milk markets depressing the markets for nonfluid type milks within Canada. Individual processor competition also led to a very inefficient milk transportation network.

Canada had none of the performance improving milk marketing institutions that existed in the U.S. Federal orders, marketwide pooling, and vigorous bargaining cooperatives in the U.S. helped provide the framework for dealing with many of the same problems in the U.S. marketing system.

In the absence of a federal milk marketing order and bargaining cooperative infrastructures, Canadian dairy farmers turned to a strong system of supply management to deal with chaotic milk marketing. Therefore, the Canadian quota system was not designed exclusively to deal with farm income problems associated with disequilibrium supply and demand conditions, but was also designed to improve overall performance in the Canadian milk marketing system.

These chaotic marketing conditions led to major political activity by dairy farm organizations at both provincial and Canadian national governmental levels in the early 1960s. The Ontario Milk Act was passed in late 1965 which led to the establishment of the Ontario Milk Marketing Board (OMMB) on November 1, 1965. In 1966, the Canadian national government passed legislation creating a national dairy authority known as the Canadian Dairy Commission. The Canadian Dairy Commission is responsible for the administration of the federal dairy policy. This includes, the operation of the offer-to-

purchase programs for butter and skim milk powder including the removal and export of surplus products from the domestic market and the administration of the direct payment dairy subsidy to producers of industrial milk.

There are two milk marketing systems in Canada. Fluid milk is regulated through the provincial legislation. Manufactured milk, or industrial milk, is regulated through a combination of provincial and federal legislation with the actual administration of the producer quotas done by provincial agencies. Canada, therefore, has developed two quota systems; one for fluid milk at the provincial level and one for industrial grade milk at the national level.

The framework for the national supply management program is provided by the National Milk Marketing Plan; a federal-provincial agreement administered by the Canadian Milk Supply Committee which is comprised of representatives from the provincial milk marketing boards and various government agencies. The Committee is chaired by the Canadian Dairy Commission. The duties of the Committee are to estimate the Canadian demand for dairy products on a butterfat basis. The estimated demand then establishes the level of quota within the national Canadian marketing system. This quota is divided among the provinces. The system requires producers to be responsible for all costs of exporting surplus dairy products from the system including the structural surplus of solids-not-fat (skim milk powder) which is inherently produced as a by-product of balancing the system on a butterfat basis. Although the quotas for manufactured (industrial) milk are set by this national committee, Ontario's share of those quotas are given to the jurisdiction of the Ontario Milk Marketing Board.

The 1965 Ontario Milk Act gave the powers to regulate and control the marketing of milk and cream within Ontario to the Milk Commission of Ontario. Many of these powers were in turn delegated to the Ontario Milk Marketing Board and the Ontario Cream Producers' Marketing Board with any parties viewing that they have been unjustly treated by decisions of either Board having the right to appeal to provincial authorities.

The Milk Commission of Ontario includes eight industry and consumer representatives plus six civil servants representing the Ontario Ministry of Agriculture and Food.

The regulatory powers of the Ontario Milk Marketing Board (OMMB) are very comprehensive. The OMMB is the only buyer and seller of milk in Ontario. The Board sets the price to be paid to producers for the milk on an end use basis. The Board has complete control over both fluid and industrial milk marketing quotas within the province. The OMMB controls and assigns haulers and transportation costs within Ontario. The OMMB also takes responsibility for the promotion of fluid milk within the province, the collection of producer levies under the national supply management program, and the collection of advertising fees for the provincial fluid milk promotion program as well as for the National Promotion Program for butter and cheese.

The OMMB has divided Ontario into 12 regions with directors from each region. These directors are elected through a district process and are advised through a series of local county milk marketing committees. The OMMB is therefore a farmer directed and financed milk marketing institution whose governance comes from individual farms up through a local, district, and regional structure. The OMMB differs from our U.S. cooperatives in that it is a publicly sanctioned organization which it is the only buyer and seller within the province.

HOW THE CANADIAN QUOTA SYSTEM OPERATES

The Canadian milk marketing system with its two separate quota systems are enforced via a two-tier pricing system. The following section tries to briefly explain how this supply management system operates.

Manufacturing Milk Quotas

Over 60 percent of Canadian milk production is used for manufacturing (industrial) milk. Roughly 56 percent of Ontario's milk goes into manufactured products. The national industrial milk quota determined by the projected demand for manufactured milk in Canada is allocated to individual provinces according to a historical production

shares. The manufacturing milk quota is known as market sharing quota or MSQ. MSQ is expressed and allocated to provinces in terms of butterfat. Depending on the province, the MSQ is then issued to producers on either a butterfat or a volume basis converted from butterfat to volume at the average provincial fat test. It is an annual quota representing the volume of milk or amount of butterfat that can be shipped in a given marketing year (August through July). In Ontario, MSQ is issued on a volume basis. Any given volume of MSQ may be referred to as used or unused. Used MSQ is quota that has already been "used" to send milk to market. Unused MSQ is quota that can still be used to ship milk during that particular dairy year.

The national industrial milk quota covers domestic requirements, a small amount of planned exports, and may, from time to time, include a "sleeve" which represents additional production to account for over- and under-production on the part of producers. Since the national Canadian dairy program operates on a butterfat basis, levies are imposed on producers to fund the cost of exporting any of the structural surplus nonfat dry milk powder. These levies are called within-quota levies and are shown on Line (F) in Table 1. Within quota levies have been rising steadily since 1981 and currently amount to about \$1.91 per cwt. for the Canadian marketing year 1985-86.

Producer returns for industrial milk are linked to world markets through the within-quota levy. As world milk supplies increase and lower the market prices for skim milk powder, the within-quota levy in Canada rises, thus lowering Canadian producers' net prices. Since 1981, as both the U.S. and EEC have had mounting dairy product surpluses, the world market price for powdered has weakened, resulting in an increasing within-quota levy being imposed upon Canadian dairymen. This is one reason many Canadian dairymen and their organizations monitor U.S. dairy policy debates and deliberations.

Canadian industrial milk prices are based on a formula pricing system. The pricing formula weights milk production costs by 45 percent and the Canadian Consumer Price Index by 35 percent using a 1975 base. The remaining 20 percent is a judgmental weight

that has been fixed at the base year value (yielding a constant CAN \$5 per hectoliter for the judgmental factor).

Support prices for butterfat and skim milk powder are periodically adjusted in response to changes in the pricing formula. They are set at levels which, less an assumed processor margin, will yield producers a price from the market equal to those predicted by the formula less the direct subsidy payment to producers. Aside from the subsidy payment, this procedure is very similar to how the U.S. calculates product prices for butter, powder, and cheese to guarantee that U.S. producers get the legislated support price.

Table 1, Line D, indicates the magnitude of the Canadian government's direct subsidy payment for every cwt. of manufacturing milk produced in Canada. In the 1985-86 marketing year, the subsidy stood at \$1.96 per cwt. Canadian policy does not favor government purchases and storage of surplus products. This subsidy is designed to keep consumer prices for manufactured dairy products lower in Canada than they otherwise would be. The result is to maintain a larger Canadian dairy industry than might otherwise be possible in the absence of this government subsidy.

The price indicated by the industrial pricing formula is referred to as the target return level. The degree of market support or price guarantee associated with this target return level as implemented through support price adjustments effectively establishes the basis for price negotiations between processors and various provincial marketing boards or marketing authorities. While no actual price negotiation takes place in Ontario, the prices set by the Board can be appealed by processor to an independent government appeal tribunal.

Milk is sold to processors in Ontario on the bases of end-use. Six basic price categories are defined for industrial milk and one for fluid milk. The actual price received by Ontario producers for their industrial milk is a pooled, blend, or weighted averaged of the returns from usage in the six basic industrial price categories.

Table 1

Ontario Estimated All Milk Price ^{1/}

	Year ^{2/}				
	1981-82	1982-83	1983-84	1984-85	1985-86
<u>U.S. Dollars per Hundredweight</u>					
Fluid Milk					
(A) Announced price ^{3/4/5/}	14.87	15.47	16.59	16.68	17.10
(B) Actual price when adjusted for skim-off levy ^{6/} and exclusion factor ^{7/8/}	14.55	15.19	16.29	16.36	16.82
Industrial (Manufacturing) Milk					
(C) Ontario industrial blend ^{9/3/4/}	11.56	12.64	13.52	13.44	13.36
(D) Canadian government direct payment ^{10/}	2.13	2.12	2.14	2.02	1.96
(E) Gross price for milk	13.69	14.76	15.66	15.46	15.32
(F) Within-quota levy ^{11/}	1.17	1.55	1.83	1.85	1.91
(G) Actual net industrial milk price (Lines E-F)	12.52	13.21	13.83	13.61	13.41
Ontario Blend Price					
(H) Blend price ^{12/5/}	13.41	14.08	14.91	14.82	14.91
(I) Butterfat adjustment ^{13/}	.48	.50	.58	.60	.57
(J) All milk blend price	13.89	14.58	15.49	15.42	15.48
Ontario Costs and Levies					
(K) Transportation, promotion, administration	.69	.84	.89	.83	.87
(L) Over-quota levy ^{14/}	6.07	7.12	11.33	11.57	12.36
(M) Gross price received for over-quota production (Lines C-L)	5.49	5.52	2.19	1.87	1.00
(N) Producer net price received for over-quota production (Lines M-K)	4.80	4.68	1.30	1.04	.13

- Source: All base data was provided by the staff of the Ontario Milk Marketing Board (OMMB). Most is reported in the OMMB Dairy Statistical Handbook, 1984-85.
- 1/ There is no annual all-milk price calculated for Ontario or Canada. This table attempts to generate an all-milk price.
 - 2/ The Canadian dairy year starts August 1. Prices, levies, etc., established then often hold through the whole year. Actual numbers in the table are for October.
 - 3/ All prices in the table are prices per hundredweight of milk using the conversion 1 hectoliter = 2.26761 hundredweight.
 - 4/ All prices are converted to U.S. dollars using the following exchange rates: 1981 - \$1.2416; 1982 - \$1.2500; 1983 - \$1.2353; 1984 - \$1.3085; and 1985 - \$1.3540.
 - 5/ All prices are for 3.5 percent per hundredweight butterfat. The conversion factor is that 1 hectoliter with 3.6 kilograms of butterfat equals 2.26761 hundredweight at 3.5 percent butterfat.
 - 6/ The Canadian government assesses the provincial fluid milk markets a skim-off levy to help pay for the exports of milk components generated from the processing of fluid milk products. For years 1981-1986, the skim-off levy equaled 30 cents per hectoliter. The 1985 skim-off levy converted to 1985 exchange rates equates to about 10 cents per hundredweight.
 - 7/ The exclusion factor is an adjustment made to producers' fluid quota to compensate for different milk product classification differences between Provinces and the national government. In Ontario, liquid products (cream, etc) are classified as industrial products. Because these are not "true" industrial products in the national market, milk used for their production must be excluded from MSQ shipments and therefore direct subsidy payments. The exclusion factors used were: 1981 - 6.5; 1982 - 6.4; 1983 - 6.5; 1984 - 6.7; and 1985 - 7.5.
 - 8/ This price is paid for only about 75 percent of producers' Group 1 or fluid quota. All milk produced above and beyond this is priced at industrial milk prices.
 - 9/ Ontario has 10 classes and subclasses of milk products (compared to MI's three). This is the blend price of their manufacturing Class 3 through 6 products.
 - 10/ Paid on every hundredweight of manufacturing milk. Producers receive a separate monthly check for their butterfat share. Skim-off levies are subtracted from this payment.
 - 11/ Assessment against producers' manufacturing milk sales to pay for exporting surplus milk powder and/or other dairy products.
 - 12/ Estimated, adjusted marketwide utilization is 44 percent fluid and 56 percent manufacturing.
 - 13/ Canadian tests for kilograms per hectoliter are: 1981 - 3.87; 1982 - 3.86; 1983 - 3.88; 1984 - 3.89; and 1985 - 3.88. Butterfat differentials used were in \$ US/hl: 1981 - \$1.10; 1982 - \$1.64; 1983 - \$1.31; 1984 - \$1.35; and 1985 - \$1.30. All were converted to hundredweight and discounted by currency rates.
 - 14/ Assessment for every hundredweight marketed over a producer's quota.

In Table 1 the industrial or manufacturing milk price for Ontario is presented in Line C through G. The national target price gets translated into the Ontario industrial milk price blend shown in Line C. To get the farm level price, the calculations shown in Lines D through G take place. Line G therefore becomes the net industrial milk price for producers in Ontario. In some respects, that price is comparable to the U.S. Minnesota-Wisconsin (M-W) price and the Class III price in most U.S. federal milk marketing orders. Currently, the Ontario industrial milk price is running about \$2.30 higher than the M-W price.

Producers must have fluid and/or MSQ quota for all of the milk they ship. Milk in excess of their combined quota holdings is priced after an over-quota levy is assessed (see two-tier pricing below). The OMMB operates a quota exchange by which producers may buy and sell both fluid and MSQ quota. (See section "The Market for Quotas and Quota Values" below.)

Fluid Milk Quotas

Systems used to price and allocate fluid milk are different by province. However, Ontario's system is fairly representative of Canada. Ontario fluid quotas are expressed in terms of volume per day (one liter of milk shipped per day). They represent a producers' share of the market for the higher priced fluid milk. Approximately 92 percent of Ontario's 10,300 dairy farmers hold fluid quota and share in the returns from fluid markets. All of these producers must also hold MSQ under the national milk supply management program. This quota covers their milk shipments in excess of their share of the provincial fluid market. All provinces, with the exception of Newfoundland, are self-sufficient in fluid milk with very little milk moving interprovincially.

Ontario fluid milk prices are set using an economic formula as a guide. The formula has different components and weights than those used in the manufacturing milk pricing formula discussed above. The base period calculating the fluid milk price formula is currently 1983-84. The base is updated annually to reflect the most recent

information available on cost of production from a randomly selected sample of producers. The formula base is projected from using an indexing system consisting of the following components and weights: cash input prices (35 percent), average weekly earnings of industrial workers in Ontario (20 percent), general wholesale price index (30 percent), and fluid sales as a percent of total milk sales (15 percent).

Lines A and B in Table 1 present the Ontario fluid milk price in U.S. dollars for the years 1981 through 1985. Line A, the announced price is a Class I price which processors are billed for fluid milk based on the provincial definition of fluid milk products. Line B indicates the net blend price which producers actually receive from production covered by fluid milk quotas. Two factors account for the difference between these two prices.

The first factor is the "skim-off" levy which has been imposed on the provinces by the Canadian Dairy Commission. This levy is currently 30 Canadian cents per hectoliter or about 10 U.S. cents per cwt. It is used to help fund the within-quota surplus removal costs of the national supply management program. In principle, it is designed to compensate industrial milk producers (producers having a relatively high proportion of their shipments covered by MSQ) for losses of market share arising from the fluid milk skim-off which ultimately finds its way into industrial milk products. The "skim-off" levy is deducted from Ontario producers' direct government payment checks and therefore is not directly visible on the producer's milk check statement.

The other adjustment factor explaining the difference is the exclusion factor. The exclusion factor is simply an adjustment to the Ontario volume of Class I milk necessary to make it conform to the national definition of fluid milk. This is necessary because according to the national definition of fluid milk Ontario classifies some of its fluid products (primarily cream) as industrial products. These "fluid" products are not eligible for the direct government payment for manufactured milk and bear no levies under the national supply management program. Ontario producers receive the industrial blend price for the volume of milk covered by the exclusion factor which is currently 7.5

percent of Class I sales. In essence, Line B in Table I represents the blend of Class I price minus the federal skim-off levy blended with the industry blend price received for the exclusion factor related volume.

Ontario producers must have fluid milk quota in order to receive the higher Class I price for milk. This quota is known as Group I quota. However, only a portion of the milk associated with this quota receives the higher price. Depending on the season, this varies between 68 and 72 percent of the Group I quota. In other words, a producer may own 300 liters (daily shipment rights) and produce enough milk to meet that Group I quota. However, only about 70 percent of that quota would be eligible for the higher Class I price. Therefore, only 210 liters of the producer's daily shipment qualifies for the higher price. An additional 16 liters (7.5 percent of 210) is covered under Group I quota by the exclusion factor while the remaining 74 liters must be shipped under an MSQ quota.

The Ontario fluid quota plan started in 1968 when the Ontario Milk Marketing Board allotted quotas to fluid milk producers in proportion to provincial fluid milk sales relative to total provincial sales. Special provisions established at the time allowed for the graduated entry of qualifying industrial milk producers into the program. In 1985, 96 percent of the total Ontario milk supply was produced by producers holding Group I quotas; only 4 percent of the milk supply hold no Group I quota. Since the introduction of the single quality standards for both fluid and industrial producers in 1981, all Ontario milk producers have been eligible to become part of the fluid quota system, and were encouraged to do so. Thus, the few producers not under fluid quotas have elected to remain outside the fluid quota system.

Ontario Blend Price

Based on their relative holdings of Group I and market share quota, Ontario producers receive a pool or blend price which is a weighted average of fluid and industrial prices. A sample of one blend price and associated calculations are presented

in Table 1, Lines H through J. There is an important difference between the blend price in Ontario and the blend price in the U.S. In Canada, a producer's blend price is unique to him. It depends on the proportion of Group I (fluid) and MSQ quota that he owns. Each of his dairy farmer neighbors may have a different blend price depending on their relative ownership of Group I and MSQ quotas. In the U.S., neighboring producers receive the same blend price because of marketwide pooling provisions in most federal orders.

The blend price shown in Table 1 assumes that the milk shipped had 44 percent Group I quota coverage and 56 percent MSQ coverage. Therefore, the blend was calculated using 44 percent fluid utilization and 56 percent manufactured utilization. Within the Province of Ontario the proportion of ownership of the two types of quotas varies substantially. About 2 percent of the Ontario producers have the maximum of Group I quota coverage (approximately 75 percent) of their farm daily shipments. Another 8 percent have no Group I (fluid quota) at all. Producers that have 50 percent of their shipments covered by Group I and 50 percent covered by MSQ, make up about 23 percent of the Ontario producers.

The Ontario milk marketing system also pays a butterfat differential, and although it is based on a density (weight per unit) basis rather than a percentage basis, it operates almost identically to the butterfat adjustment mechanisms used in the U.S. milk marketing system.

Two-Tier Pricing

Ontario and Canada rely on a two-tier pricing system to "force" production within quota allocations. Any excess milk produced over that covered by Group I quota must be sold in the manufacturing market. Therefore, the producer is required to carry MSQ quota to cover any shipment in excess of his share of fluid milk market. Should the producer ship more milk than he has MSQ for, the government assesses the individual producer an over-quota levy.

Line L in Table 1 shows the five-year trend in the size of the over-quota levy. In 1985-86, it stands at \$12.36 per cwt. Therefore, as Line M in Table 1 shows, any producer producing and shipping more milk than his quota allocation has \$12.36 per cwt. deducted from his manufactured milk price of \$13.36 for a gross price of \$1.00 per cwt. When his hauling costs, promotion assessments, and OMMB administration fees are deducted, in 1985-86, an over-producing Ontario dairyman receives but 13¢ for his excess or surplus milk.

In summary, Ontario producers operate under a two-tier pricing system. The producer receives a blend price for the milk within his quota holdings and a very low return for over-quota production. Thus, this two-tier pricing system severely penalizes over-production by the individual farmer. The severe over-quota levy is sufficient to maintain Canadian and Ontario milk production within the bounds set by Canadian consumer demand.

COSTS OF PRODUCING MILK IN ONTARIO AND MICHIGAN

In 1985, the State of Michigan and the Province of Ontario had almost identical amounts of milk produced. Michigan produced 5,568,000,000 pounds, while Ontario produced 5,585,000,000 pounds. Both regions have very similar Class I utilizations, with Michigan about 41.6 percent and Ontario (including the exclusion factor related volume) being around 44.0 percent. In many respects, the two regions have similar climates and employ similar cropping patterns. However, Michigan has about 6,500 commercial dairy farms, whereas Ontario has about 10,300 milk producers.

Tables 2 through 5 summarize the size, investment and financial returns from two dairy farm studies of 1984 performance. The Ontario study was a stratified random sample designed to collect cost of production data representative of the major production area of the province. The Michigan study merely averaged a group of dairy farmers who elected to keep their financial records with the Cooperative Extension Service's mail-in recordkeeping system. The Ontario study is truly representative of the

Table 2

Size and Selected Cost Comparisons
 Ontario Province Sample and
 Michigan Telfarm, 1984

	Ontario	Michigan
Number of Farms	135	266
Milk Cows per Farm	43.2	74.8
Milk per Cow, lbs.	12,129	15,273
Tillable Land, Acres	243	398
Cost per cwt. of Milk Sold: Comparable Items Only		
Breeding fees	0.21	0.15
Depreciation	1.88	2.78
Feed purchased	2.07	2.30
Insurance	0.27	0.17
Labor hired	1.13	1.18
Interest paid	1.91	1.53
Taxes on land	0.43	0.60
Utilities	0.47	0.44
Veterinary and medicine	0.25	0.26
Milk marketing (hauling, co-op fees, etc.)	1.99	0.74
Livestock bought	0.33	0.19

Table 3

Ontario Province and Michigan
Comparative Balance Sheets, December 31, 1984
Assets at Market Value

	Total Farm		Per Cow	
	Ontario	Michigan	Ontario = 43.2 Cows	Mich. = 74.81 Cows
Cash and Accounts Receivable --	\$ 0*	\$ 12,291	\$ 0	\$ 173
Crops, Feed, Supplies	21,690	54,703	502	731
Dairy Cows	35,318	72,411	818	968
Dairy Heifers	19,132	36,040	443	482
Other Livestock	3,839	3,472	89	46
Machinery and Equipment	73,289	67,587	1,697	903
Personal Equipment	4,806	2,047	111	27
Land and Farm Buildings	206,587	301,992	4,782	4,037
Farm House and Personal Structures	41,621	5,866*	963	78
Milk Quota	<u>130,013</u>	<u>NA**</u>	<u>3,010</u>	<u>NA**</u>
Total Assets	\$536,295	\$557,039	\$ 12,415	\$ 7,445
Less Total Liabilities	<u>100,629</u>	<u>172,361</u>	<u>2,329</u>	<u>2,304</u>
OWNER'S EQUITY	\$435,666	\$384,678	\$ 10,086	\$ 5,141

*These values are probably under-reported.

**NA = not applicable.

Table 4

Michigan Income Statement, 1984 ^{1/}

	Total Farm	Per Cwt.
Income:		
Milk sales	\$152,606	\$13.36
Total livestock	18,984	1.66
Total crops	14,714	1.29
Total other	<u>9,918</u>	<u>0.87</u>
TOTAL INCOME:	<u>\$196,223</u>	<u>\$17.17</u>
Expenses:		
Breeding fees, semen	\$ 1,687	\$ 0.15
Chemicals	0	0.00
Conservation expenses	327	0.03
Depreciation deduction	31,802	2.78
Employee benefits	0	0.00
Feed purchased	26,239	2.30
Fertilizers and lime	12,481	1.09
Freight, trucking	0	0.00
Gasoline, fuel, oil	7,342	0.64
Insurance	1,913	0.17
Labor hired (balance)	13,472	1.18
Land clearing	0	0.00
Machine hire	2,568	0.22
Mortgage interest	0	0.00
Other interest paid	17,507	1.53
Pension, profit share	0	0.00
Rent of farm, past.	5,307	0.46
Repairs, maintenance	13,432	1.18
Seeds, plants bought	3,991	0.35
Storage, warehousing	3,627	0.32
Supplies, crops	502	0.04
Supplies, livestock	4,278	0.37
Taxes (on land)	6,807	0.60
Utilities	5,083	0.44
Veterinary, medicine	3,011	0.26
Milk marketing	8,402	0.74
DHIA, reg., bedding	0	0.00
Dairy livestock bought	2,116	0.19
Other general expenses	6,950	0.61
Other expense 1	0	0.00
Other expense 2	<u>373</u>	<u>0.03</u>
TOTAL EXPENSES:	<u>\$179,216</u>	<u>\$15.68</u>
INCOME AND EXPENSE SUMMARY:		
Total income	\$196,223	
Less total expense	<u>179,216</u>	
Equals Farm Income	\$ 17,007	

^{1/} Average cost of producing milk, total farm cost method, using 1984 Michigan Telfarm data for a farm shipping 11,426 cwt. of milk during the year. Totals may not add due to rounding.

Table 5

Ontario Income Statement, 1984 ^{1/}

	Total Farm	Per Cwt.
Incomes:		
Milk sales	\$ 80,613	\$15.12
Total livestock	11,079	2.08
Total crops	3,729	0.70
Total other	7,180	1.35
TOTAL INCOME:	<u>\$102,601</u>	<u>\$19.24</u>
Expenses:		
Breeding fees, semen	\$ 1,136	\$ 0.21
Chemicals	951	0.18
Conservation expenses	0	0.00
Depreciation deduction	10,035	1.88
Employee benefits	0	0.00
Feed purchased	11,020	2.07
Fertilizers and lime	4,633	0.87
Freight, trucking	0	0.00
Gasoline, fuel, oil	2,916	0.55
Insurance	1,418	0.27
Labor hired (balance)	6,043	1.13
Land clearing	0	0.00
Machine hire	1,803	0.34
Mortgage interest	0	0.00
Other interest paid	10,166	1.91
Pension, profit share	0	0.00
Rent of farm, past.	1,228	0.23
Repairs, maintenance	8,045	1.51
Seeds, plants bought	2,142	0.40
Storage, warehousing	0	0.00
Supplies, crops	288	0.05
Supplies, livestock	1,457	0.27
Taxes (on land)	2,313	0.43
Utilities	2,497	0.47
Veterinary, medicine	1,350	0.25
Milk marketing	10,596	1.99
DHIA, reg., bedding	1,018	0.19
Dairy livestock bought	1,734	0.33
Other general expenses	2,705	0.51
Direct non-dairy costs	898	0.17
Direct other crops exp.	269	0.05
TOTAL EXPENSES:	<u>\$ 86,661</u>	<u>\$16.25</u>
INCOME AND EXPENSE SUMMARY:		
Total income	\$102,601	
Less total expense	<u>86,661</u>	
Equals Farm Income	\$ 15,940	

^{1/} Average cost of producing milk, total farm cost method, using 1984 Ontario data for a farm shipping 5,332 cwt. of milk during the year. Totals may not add due to rounding.

province; the Michigan study probably is skewed towards the larger, better managed dairy farms of the state. We offer these comparisons as a way to do some rough comparisons between Michigan and Ontario dairy farms. The authors recognize, as should the reader, that not all individual items were treated the same in the two studies.

The Ontario data were taken from "Ontario Dairy Farm Accounting Project Annual Summary, 1984," available from the Ontario Milk Marketing Board. The Michigan data are more fully described in "Business Analysis Summary for Specialized Michigan Dairy Farms, 1984 Telfarm Data," by Nott and Brodek, available from the Department of Agricultural Economics, Michigan State University. The Ontario farms ranged in herd size from 15 to 154 cows. The Michigan farms were selected by choosing those farms that had 154 or fewer cows. The smallest Michigan farm had 16 cows.

The Ontario monetary data were converted to U.S. currency assuming a .7642 exchange rate. The metric system used in Ontario was converted to U.S. factors. The cost categories in the income statement tables reflect the U.S. federal income tax form. Numbers from both studies were combined to fit the categories. Potential for errors exist in the way items were combined. Methods of computing depreciation were quite different in the two studies.

Note in Table 2 that the Michigan farms averaged 31.6 cows more than in Ontario. Milk per cow was higher in Michigan. Tillable land farmed was 155 acres more in Michigan. The Michigan farms are larger than the Ontario sample. The higher Michigan acreage is likely the cause of the higher sales of livestock, crops, and miscellaneous items shown in the income statements. The larger herd size also helps make the Michigan per cow and per cwt. of milk factors lower.

Ontario dairy farmers appear to have noticeably lower costs per cwt. of milk for depreciation, purchased feed, labor, and taxes. Michigan farmers enjoy lower costs per cwt. for breeding, insurance, interest and marketing fees. In total, however, the costs per cwt. are remarkable for their similarity, not their differences.

Table 3 shows comparative balance sheets, or net worth statements, for the two studies. The Ontario farms had \$130,013 (U.S.) tied up in milk quota. This is 24 percent of the total assets. The quota, along with much less debt, left the average Ontario dairy farmer with over \$50,000 more equity. Given the size differences, it is surprising to note Ontario farmers have more investment in machinery and equipment than do Michigan farmers.

Tables 4 and 5 are income statements. The average farm in the Michigan study sold more than twice as much milk and had much more nonmilk income. These are likely a result of the size difference. The Ontario producers received, on the average, \$1.76 per cwt. more for their milk in 1984. However, their cost per cwt. was a bit more, and the bottom line shows \$1,066 more for the Michigan average. Remember, though, the Michigan farmers were using a lot more cows and land. Crop sales differences are important between these two studies. They indicate a fundamental difference in farm organization.

The above analysis does suggest that there are some fundamental differences in not only the scale, but enterprise combinations between Michigan and Ontario dairy farms. However, it is always difficult to make precise statements about these differences when using data sets that are collected in different ways and used for different purposes. However, the costs and prices represented in these tables appear to be sufficiently representative so as to permit the general statements made above.

FARM MILK PRICE COMPARISON BETWEEN ONTARIO AND MICHIGAN

Most producers' immediate interest in the Canadian system focuses on the level of producer pay prices in Ontario versus the U.S. and Michigan. An attempt to come up with comparable price data within each marketing system was very difficult. The Ontario quota system and the Michigan milk marketing system are distinctly different systems. In order to come up with a comparison, the authors had to make a series of adjustments and assumptions about the pricing and timing of each system. Most of these adjustments or assumptions are noted in the footnotes of Tables 1, 6, and 7. It is

Table 6
Michigan All Milk Price

Year	October ^{1/} (a)	Assessments (b)	Net All Milk Price (c)	Average Test (%) (d)	Butterfat Differential (cents) (e)	Butterfat Adjustment (cents) (f)	Net 3.5% Milk Price (g)
1981	\$14.00	--	\$14.00	3.72	17.0	37.4	\$13.63
1982	\$13.70	--	\$13.70	3.65	16.7	25.0	\$13.45
1983	\$13.80	\$1.00	\$12.80	3.73	16.7	38.4	\$12.42
1984	\$13.90	\$.50	\$13.40	3.68	17.9	32.2	\$13.08
1985	\$12.50	--	\$12.50	3.72	16.0	35.2	\$12.15

Source: Agricultural Prices, USDA, NASS, various issues.

^{1/}Price at average test before deductions for hauling, co-op fees, promotion check-offs and government assessments.

Table 7
 A Comparison of Michigan and Ontario
 Producer Milk Prices, 1981-85

		Michigan		Ontario	
		(Dollar per Hundredweight After Assessments Before Deductions)			
		All Milk <u>1/</u>	3.5% <u>2/</u>	All Milk <u>3/</u>	3.5% <u>4/</u>
October	1981	\$14.00	\$13.63	\$13.89	\$13.41
	1982	\$13.70	\$13.45	\$14.58	\$14.08
	1983	\$12.80	\$12.42	\$15.49	\$14.91
	1984	\$13.40	\$13.08	\$15.42	\$14.82
	1985	\$12.50	\$12.15	\$15.48	\$14.91

1/ Table 6, Column (c).

2/ Table 6, Column (g).

3/ Table 1, Line (J).

4/ Table 1, Line (H).

important, however, that the reader remember that these comparisons should be viewed only as relative trends rather than absolute specific price levels.

One of the main problems of comparison is that each producer in Ontario may have a different milk price depending on his relative holdings of Group I (fluid) and MSQ quotas. The Michigan producer receives the market-wide blend or uniform price adjusted for his particular location. The material in Table 1, which is compared with Michigan prices, assumes that the price received is for a producer holding 44 percent fluid quota and 56 percent manufacturing quota which is the overall Ontario Class I utilization breakdown. However, individual producers in Ontario could be receiving blend prices higher or lower than those contained in Table 1.

Another difference is that the Canadian milk marketing system sets prices for longer periods of time, usually one year; therefore, one can take a particular month and tentatively project the prices throughout the Canadian dairy year. However, in Michigan, prices change every month depending on the movement of the M-W price and the Class I utilization in that month. Given that the numbers in Table 1 were for the month of October in each of the years 1981-1985, the material in Tables 6 and 7 were calculated for Michigan all milk prices for the month of October. This may somewhat bias the Michigan numbers because October tends to be one of the higher pay price months in Michigan. Likewise, when assessment adjustments were made to the Michigan all milk prices, these assessments may not have been representative of the year-wide average experienced by producers. Keeping all of these differences in mind, Table 7 summarizes the difference between the all milk price at both average market test and 3.5 percent test in Michigan and Ontario.

In 1981, Michigan prices were somewhat higher than those received by producers in Ontario. Since then, Michigan prices have trended downward systematically. The only exception being 1984 where the Diversion Program shortages caused a substantial rise in the M-W price during the last quarter of 1984. Ontario prices, on the other hand, rose

substantially between 1981 and 1983 and have leveled off at their 1983 levels through 1985.

Ontario milk prices to the producer (with the assumptions made by the authors) are substantially higher than those received by Michigan producers. Prices are probably higher for two reasons. First, there is the level of government subsidy to the Canadian dairy farmer. As shown in Table 1, in 1985 every cwt. of industrial milk produced in Ontario received a direct taxpayer subsidy of \$1.96. This "blends" into a higher price for Ontario producers. Second, higher prices to producers probably arise from the generally higher price levels for consumer products (see Table 8 below).

The level of Ontario milk prices combined with the generally lower returns to other forms of agricultural enterprises have made dairying a very desirable farming enterprise in Ontario. This relative desirability, vis-a-vis other enterprises, has resulted in a dramatic increase in the value of the "rights to produce" or quotas. The escalating quota values pose potentially serious problems for the continued operation of the Ontario milk marketing system.

CONSUMER PRICE AND CONSUMPTION COMPARISONS

Tables 8 and 9 present selected statistics comparing consumer prices and per capita consumption of dairy products in Ontario and the U.S. These tables suffer from some of the same comparability problems as experienced in the farm price level tables presented in the previous section.

Ontario prices, when adjusted for currency differences, are about the same for fluid milk, lower for butter, and higher for cheese than those in the U.S. Since the price of fluid milk to producers is regulated by the formula described earlier, all handlers of fluid products in Ontario pay the same price for fluid milk. Competition can and does exist between various milk processing companies and retail grocery chains for selling dairy products. As such, there is price competition on fluid products beyond the farm-gate.

Table 8

Consumer Prices for Selected Dairy
Products -- Ontario and U.S. ^{1/}

Year	Lowfat or 2% Milk		Butter		Cheese ^{2/}	
	U.S.	Ontario ^{3/,4/}	U.S.	Ontario ^{5/}	U.S.	Ontario
	(\$ per 1/2-Gallon)		(\$ per Pound)			
1985	\$1.08	\$1.00	\$2.12	\$1.93	\$3.09	\$3.46
1984	\$1.07	\$1.08	\$2.11	\$1.94	\$3.07	\$3.52
1983	\$1.07	\$1.08	\$2.07	\$1.91	--	\$3.58

Source: U.S. prices reported in Dairy Situation and Outlook Report, June 1986, p. 15. Ontario prices provided by Ontario Ministry of Agriculture and Food-Economics and Policy Coordination Branch and reported in various issues of their Monthly Dairy Report.

^{1/} Ontario data converted to gallons using 1 gallon equal to 3.785 liters and 1 kilogram equal to 2.2046 lbs. Canadian \$'s converted to U.S. \$'s using the following conversion factors: 1985 - \$1.3540; 1984 - \$1.3085; and 1983 - \$1.2353.

^{2/} Natural cheddar. Ontario is medium-colored at Toronto.

^{3/} About 73 percent of fluid milk sold in Ontario is 2 percent partially skimmed milk and over 60 percent of that milk is sold in 4-liter pouch packs. For comparison, the 4-liter pack was converted to gallons and divided by 2. This tends to overstate the price differences between U.S. and Ontario because of the extra packaging required for the Ontario pouch pack.

^{4/} Prices for unweighted average for corporate chain stores in Ontario.

^{5/} Ninety-three score at Toronto.

Table 9

Dairy Product Consumption, Selected Products
United States and Canada

Year	Fluid Milk and Cream		Butter		Cheese	
	<u>U.S.</u>	<u>Canada</u>	<u>U.S.</u>	<u>Canada</u>	<u>U.S.^{1/}</u>	<u>Canada^{2/}</u>
			(Pounds)			
1975	267	230	4.7	11.6	14.4	13.5
1980	250	247	4.5	10.0	17.6	16.5
1981	245	246	4.3	9.8	18.4	16.9
1982	242	245	4.3	9.4	20.1	16.8
1983	242	244	4.9	9.7	20.6	16.7
1984	243	243	4.9	9.3	21.6	17.9

Source: USDA, Economic Research Service, Dairy Situation and Outlook Report, various issues.

Dairy Farmers of Canada, 1985 Dairy Facts and Figures at a Glance, Table 25.

^{1/} Combined total of American and non-American type cheeses.

^{2/} Total cheese.

Some people argue that the operation of the subsidy program within the national Canadian dairy program also has the effect of keeping consumer prices for butter and cheese at lower levels than they would otherwise be in the absence of the supply management program. Thus, the subsidy program operates to encourage a somewhat larger consumer/customer-oriented dairy industry in Canada than otherwise might exist.

Table 9 shows the per capita consumption of three basic dairy products: fluid milk and cream, butter, and cheese. Fluid consumption is almost identical between the U.S. and Canada. Canadian citizens consume substantially more butter than do U.S. consumers. However, it is interesting to note that butter consumption has been declining slowly since 1975 in Canada, whereas it has been essentially stable or slightly increasing in the U.S. Also, the U.S. increase in per capita consumption of cheese products has been substantially greater than that experienced in Canada. The degree to which these differences in consumption patterns and the changes over time can be ascribed to the various pricing policies and milk marketing systems within each country is not clear. Many other factors such as levels of economic growth, tastes and preferences, etc., could account for some of the changes in per capita consumption.

THE MARKET FOR QUOTAS AND QUOTA VALUES

Ontario (as does Quebec) has a formal quota exchange which matches buyers and sellers and establishes a market price for quotas. In Ontario, the quota exchange is a computerized exchange operated by the OMMB. Quotas also may be transferred as part of a whole dairy farm sale or through an intergenerational farm transfer. In recent years, approximately 65 percent of quota transfers have been within-family, 5 percent through whole farm sales, and 30 percent through the quota exchange.

With the exception of within-family transfers, quota transfers are subject to an assessment of 15 percent. For example, a producer selling 100,000 pounds of quota would transfer and receive payment for only 85,000 pounds. The remaining 15,000 pounds would revert to the Ontario Milk Marketing Board for reallocation to existing or new producers

or to adjust downward the outstanding quota pool to more accurately reflect current market conditions.

Producers are required to market milk equal to at least 85 percent of their annual MSQ. Those failing to meet this requirement would forfeit MSQ unless the MSQ is sold. It is imperative when running a supply control system that producers be required to manage their production both on the bottom side as well as the top side of their output. Thus, the "use-them" or "lose them" quota rules are imperative for running any supply management system.

The Ontario system also has a market for two classes of MSQ; used and unused. The value of unused quota can vary substantially within the marketing year, depending upon supply conditions. The OMMB rules require that producers do not ship more than 80 percent of their annual MSQ quota through the first two-thirds of the marketing year (August 1 through March 31). All production over 80 percent of their MSQ during these months is subject to the over-quota levy. After March 31, producers are allowed to use 5 percent of the remaining MSQ in each of the four remaining months of the dairy year with over-quota levy deductions adjusted accordingly. This need to manage production relative to product needs puts a further premium on individual dairy farm managerial expertise.

The value of quota reflects the profitability of milk production relative to other farming enterprises. Formula induced manufacturing and fluid milk price increases in the face of declining prices for other agricultural commodities have increased quota prices. Prices for manufacturing quota have also been increased by higher over-quota levies and quota reductions in recent years.

Table 10 illustrates what has happened to quota values over the last five years. As Columns (a) and (b) demonstrate, the value of quotas have increased dramatically in the last five years. At the end of 1985, Group I quota was selling at \$204.00 per liter of fluid milk shipped per day and unused MSQ was selling for over 64¢ per liter to be shipped

Table 10

Canadian Quota Values and Costs of Carrying Quota Assets, 1981-1985 ^{1/}

Year	Quota Prices		Average Ontario Dairy Farm ^{2/}				
	Group 1 ^{3/} (a)	Unused MSQ ^{4/} (b)	Total Market Value of Quota ^{5/} (c)	Average Interest Rate ^{6/} (d)	Quota Carrying Cost ^{7/} (e)	Annual Milk Sales ^{8/} (f)	Carrying Cost Per cwt. ^{9/} (g)
1981	\$ 80.54	\$.234	\$ 53,375	14.1	\$ 7,525.87	5,010	\$1.50
1982	\$136.80	\$.518	\$ 73,182	14.2	\$10,391.84	5,217	\$1.99
1983	\$184.57	\$.607	\$114,987	11.3	\$12,993.53	5,077	\$2.56
1984	\$171.95	\$.55	\$130,018	13.8	\$17,942.48	5,337	\$3.36
1985	\$203.84 ^{10/}	\$.642 ^{10/}	\$152,915 ^{11/}	13.0 ^{12/}	\$19,878.95 ^{13/}	5,337 ^{13/}	\$3.72

^{1/}All figures converted to U.S. \$'s using the rates of 1 \$ can equal to: 1981 - \$1.2416; 1982 - \$1.2500; 1983 - \$1.2353; 1984 - \$1.3085; and 1985 - \$1.3540. 28

^{2/}All data taken from Ontario Dairy Farm Accounting Project Annual Summary, 1981, 1982, 1983, 1984.

^{3/}Average annual price of one liter of fluid milk per day. Each liter covers about .75 liters of production.

^{4/}Average annual price of one liter of industrial milk shipped during the dairy year.

^{5/}Year-end (December 31) market values as carried on 135 sample farms' balance sheets.

^{6/}Average weight (by loan term) Ontario Farm Credit.

^{7/}Column (b) times column (c).

^{8/}Converted from annual liter milk sales.

^{9/}Column (d) divided by column (e).

^{10/}December 1985 (not annual average) values on Quota Exchange.

^{11/}Estimated by authors using percent quota value increase experienced between 1984-85.

^{12/}Estimated by authors.

^{13/}Assumed to be same as 1984.

during the marketing year. Using the numbers generated by the Ontario dairy farm accounting project, it is estimated that the average Ontario dairy farm now has a total market value of quota on its balance sheet equal to almost \$153,000.

The market quota required to be owned by a producer in order to ship milk in Ontario is an asset that is not currently appropriate in the balance sheet of U.S. producers. It is, however, an asset that must generate a rate of return the other assets owned by a typical dairy farm. Table 10 is the authors' attempt to generate the per cwt. cost of having a market quota on the average Ontario dairy farm. Using the numbers from the Ontario Dairy Farm Accounting Project, Column (g) is generated to show how much it "costs" for an Ontario dairyman to carry a quota asset on his balance sheet. That cost has more than doubled in five years and now runs \$3.72 per cwt.

Table 11 subtracts the opportunity cost of holding that quota from the Ontario milk price. Column (c) in Table 11 demonstrates that if the average Ontario dairy farmer had to buy and pay the market rate of interest for his quota, his net milk price would fall from \$14.91 per cwt. to \$11.19 per cwt.

Many U.S. producers might interpret Table 10, particularly Column (g), as being the amount of money they could get by selling their quota, putting the receipts into the bank, and not milking cows at all. This is not an accurate interpretation. First, when selling quota on the exchange, the producer only receives a return for 85 percent of the sale. Second, those quota values are valued by the market exchange. Should there be a wholesale attempt by many producers to "cash in" on the quota value, the market price of quota could drop substantially and very quickly. This could erase a very large proportion of the average Ontario dairy farmer's assets in a very short period of time.

The quota system with its associated retail, producer, and government subsidy pricing and financial considerations has created a very tenuous quota asset value situation within the Ontario dairy industry. Increasing quota values put pressure on producer returns that would otherwise not be there. Also, increasingly producers would

Table 11

Ontario Milk Price Adjusted for Quota Values

Year	Ontario Farm Milk Price 3.5% ^{1/} (a)	Opportunity Cost of Quotas ^{2/} (b)	Net Price Adjusted for Quota Costs ^{3/} (c)
1981	\$13.41	\$1.50	\$11.91
1982	\$14.08	\$1.99	\$12.09
1983	\$14.91	\$2.56	\$12.35
1984	\$14.82	\$3.36	\$11.46
1985	\$14.91	\$3.72	\$11.19

^{1/}Table 1, Line (11).

^{2/}Table 10, Column (g).

^{3/}Values from Table 2 were calculated using a blend price based on 44 percent Group I and 56 percent MSQ. Values in Table 10 are based on the average quota distribution of the 135 farms in the Ontario Dairy Farm Accounting Project. Therefore, columns (a) and (b) in this table are not entirely consistent.

like to use this asset as collateral to purchase other expansions or capital investments in their dairy operation. Some market speculation in quota trading has begun to develop. These problems are generally recognized by the dairy industry leadership in Ontario, and studies and actions appear to be formulated and undertaken to address some of the possible destructive consequences of rapidly rising quota values.

SOME THOUGHTS ABOUT THE CANADIAN SUPPLY MANAGEMENT SYSTEM

The advantages and disadvantages of a mandatory quota program have been and will be debated for many years to come. No attempt is made in this paper to enumerate and/or discuss these advantages or disadvantages.^{1/} However, a few specific perspectives about the merits of a quota system are presented.

First, it is important to recognize that the Ontario milk marketing quota systems were put in place not only to stabilize dairy farm income by managing aggregate supply and demand, but to also deal with disorderly marketing conditions with the milk markets. Therefore, the Ontario quota system is not only designed to deal with balancing supply and demand, but also deals with issues handled in the U.S. by our federal order system and strong dairy marketing and bargaining cooperatives. Much of the debate on a quota system for the U.S. has concentrated on how to use it to balance aggregate supply and demand. Instituting a U.S. quota system will directly effect the U.S. dairy industry institutions in place for dealing with orderly marketing. Because of this, designing and implementing a quota system in the U.S. is quite complicated.

Second, for the most part, the Canadian and the Ontario milk marketing quota plans have achieved their intended purpose. Aggregate supply and demand have been held in balance. It is the authors' impression that the Ontario system, with its highly professional OMMB, have operated a supply management program in a very effective and

For a more complete discussion of these issues, see the forthcoming companion MSU Ag Econ Report by Nott and Hamm titled, "Quotas for U.S. Dairy Farmers? A Review."

progressive manner. However, even this successfully managed, domestically oriented supply control system cannot escape the stresses and strains of the economic forces beyond the dairy industry or the Canadian borders. The dramatic rise of within-quota levies is partially the result of dairy policies in the U.S. and the EEC. Furthermore, the rise in quota values for dairy farming reflects the relative rates of return which are somewhat determined by world nondairy commodity prices. Therefore, Canadian dairy farmers are also vulnerable to changes in macroeconomic policies just as are U.S. dairy farmers. U.S. dairy farmers worry about the impact of public policy on their farm level milk price via the imposition of lower price supports and/or assessments. Canadian dairy farmers worry about their financial well-being as macro conditions may change the value of their paper quota assets overnight. Both countries' dairymen operate under stressful public policy uncertainty. Only the source of that uncertainty and the direction with which it affects the individual farm are different.

Third, casual observation and discussion with Ontario dairy producers does indicate that the management practices and enterprise management decisions of Ontario dairy farmers are different because of the quota system. Since Ontario dairy farmers are essentially foreclosed from significant expansions (other than a few cows at a time), they cannot deal with falling income by increasing production. Therefore, many Ontario dairymen appear to have adopted the strategies of reducing costs to increase net profit and/or diversifying into other dairy related revenue generating enterprises. Sales of purebred cattle offspring have been a major secondary enterprise for many Ontario dairymen. There also appears to be some antidotal evidence that many Ontario dairymen operate their facilities at less than optimal capacity because of the rapid increase in the values of quotas over the last few years. The combined effect of the quota constraint on increasing production and the uncertainty of macro policy decisions means that Ontario dairy farming is different, but it may not necessarily be better.

Finally, many producers may interpret the tables from this paper to indicate that a quota system may be the only way to go. After all, Ontario dairymen's milk prices are higher and the quota values have given those quota-holding producers a substantial increase in capital gains. Therefore, some might advocate that establishing a quota system could, in fact, raise prices immediately and generate immediate wealth to get the dairy industry's balance sheet healthy overnight.

However, it is important to remember that some of the Canadian dairymen's prosperity emanates from the combination of slightly higher retail prices for Ontario dairy consumers and substantial investments from the Canadian taxpayer. Much of the interest in a U.S. quota system is being generated by the need to make up dairy farm income lost as the U.S. taxpayer attempts to withdraw from buying dairy surpluses. Given that the Canadian dairy quota system operates with substantial taxpayer input, really puts into question whether the Canadian supply management system is appropriate for solving U.S. dairy farmers' current policy dilemma.

In summary, Canadian dairymen generally support their mandatory supply management system. There are stresses and strains interprovincially and within other agricultural and nonagricultural sectors. Given the willingness of the Canadian dairy consumer and taxpayer to support the current marketing system, it has served the Canadian industry well. However, a wholesale transfer of the Canadian policy system to the much larger and geographically dispersed U.S. industry without the comparable consumer and taxpayer commitment would be difficult.