

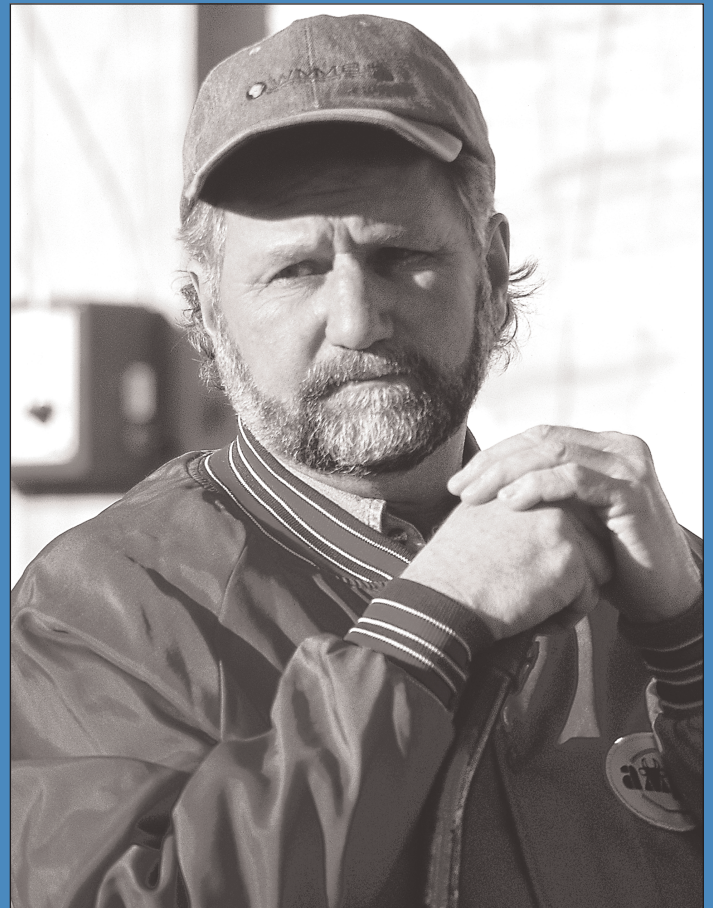
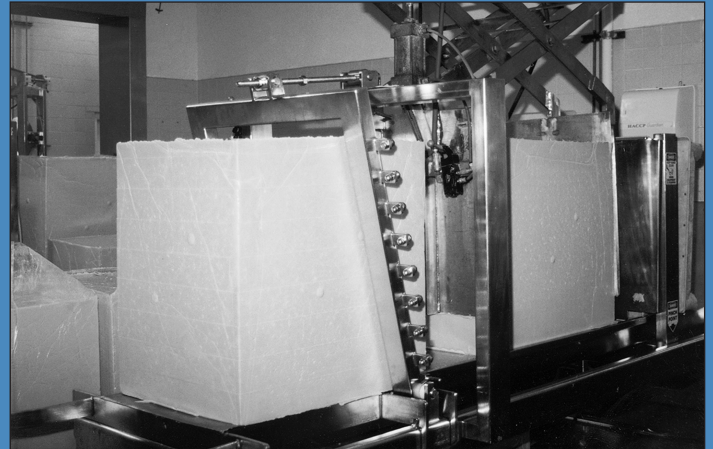
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Research Report 203

Financial Profile of Dairy Cooperatives, 2002



Abstract

Financial statements for U.S. dairy cooperatives in 2002 are presented. The nation's dairy cooperatives were categorized into five groups based on their primary function (bargaining-only, commodity-manufacturing, niche-marketing, fluid-processing and diversified) and according to size (net volume of milk handled). Balance sheets and operating statements were presented on a per-cwt, per-cooperative and common-size basis for U.S. dairy cooperatives by operating type and by size category. Financial ratios are also presented for each type and size group. Dairy cooperatives employed \$6.22 of assets per cwt to market member milk in 2002. One-third of the assets were financed by member equity. Net margins before tax of \$0.21 per cwt of milk handled represented a 1.2 percent return on total sales.

Key Words: Cooperatives, financial statements, financial structure, milk, dairy.

Financial Profile of Dairy Cooperatives, 2002

Carolyn Liebrand
Agricultural Economist

Cooperative Service
Rural Business and Cooperative Development Service
U.S. Department of Agriculture

Research Report 203

September 2004

On the cover: (clockwise from upper left) “Katie” Olson, left, and her sister, Kelsey, on their family’s Spring Valley, Minn., farm; a “640” block of cheddar cheese is cut into natural chunks at AMPI’s Portage, Wis., plant; AMPI member Jerome “Joe” Hanson, of Blair, Wis.; Gerrit Vanderbeek, Cheesemaker at AMPI’s Paynesville, Minn., plant, salts cheese curds on an open table. Photos by Sheryl Meshke, courtesy AMPI

Preface

Information for this report came from a 2003 survey of all U.S. dairy cooperatives that gathered financial and marketing data for cooperatives' fiscal years ending in calendar 2002. About 40 percent of the dairy cooperatives provided sufficient financial information that could be used in this study. However, these cooperatives represent nearly all of the assets held and milk handled by all cooperatives.

This report presents consolidated balance sheets, operating statements and standard financial ratios for U.S. dairy cooperatives. For more focused analysis, financial profiles according to functional type and size (based on net volume of milk handled) are also presented.

The consolidated financial statements are both "common sized" and calculated on a per-cwt of milk and per-cooperative basis. This may make it easier for an individual dairy cooperative to compare its financial structure with these profiled cooperatives and to facilitate comparisons between cooperatives of different size and scope. Relationships between various items in the balance sheet and operating statement are also used to analyze comparative dairy cooperative performance.

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Highlights

Most of the assets held and milk handled by U.S. dairy cooperatives were accounted for by the 80 cooperatives for which there was complete financial information and that are included in this report. They were categorized according to the type of operations in which they engaged to market a majority of their members' milk: bargaining-only, commodity-manufacturing, niche-marketing, fluid-processing and diversified. They were also further categorized according to the net volume of milk they handled into small, medium and large size groups.

Overall, dairy cooperatives employed \$6.22 of assets per hundredweight (cwt) to market their members' milk in 2002. Current assets and property, plant and equipment came to \$2.81 and \$2.90 per cwt of member milk, respectively. Total liabilities came to \$4.13 per cwt of which \$2.39 were current liabilities representing mostly pending payments to members. Member equity amounted to \$2.10 per cwt of milk.

Bargaining-only cooperatives used the least assets to market a cwt of milk, while branded-cheese cooperatives used the most. Diversified and fluid-processing cooperatives used the next highest level of assets per cwt, while commodity-manufacturing cooperatives fell in the middle.

Likewise, bargaining-only cooperatives had the fewest liabilities per cwt. Niche-marketing and diversified and fluid-processing cooperatives had significantly larger total liabilities than the other two types.

Niche-marketing cooperative members had the highest equity stake per cwt of their milk—twice as high as diversified and fluid-processing cooperatives. Commodity-manufacturing cooperative members had the next to lowest investment per cwt in their cooperatives, while bargaining-only cooperative members had the least, far below the others.

Total assets per cwt of member milk increased as cooperative size group increased. Similarly, total liabilities per cwt also increased with size. In contrast, equity decreased as size increased, but the range was much narrower between the size groups than for assets or liabilities. Some of the differences may be attributed to the differing proportions of the various operating types of cooperatives in each size group.

Milk and dairy product sales was the largest single income item, \$15.73 per cwt of milk handled, in 2002. Supply and other sales was the next largest item, \$2.19 per cwt. Total income was \$18.27 per cwt, while net margins before tax came to 21 cents per cwt of milk handled.

Niche-marketing cooperatives generated the largest milk and dairy product sales per cwt, while bargaining-only cooperatives yielded the least. Niche-marketing, followed by diversified and fluid-processing cooperatives' supply sales were quite a bit larger than the other two types. Thus, niche-marketing cooperatives had the highest total income per cwt and bargaining-only cooperatives the lowest.

Niche-marketing and diversified and fluid-processing cooperatives had the largest net margins before tax per cwt. Net margins for commodity-manufacturing cooperatives were less than one-half of those of niche-marketing cooperatives. Net margins for bargaining-only cooperatives were well below those of any of the other types.

Highlights

Milk and dairy product sales per cwt of total milk handled for small cooperatives were well below those of the medium and large groups. Conversely, supply and other sales for the small group were twice as large as for the large group. The medium group had minimal supply and other sales. In the end, total income per cwt was highest for the small cooperatives and lowest for the medium. Net margins per cwt were similar between the medium and large groups, while small cooperatives' net margins were somewhat lower. Again, the results by size are in part due to the mix of operating types in each size group.

Various ratios were calculated to measure dairy cooperative operations. Overall, dairy cooperatives had \$1.18 in current assets for each \$1 of current debt in 2002. Niche-marketing cooperatives had the largest current ratio and bargaining-only cooperatives the lowest. Almost two-thirds of total dairy cooperative assets were provided by liabilities (which may include milk payments owed to members).

Long-term debt came to 83 percent of total equity in 2002. Diversified and fluid-processing cooperatives had the highest level of long-term debt compared with member equity, while bargaining-only cooperatives had the lowest.

By most measures of capitalization, the proportion of assets financed by debt capital grew as cooperative size increased.

Return on equity was 11.7 percent for dairy cooperatives in 2002. Bargaining-only cooperatives had the highest rate of return to equity by this measure and niche-marketing cooperatives the lowest.

Return to the assets employed in marketing milk was 5.3 percent for all dairy cooperatives. Commodity-manufacturing cooperatives generated the highest return to assets, followed by diversified and fluid marketing cooperatives. Niche-marketing cooperatives included in this study yielded the lowest return to assets.

By all measures of profitability, the medium group had the highest level of return, and small cooperatives the lowest.

Financial Profile of Dairy Cooperatives, 2002

Carolyn Liebrand
RBS Agricultural Economist

Introduction

Farmer cooperative statistics are collected annually by the Rural Business-Cooperative Service (RBS) to provide information on the growth and development of cooperatives. The information is collected from individual farmer cooperatives by a mail survey. The 2003 survey (collecting 2002 data) requested additional details about marketing operations of dairy cooperatives. This data on dairy cooperatives was used to develop financial statistics specific to dairy cooperatives for this report. The marketing operations of all U.S. dairy marketing cooperatives in 2002 were discussed in RBS Research Report 201.

In 2002, the United States had 196 cooperatives predominantly engaged in dairy marketing (excluding dairy goat cooperatives). Eighty of them (40.8 percent) provided financial information in sufficient detail to be included in this report. However, these 80 cooperatives represent 98.3 percent of the combined total assets of all dairy cooperatives (table 1). The dairy cooperatives included in this study handled 96.7 percent of the net milk volume handled by all U.S. dairy cooperatives.

Functional Types

Dairy cooperatives perform a variety of functions for their members and have taken diverse routes to ensure a market for their members' milk. As such, they may be classified according to the method they employ in marketing a majority (50 percent or more) of their members' milk. The structure and operations differ among the various types of dairy cooperatives. For this report, dairy cooperatives were broadly classified into 5 groups: bargaining-only, commodity-manufacturing, niche-marketing, fluid-processing and diversified dairy cooperatives (see box). Cooperatives

that were classified as bargaining-balancing or hard-product manufacturing in 1997 were grouped together under the label "commodity-manufacturing" for this report because their numbers have declined. Niche-marketing cooperatives were identified as "branded-cheese" in the 1997 report, since most of these cooperatives produced specialty cheeses. However, a more comprehensive label was used for this report because some of the newer niche-marketing cooperatives produced other products such as branded fluid milk. As in 1997, fluid-processing and diversified dairy cooperatives were grouped together due to the small number of fluid-processing cooperatives.

The cooperatives in this study adequately represent each of the five types (table 2, figures 1 and 2). Niche-marketing cooperatives were the least represented (22.2 percent). However, the niche-marketing cooperatives in this study accounted for a majority of the milk marketed by all niche-marketing cooperatives in 2002 (59.4 percent). Similarly, while sufficient data was obtained from just 34.2 percent of the bargaining-only dairy cooperatives in the U.S., these represented 90.0 percent of the net milk volume handled by all bargaining-only cooperatives.

All of the U.S. commodity-manufacturing cooperatives in existence in 2002 were included in this study. The combined grouping of diversified and fluid-processing cooperatives represented 72.7 percent of all U.S. diversified and fluid-processing cooperatives, and nearly all of the net milk volume handled (99.0 percent) by all such cooperatives in the U.S.

Appendix table 1 shows the 2002 consolidated financial statements for all dairy cooperatives and by type of dairy cooperative.

FUNCTIONAL TYPES OF DAIRY COOPERATIVES

Bargaining-only cooperatives are the most numerous type of dairy cooperative-- representing almost three-fourths of all 196 U.S. dairy cooperatives in 2002. They operate at the first-handler level in seeking to secure the most profitable outlets for their members' milk, and do not own plants. So, further processing and sales of dairy products are left to other handlers. In 2002, 68.5 percent of these cooperatives each handled less than 50 million pounds of member milk and only 6.8 percent handled 1 billion pounds or more. Bargaining-only cooperatives collectively handled about one-fourth of net U.S. cooperative milk volume.

Commodity-manufacturing cooperatives manufacture members' milk into bulk dairy products (such as butter, powder and cheese). Some function like bargaining-only cooperatives, but also have plant facilities to accommodate handlers' needs and/or to balance milk supplies. Others use most of their members' milk in their own manufacturing plants to make undifferentiated, commodity dairy products. Just 10 cooperatives were in this category in 2002, but they handled 8.9 percent of the net milk volume of all U.S. dairy cooperatives.

Niche-marketing cooperatives typically process most of their members' milk in the cooperative's plants, manufacturing and marketing specialty or branded dairy products for particular market niches. A few do not have their own manufacturing facilities, but have arrangements with a processor to make their specialized products. These typically "buy back" a portion of their members' milk from other handlers to make the specialized products. Most are small--more than three-fourths handled less than 50 million pounds each, and none handled more than 1 billion pounds of member milk in 2002. They represented 9.2 percent of all U.S. dairy cooperatives (the second most common type of dairy cooperative) in 2002. However, as a group they handled less than 1 percent of U.S. cooperative milk volume.

Fluid-processing cooperatives typically process most of their members' milk in their plants, primarily as bottled fluid milk. Many of these cooperatives also make products such as ice cream, sour cream, cottage cheese and/or yogurt. Most handled less than 1 billion pounds of member milk each. In 2002, only 3.6 percent of the dairy cooperatives in the U.S. were fluid processing cooperatives, and these accounted for just 1.5 percent of the milk handled by U.S. dairy cooperatives.

Diversified cooperatives perform all or most of the functions that other types of dairy cooperatives perform. A large portion of their milk supply is sold to other handlers, while maintaining a steady volume at their own processing or manufacturing plants to make a variety of products. In 2002, 7.7 percent of all dairy cooperatives were diversified, but these handled 64.4 percent of the total cooperative milk volume. Two-thirds of the diversified dairy cooperatives each handled 1 billion or more pounds of member milk in 2002 and none handled less than 50 million pounds per year.

Table 1—Comparison of cooperatives in the financial profile study and all U.S. dairy cooperatives, 2002

Item	Financial ⁴ profile cooperatives	U.S. dairy cooperatives ¹	Profile cooperatives as a percent of all U.S. cooperatives
		<i>Number</i>	<i>Percent</i>
Cooperatives	80	196	40.8
		<i>Million dollars</i>	<i>Percent</i>
Total assets	8,365.5	8,511.2	98.3
Net milk and dairy product sales ²	21,742.5	23,037.7	94.4
		<i>Billion pounds</i>	<i>Percent</i>
Net milk volume handled ³	139.6	144.3	96.7

¹ Cooperatives with more than 50 percent of net sales from milk and dairy products; excludes goat dairy cooperatives.

² Sales of milk and dairy products, less inter-cooperative transfers.

³ Milk handled by cooperatives less inter-cooperative transfers.

⁴ Includes cooperatives that provided financial data to USDA.

Size Categories

The data were also categorized according to the net volume of milk the cooperatives handled into three size groups—small (less than 50 million pounds of milk), medium (50 to 999 million pounds of milk) and large (1 billion or more pounds of milk). The cooperatives in this study represented nearly all (96.0 percent) of the large U.S. dairy cooperatives in 2002. And, a majority of the medium dairy cooperatives were represented (55.7 percent). However, just 19.8 percent of the small cooperatives were represented.

Bargaining-only cooperatives made up the bulk of the small (86.4 percent) and medium (64.7 percent) size groups (table 3 and figure 3). The large group was made up of a mixture of diversified and fluid-processing cooperatives (41.7 percent), bargaining-only (37.5 percent) and commodity-manufacturing cooperatives (20.8 percent). There were no large niche-marketing cooperatives; nor were there any small commodity-manufacturing cooperatives. Because each size group contains differing proportions of the four operating types, some of the differences between size groups may be in part due to variance related to the type of operation.

See Appendix Table 2 for the consolidated financial statements by size of dairy cooperative.

Financial Profile—Per Cwt Basis

The consolidated financial statements were expressed in terms of dollars per cwt of milk. This pre-

sentation may be familiar to dairy farmers and cooperative managers because milk prices are typically expressed in terms of dollars per cwt. It is also a form of common sizing—allowing comparison across different-sized organizations.

Balance Sheet

Balance sheet items were calculated on a per-cwt of member milk basis to show the capital required to market members' milk (table 4). Overall, cooperatives had \$6.22 in assets for each cwt of milk members sold through their dairy cooperatives in 2002.

Fixed assets (net of investments in other cooperatives) made up the largest single item of cooperative assets (\$2.90 per cwt), while current assets were the next largest (\$2.81 per cwt). Investments in other cooperatives amounted to \$0.51 per cwt.

On the other side of the ledger, total liabilities were \$4.13 per cwt. The bulk were current liabilities, \$2.39 per cwt, mostly consisting of pending payments to members for their delivered milk. Total member equity amounted to \$2.10 for each cwt of milk they marketed through their cooperatives.

Balance Sheet by Type

The structure of the balance sheet varied according to the operational type of dairy cooperative (table 5 and figure 4). Among the 4 groups of cooperatives, bargaining-only cooperatives have relatively low capital requirements for their operations because they do not own plants. Commodity-manufacturing cooperatives require more capital to operate plants, but are

Table 2—Cooperatives in the study compared with all U.S. dairy cooperatives, by type and by size, 2002

Primary function	Financial profile	U.S. Cooperatives	Share of U.S. represented
Number of cooperatives			
Type	-----Number-----		Percent
Bargaining-only	50	146	34.2
Commodity-manufacturing ¹	10	10	100.0
Niche-marketing ²	4	18	22.2
Diversified and fluid-processing	16	22	72.7
Net milk volume ³			
	-----Million pounds-----		Percent
Bargaining-only	32,200	35,787	90.0
Commodity-manufacturing	12,855	12,855	100.0
Niche-marketing	344	579	59.4
Diversified and fluid-processing	94,196	95,128	99.0
Number of cooperatives			
Size category	-----Number-----		Percent
Small ⁴	22	111	19.8
Medium ⁵	34	61	55.7
Large ⁶	24	25	96.0
Net milk volume ³			
	-----Million pounds-----		Percent
Small	411	1,023	40.2
Medium	11,568	14,650	79.0
Large	127,616	128,676	99.2

¹ These were categorized as "bargaining-balancing" or "hard product manufacturing" cooperatives in 1997.

² These were referred to as "branded cheese" cooperatives in 1997.

³ Milk handled by cooperatives less inter-cooperative transfers.

⁴ Cooperatives that handled less than 50 million pounds of milk

⁵ Cooperatives that handled 50 to 1 billion pounds of milk

⁶ Cooperatives that handled 1 billion pounds of milk or more

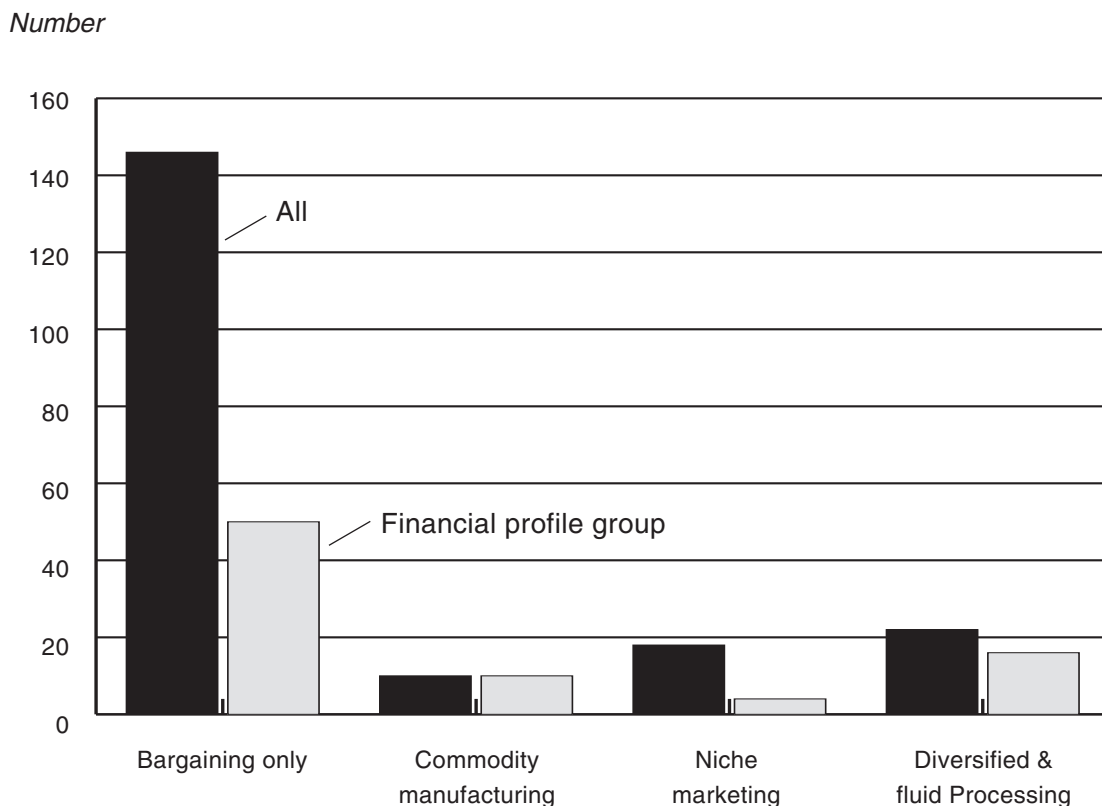
able to capture some economies of size in their high-volume plants. Niche-marketing cooperatives, on the other hand, have relatively high capital requirements in part because they manufacture relatively low or moderate volumes of specialized products, reducing their ability to capitalize on economies of size. Diversified and fluid-processing cooperatives often operate extensive manufacturing facilities with the related capital requirements. While they are able to capture some economies of size, their complexity of product mix and marketing strategies may increase their capital requirements. In addition, both niche-

marketing and diversified and fluid-processing cooperatives also use additional capital to support their sales of supplies and other products.

Thus, bargaining-only cooperatives required the least assets to market milk (\$1.02 per cwt of member milk), followed by commodity-manufacturing cooperatives (\$3.41 per cwt). Niche-marketing cooperatives required the most assets (\$10.03 per cwt). Diversified and fluid-processing cooperatives had the next highest level of asset use on a per-cwt basis, \$8.44.

Current assets per cwt of member milk ranged from \$0.76 for bargaining-only cooperatives to \$3.68

Figure 1—Number of dairy cooperatives by type, 2002



for diversified and fluid-processing cooperatives. Property, plant and equipment, and other assets showed the widest range between operating types—ranging from just \$0.20 per cwt for bargaining-only cooperatives to \$6.70 for niche-marketing cooperatives. Diversified and fluid-processing cooperatives had the next highest level of capital used for property, plant, equipment and other assets (\$4.03 per cwt) followed by commodity-manufacturing cooperatives (\$1.54 per cwt).

Compared with other types, niche-marketing and diversified and fluid-processing cooperatives had much higher investment in other cooperatives (\$0.83 and \$.73 per cwt, respectively). In contrast, bargaining-only and commodity-manufacturing cooperatives just had \$0.06 and \$0.07 per cwt, respectively, invested in other cooperatives. Investment in other cooperatives may include investments in a cooperative bank as part of a loan agreement.

Diversified and fluid-processing cooperatives had the highest total liabilities per cwt (\$5.64), followed by niche-marketing cooperatives (\$4.23). Commodity-manufacturing cooperatives had lower liabilities per cwt (\$1.81), but not as low as bargaining-only cooperatives (\$0.75).

Current liabilities ranged from \$0.69 per cwt for bargaining-only cooperatives to \$3.13 per cwt for diversified and fluid-processing cooperatives. Niche-marketing cooperatives had \$1.82 in current liabilities per cwt, followed by commodity-manufacturing cooperatives (\$1.39 per cwt).

Reflecting the nature of their operations, bargaining-only cooperatives had few long-term liabilities (\$0.06 per cwt) while niche-marketing and diversified and fluid-processing cooperatives had much higher levels of long-term liabilities (\$2.41 and \$2.51 per cwt, respectively). Commodity-manufacturing cooperatives' long-term liabilities were relatively low (\$0.42 per cwt).

Members of niche-marketing cooperatives had the highest stake in their cooperatives on a per-cwt basis. Members had invested \$5.80 for each cwt of milk they marketed through their cooperatives. In contrast, bargaining-only cooperative members had just \$0.27 per cwt invested in their cooperatives. Diversified and fluid-processing cooperatives' member equity of \$2.80 per cwt was the second highest level of equity, followed by commodity-manufacturing cooperatives (\$1.60 per cwt).

Figure 2—Net volume of milk handled by dairy cooperatives, by type, 2002

Billion pounds

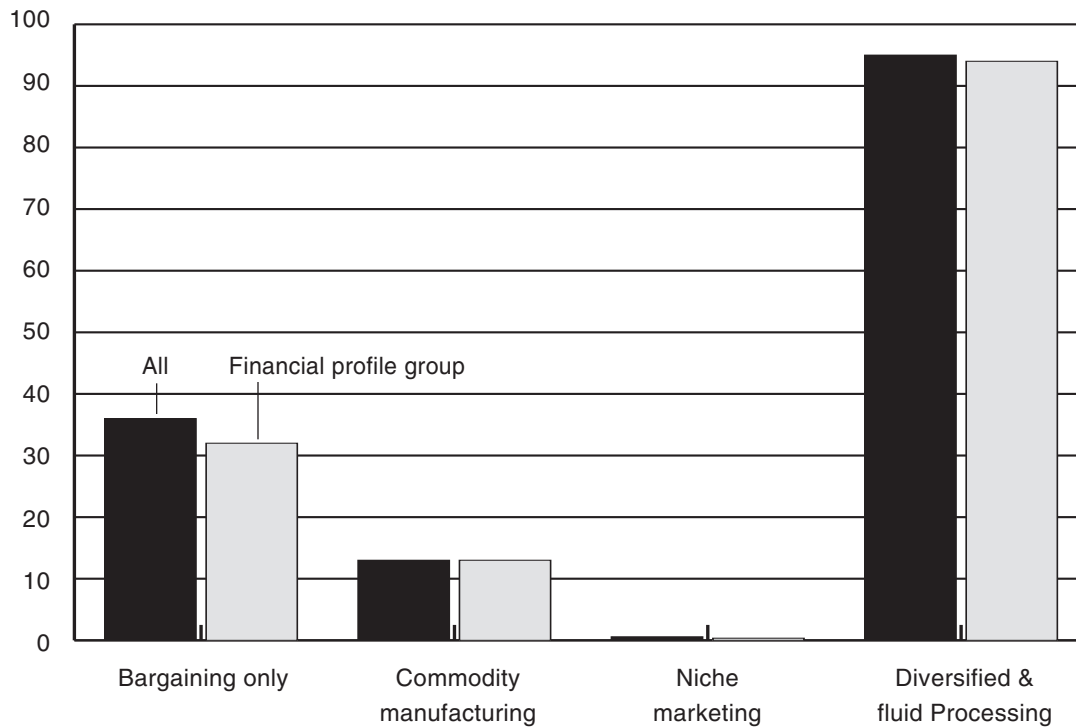


Table 3—Cooperatives in the study, by type and by size, 2002

Primary function	Size category		
	Small ¹	Medium ²	Large ³
	<i>Percent</i>		
Bargaining-only	86.4	64.7	37.5
Commodity-manufacturing	0.0	14.7	20.8
Niche-marketing	9.1	5.9	0.0
Diversified and fluid-processing	4.5	14.7	41.7
	100.0	100.0	100.0

¹ Cooperatives that handled less than 50 million pounds of milk
² Cooperatives that handled 50 million to 1 billion pounds of milk
³ Cooperatives that handled 1 billion pounds of milk or more

Figure 3—Operating types by size of dairy cooperatives, 2002

Percent

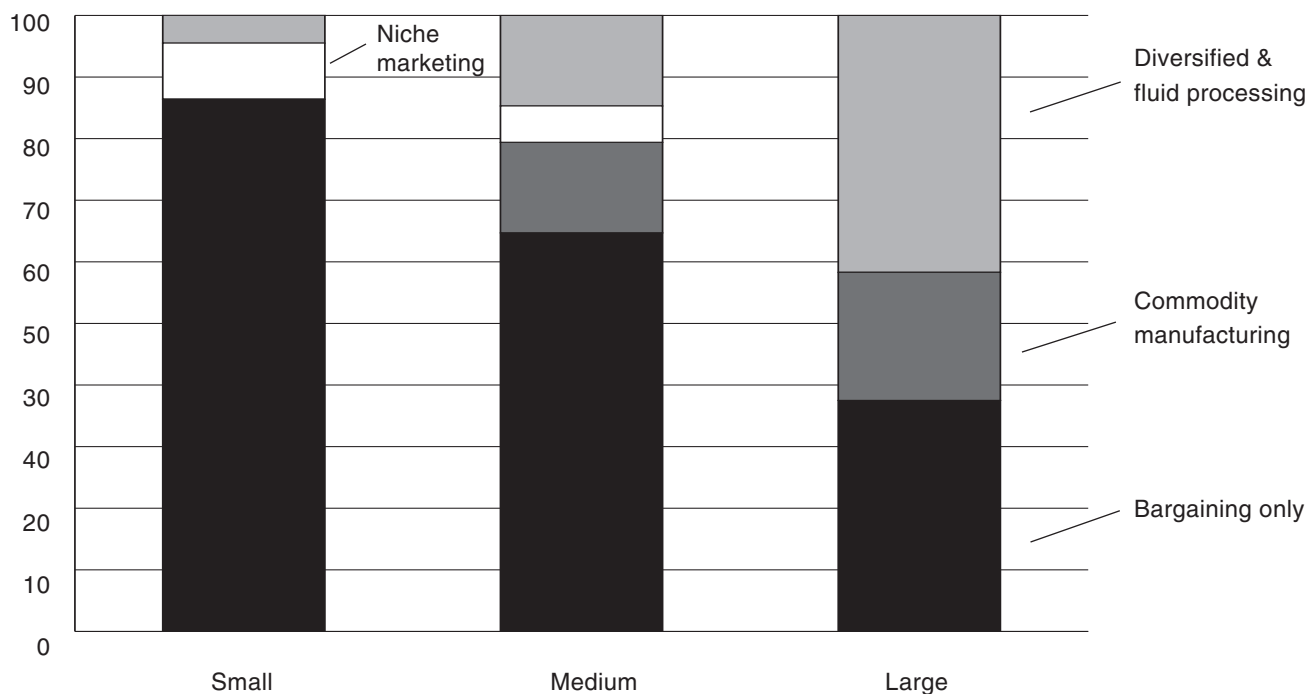


Table 4—Dairy cooperatives' consolidated balance sheet, per cwt of member milk, 2002

Item	Dollars per cwt
Current assets	2.81
Net property, plant and equipment and other assets	2.90
Investments in other cooperatives	<u>0.51</u>
Total assets	6.22
Current liabilities	2.39
Long-term liabilities	<u>1.74</u>
Total liabilities	4.13
Total member equity	2.10
Total liabilities and equity	6.22
Member milk (million pounds)	134,451

Note: Totals may not add due to rounding.

Table 5—Consolidated balance sheet per cwt of member milk, by type of dairy cooperative, 2002

Item	Type of cooperative			
	Bargaining only	Commodity manufacturing	Niche marketing	Diversified & fluid-processing
	<i>Dollars per cwt of member milk</i>			
Current assets	.76	1.80	2.50	3.68
Net PP&E ¹ and other assets	.20	1.54	6.70	4.03
Investments in other co-ops	<u>.06</u>	<u>.07</u>	<u>.83</u>	<u>.73</u>
Total assets	1.02	3.41	10.03	8.44
Current liabilities	.69	1.39	1.82	3.13
Long-term liabilities	<u>.06</u>	<u>.42</u>	<u>2.41</u>	<u>2.51</u>
Total liabilities	.75	1.81	4.23	5.64
Total equity	.27	1.60	5.80	2.80
Total liabilities and equity	1.02	3.41	10.03	8.44
Member milk (million pounds)	31,772	12,535	344	89,800

Note: Totals may not add due to rounding.

¹ Property, plant and equipment.

Balance Sheet by Size

While there was a \$9.01 range in total assets per cwt between the different operating types of cooperatives, the range was narrower between the three size groups (table 6 and figure 5). Total assets employed per cwt of member milk increased as the size group increased, and ranged from \$4.34 for small cooperatives to \$6.33 for the large cooperatives. Liabilities (current, long-term, and total) also increased as size increased. In contrast, total member equity decreased as size increased, ranging from \$3.18 per cwt of member milk for small cooperatives to \$2.09 per cwt for large cooperatives.

Operating Statement

Operating statements are presented on a per-cwt of total milk handled by the cooperatives basis. This shows the revenues, expenses and margins generated by the total volume of milk going through the cooperatives.

Dairy cooperatives included in this study generated \$15.73 in milk and dairy product sales per cwt of milk handled in 2002 (table 7). Supply and other sales was the next largest item, \$2.19 per cwt. Total income

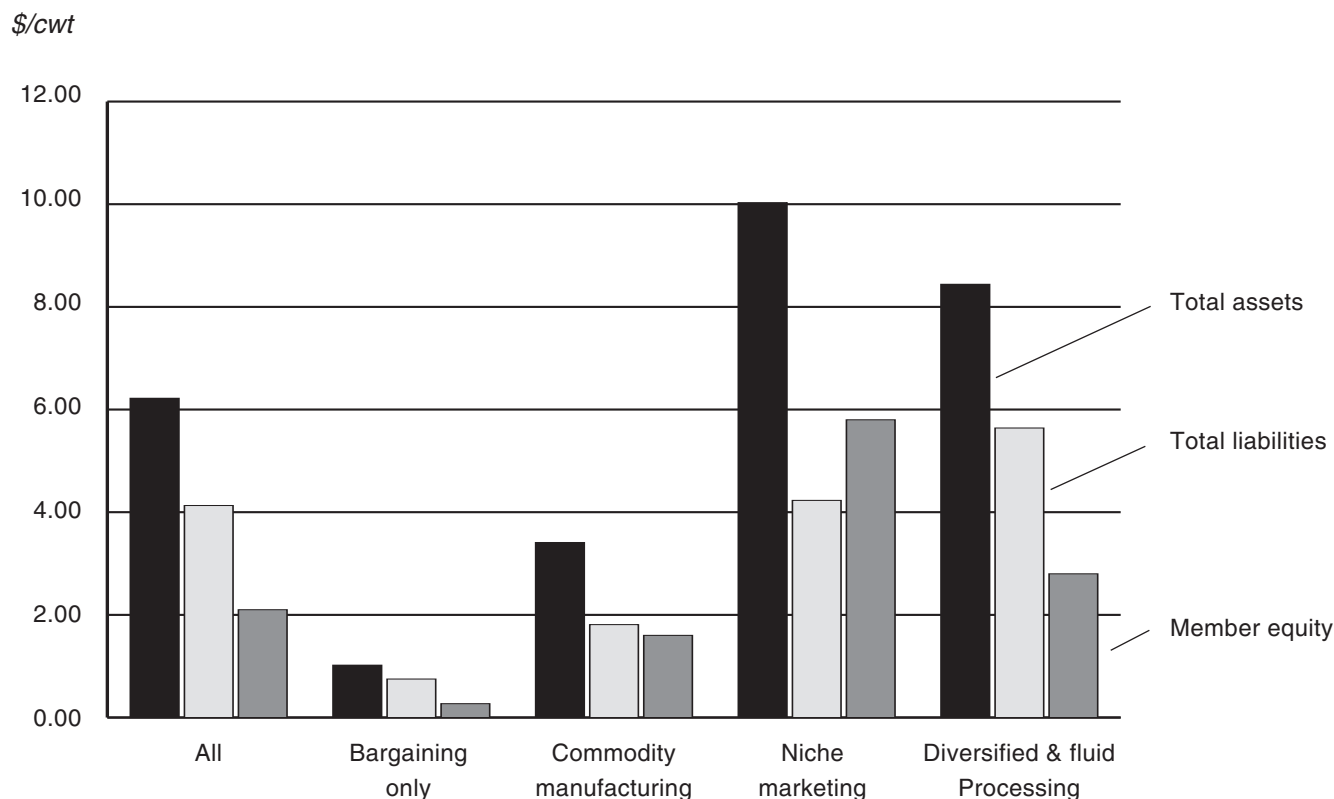
was \$18.27 per cwt handled by the cooperatives. After expenses of \$18.06 per cwt, dairy cooperatives realized net margins before tax of \$0.21 per cwt.

Operating Statement by Type

Milk and dairy product sales per cwt of total milk handled were lowest for bargaining-only cooperatives, \$12.84, and highest for niche-marketing cooperatives, \$18.30 (table 8 and figure 6). This may reflect the "value-added" focus of the niche-marketing cooperatives—where they aim to command higher prices by the uniqueness of their milk (or milk products). Conversely, bargaining-only cooperatives add little "value" to members' milk, focusing primarily on finding markets for it. Commodity-manufacturing cooperatives had the lowest milk and dairy product sales of the types that had plants for further processing milk, \$15.36 per cwt. Diversified and fluid-processing cooperatives, with elements of all the operating types, had the second-highest dairy product sales, \$16.69 per cwt.

Niche-marketing cooperatives, along with diversified and fluid-processing cooperatives, had markedly higher supply and other sales per cwt (\$3.44 and \$2.88, respectively) than bargaining-only or commodity-manufacturing cooperatives (\$0.68 and \$0.62, respectively).

Figure 4—US dairy cooperative assets per cwt, 2002



Service receipts and other income per cwt were highest for diversified and fluid-processing cooperatives (\$0.34) and lowest for the niche-marketing cooperatives (\$0.13). Patronage income was similar between the four types—ranging from \$0.01 for bargaining-only cooperatives to \$0.07 for niche-marketing cooperatives.

Total income varied by more than \$8 per cwt between the different types of cooperatives. Niche-marketing cooperatives had the highest total income per cwt, \$21.94, followed by diversified and fluid-processing cooperatives at \$19.96. Commodity-manufacturing had \$16.25 in total income per cwt of milk handled. Bargaining-only cooperatives had the lowest total income, \$13.71 per cwt.

Net margins before tax followed the same pattern—bargaining-only cooperatives had the smallest, \$0.04 per cwt, and niche-marketing cooperatives the largest, \$0.32 per cwt. Diversified and fluid-processing cooperatives had relatively high net margins, \$0.27 per cwt, while commodity-manufacturing cooperatives' net margins (\$0.15 per cwt) were about one-half those

of the niche-marketing or diversified and fluid-processing cooperatives (but were almost four times those of bargaining-only cooperatives).

Operating Statement by Size

As seen with the balance sheets by type and by size, the structure of the operating statement varied among the different size groups (table 9 and figure 7). Milk and dairy product sales per cwt of total milk handled was lowest for the small cooperatives, \$13.13, and highest for the medium cooperatives, \$16.74. To the contrary, small cooperatives had the highest supply and other sales, \$4.86 per cwt, far exceeding those of medium cooperatives that had the lowest, \$0.31 per cwt. As a result, small cooperatives had the highest total income, \$18.53 per cwt, and medium cooperatives, the lowest—\$17.23. The large cooperatives' milk and dairy product sales, \$15.65 per cwt, were between the small and medium cooperatives', as were the large cooperatives' supply and other sales of \$2.35 per cwt.

Net margins before tax per cwt were similar for the medium (\$0.23) and the large cooperatives (\$0.21). The small cooperatives' net margins before taxes of \$0.16 per cwt were the lowest.

Table 6—Balance sheet per cwt of member milk, by size of cooperative, 2002

Item	Size Group		
	Small ¹	Medium ²	Large ³
	<i>Dollars per cwt of member milk</i>		
Current assets	2.01	2.90	2.80
Net PP&E ⁴ and other assets	1.48	1.84	3.00
Investments in other co-ops	.85	.35	.52
Total assets	4.34	5.09	6.33
Current liabilities	.93	2.24	2.41
Long-term liabilities	.24	.69	1.84
Total liabilities	1.16	2.93	4.24
Total equity	3.18	2.16	2.09
Total liabilities and equity	4.34	5.09	6.33
Member milk (million pounds)	411	11,603	122,978

Note: Totals may not add due to rounding

¹ Cooperatives that handled less than 50 million pounds of milk

² Cooperatives that handled 50 million to 1 billion pounds of milk

³ Cooperatives that handled 1 billion pounds of milk or more

⁴ Property, plant and equipment.

Common-Sized Financial Profile

In the previous section, consolidated financial statements were common-sized on a per-cwt basis by dividing the balance sheet and operating statement items by the volume of milk handled. This part follows the more conventional approach by using total assets (balance sheet) or total income (operating statement) as the common denominator. This method facilitates comparison of different types and sizes of cooperatives, providing an additional means for an individual dairy cooperative to compare its financial structure with these profiled cooperatives.

Balance Sheet

The balance sheet elements are expressed as a percent of total assets in table 10. Overall, current assets made up 45.2 percent of dairy cooperatives' total assets. Net property, plant and equipment (PPE) and other fixed assets constituted 46.7 percent. Investments in other cooperatives came to 8.2 percent of total assets. On the debt side, total liabilities came to 66.3 percent of total assets. Current liabilities were 38.4 per-

cent of total assets, while long-term liabilities made up 27.9 percent. Member equity represented 33.7 percent of the total assets used by cooperatives to market member milk.

There were differences in the financial structure of the dairy cooperatives depending upon their operating type. Bargaining-only cooperatives had the largest proportion of total assets represented by current assets (74.6 percent) among the 4 types. Current assets made up between 24.9 percent (niche-marketing cooperatives) and 52.8 percent (commodity-manufacturing cooperatives) of total assets for the other types. And accordingly, bargaining-only cooperatives had a lower rate of investment in PP&E and fixed assets (19.7 percent) than did the other types, reflecting their lack of facilities. In contrast, 66.8 percent of the niche-marketing cooperatives' assets were made up of PP&E and fixed assets, the only type where PP&E represented a majority of total assets. Investment in other cooperatives was just over 8 percent of total assets for both niche-marketing and diversified and fluid-processing cooperatives. But investments in other cooperatives

Figure 5—Assets, by size of cooperative, 2002

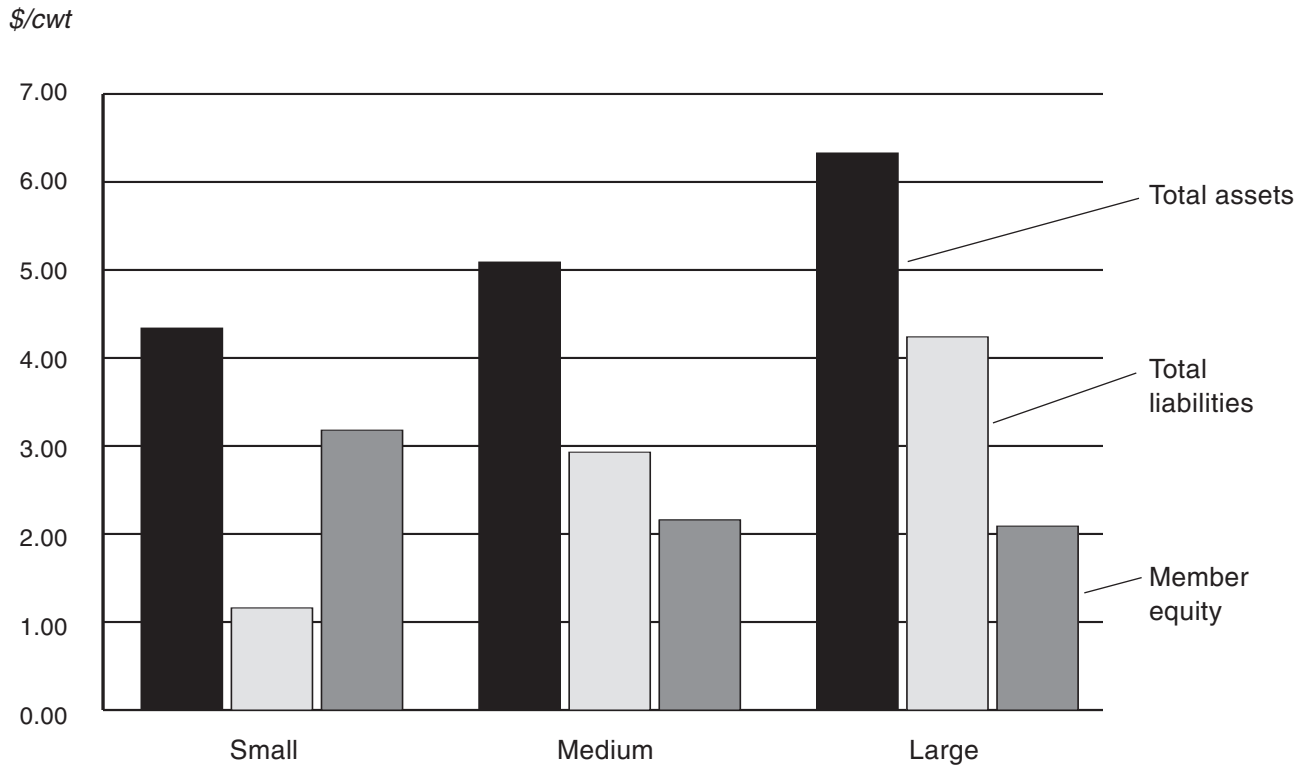


Table 7—Dairy cooperatives' consolidated operating statement, per cwt of total milk handled, 2002

Item	Dollars per cwt
Milk and dairy product sales	15.73
Supply and other sales	2.19
Service receipts and other income	.31
Patronage income	.03
Total income	18.27
Estimated Expenses	18.06
Net margins before tax	.21
Total milk handled	154,806

Note: Totals may not add due to rounding.

came to just 1.9 percent of total assets for the commodity-manufacturing cooperatives and 5.7 percent for bargaining-only cooperatives.

In similar fashion, current liabilities came to 67.9 percent of total assets for bargaining-only cooperatives. In contrast, current liabilities ranged from 18.1 percent of total assets (niche-marketing) to 40.7 percent (commodity-manufacturing) for the other types of cooperatives. Long-term liabilities (debt) ranged from 6.0 percent (bargaining-only cooperatives) to 29.8 percent (diversified and fluid-processing cooperatives) of total assets, reflecting differing levels of investment in plants and facilities and reliance on borrowed capital.

Except for the niche-marketing cooperatives, total liabilities represented a majority of total assets—from 53.0 percent (commodity-manufacturing cooperatives) to 73.8 percent (bargaining-only cooperatives). For the niche-marketing cooperatives, a majority of total assets were supported by member equity (57.9 percent). For the other types, member equity amounted to between 26.2 percent (bargaining-only cooperatives) and 47.0 percent (commodity-manufacturing cooperatives) of total assets. It should be noted, however, that to the extent that most of the bargaining-only cooperatives'

Table 8—Consolidated operating statement per cwt of total milk handled, by type of dairy cooperative, 2002

Item	Type of cooperative			
	Bargaining only	Commodity manufacturing	Niche marketing	Diversified & fluid-processing
	<i>Dollars per cwt</i>			
Milk and dairy product sales	12.84	15.36	18.30	16.69
Supply and other sales	.68	.62	3.44	2.88
Service receipts and other income	.23	.24	.13	.34
Patronage income	.01	.02	.07	.05
Total income	13.75	16.25	21.94	19.96
Total expenses	13.71	16.09	21.62	19.68
Net margins before tax	.04	.15	.32	.27
Milk volume (million pounds)	33,856	13,857	344	106,748

Note: Totals may not add due to rounding.

Figure 6—US dairy cooperative revenues, 2002

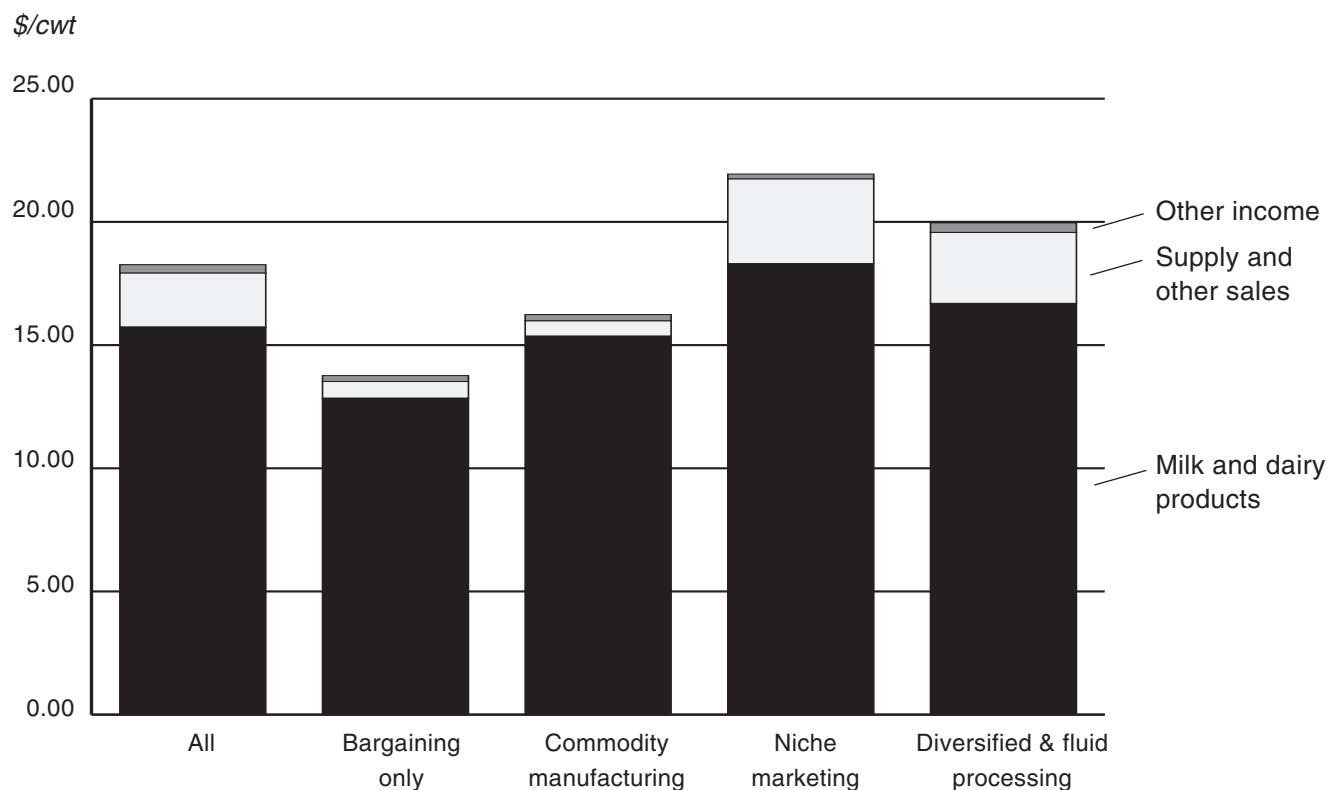


Table 9—Consolidated operating statement per cwt of total milk handled, by size of cooperative, 2002

Item	Size Group		
	Small ¹	Medium ²	Large ³
	<i>Dollars per cwt</i>		
Milk and dairy product sales	13.13	16.74	15.65
Supply and other sales	4.86	.31	2.35
Service receipts and other income	.41	.15	0.32
Patronage income	.14	.03	.03
Total income	18.53	17.23	18.36
Total expenses	18.38	17.00	18.15
Net margins before tax	.16	.23	.21
Total milk handled (million pounds)	411	12,623	141,772

Note: Totals may not add due to rounding.

¹ Cooperatives that handled less than 50 million pounds of milk

² Cooperatives that handled 50 million to 1 billion pounds of milk

³ Cooperatives that handled 1 billion pounds of milk or more

Figure 7—Revenues per cwt, by size of cooperative, 2002

\$/cwt

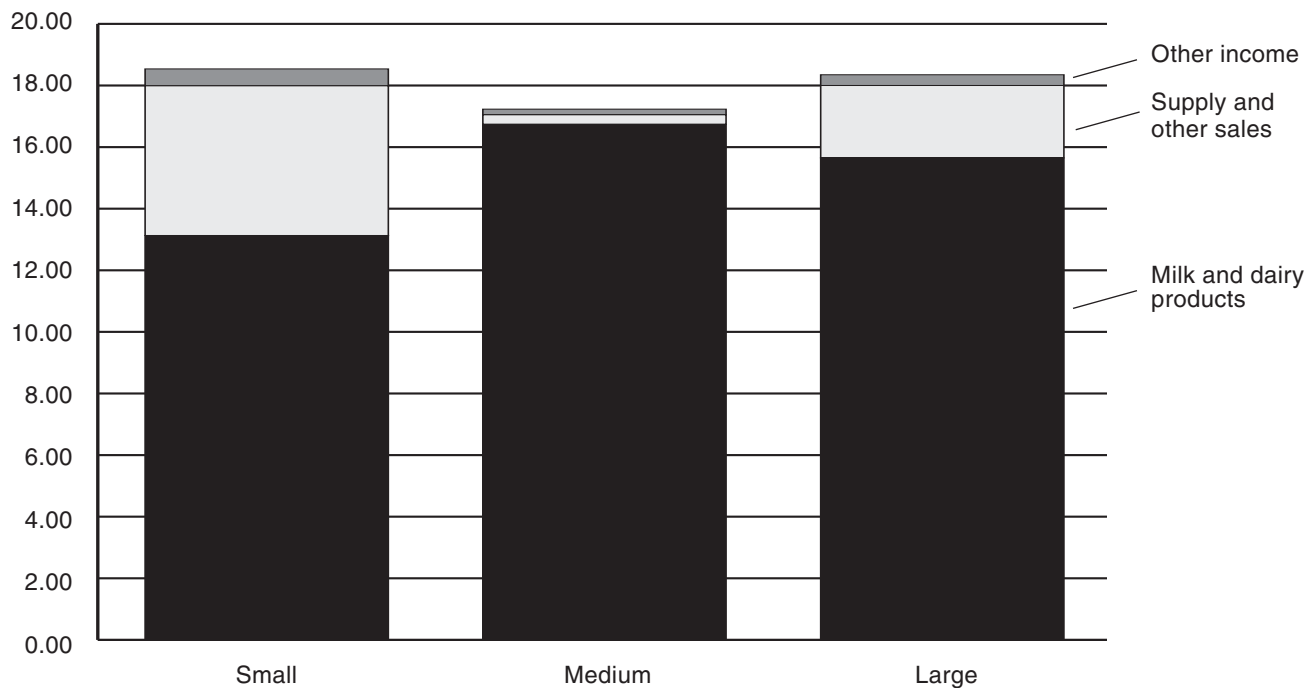


Table 10—Common-sized balance sheet, by type of dairy cooperative, 2002

Item	Bargaining only	Commodity manufacturing	Niche marketing	Diversified & fluid-processing	All
<i>Percent of total assets</i>					
Current assets	74.6	52.8	24.9	43.6	45.2
Net PP&E ¹ and other assets	19.7	45.3	66.8	47.8	46.7
Investment in other co-ops	5.7	1.9	8.3	8.6	8.2
Total assets	100.0	100.0	100.0	100.0	100.0
Current liabilities	67.9	40.7	18.1	37.1	38.4
Long-term liabilities	6.0	12.4	24.0	29.8	27.9
Total liabilities	73.8	53.0	42.1	66.8	66.3
Total equity	26.2	47.0	57.9	33.2	33.7
Liabilities and equity	100.0	100.0	100.0	100.0	100.0

Note: Totals may not add due to rounding.

¹ Property, plant and equipment.

current assets are for payments for member milk, bargaining-only members' claim on assets may be higher than for the other types of cooperatives.

Balance Sheet by Size

Balance sheet items expressed as a percent of total assets are shown by size of dairy cooperative in table 11. The structure of the balance sheet varied among the different size groups. Current assets made up a similar proportion of total assets for small (46.3 percent) and large cooperatives (44.3 percent) in contrast with the medium cooperatives (57.0 percent). However, property, plant and equipment, and other assets' share of total assets were more similar for small and medium cooperatives (34.0 and 36.1 percent, respectively) than for the large cooperatives (47.5 percent). Small cooperatives reported the highest level of investments in other cooperatives (19.7 percent), while it was just 6.9 percent for medium cooperatives and 8.2 for large cooperatives.

Total liabilities made up a larger and larger proportion of total assets as the size group increased. The range was relatively large (26.8 to 67.0 percent). Accordingly, the reverse pattern was seen for total member equity, ranging from 33.0 percent for the large cooperatives to 73.2 percent for the small cooperatives.

Operating Statement

The operating statement items for all dairy cooperatives and by type were expressed as a percent of total income in table 12. As could be expected, milk and dairy product sales accounted for the bulk of total income (86.1 percent, overall). Net margins to income, which reflects the profit margin of the cooperative (before paying income taxes), came to 1.2 percent, overall, in 2002.

Most of the commodity-manufacturing cooperatives' income came from milk and dairy product sales (94.6 percent), while bargaining-only cooperatives' amounted to slightly less (93.4 percent). Milk and dairy product sales were a smaller proportion of total income for niche-marketing cooperatives (83.4 percent) and diversified and fluid-processing cooperatives (83.6 percent) because these two types had relatively higher supply and other sales (15.7 and 14.4 percent, respectively).

Niche-marketing and diversified and fluid-processing cooperatives realized the highest profit margins (1.4 percent of total income, each). Bargaining-only cooperatives generated the lowest net margins to sales ratio (0.3 percent of total income), while commodity-manufacturing cooperatives were in the middle (0.9 percent).

Table 11—Common-sized balance sheet, by size of dairy cooperative, 2002

Item	Size Group		
	Small ¹	Medium ²	Large ³
	<i>Percent of total assets</i>		
Current assets	46.3	57.0	44.3
Net PP&E ⁴ and other assets	34.0	36.1	47.5
Investments in other co-ops	19.7	6.9	8.2
Total assets	100.0	100.0	100.0
Current liabilities	21.4	44.0	38.0
Long term liabilities	5.5	13.5	29.0
Total liabilities	26.8	57.6	67.0
Total equity	73.2	42.4	33.0
Liabilities and equity	100.0	100.0	100.0

Note: Totals may not add due to rounding.

¹ Cooperatives that handled less than 50 million pounds of milk

² Cooperatives that handled 50 million to 1 billion pounds of milk

³ Cooperatives that handled 1 billion pounds of milk or more

⁴ Property, plant and equipment.

Operating Statement by Size

Operating statements expressed as a percent of total income according to size of cooperative are shown in table 13. Milk and dairy product sales made up the bulk of total income for medium cooperatives (97.1 percent). Small cooperatives' milk and dairy product sales accounted for just 70.8 percent of total income, while supply sales made up 26.2 percent. Large cooperatives' supply and other sales came to 12.8 percent of total income, while milk and dairy product sales amounted to 85.2 percent.

Small cooperatives had the lowest net-margins-before-taxes-to-sales ratio (0.8 percent of total income), which was about one-half that of the medium and large cooperatives (1.4 and 1.2 percent, respectively).

Ratios

The relationships between various items in the balance sheet and operating statement can be used to analyze comparative dairy cooperative performance. The overall ratios and by type are shown in table 14, while those calculated according to size are presented in table 15.

Liquidity

The ability to meet current obligations can be evaluated by calculating the cooperatives' current ratio—current assets divided by current liabilities. Overall, cooperatives had \$1.18 in current assets for each \$1 of current liabilities. Niche-marketing cooperatives and commodity-manufacturing cooperatives appeared to be in the best position to meet current obligations (current ratios of 1.38 and 1.30, respectively). Bargaining-only cooperatives and diversified and fluid-processing cooperatives had \$1.10 and \$1.18, respectively, to meet each \$1 of current obligations. The ability to meet current obligations appeared to weaken as the size of cooperative increased—from 2.17 for small cooperatives to 1.17 for large cooperatives.

Another measure of short-term solvency is current liabilities divided by total assets. For all cooperatives, the ratio was 0.38, indicating that cooperatives had 38 cents of current liabilities for each \$1 of assets held. Bargaining-only cooperatives' ratio was the largest among the different types of dairy cooperatives (0.68). In comparison, niche-marketing cooperatives had the lowest level of current liabilities in relation to total assets (0.18). Commodity-manufacturing and diversified and fluid-processing cooperatives were in

Table 12—Common-sized operating statement, by type of dairy cooperative, 2002

Item	Bargaining only	Commodity manufacturing	Niche marketing	Diversified & fluid-processing	All
<i>Percent of total income</i>					
Milk and dairy product sales	93.4	94.6	83.4	83.6	86.1
Supply and other sales	4.9	3.8	15.7	14.4	12.0
Service receipts and other income	1.6	1.5	0.6	1.7	1.7
Patronage refunds	0.0	0.1	0.3	0.2	0.2
Total income	100.0	100.0	100.0	100.0	100.0
Total expenses	99.7	99.1	98.6	98.6	98.8
Net margins before tax	0.3	0.9	1.4	1.4	1.2

Note: Totals may not add due to rounding.

Table 13—Common-sized operating statement, by size of dairy cooperative, 2002

Item	Size Group		
	Small ¹	Medium ²	Large ³
<i>Percent of total income</i>			
Milk and dairy product sales	70.8	97.1	85.2
Supply and other sales	26.2	1.8	12.8
Service receipts and other income	2.2	0.9	1.7
Patronage refunds	0.7	0.2	0.2
Total income	100.0	100.0	100.0
Total expenses	99.2	98.6	98.8
Net margins before tax	0.8	1.4	1.2

Note: Totals may not add due to rounding.

¹ Cooperatives that handled less than 50 million pounds of milk

² Cooperatives that handled 50 million to 1 billion pounds of milk

³ Cooperatives that handled 1 billion pounds of milk or more

the middle with short-term solvency positions of 41 cents and 37 cents of current liabilities per \$1 of assets, respectively. Current liabilities ranged from 21 percent of total assets for small cooperatives to 44 percent for medium cooperatives. The ratio was 0.38 for the large cooperatives.

Long-Term Solvency

Longer-term measures of financial health compare obligations with assets or equity. Total long-term liabilities divided by member equity shows the level which members are providing the cooperative's risk

capital. Overall, long-term liabilities came to 83 percent of total equity in 2002. Relative to the other types, diversified and fluid-processing cooperatives had a markedly higher level of long-term liabilities compared with member equity (90 cents of long-term liabilities for each \$1 of member equity). Bargaining-only cooperatives had the lowest ratio (23 cents per \$1 of equity), followed closely by commodity-manufacturing cooperatives (26 cents). Niche-marketing cooperatives reported 41 cents of long-term liabilities for each

Table 14—Financial ratios, by type of dairy cooperative, 2002

Item	Bargaining only	Commodity manufacturing	Niche marketing	Diversified & fluid-processing	All
<i>Ratio</i>					
Capitalization					
Current ratio (working capital)	1.10	1.30	1.38	1.18	1.18
Current liabilities to total assets	.68	.41	.18	.37	.38
Long-term liabilities to equity	.23	.26	.41	.90	.83
Total liabilities to total assets	.74	.53	.42	.67	.66
Equity to total assets	.26	.47	.58	.33	.34
Equity to fixed assets and investments	1.03	1.00	.77	.59	.61
<i>Percent</i>					
Profitability					
Return ¹ on equity	17.2	10.5	5.5	11.7	11.7
Return ² on fixed assets	18.5	14.1	5.0	9.4	9.7
Return ² on total assets	4.7	6.7	3.7	5.3	5.3

¹ Net margins **after** interest expense used in calculation.

² Net margins **before** taxes and interest expense used in calculation.

\$1 of equity. The ratio improved as the size group decreased—ranging from 0.88 for the large cooperatives to 0.07 for the small cooperatives.

Total liabilities divided by total assets indicates the portion of total assets financed by long- and short-term creditors. Overall, dairy cooperatives had 66 cents of total liabilities (which may include milk payments owed to members) for each \$1 of total assets. In other words, members supplied 34 cents of each \$1 of capital employed by the cooperatives. Bargaining-only cooperatives had the highest ratio of total liabilities to total assets (0.74); however, most of the bargaining-only cooperatives' liabilities are current obligations (the bulk of which are to members for milk). Diversified and fluid-processing cooperatives had a ratio of 0.67 while commodity-manufacturing cooperatives' total liabilities to total assets was 0.53. Niche-marketing cooperatives had the lowest ratio (0.42), and correspondingly had the most capital supplied by members (58 cents of equity for each \$1 of assets).

The level of liabilities in relation to assets increased as size increased. Correspondingly, small cooperatives used the most member equity in relation to total assets, 73 cents per \$1 assets, while large cooperatives were financed by just 33 cents of member equity for each \$1 they had in assets.

Fixed assets and investments are the most permanent assets owned by cooperatives. The ratio of member equity to fixed assets and investments indicates the

degree to which these permanent assets are financed by the most permanent capital, member's equity. Overall, cooperatives had 61 cents in equity for each \$1 invested in fixed assets and investments. Bargaining-only and commodity-manufacturing cooperatives had ratios of 1.03 and 1.00, respectively, indicating an ability to finance all of their fixed assets and investments with member capital. For niche-marketing and diversified and fluid-processing cooperatives, fixed assets and investments were supported by capital from outside sources (77 and 59 cents of member equity for each \$1 of fixed assets and investments, respectively).

The ratio of equity to fixed assets and investments dropped sharply as size category increased. The ratio for small cooperatives (1.36) was more than twice that of large cooperatives (0.59). Medium cooperatives had a ratio of 0.99.

Return on Investment

Return to members', lenders', or other's investment in a cooperative can be measured in several ways. The ratios calculated here indicate a cooperative's success in providing a financial return on member investment. In a dairy cooperative, "profit" may be an elusive term, and depends largely on the cooperative's pricing policy. Profits may be lower if a cooperative's board decides to pay higher milk prices, premiums, etc. (but in that case, the membership may benefit from the relatively higher prices).

Table 15—Financial ratios, by size of dairy cooperative, 2002

Item	Size Group		
	Small ¹	Medium ²	Large ³
	<i>Ratio</i>		
Capitalization			
Current ratio (working capital)	2.17	1.29	1.17
Current liabilities to total assets	.21	.44	.38
Long-term liabilities to equity	.07	.32	.88
Total liabilities to total assets	.27	.58	.67
Equity to total assets	.73	.42	.33
Equity to fixed assets and investments	1.36	.99	.59
	<i>Percent</i>		
Profitability			
Return ⁴ on equity	4.9	12.3	11.7
Return ⁵ on fixed assets	7.2	13.5	9.5
Return ⁵ on total assets	3.9	5.8	5.3

¹ Cooperatives that handled less than 50 million pounds of milk

² Cooperatives that handled 50 million to 1 billion pounds of milk

³ Cooperatives that handled 1 billion pounds of milk or more

⁴ Net margins **after** interest expense used in calculation.

⁵ Net margins **before** taxes and interest expense used in calculation.

Return on equity measures profitability relative to member investment after all claims on those returns are accounted for. Net margin after interest expense (creditor's claim) divided by total member equity was 11.7 percent for dairy cooperatives overall. Ideally, return to member equity (the opportunity cost of investing in the cooperative) should equal or exceed what they could earn if the capital were invested elsewhere. (Insufficient data was obtained to calculate the net margin after taxes). Return on equity ranged from 5.5 percent for niche-marketing cooperatives to 17.2 percent for bargaining-only cooperatives in 2002.

By size, return on equity ranged from 4.9 percent (small cooperatives) to 12.3 percent (medium cooperatives). Large cooperatives had an 11.7 percent return on member equity invested in the cooperative.

Return on fixed assets measures return to cooperative investment in plant, property and equipment, other assets and in other cooperatives. Net margins before taxes and interest are used to show the return to cooperative assets regardless of who has a claim on those returns, i.e., before any claims on those returns are made by government (taxes) or creditors (interest). Return on fixed assets was 9.7 percent overall—lowest for the niche-marketing cooperatives (5.0 percent) and highest for the bargaining-only cooperatives (18.5 percent).

Return on total assets (net margins before taxes and interest expense divided by total assets) measures the effectiveness of the cooperative in employing its assets to generate profits, and was 5.3 percent for all dairy cooperatives. Commodity-manufacturing cooperatives generated the highest return on assets (6.7 percent), followed by diversified and fluid-processing cooperatives (5.3 percent). Bargaining-only cooperatives realized a 4.7 percent return to the assets employed in marketing milk, and niche-marketing cooperatives yielded the lowest return to total assets (3.7 percent). By all measures of profitability, the medium cooperatives had the highest returns, and small cooperatives the lowest.

Average

Computing the average (per cooperative) financial statement for each type of cooperative highlights the differences in magnitude between the various types (table 16 and appendix table 3). It is readily apparent that diversified and fluid-processing cooperatives were the largest cooperatives on average, in terms of total assets, milk and dairy product sales, net margins, and volume of milk handled. On average, a diversified and fluid-processing cooperative used

\$473.7 million in assets—more than 70 times the assets used by bargaining-only cooperatives on average (\$6.5 million per cooperative—the lowest of the operating types). Niche-marketing cooperatives were also relatively small in terms of assets—\$8.6 million per cooperative. However, they handled the smallest net volume of milk (86 million pounds). Commodity-manufacturing cooperatives were a distant second in terms of assets (\$42.7 million per cooperative) and average milk volume handled (1.3 billion pounds).

Diversified and fluid-processing cooperatives' average milk and dairy product sales averaged \$1.1 billion per cooperative, far exceeding those of the other types. Commodity-manufacturing had the next largest milk and dairy product sales (\$212.9 million per cooperative). Niche-marketing cooperatives had the lowest average milk and dairy product sales (\$15.7 million), with bargaining-only cooperatives coming in with \$86.9 million per cooperative.

Diversified and fluid-processing cooperatives had the highest average net margins (\$18.3 million per cooperative). Niche-marketing and bargaining-only cooperatives had the same net margins before tax on a per-cooperative basis (\$300,000). Commodity-manufacturing cooperatives' net margin averaged \$2.1 million per cooperative.

Comparison to 1997

Comparison can be made with the results from the 1997 report (appendix table 4). However, it must be kept in mind that there were differences in the sets of cooperatives used for each study. For example, twice as many niche-marketing cooperatives ("branded cheese" in 1997) provided financial data in 1997 than in 2002, representing 47.4 and 22.2 percent of all niche-marketing cooperatives in each year, respectively).

The balance sheet items per cwt were similar between 1997 and 2002 (table 17 and figure 8). Total asset use per cwt of member milk was nearly \$1 per cwt higher in 2002—\$6.22 per cwt compared with \$5.25 per cwt in 1997. The increase can be attributed to an increase in debt capital—from \$3.18 in 1997 to \$4.13 in 2002. Member equity per cwt was similar in 1997 and 2002 (\$2.07 and \$2.10, respectively).

Milk and dairy product sales per cwt of total milk handled were considerably lower in 2002 (\$15.73 versus \$18.75 in 1997), a result of lower average milk prices in 2002 relative to 1997 (figure 9). Net margins before tax, however, were not markedly lower—\$0.21 per cwt

in 2002 compared with \$0.28 per cwt in 1997. And net margins to sales were similar: 1.2 and 1.3 percent, respectively, in 2002 and 1997.

Comparisons between 2002 and 1997 by operating type of cooperative are also shown in table 17. Niche-marketing cooperatives used about the same level of assets in 2002 as in 1997. Bargaining-only cooperatives were the only operating type to report fewer assets per cwt of milk in 2002, relative to 1997. However, in both years niche-marketing cooperatives had the highest level of total assets per cwt followed by diversified and fluid-processing cooperatives, while bargaining-only cooperatives had the lowest. The relative positions of the four operating types followed the same pattern for total liabilities and equity per cwt, also.

Commodity-manufacturing cooperatives were the only operating type where milk and dairy product sales were higher in 2002 than in 1997. Diversified and fluid-processing cooperatives reported the highest total income per cwt in 1997, while niche-marketing cooperatives' total income was highest in 2002. And bargaining-only cooperatives had the lowest total income in 2002, whereas commodity-manufacturing cooperatives had the lowest in 1997.

Finally, net margins before tax per cwt were lower in 2002 than in 1997 for all operating types. And in both years, niche-marketing cooperatives had the highest net margins before taxes, followed by diversified and fluid-processing cooperatives. Bargaining-only cooperatives had the lowest net margins both years.

Table 16—Average financial profile of dairy cooperatives, by type, 2002

Item	Bargaining only	Commodity manufacturing	Niche marketing	Diversified & fluid-processing	All
<i>Million dollars per cooperative</i>					
Total assets	6.5	42.7	8.6	473.7	104.6
Total liabilities	4.8	22.7	3.6	316.6	69.3
Total equity	1.7	20.0	5.0	157.1	35.2
Milk and dairy product sales	86.9	212.9	15.7	1,113.7	304.5
Net margins before tax	.3	2.1	.3	18.3	4.1
Milk handled per cooperative (million pounds) ¹	644	1,286	86	5,887	1,745

Note: Totals may not add due to rounding.

¹ Net of inter-cooperative transfers.

Table 17—Comparison of financial profile dairy cooperatives per cwt, 1997 and 2002, by type

Item	Bargaining only	Commodity manufacturing	Niche marketing	Diversified & fluid-processing	All
<i>\$ per cwt of member milk</i>					
Total assets					
2002	1.02	3.41	10.03	8.44	6.22
1997	1.21	3.06	10.07	6.96	5.25
Total liabilities					
2002	0.76	1.81	4.23	5.64	4.13
1997	0.84	1.87	5.60	4.18	3.18
Equity					
2002	0.27	1.60	5.80	2.80	2.10
1997	0.37	1.19	4.48	2.78	2.07
<i>(Million pounds)</i>					
Member milk					
2002	31,772	12,535	344	89,800	134,451
1997	19,538	21,334	1,263	70,093	112,228
<i>\$ per cwt of total milk handled</i>					
Milk & dairy product sales					
2002	12.84	15.36	18.30	16.69	15.73
1997	14.63	14.77	23.16	21.09	18.75
Total income					
2002	13.75	16.25	21.94	19.96	18.27
1997	16.71	15.20	24.04	24.36	21.25
Net margins before tax					
2002	0.04	0.15	0.32	0.27	0.21
1997	0.06	0.26	0.87	0.34	0.28
<i>Number</i>					
Number of cooperatives					
2002	50	10	4	16	80
1997	45	14	9	20	88
<i>(million pounds)</i>					
Total milk handled					
2002	33,856	13,857	344	106,748	154,806
1997	21,443	22,799	1,420	75,495	121,157

Note: Totals may not add due to rounding.

Figure 8—Dairy cooperative assets, 1997 and 2002

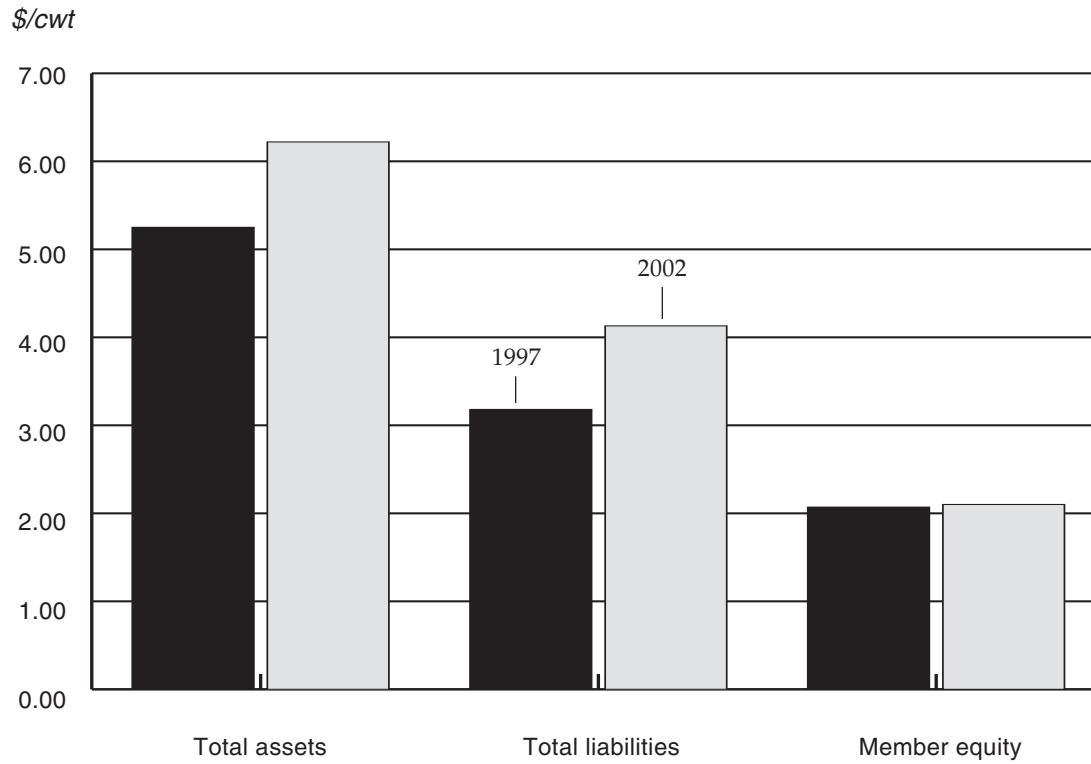
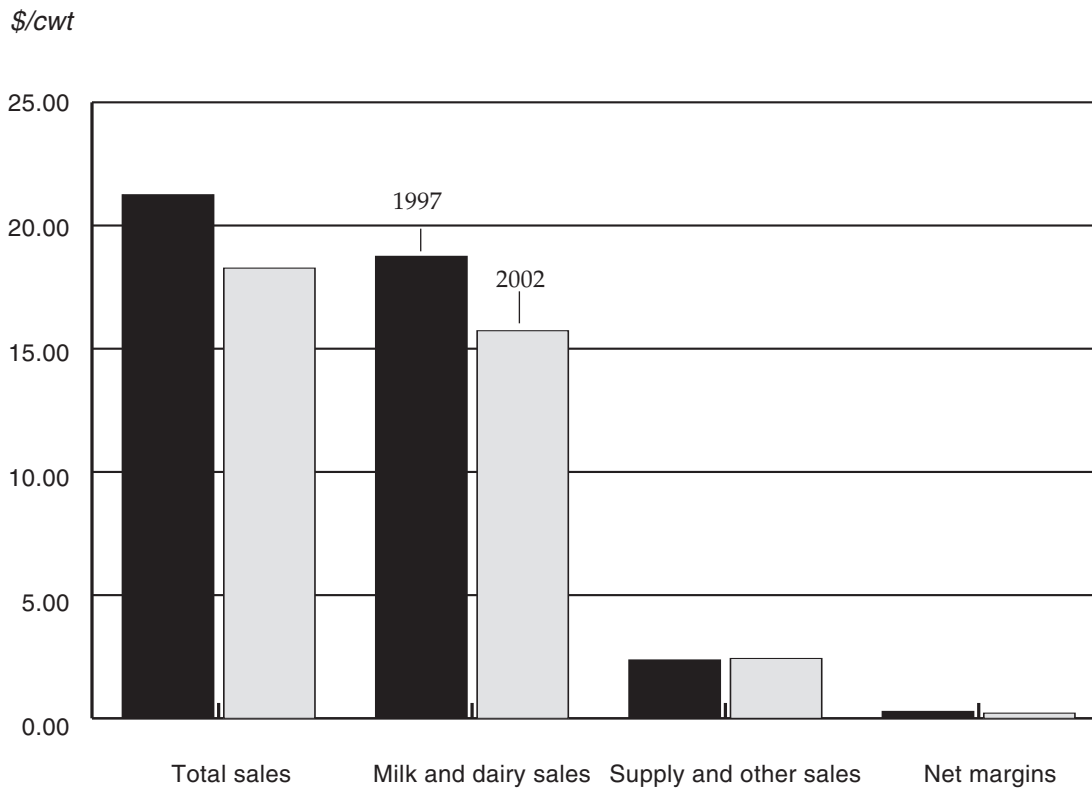


Figure 9—Sales and net margins, dairy cooperatives, 1997 and 2002



Appendix table 1—**Consolidated financial statements by type of dairy cooperative, 2002**

Item	Type of cooperative				
	Bargaining only	Commodity manufacturing	Niche marketing	Diversified & fluid-processing	All financial profile dairy cooperatives
	\$1,000				
Balance sheet					
Current assets	242,467	225,550	8,605	3,302,211	3,778,832
Net PP&E ¹ and other assets	64,153	193,275	23,033	3,622,543	3,903,003
Investment in other co-ops	18,402	8,252	2,858	654,109	683,622
Total assets	325,022	427,077	34,496	7,578,863	8,365,457
Current liabilities	220,658	173,629	6,257	2,810,056	3,210,600
Long-term liabilities	19,366	52,878	8,278	2,255,429	2,335,951
Total liabilities	240,024	226,507	14,535	5,065,485	5,546,551
Total equity	84,998	200,570	19,961	2,513,378	2,818,906
Liabilities and equity	325,022	427,077	34,496	7,578,863	8,365,457
Sales and Income					
Milk & dairy product sales	4,347,010	2,128,958	62,956	17,819,484	24,358,409
Supply and other sales	229,490	86,090	11,827	3,069,915	3,397,319
Service receipts & other income	76,631	33,046	449	365,142	475,269
Patronage refunds	1,983	3,065	234	48,598	53,881
Total income	4,655,114	2,251,159	75,466	21,303,139	28,284,878
Total expenses	4,640,474	2,230,012	74,376	21,009,912	27,954,774
Net margins before tax	14,640	21,147	1,090	293,227	330,104
Number of cooperatives	50	10	4	16	80
Milk handled (million pounds) ²	32,200	12,855	344	94,196	139,595

Note: Totals may not add due to rounding.

¹ Property, plant and equipment.

² Total milk volume handled by cooperatives, net of inter-cooperative transfers.

Appendix table 2—Consolidated financial statements, by size of dairy cooperative, 2002

Item	Size Group		
	Small ¹	Medium ²	Large ³
		<i>\$1,000</i>	
Balance sheet			
Current assets	8,260	321,336	3,449,236
Net PP&E ⁴ and other assets	6,063	203,375	3,693,565
Investment in other co-ops	3,507	38,933	641,182
Total assets	17,830	563,644	7,783,983
Current liabilities	3,808	248,142	2,958,650
Long-term liabilities	972	76,242	2,258,736
Total liabilities	4,780	324,384	5,217,386
Total equity	13,050	239,260	2,566,597
Liabilities and equity	17,830	563,644	7,783,983
Sales and Income			
Milk and dairy product sales	53,944	2,113,020	22,191,445
Supply and other sales	19,981	39,489	3,337,849
Service receipts and other income	1,683	18,965	454,621
Patronage refunds	555	3,982	49,344
Total income	76,163	2,175,456	26,033,259
Expenses	75,525	2,145,990	25,733,258
Net margins after tax	638	29,466	300,001
Number of cooperatives	22	34	24
Milk handled (million lbs) ⁵	411	11,568	127,616

Note: Totals may not add due to rounding.

¹ Cooperatives that handled less than 50 million pounds of milk

² Cooperatives that handled 50 million to 1 billion pounds of milk

³ Cooperatives that handled 1 billion pounds of milk or more

⁴ Property, plant and equipment.

⁵ Volume of milk handled by cooperative, net of inter-cooperative transfers.

Appendix table 3—Average financial statements of dairy cooperatives, by type, 2002

Item	Type of cooperative				
	Bargaining only	Commodity manufacturing	Niche marketing	Diversified & fluid-processing	All financial profile dairy cooperatives
<i>\$1,000 per cooperative</i>					
Balance sheet					
Current assets	4,849	22,555	2,151	206,388	47,235
Net PP&E ¹ and other assets	1,283	19,328	5,758	226,409	48,788
Investment in other co-ops	368	825	715	40,882	8,545
Total assets	6,500	42,708	8,624	473,679	104,568
Current liabilities	4,413	17,363	1,564	175,629	40,133
Long-term liabilities	387	5,288	2,070	140,964	29,199
Total liabilities	4,800	22,651	3,634	316,593	69,332
Total equity	1,700	20,057	4,990	157,086	35,236
Liabilities and equity	6,500	42,708	8,624	473,679	104,568
Sales and Income					
Milk and dairy product sales	86,940	212,896	15,739	1,113,718	304,480
Supply and other sales	4,590	8,609	2,957	191,870	42,466
Service receipts and other income	1,533	3,305	112	22,821	5,941
Patronage refunds	40	307	59	3,037	674
Total income	93,102	225,116	18,867	1,331,446	353,561
Expenses	92,809	223,001	18,594	1,313,120	349,435
Net margins before tax	293	2,115	273	18,327	4,126
Milk handled per cooperative (million pounds) ²	644	1,286	86	5,888	1,745

Note: Totals may not add due to rounding.

¹ Property, plant and equipment.

² Average milk volume handled per cooperative, net of inter-cooperative transfers.

Appendix table 4—Consolidated financial statements by type of dairy cooperative, 1997

Item	Type of cooperative				
	Bargaining only	Commodity manufacturing	Niche marketing	Diversified & fluid-processing	All financial profile dairy cooperatives
<i>\$1,000 per cooperative</i>					
Balance sheet					
Current assets	178,222	392,410	83,735	2,591,306	3,245,673
Net PP&E ¹	33,014	236,090	38,631	1,705,193	2,012,928
Investment in other co-ops	<u>25,055</u>	<u>24,355</u>	<u>4,843</u>	<u>582,254</u>	<u>636,507</u>
Total assets	236,291	652,855	127,209	4,878,753	5,895,107
Current liabilities	156,075	323,281	59,251	1,997,950	2,536,557
Long-term liabilities	<u>7,231</u>	<u>76,093</u>	<u>11,432</u>	<u>935,204</u>	<u>1,029,960</u>
Total liabilities	163,306	399,374	70,683	2,933,154	3,566,517
Equity	72,985	253,481	56,526	1,945,599	2,328,590
Liabilities and equity	236,291	652,855	127,209	4,878,753	5,895,107
<i>Million dollars</i>					
Sales and Income					
Milk & dairy product sales	3,137.7	3,367.6	292.9	15,920.6	22,718.9
Supply and other sales	387.5	35.3	9.8	2,283.5	2,716.2
Service receipts & other income	56.3	56.1	0.9	119.5	232.7
Patronage refunds	<u>2.2</u>	<u>5.8</u>	<u>0.4</u>	<u>65.8</u>	<u>74.2</u>
Total income	3,583.7	3,464.8	304.0	18,389.4	25,741.9
Total expenses	3,571.3	3,404.9	291.6	18,130.9	25,398.6
Net margins before tax	12.4	59.9	12.4	258.5	343.3
Number of cooperatives	45	14	9	20	88
Milk handled (million pounds) ²	19,632	21,909	1,265	71,627	114,432

Note: Totals may not add due to rounding.

¹ Property, plant and equipment.

² Total milk volume handled by cooperatives, net of inter-cooperative transfers

U.S. Department of Agriculture

Rural Business–Cooperative Service

Stop 3250

Washington, D.C. 20250-3250

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The cooperative segment of RBS (1) helps farmers and other rural residents develop cooperatives to obtain supplies and services at lower cost and to get better prices for products they sell; (2) advises rural residents on developing existing resources through cooperative action to enhance rural living; (3) helps cooperatives improve services and operating efficiency; (4) informs members, directors, employees, and the public on how cooperatives work and benefit their members and their communities; and (5) encourages international cooperative programs. RBS also publishes research and educational materials and issues *Rural Cooperatives* magazine.

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