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Financial Performance of Local Farm Supply, Marketing Cooperatives, 1997

Abstract

This report analyzes the balance sheets and income statements of local farm supply and marketing cooperatives, comparing 1996 and 1997 and trends over the past 10 years. The data in this report represent four cooperative sizes and types. Common size income statements and balance sheets are used to compare different cooperative sizes and types. Trends for major balance sheet and income statement items and ratio analysis are used to compare and contrast cooperatives by size and type.

Key ***words:*** Cooperatives, balance sheet, income statement, farm supply, marketing, sales, and financial ratios.

Financial Performance of Local Farm Supply, Marketing Cooperatives, 1997

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Preface

This report studied the financial statements of local cooperatives, comparing 1996, 1997, and the past 10 years. Trends of major balance sheet and income statement items as well as financial ratios are presented for four cooperative sizes and types. The information provides cooperative managers and boards of directors with a basis to compare their cooperatives' historical performance with representative cooperative data.

The authors thank the cooperatives that provided their financial statements to RBS and made this report possible. Special thanks to RBS staffer Eldon Eversull for review of the initial draft.

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Highlights

Financial statements of 386 local farm supply and marketing cooperatives were used to compare trends over the past 10 years. Cooperatives were divided into four groups based on their mix of net sales between supplies sold and farm products marketed. They were also divided into four size categories, based on their total sales volume.

Average net income increased 7 percent from 1996 to 1997. In 1997, average net sales for all cooperatives studied was $13.3 million, down 0.8 percent from 1996. More than 36 percent of the cooperatives studied were small cooperatives with sales of less than $5 million.

Cooperatives are important to rural communities' economies by employing an average 22 full-time and 12 part-time employees with an average annual payroll of $788,000.

Petroleum products and fertilizer were the two principal farm supplies sold and represent 39 and 16 percent sales for small cooperatives. Farm supply sales provided just over half of the operating income for these cooperatives.

Average total assets grew 2 percent between 1996 and 1997, while total liabilities were down by about the same amount. This contrasts the double digit growth in total assets in both 1995 and 1996, fueled by large increases in (mainly grain) inventories. Owner equities increased 7 percent, while total borrowed funds decreased almost 13 percent.

With less borrowed funds, interest expenses declined 24 percent. The local savings category was up 19 percent, patronage refunds received was up 3 percent and net income was up 7 percent. Financial ratio analysis measured 1 O-year trends for the 386 cooperatives in the data base. The analysis revealed these findings:

- The current ratio was fairly steady at around 1.4 between 1995 and 1997. The quick ratio mimicked the current ratio's trend.

- Total debt ratio was 0.45 in 1997, higher than the early 1990's but lower than the high of 0.47 in 1995 and 1996.

- The fixed-asset-turnover ratio, a measure of asset use, has averaged at least 9.7 to 11.9 for the entire period (i.e., net sales were 9.7 to 11.9 times property, plant, and equipment levels).

- Return-on-total-assets measures the rate of return on total investments. At 8.7 percent, this measure was down slightly from 1996.

- Return-on-total-equity before taxes has remained between 9.2 and 11.2 in the decade studied.

- Total-asset-turnover and gross margin remained constant throughout the 10-year period.

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Introduction

With the freedom-to-farm legislation, local agricultural cooperatives are being relied on to play an increasingly important role in helping farmers to help themselves. Local cooperatives are owned by their farmer-members and are at the forefront developing ways for farmers to add value to their crops and provide a source of quality supplies at reasonable costs. This report analyzes the financial statements of these local agricultural cooperatives for comparative purposes for their managers, directors, and members. Ratio analysis and trends will be discussed. To make the information more useful, the presentation is subdivided into four cooperative sizes and four types.

The 386 local cooperatives had farm supply sales (petroleum, fertilizer, feed, etc.) that averaged $7 million in 1997 while marketing sales (corn, wheat, soybeans, etc.) averaged $6.3 million. Income from services (product delivery, fertilizer application, grains and oilseeds hauling and storage, etc.) averaged about $500,000 in 1997, up from $400,000 in 1996.

Cooperatives were important not only to their member-patrons but also to local rural communities. Cooperatives paid an average of $37,000 in annual property taxes and often were a large employer in their communities. They employed an average of 22 full-time and 12 part-time employees with an average annual payroll of $788,000.

Cooperative annual reports generally contain the balance sheet and a statement of operations. More detailed reports may contain a statement of changes in patrons' equity and a statement of cash-flows along with explanations detailing various aspects of the financial statements. The manager and the president of the board may also provide a statement on the cooperative's past year operating results and future plans. This study focuses on the balance sheet, income statement, and financial ratios derived from these statements.

Profile of Respondent Cooperatives

Data were derived from an annual survey sent to farmer cooperatives by USDA's Rural Business-Cooperative Service. A participating cooperative had to sell some farm supplies and provide detailed financial statements. No exclusively marketing cooperatives were included.

There were 386 cooperatives in the RBS's Farm Supply and Services (FSS) database from 1988 through 1997. To obtain a more complete understanding of the local cooperatives' business, information in this report is divided into a cross section of four sizes and four types.

Cooperative Size

Cooperatives were grouped into four sales-volume sizes, using actual figures. Sales groupings were the same as in prior reports (see RR 154). Sizes and types of the 386 cooperatives used are summarized in table 1.

Because of differing standards, product mix was not a factor in classifying cooperative size with total sales used alone. For example, a cooperative with $10 million in sales from exclusively marketing grains and oilseeds could be considered small compared with most grains and oilseeds marketing organizations. But, a strictly farm supply cooperative with sales of $10 million, however, was quite substantial.

Cooperative Type

To account for differences in operations and orientation based on product mix, cooperatives were

Table 1—Size and type definitions used for respondent cooperatives

Size/Type	Definition	Number	Percent of total
Small	Sales of $5 million or less	131	34
Medium	Sales over $5 million to $10 million	91	23
Large	Sales over $10 million to $20 million	84	22
Super	Sales over $20 million	80	21
Farm supply	All sales from farm supplies	210	54
Mixed farm supply	50 to 99 percent sales from farm supplies	56	15
Mixed marketing	25 to 49 percent sales from farm supplies	71	18
Marketing	Less than 25 percent sales from farm supplies	49	13

Table 2— Respondent cooperatives by size and type

Cooperative type	Cooperative Size					Percent of total
	Small	Medium	Large	Super	Total	
	Number					Percent
Farm supply	113	58	31	8	210	54
Mixed farm supply	8	14	20	14	56	15
Mixed marketing	6	13	20	32	71	18
Marketing	4	6	13	26	49	13
Total	34	23	22	21	386	100

grouped into one of four descriptive categories: 1) farm supply; 2) mixed farm supply; 3) mixed marketing; and 4) marketing. These descriptions were chosen to represent business operations of these cooperatives as closely as possible and their definitions summarized in table 1.

This report focuses on cooperatives handling farm supplies-54 percent in 1997 sold only farm supplies; 15 percent were mixed; 18 percent were mixed marketing; and 13 percent were marketing (table 2). Thirty-four percent were small, 23 percent medium, 22 percent large, and 21 percent super. Marketing cooperatives tended to be large while the farm supply cooperatives were most often small. Most respondents were small farm supply cooperatives.

The first part of this report focuses on the 386 cooperatives that responded in both 1996 and 1997. Information in the RBS database was not randomly selected and may not be statistically valid to draw industry-wide conclusions. However, the samples are large and represent a cross section of cooperatives selling farm supplies and marketing grains and oilseeds throughout the United States.

The information in this report also goes beyond 386 cooperatives and rural communities. These cooperatives operated 544 branches and had a significant business impact on 930 rural communities in terms of taxes and employment (table 3). Super cooperatives that averaged almost four branch outlets had an impact on more rural communities. Marketing cooperatives averaged two branch outlets.

Sales Mix

The respondent cooperatives sold five major farm supplies and two major products (table 4). Petroleum was the dominant production supply item sold by small and medium cooperatives for both years. Sales of small cooperatives averaged $2.5 million in 1997. Farm production supplies represented the bulk (90 percent) of their sales. As cooperatives grew in size, the importance of farm supplies declined (81 percent for medium-sized cooperatives, 65 percent for large, and 38 percent for super).

Sales by mixed farm supply cooperatives averaged $15 million, with $11 million of it from farm supply sales. Petroleum was the most important farm supply item sold and feed was a close second.

Average sales of marketing and mixed marketing cooperatives were $27 million and $24 million, respectively, and much larger than both categories of farm supply cooperatives. As defined, marketing made up the majority of their sales. Feed, fertilizer, and crop protectants were the most important farm supplies sold for both types of marketing cooperatives.

Table 3— **Average and total number of branches**

Cooperative Size/Type	Average	Total
Small	0.26	34
Medium	0.97	88
Large	1.55	130
Super	3.65	292
Farm supply	1.01	213
Mixed farm supply	1.88	105
Mixed marketing	1.85	131
Marketing	1.94	95
All	1.41	544

Balance Sheet Definitions

Balance sheet assets represent what the cooperative owns and are usually listed in decreasing order of their liquidity-the time it would take to convert them to cash. Liabilities, or what the cooperative owes to others, are usually presented in a similar decreasing order. Equity represents members' investment in their cooperative.

Current asset-These are the most liquid assets on the cooperative balance sheet. Cash *and cash* ***equivalents*** represent monies either in the bank, in short-term investments, or on hand at the cooperative. *Accounts receivable* is money due the cooperative (i.e., a credit sale due from the customer in 90 days). *Znventories* are products the cooperative has purchased from patrons to market and supplies the cooperative hopes to sell to patrons. *Prepaid expenses* are those paid up-front and then expensed as period costs throughout the fiscal year (i.e., taxes or insurance).

Investments in other cooperatives-represent equity held in regional cooperatives through whom local cooperatives market products or purchase supplies and equity in the Bank for Cooperatives or **CoBank,** their lending source. These investments are purchased equity as well as equity (patronage) paid

Table 4— **Average farm supplies sold and products marketed as a percent of total sales and percent change, 1996 to 1997**

Item	1997	1996	Percent change
		Percent	
Farm supplies sold:			
Feed	9.94	8.98	9.85
Seed	1.10	1.02	7.15
Fertilizer	10.98	10.47	4.14
Crop protectants	8.26	7.65	7.18
Petroleum products	16.18	14.75	8.87
Other	6	5.66	5.06
Total	52.46	48.53	7.29
Products marketed:			
Grains, oilseeds, and other	47.54	51.47	-8.35
Total sales	100	100	
Based on sales of:	$13,330,034	$13,432,360	-0.80

back to the cooperative based on use. The more sales through or purchases from the regional cooperative or borrowing from the bank, the larger the investment. Other assets are usually past due accounts receivable not yet considered as bad debt losses.

Property, plant, and equipment-are the fixed assets of the cooperative (i.e., grain bins, office equipment, warehouse, gas station). *Accumulated depreciation* is the sum of all the year's depreciation expenses taken on the assets. Net *property, plant, and equipment* (PP&E) is the book value of the fixed assets-their cost minus accumulated depreciation.

Total assets-are what the cooperative owns—current assets, plus investments, plus net fixed assets equal total assets.

Current liabilities-are obligations the cooperative must pay within the next year. *Accounts payable* is money owed, usually to suppliers (sometimes classified as accounts payable--trade accounts). *Accrued expenses* and *accrued taxes* are unpaid expenses. They often include unpaid salaries and benefits earned by employees. Accrued taxes often include property and sales taxes that have been incurred but not yet. paid. Other *liabilities* in this study are most often accounts payable-grains and oilseeds delivered and sold to the cooperative by its patrons who have not yet been paid. *Retired equity* represents allocated equity that the board has approved to revolve to members but not yet paid as of the closing date of the books. This equity accumulated from past sales to or purchases from patrons-usually revolved to members on a set schedule (often 7 or more years later). *Patronage refunds and dividends* are monies declared but not yet paid to members for current use of the cooperative and for investing in preferred stock.

Cooperatives are required to pay at least 20 percent of their refunds in cash, with the rest becoming allocated equity to be revolved to the members at a later date. The refunds are based on cents per product (weight or bushel) sold and/or on a percent of the dollars of farm supplies purchased. The refunds are determined by the board of directors. Dividends paid on preferred stock ownership are based on a set percent return on the investment. *Current portion of long-term debt and seasonal short-term debt* are the final current liabilities. They are money owed (principal) for borrowing money and for leases. Long-term debt typically is used to finance long-term assets, while short-term debt is usually used for operating or seasonal loans.

Long-term de&t-includes notes, bonds, mortgages, and leases not due within the current year.

Member equities-are member and patron investments in the cooperative. The two main types are allocated and unallocated. *Allocated equity* is assigned to members in one of two forms. *Unallocated equity* is the retained earnings of the cooperative and often thought of as nonmember-nonpatronage business but can also be based on member business.

Analysis of the Balance Sheet

The balance sheet of a local cooperative states its financial position at the end of its 12-month fiscal year. This report analyzes the balance sheets of 386 local cooperatives to provide examples of typical levels for assets, liabilities, and member equities for different sizes and types.

Table 5 compares common-size balance sheets for all respondents for 1996 and 1997. Appendix tables l-4 show common-size balance sheets by size and type for 1997. Each account is listed as a percentage of total assets. The dollar amount of total assets the balance sheets represent is listed at the bottom of the table. For 1997, total assets ranged from $1.3 million for small cooperatives to $14.7 million for super-sized cooperatives. By cooperative type, total assets were $3.4 million for farm supply, $7.4 million for mixed farm supply, $8.5 million for mixed marketing, and nearly $9 million for marketing.

Current Assets

Cash and cash equivalents as a percent of total assets decreased as cooperative size increased except for super-sized cooperatives. For small cooperatives, cash was 9.1 percent of total assets and dropped to 5.4 percent for large cooperatives. Cash and cash equivalents as a percent of total assets for super cooperatives was 7.02 percent (table 6). Mixed marketing cooperatives held the most cash by type (10.2 percent), followed by farm supply cooperatives (5.9 percent) as shown in table 7.

From 1996 to 1997, current assets decreased by 4.3 percent. Most occurred in inventories, principally grains and oilseeds inventories. Overall, these inventories decreased 22 percent while farm supplies increased nearly 3 percent. The dollar value of farm supplies and grains and oilseed inventories increased with cooperative size. Farm supply inventories were larger for mixed farm supply cooperatives and mixed marketing cooperatives. Grain and oilseeds inventories of about 80 percent of the cooperatives declined between 1996 and 1997.

Accounts receivable in this study refer to farm supply trade accounts, not grains and oilseeds. Farm

Table 5— **Common size balance sheet and change, 1996 to 1997**

Item	1997	1996	Percent change
	Percent of assets		
ASSETS			
Current assets			
Cash and cash equivalents	6.76	5.66	22.2
Accounts receivable	12.61	12.34	4.6
Inventories-grain	8.96	11.72	-21.8
-farm supplies	14.77	14.73	2.6
Prepaid expenses	1.26	1.33	-3.3
Other current assets [1]	4.89	6.91	-35.5
Total current assets	49.25	52.69	-4.3
Investments and other assets			
Investments-Other cooperatives	20.88	19.27	14.2
-Bank for cooperatives	1.30	1.23	8.2
-Total	22.18	20.50	10.7
Other assets [2]	1.78	1.60	14.2
Total investments and other assets	23.96	22.09	11.0
Property, Plant, and Equipment			
At cost	67.54	64.08	7.9
Less accumulated depreciation	40.74	38.87	7.4
Net, property, plant, and equipment	26.79	25.22	8.7
Total Assets	100	100	2.3
LIABILITIES AND OWNER EQUITIES			
Current liabilities			
Current portion of long-term debt	1.54	1.64	-7.3
Notes payable-seasonal	9.90	14.18	-28.6
Accounts payable	6.28	6.16	4.3
Patrons credit balances and other liabilities	14.07	13.26	8.6
Accrued taxes	0.60	0.61	1.2
Accrued expenses	1.64	1.51	11 .0
Patronage refunds (ash)	1.53	1.42	10.4
Total current liabilities	35.56	38.70	-6.2
Long-term debt	9.23	8.35	13.2
Total Llabllltles	44.79	47.14	-2.7
Owner equltles			
Allocated equity	41.31	39.75	6.4
Unallocated equity	13.90	13.11	8.4
Total owner equity	55.21	52.86	6.9
Total Llabllltles and Owner Equity	100	100	2.3
Based on assets of:	**$5,579,390**	**$5,451,626**	

[1] 'Other" current assets include prepaid expenses and other receivables.
[2] "Other" assets include investments, goodwill, notes receivable, etc.

Table 6—**Common size** balance sheets by cooperative **size, 1997**

Item	Small	Medium	Large	Super
		Percent of assets		
ASSETS				
Current assets				
Cash and cash equivalents	9.08	6.62	5.42	7.02
Accounts receivable	15.16	14.58	13.56	11.31
Inventories-grain	1.37	1.96	4.72	13.52
-farm supplies	19.86	17.15	15.59	13.23
Prepaid expenses	2.31	1.11	0.87	1.30
Other current assets [1]	1.71	2.98	3.65	6.39
Total current assets	49.48	44.40	43.82	52.77
Investments and other assets				
Investments-Other cooperatives	28.30	25.75	23.79	17.27
-Bank for cooperatives	0.41	0.79	1.30	1.57
-Total	28.71	26.55	25.08	18.84
Other assets [2]	0.51	1.51	2.73	1.64
Total investments and other assets	29.22	28.06	27.81	20.48
Property, Plant, and Equipment				
At cost	57.78	69.26	69.25	67.82
Less accumulated depreciation	36.49	41.72	40.87	41.07
Net, property, plant, and equipment	21.30	27.54	28.38	26.75
Total Assets	100	100	100	100
LIABILITIES AND OWNER EQUITIES				
Current liabilities				
Current portion of long-term debt	1.59	1.71	1.73	1.40
Notes payable--seasonal	6.14	5.02	8.51	12.31
Accounts payable	5.99	6.65	6.74	6.14
Patrons credit balances and other liabilities	4.86	7.37	9.48	19.13
Accrued taxes	0.28	0.45	0.58	0.70
Accrued expenses	1.39	1.70	1.71	1.63
Patronage refunds (cash)	1.33	1.73	1.50	1.53
Total current liabilities	21.58	24.63	30.25	42.84
Long-term debt	5.26	8.24	11.	9.33
Total Liabilities	26.83	32.87	40.96	52.18
Owner equities				
Allocated equity	55.19	50.69	45.39	35.09
Unallocated equity	17.99	16.44	13.65	12.73
Total owner equity	73.18	67.13	59.04	47.82
Total Liabilities and Owner Equity	100	100	100	100
Based on assets of:	$1,330,795	$3,350,730	$5,941,567	$14,691,277

[1] "Other" current assets include prepaid expenses and other receivables.
[2] 'Other" assets include investments, goodwill, notes receivable, etc.

Table 7— **Common size balance sheets by cooperative type, 1997**

Item	Farm Supply	Mixed farm Supply	Mixed Marketing	Marketing
		Percent of assets		
Assets				
Current assets				
Cash and cash equivalents	5.91	4.27	10.23	5.67
Accounts receivable	14.41	16.00	11.64	7.78
Inventories-grain	0	4.20	12.95	22.03
-farm supplies	19.88	17.30	12.02	8.33
Prepaid expenses	1.46	0.69	0.79	2.12
Other current assets [1]	2.94	2.70	6.17	8.39
Total current assets	44.60	45.17	53.79	54.33
Investments and other assets				
Investments-Other cooperatives	26.25	21.29	17.89	15.92
-Bank for cooperatives	0.91	1.33	1.38	1.80
-Total	27.16	22.62	19.27	17.72
Other assets [2]	1.84	2.56	1.12	1.86
Total investments and other assets	29.01	25.18	20.39	19.58
Property, Plant, and Equipment				
At cost	61.46	72.80	69.75	69.33
Less accumulated depreciation	35.07	43.14	43.94	43.23
Net, property, plant, and equipment	26.39	29.66	25.81	26.10
Total **Assets**	100	100	100	100
LIABILITIES AND OWNER EQUITIES				
Current liabilities				
Current portion of long-term debt	1.70	1.69	1.14	1.68
Notes payable-seasonal	7.23	10.27	9.00	15.15
Accounts payable	7.07	8.45	5.43	4.11
Patrons credit balances and other liabilities	5.92	6.43	22.79	22.43
Accrued taxes	0.42	0.44	0.92	0.60
Accrued expenses	1.86	2.40	1.25	1.08
Patronage refunds (cash)	1.74	1.33	1.67	1.20
Total current liabilities	25.95	31.01	42.21	46.25
Long-term debt	8.83	12.42	6.91	10.10
Total Liabilities	34.78	43.43	49.12	56.35
Owner equities				
Allocated equity	50.32	44.56	35.65	31.20
Unallocated equity	14.90	12.02	15.23	12.45
Total owner equity	65.22	56.58	50.88	43.65
TOTAL LIABILITIES AND OWNER EQUITY	100	100	100	100
Based on assets of:	**$3,353,388**	**$7,359,495**	**$8,520,976**	**$8,822,690**

[1] **"Other"** current assets include prepaid expenses and other receivables.
[2] **"Other"** assets include investments, goodwill, notes receivable, etc.

supply and grains and oilseeds trade receivables ("other" current assets) were separated to allow ratio analysis elsewhere in this study. Accounts receivable increased nearly 5 percent, growing at about the same rate as the increase in farm supply sales.

Most cooperatives have credit sales with discounts offered to promote prompt payment. Terms might be a 2 percent discount if paid within 10 days or no discount if paid within 30 days. Discounts might be offered on all farm supply sales or on certain products. The terms and what products had discounts were not known, but 81 cooperatives listed their discount on sales, and it was .32 percent on total farm supply sales.

The age of accou.nts receivable is known for 62 cooperatives (table 8). Forty-three percent were current in both years. In 1997, another 13 percent were from 31 to 60 days old. The largest difference between the 2 years was only 2 percentage points from receivables 61 to 90 days old.

Investments and Other Assets

About 1.3 percent of cooperative's total assets was invested in the Bank for Cooperatives or CoBank. Larger cooperatives and both types of marketing cooperatives had comparable investments. Meanwhile, investments in other cooperatives dropped from a high of 28 percent for small cooperatives to 17 percent for super cooperatives. Across types, farmsupply cooperatives had less invested while marketing cooperatives had the largest amounts invested in other cooperatives and Bank for Cooperatives.

Property, Plant, and Equipment

Net property, plant, and equipment (PP&E) as a percent of total assets ranged from 21 percent to 28 percent and increased with cooperative size except for super cooperatives. Net PP&E increased 8.7 percent from 1996. Cooperatives that handled grains and oilseeds had higher dollar amounts of PP&E, probably because marketing cooperatives were larger than farm supply cooperatives and had larger grains and oilseeds storage and handling facilities.

Current Liabilities

Current liabilities declined 6 percent between 1996 and 1997. The largest decrease was in notes payable-seasonal used to finance current operations and usually for inventories. Notes payable-seasonal declined from 14 percent of total liabilities and owners' equity to about 10 percent. Notes payable-seasonal's dollar value increased between cooperative types. Marketing cooperatives' notes payable-seasonal was more than five times larger than farm supply cooperatives. Also, patrons' credit balances and other liabilities grew by 8.6 percent.

Accrued expenses and patronage refunds were the only other current liabilities that grew in double digits. Accrued expenses grew by 11 percent and patronage refunds grew by almost 3 percent. For both types of farm supply cooperatives, accrued expenses as a percent of assets were greater than for both types of marketing cooperatives. Cash patronage refunds and dividends grew 10.4 percent but were less than 2 percent of total assets for all sizes and types of cooperatives.

Long-term Debt

Long-term debt increased by 13.2 percent. As a percent of total assets, long-term debt generally increased with cooperative, except for super cooperatives (9.3 percent). By type as a percent of total assets, long-term debt was highest for mixed farm supply cooperatives (12.4 percent) and lowest for mixed marketing cooperatives (6.9 percent). More than one-fourth of the cooperatives had no long-term debt. Usually these were small farm supply cooperatives.

Nearly 84 percent of the cooperatives provided information in four main sources of their $412 million total debt (short- and long-term combined)-Bank for Cooperatives and CoBank, commercial banks, debentures or notes, and other. A regional cooperative was most often the "other" category source because the local cooperative often purchases its farm supplies and markets its grains and oilseeds through that regional. The debt may be short-term operating capital or long-term investment capital.

Bank for Cooperatives and CoBank were the most frequent source of debt capital (61 percent). Others were regional cooperatives (26 percent), deben-

Table 8— Age of accounts receivable, 1997 and 1996

Accounts receivable age	1997	1996
	Percent	
Small	0.26	34
Current (0 to 30 days)	43	43
31 to 60 days	13	14
61 to 90 days	10	8
91 to 120 days	6	7
121 to 180 days	13	12
Greater than 6 months	15	16
Based on accounts receivable of:	$271,507,696	$259,611,950

tures or notes (7 percent), and commercial banks (6 percent). Most sources, except debentures and notes, extend lines of credit.

Member Equities

Member equities to total assets represent the percent of the cooperative's assets owned by the members, with creditors claiming the rest. Members of small cooperatives had the highest percentage of ownership (73.2 percent) while members of super-sized cooperatives had the lowest (47.8 percent). By cooperative type, members of farm supply cooperatives owned at least 65 percent of their cooperatives' assets while members of mixed farm supply cooperatives owned more than 56 percent. Both types had lower member ownership-43.6 percent for marketing and 50.9 percent for mixed marketing cooperatives.

Member equities consisted of both allocated (preferred, common, and other kinds of ownership certificates) and unallocated equity. Allocated equity as a percentage of total assets was highest for small cooperatives at 55.2 percent.

Unallocated equity average for all types of cooperatives ranged from 12.0 to 15.2 percent of total assets with mixed farm supply at the low end and mixed marketing at the high end. For all sizes, unallocated equity to total assets fell as cooperative size increased.

Description of Income Statement

The income statement shows the results of operations for the past year and usually includes both the current and prior year. It lists all sources of revenue and expenses. Although it does not show timing of cash-flows, the statement best describes the status of the business.

In the analysis of income statements, net sales were set at 100 percent to find out the proportion that a single item represented in a total group or subgroup. Because the income statement variables were expressed as a percent of net sales, comparisons were possible between different sizes and types of operations. Thus, the statement used in this report became known as a "common size." This statement was provided for the average cooperative respondent in table 9. The first item listed on the income statement, net sales, was the primary source of revenue---farm supplies sold and products marketed.

Cost of goods sold (COGS) was the amount a cooperative paid for the products it sold and marketed-cost to the cooperative for the supplies sold and payments to farmers for products marketed. Net sales less COGS represented the gross margin on sales.

Service and other income came mainly from providing services to cooperative patrons such as delivery, chemical and fertilizer application, grain drying, and storage. Although substantial for some cooperatives, service income was not considered a primary source of revenue.

Operating expenses were usually classified by function like employee, administrative, general, and depreciation, interest, and bad debts.

Local savings resulted from operations before taxes and patronage refunds from other cooperatives. Patronage refunds were based on volume of business conducted with another cooperative and were dependent on the other cooperative's net income. Usually, this income was allocated equity and not actual cash coming into the respondent cooperatives.

Net income was the end result of operations for that year. Distribution of net income was not part of the income statement. The board of directors decides how to distribute net income or allocate a net loss.

Analysis of the Income Statement

The income statement displays the net results of cooperative operations. Because most managers' performance is judged by net income, members focus on the income statement. In the following sections, the underling values of the income statement are studied. Table 9 presents a common-size income statement for 386 cooperatives and the change between 1996 and 1997. Appendix tables 5 to 8 show common-size abbreviated income statements by size and type for 1997.

Net Sales

The first item of the income statement analyzed in this report was net sales determined by subtracting sales discounts and returns and allowances from gross sales. The average for the 386 cooperatives in 1997 was $13.3 million, down $102,300 or 0.8 percent from 1996. Net sales for 1996 and 1997 by cooperative size are presented in table 10 and by type in table 11. Super-sized cooperative sales were 15 times larger than those of small cooperatives. Net sales were about twice the level of assets for all types (except marketing) and sizes of cooperatives.

Cost of Goods Sold

Cost of goods sold (COGS) represented the largest single component of expenses, usually expressed as a percent of net sales. For these cooperatives, COGS was the purchase price of the farm supplies sold or products marketed. Table 11 shows COGS as a percent of net sales for the different types of coop-

Table 9— **Income statement and change, 1996 to 1997**

Item	1997	1996	Percent change
	-Percent of *net sales* —		
Net sales	100	100	-0.8
Cost of goods sold	89.94	90.18	-1.0
Gross margin	10.06	9.82	1.6
Service and other income	3.60	2.93	21.9
Gross revenue	13.66	12.75	6.3
OPERATING EXPENSES			
Employee:			
Salaries and wages	5.03	4.63	7.7
Payroll taxes	.34	.32	6.6
Employee insurance	.41	.39	3.9
Pension expense	.11	.12	-6.1
Total	5.89	5.46	7.1
Administrative:			
Professional services	.17	.16	1.9
Off ice supplies (includes postage)	.20	.19	4.3
Telephone, markets	.09	.09	5.8
Meetings	.06	.06	6.7
Donations [1]	.00	.00	-8.3
Dues and subscriptions	.01	.01	0.0
Directors' fees and expense	.03	.03	8.1
Annual meetings expense [1]	.00	.00	-4.0
Total	.56	.54	4.1
General:			
Advertising and promotion	.18	.17	3.3
Delivery (auto and truck) expense	.71	.65	7.4
Insurance	.46	.45	2.5
Property and business taxes	.28	.27	3.0
Other taxes and licenses	.03	.03	7.8
Rent and lease expense	.16	.14	14.0
Plant supplies and repairs	.07	.06	11.4
Repair and maintenance	.73	.64	12.3
Utilities (includes dryer expense)	.47	.38	22.3
Miscellaneous expenses	.06	.05	14.8
Other expenses	.32	.29	9.3
Total	3.47	3.14	9.6
Depreciation	1.63	1.51	7.3
Interest expense	.83	1.08	-23.8
Bad debts	.17	.11	54.9
Total expenses	12.55	11.83	5.3
Local savings	1.11	.92	18.9
Patronage refunds received	1.73	1.67	2.9
Savings before income taxes	2.84	2.59	8.6
Less income taxes	.23	.18	26.2
Net income	2.61	2.41	7.3
Based on sales of:	13,330,034	13,432,360	

[1] Less than 0.003.

Table 10- Abbreviated income statement as a percent of net **sales**, by cooperative size, **1997**

Item	Small	Medium	Large	Super
		Percent of assets		
Net sales	100	100	100	100
Cost of goods sold	85.22	85.72	87.90	92.01
Gross margins	14.78	14.28	12.10	7.99
Service and other income	3.04	3.93	3.51	3.62
Gross revenue	17.82	18.21	15.61	11.61
Expenses:				
Employee [1]	8.76	8.06	7.16	4.74
Administrative [2]	1.10	0.88	0.70	0.40
General [3]	3.98	4.14	3.78	3.13
Depreciation	1.85	2.15	1.83	1.43
Interest	0.73	0.79	0.90	0.82
Bad debts	0.24	0.22	0.20	0.14
Total expenses	16.66	16.28	14.57	10.66
Local savings	1.16	1.93	1.05	0.96
Patronage refunds received	2.21	2.11	1.99	1.52
Savings before income taxes	3.37	4.04	3.04	2.48
Less income taxes	0.19	0.26	0.31	0.21
Net income	3.18	3.78	2.73	2.27
Based on total sales of:	$2,490,154	$6,757,352	$13,192,852	$38,700,803

[1] Employee expenses include salaries and wages, payroll taxes, employee insurance, unemployment compensation, and pension expense.
[2] Administrative costs include professional services, office supplies, telephone, meetings and travel, donations, dues and subscriptions, directors' fees and expense, and annual meetings.
[3] General expenses include advertising and promotion, delivery (auto and truck), insurance, property, business and other taxes and licenses, rent and lease expenses, plant supplies and repairs, repairs and maintenance, utilities, miscellaneous, and other.

eratives. Both types of marketing cooperatives had a relatively high COGS compared with farm supply cooperatives because the former generally market grains and oilseeds for their patrons with only a few cents per bushel margin. There was negligible change in COGS for all cooperative sizes between the 2 years.

*Gross **Margins***

Gross margin for all cooperatives was down 1 percent from 1996. A cooperative manager must maintain a gross margin near industry averages. Thus, least cost sources of supplies need to be developed and marketing cooperatives must pay market rates on the products they purchase.

Cooperatives are often characterized as businesses that provide goods and services "at cost." However, a cooperative cannot continuously operate at cost. Therefore, unless a cooperative has an adequate gross margin, it can neither be profitable nor afford to finance essential future-directed discretionary expenditures such as expansion and advertising.

Cooperatives with higher COGS had lower gross margins. COGS were higher for marketing and larger cooperatives, so gross margins as a percent of net sales were highest for farm supply and small cooperatives. Farm supply cooperatives-17.3 percent-had the highest gross margin. Although both types of farm supply cooperatives had less business volume than

Table 11— **Abbreviated income statement as a percent of net sales, by cooperative type, 1997**

Item	Farm Supply	Mixed farm Supply	Mixed Marketing	Marketing
		Percent of assets		
Net sales	100	100	100	100
Cost of goods sold	82.67	86.08	93.15	95.08
Gross margins	17.33	13.92	6.85	4.92
Service and other income	3.40	4.38	3.81	3.00
Gross revenue	20.73	18.30	10.66	7.92
Expenses:				
Employee [1]	9.60	8.54	4.11	3.09
Administrative [2]	3.19	2.68	0.75	0.95
General [3]	4.53	4.31	2.39	1.67
Depreciation	2.33	2.10	1.33	1.95
Interest	0.95	1.11	0.61	0.82
Bad debts	0.21	0.27	0.06	0.20
Total expenses	20.81	19.01	9.25	8.68
Local savings	2.11	1.19	1.18	0.54
Patronage refunds received	2.59	1.82	1.48	1.21
Savings before income taxes	4.70	3.01	2.66	1.75
Less income taxes	0.30	0.17	0.24	0.12
Net income	4.40	2.74	2.42	1.63
Based on total sales of:	$5,914,583	$15,275,288	$24,387,467	$26,865,394

[1] Employee expenses include salaries and wages, payroll taxes, employee insurance, unemployment compensation, and pension expense.
[2] Administrative costs include professional services, office supplies, telephone, meetings and travel, donations, dues and subscriptions, directors' fees and expense, and annual meetings.
[3] General expenses include advertising and promotion, delivery (auto and truck), insurance, property, business and other taxes and licenses, rent and lease expenses, plant supplies and repairs, repairs and maintenance, utilities, miscellaneous, and other

those that performed marketing activities, their gross margin percentage was about 8 percentage points higher.

Gross margins vary by cooperative and by farm supply sold or product marketed. Margins are different for each product. Cooperatives that provided their individual product gross margins are shown in table 12. Margins vary with product type and competition. For instance, fertilizer sold by the truckload has a different margin than a single-bag sale. The services offered in conjunction with a sale (e.g., fertilizer spread by a cooperative truck) impact margins. Competition is another factor. The gross margin discussed earlier is a blended margin on all products the cooperative sold, services rendered, and products marketed.

The highest weighted (by volume) gross margin for the five main farm supplies was for fertilizer with a gross margin of almost 18 percent. If the gross margin is extremely low, it may mean that the cooperative is in a very competitive market. Grains and oilseeds were the only products marketed where gross margins were known. Grains and oilseeds margins were low, only around 3 percent.

Service and Other Income

Service and other income, for the most part, consisted of trucking services (both delivery of purchases to patrons and transfer of their products to market), custom application of fertilizers and crop protectants, and drying and storing of grains and oilseeds. Local

Table 12— Gross margin on farm supplies sold and grains and oilseeds marketed

Item	1997	1996	Number of observations
	- - P e r c e n t - - - -		Number
Feed	13.94	14.39	66
Seed	13.73	12.79	64
Fertilizer	17.72	17.69	71
Crop protectants	14.98	13.99	64
Petroleum products	15.22	16.27	49
Tires, batteries, and auto accessories	20.75	21.28	36
Machinery	17.05	16.21	6
Building materials	18.14	20.50	15
Food	24.83	25.64	13
Other farm supplies	18.73	18.24	73
All farm supplies	15.96	16.34	77
Grains and oilseeds	2.99	4.20	40
All products marketed	3.02	5.23	40

cooperatives provided many other services to their patrons, but these were the primary ones of respondents. This income averaged between 3 percent and 4 percent of net sales for all sizes and types of cooperatives and grew among all types and sizes between the 2 years.

Other income was derived from non-operating sources such as interest and finance charges. This income included interest on cash equivalents and interest charged on credit sales.

Other income also came from the sale of property, plant, and equipment, rentals, and extraordinary items. Sometimes they are sold to generate income, but usually they were fully depreciated assets where the market value was greater than the book value. In some cases, disposal of a fully depreciated asset meant a loss to the cooperative. Rental income from unused facilities or equipment provided income flows. Extraordinary items might be either a gain or a loss. A gain could result from a fire loss where the insurance settlement was greater than the book value of the asset. A loss might be from flood damage for which the cooperative had no coverage.

Operating Expenses

Operating expenses were divided into four main categories-employee; administrative; general; and depreciation, interest, and bad debts. Employee expenses were related to labor costs. Administrative expenses were overhead costs associated with a cooperative and indirectly related to revenue production. General expenses were directly related to revenue production in employee, general, and depreciation categories.

Employee Expenses -Employee expenses included salaries, wages, and benefits (payroll taxes, employee insurance, unemployment compensation, and pension expense) and averaged 5.9 percent of net sales for all respondents. Employee expenses were up 7.1 percent from 1996.

As a percent of net sales, employee expenses decreased as cooperative size increased-8.8 percent of net sales for small cooperatives to 4.7 percent for super cooperatives. By type, employee expenses as a percent of net sales were 9.6 percent for farm supply cooperatives and 3.1 percent for marketing cooperatives.

These expenses were for all employees and include both wages and benefits. For purposes of this study, four part-time employees were considered the equivalent of one full-time employee. [1] Based on that calculation, the expense for a single employee averaged $35,814 for an average 22 employees, up almost 3 percent from 1996. By size, they ranged from $31,148 for small to $37,405 for super cooperatives and by type from $35,472 for cooperatives selling only farm supplies to $38,590 for mixed marketing cooperatives. Small cooperatives averaged seven actual full-time employees (excludes part-time), medium, 16; large, 25; and super, 49 (table 13). Farm supply cooperatives

[1] Based on previous research conducted by RBS economist David E. Cummins.

averaged 16 employees, mixed farm supply, 37; mixed marketing, 26; and marketing, 22. The average number of employees was about the same for both years. The largest increase in the number of employees (4) was in super cooperatives.

Cooperatives with mostly farm supply sales tended to be more labor intensive. Operating a feed mill or service station, applying chemicals and fertilizers, and selling hardware required the use of several employees. For instance, a small farm supply cooperative had seven full-time employees while a small marketing cooperative often used only a manager, bookkeeper, and two others.

Administrative Expenses -Administrative expenses were indirectly related to generating income. Managers usually had most control over administrative expenses. In years when revenues were down, managers could reduce these expenses more easily than others. Administrative costs include professional services, donations, dues and subscriptions, directors' fees and expenses, annual meetings, meetings and travel, office supplies, and telephone and market information.

Office supplies were 0.2 percent of net sales-the largest administrative expense. Professional services (legal, accounting, and computer) were 0.17 percent or the second largest expense category. Total administrative expenses were 0.6 percent of net sales. These expenses decline from 1.1 percent for small cooperatives to 0.4 percent for super cooperatives.

Bad debts as a percent of net sales fell as cooperative size increased—from 0.2 for small cooperatives and 0.1 for super cooperatives. Bad debts were 0.2 for both farm supply and marketing cooperatives and around 0.1 for mixed marketing cooperatives.

Although directors' fees and expenses were a small part of total costs, director compensation was important to many cooperatives to get farmers to sacrifice time normally spent on their own operations to devote time each month to guiding their cooperative. Table 14 shows compensation for directors in 1997. Expenses averaged a modest amount, $618 per director for a typical seven-member board. Small cooperatives

Table IA Board member compensation

Cooperative Size/type	Compensation
Small	$319
Medium	646
Large	812
Super	921
Farm supply	638
Mixed farm supply	1,084
Mixed marketing	517
Marketing	470
Average of all	618

Table 13—**Calculated** salaries (using both full- and part-time employee expenses) and actual number of full-time employees, 1997

Item	Small	Medium	Large	Super	All
			Percent of net sales		
Farm supply salaries	$32,295	$34,521	$36,705	$40,762	$35,472
Number of employees	7	18	34	58	16
Mixed farm supply salaries	26,291	35,411	40,456	37,283	33,249
Number of employees	8	16	30	75	37
Mixed marketing salaries	32,510	37,249	35,709	39,890	38,590
Number of employees	4	9	15	43	26
Marketing salaries	34,686	35,061	39,812	35,981	37,728
Number of employees	4	6	10	36	22
All salaries	31,148	34,061	37,784	37,405	35,814
Number of employees	7	16	25	49	22

paid directors the least ($319) and super ones paid the most ($921). Mixed farm supply cooperatives paid the most at $1,084 per director.

General Expenses -Fixed short-run expenses were associated with income production. These expenses included advertising and promotion, delivery (auto and truck), general insurance, property, business and other taxes and licenses, rent and lease expenses, plant supplies and repairs, repairs and maintenance, utilities (including dryer expenses), miscellaneous, and other. Most (except for advertising and promotion) were not under direct management control.

General expenses averaged 3.5 percent of net sales in 1997—repairs and maintenance at 0.73 percent followed by delivery expense, 0.71 percent; utilities, 0.47 percent; and insurance, 0.46 percent. General expenses were 4 percent for small cooperatives and 3.1 percent for super cooperatives and 4 percent for both farm supply cooperatives and around 2 percent for both marketing cooperatives.

Depreciation as a percent of sales for medium-sized cooperatives was about 2.2 percent and fell to 1.4 percent for super cooperatives and 2.3 percent for farm supply cooperatives, 2.1 percent for mixed farm supply, 1.3 percent for mixed marketing, and 1.9 percent for marketing cooperatives.

Interest Expenses

Interest expenses, especially for short-term borrowing fell dramatically, from 1.08 percent of net sales in 1996 to 0.83 percent in 1997 and were lowest among small cooperatives at 0.73 and grew to 0.90 percent for large cooperatives. For super cooperatives, interest expense to net sales was 0.82 percent and ranged from 0.61 for mixed marketing to 1.1 for mixed farm supply cooperatives.

Local Savings

Local savings (income) was generated from operations (before taxes and patronage refunds from other cooperatives). As a percent of net sales, it was highest for medium cooperatives (1.9 percent) and lowest for super cooperatives (almost 1 percent) and highest for farm supply cooperatives (2.1 percent) and the lowest for marketing cooperatives (0.54 percent). Medium farm supply cooperatives had higher local savings than larger marketing cooperatives.

About 25 percent or 94 cooperatives studied had losses. Forty-nine or 36 percent of small cooperatives lost money Table 15 shows losses by size and type. Thirty-nine percent of the mixed farm supply cooperatives lost money. Most likely to lose money were small mixed farm supply cooperatives (34 percent). Although 50 percent of small mixed farm supply, mixed marketing, and marketing cooperatives, and medium mixed farm supply cooperatives had small losses. Overall, local savings fell by $23,000 or 19 percent.

Patronage Refunds Received

Patronage refunds received or income from other cooperatives resulted from business with other cooperatives such as regionals or cooperative banks.

The patronage refund from regionals was based on business volume and consisted of cash refunds and equity stock. The equity stock was usually revolved back to the local cooperative on a set schedule. Many respondent cooperatives also borrowed funds from CoBank and the Bank for Cooperatives and received both cash and noncash patronage income. The noncash patronage from CoBank or the Bank for Cooperatives was from investing in the bank which was usually required in proportion to the funds borrowed.

Patronage refunds reflect the volume of business with regional cooperatives, CoBank or the Bank for Cooperatives. Patronage refunds were up 3 percent

able 15— Respondent cooperatives that had losses

Item	Cooperative size: Small	Medium	Large	Super	Average
			Percent		
Farm supply	34	12	13	0	23
Mixed farm supply	50	50	40	21	39
Mixed marketing	50	38	10	6	15
Marketing	50	17	23	19	22
Average	36	22	20	13	24

from 1996 to 1997 or 2.2 percent of net sales for small cooperatives and 1.5 percent for super cooperatives. Refunds received as a percent of net sales were higher for farm supply cooperatives than for marketing cooperatives. Refunds were an important source of revenue for 60 of the 94 cooperatives and allowed them to show net income.

Income Taxes

Cooperatives paid income taxes on earnings not allocated to members (retained earnings) and on dividend payments. The board determines what amounts of income are allocated to retained earnings and to members. The treatment of nonmember business has an impact on retained earnings because the cooperative could allocate the earnings to nonmembers or retain the income. In terms of net sales, income tax paid was 0.2 percent of net sales in 1997.

Income tax paid by cooperatives varied by size and type-O.2 percent for small cooperatives, 0.3 for medium and large and 0.2 for super cooperatives. Both mixed farm supply and mixed marketing cooperatives paid income taxes equal to almost 0.2 percent of their net sales; farm supply cooperatives, 0.3 and mixed marketing, 0.1.

Net Income

Net income for medium cooperatives decreased as they grew in size. Generally, net income was up 7 percent from 1996. For small cooperatives net income represented 3.2 percent of net sales, medium, 3.8 percent; large, 2.7 percent; and super, 2.3 percent. Farm supply cooperatives had returns of 4.4 percent on net sales, mixed farm supply had 2.7 percent, mixed marketing cooperatives, 2.4 percent, and marketing coopera tives, 1.6 percent.

Pre-tax income was generally distributed five ways-non-cash patronage allocations, cash patronage refunds, retained earnings, income taxes, and dividends on patron's equity (table 16). Nearly 54 percent of net income before taxes was held as non-cash patronage allocations. Cash patronage refunds were 15 percent. Distributions of income were basically unchanged from 1996. For both years, about 8 percent of those reporting had dividends on preferred stock.

Financial Ratio Analysis

Looking beyond levels of assets, liabilities, member equities, sales, and expenses, cooperative managers and boards of directors need comparative measures to evaluate their cooperative's financial performance.

Table 16— Distribution of net income before taxes

Item	1997	1996
	Percent	
Non-cash patronage allocations	53.78	54.32
Cash patronage refunds	15.37	15.80
Retained earnings	23.18	22.64
Taxes	7.53	7.11
Dividends	0.14	0.13
Net income before taxes:	$145,005,260	$134,562,341

Standard financial ratio analysis allows performance comparisons between years and different cooperatives. No single financial indicator will provide enough information to determine a cooperative's financial health. Therefore, ratios must be carefully interpreted. It is important to look at a group of financial ratios over a period of time, evaluate other cooperatives with similar sales and functions, and/or compare performance with other cooperatives in the same geographical area.

Ratios used in this study were similar to prior studies. Data reflected information gathered from the same 386 cooperatives that reported for both years.

Performance ratios were used in four categories-liquidity, leverage, activity, and profitability. Many factors underlie each ratio and examining one ratio may not help pinpoint problems.

Liquidity Ratios

Current and qu.ick liquidity ratios measure the cooperative's ability to meet short-termobligations and remain solvent. The current ratio is current assets divided by current liabilities. However, this ratio does not consider the degree of liquidity of each of the components of current assets. In other words, if the current assets of a cooperative were mainly cash, they would be much more liquid than inventory.

If the ratio is less than 1, current liabilities exceed current assets and the cooperative's liquidity is threatened. This ratio can be improved by selling additional capital stock, borrowing additional long-term debt, or disposing of unproductive fixed assets and retaining proceeds. Current liabilities may also be reduced by retaining more allocated savings (reducing the cash portion).

A high current ratio indicates the ability to pay current liabilities from the conversion of current assets into cash. Operationally, this same high ratio tends to increase operating freedom and reduce the probability of bill-paying difficulty from writedowns of accounts receivable or inventory.

Figure 1 shows the current and quick ratios for the surveyed cooperatives. The *current ratio* was relatively constant for the last 3 years, at or near 1.4. The total current assets and total current liabilities decreased in 1997, 4.3 and 6.2 percent, respectively. From 1996 to 1997, farm supply inventories; cash and cash equivalents; and accounts receivable-classified as a current asset-and all liabilities classified as current grew except for notes payable-seasonable and current portion of long-term debt.

The current ratio fell as cooperative size increased. The ratio was highest for small cooperatives (2.29) and fell to 1.23 for super cooperatives (table 17). The ratio was 1.17 for marketing cooperatives and 1.72 for farm supply cooperatives (table 18).

Quick ratio is current assets minus inventories, divided by current liabilities. A high ratio allows little dependence on the salability of inventory to meet current obligations. Operationally, the results are the same as with current ratio.

Until 1995, the quick ratio mimicked the movement of the current ratio. For the next 3 years, this ratio climbed slightly each year. Small cooperatives (1.31) had the highest ratio and it also decreased as size increased to 0.61 for super cooperatives (table 17). The quick ratio ranged from 0.52 for marketing cooperatives to a high of 0.95 for farm supply cooperatives. This ratio was highest in 1990 and lowest in 1995 (figure 1).

Leverage Ratios

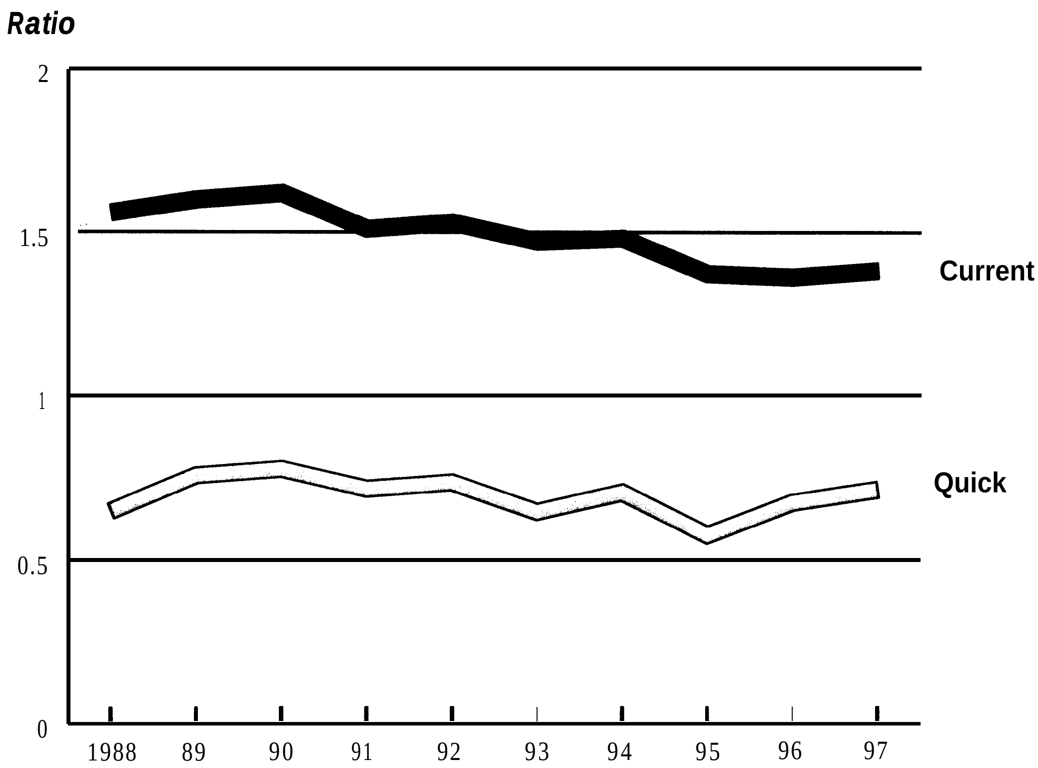
Leverage ratios look at the long-term solvency of the cooperative. They help to analyze the use of debt and the ability to meet obligations in times of crisis. Debt ratio is defined as total liabilities divided by total assets. Total liabilities decreased while total assets increased, so the debt ratio should have improved.

Short-term debt also decreased 28.6 percent between 1996 and 1997 (table 5). Lenders would rather see a low ratio indicating the cooperative's ability to repay the loan. Overall, this ratio decreased from .47 to .45 because assets increased by 2 percent while liabili-

Table 17—**Financial analysis ratios** by **cooperative size, 1997**

Ratio	Small	Medium	Large	Super
Liquidity				
Current	**2.29**	1.80	1.46	1.23
Quick	1.31	1.03	0.70	0.61
Leverage				
Debt	**0.27**	0.33	0.41	0.52
Debt-to-total-equity	**0.63**	0.51	0.31	-0.09
Times-interest-earned	**5.60**	6.14	4.36	4.02
Activity				
Total-asset-turnover	1.87	2.02	2.22	2.63
Fixed-asset-turnover	**0.79**	7.32	7.83	9.05
Profitability				
Gross profit margin	14.78	14.28	12.10	7.99
Return on total assets before interest and taxes	7.67	**9.73**	8.74	8.68
Return on total equity	0.13	11.34	10.25	12.51
Average total revenue	**$2,620,678**	**$7,165,746**	**$13,918,565**	**$40,691,006**
Average total assets	**1,330,795**	**3,350,730**	**5,941,567**	**14,691,277**

Figure 1- **Current and Quick Ratios**



ties decreased by almost 3 percent (figure 2). Increasing savings or financing more assets with working capital may improve this ratio.

Larger cooperatives were financing more of their assets with debt and the highest ratio for any size or type of cooperative was 0.56 (table 18). Small cooperatives had the lowest use of debt at 0.27 but 0.56 for marketing cooperatives. Farm supply cooperatives had the lowest use of debt.

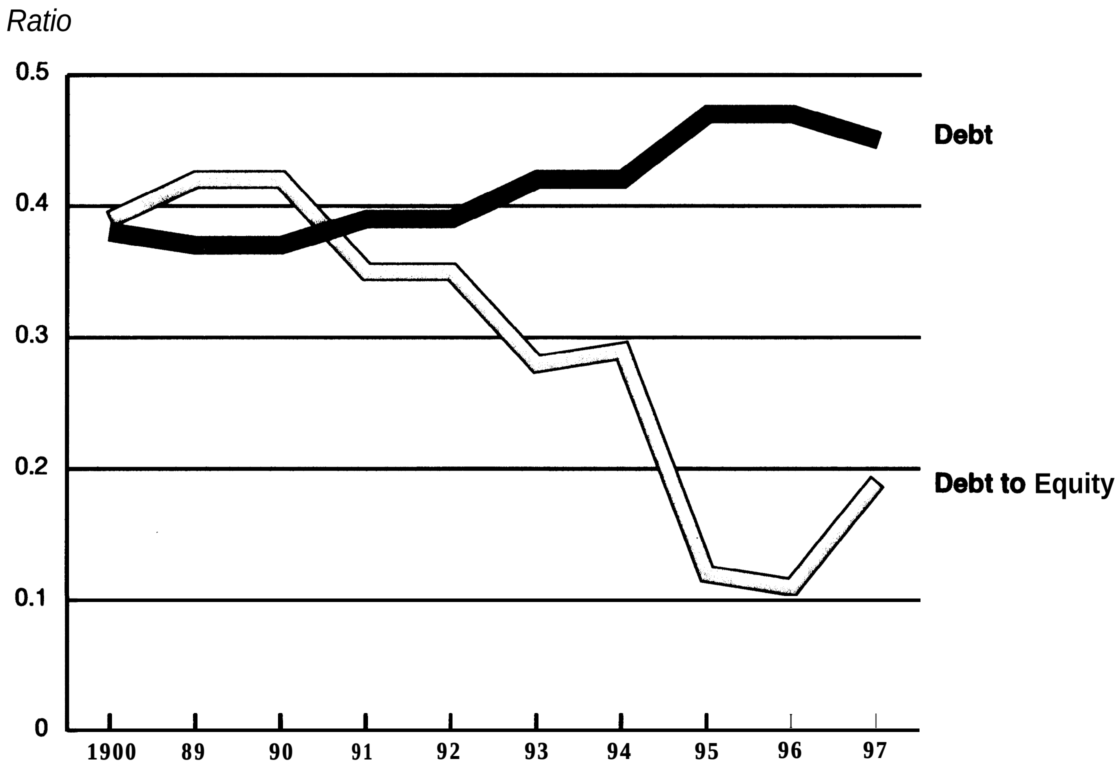
Debt-to-equity ratio is calculated by dividing debt ratio by total equity divided by total assets. This ratio shows the financial flexibility and the long-term capital structure of the cooperative. High ratios indicate inadequate borrowing power of the cooperative. Debt-to- equity ratio increased from 0.11 in 1996 to 0.19 in 1997 (figure 2 & table 19). A low ratio is more favorable and has a financial impact on the cooperative through independence on outside sources of funds relative to owners' equity. A low ratio may indicate low return on equity but also tends to reduce interest cost. Improvement may be gained by reducing long-term debt by disposing of unproductive assets and using proceeds to liquidate debt, or accelerating payments on long-term loans. Other ways include increasing local equity by generating higher levels of local savings, slowing equity retirement programs, selling additional capital stock, or retaining more allocated savings.

Use of long-term debt declined as cooperative size grew. The ratio for farm supply cooperatives was 0.63 and -0.09 for super cooperatives (table 17). Long-term debt for super cooperatives was almost 20 times that of small cooperatives. Mixed marketing cooperatives, at 0.97, had the highest ratio by type while farm supply cooperatives had the lowest at 0.53.

Times-interest-earned ratio is the number of times interest expense is covered by earnings. It is calculated by dividing earnings before interest and taxes by interest expense. A ratio of one or more indicates the ability of current earnings to pay current interest expenses. Lending institutions are more apt to loan to cooperatives whose times-interest-earned ratio is more than one (1) because it shows their ability to pay interest payments. Subsequently, a lending institution may lend funds at lower rates more readily for capital improvements.

Times-interest-earned ratio was higher for respondent cooperatives in 1993, declined, but recovered in

Figure 2— Debt-to-Equity and Debt Ratio



1997 (figure 3). This ratio may be improved by collecting old receivables, improving inventory turnover, disposing of assets and reducing debt with proceeds, or reducing debt with working capital. A high ratio impacts the return on equity and tends to increase it. Over time, a high ratio will reduce interest cost. Interest coverage was the greatest for smaller cooperatives and generally increased with super-size cooperatives (table 17). The ratio ranged from 2.48 for marketing to 5.97 for farm supply.

Activity Ratios

Activity ratios measure how well cooperatives use assets. A low ratio could mean that the cooperative was overcapitalized or carrying too much inventory. A high ratio could be deceptive. A cooperative with fully depreciated older assets could have an artificially high ratio even though those assets were no longer operating efficiently.

Total-asset-turnover ratio for 1997 was 2.39 (figure 4). Total sales decreased by 0.8 percent and total assets increased by 2.3 percent. A high ratio exerts a favorable financial influence through the reduction of financial leverage and/or increased return on equity. A high ratio operationally tends to reduce interest costs.

The ratio was higher for larger cooperatives (table 17), topped by 2.63 for super cooperatives indicating the most efficient use of assets. This ratio was lowest in 1995 at 2.10 and highest in 1989 at 2.77. By cooperative type, it was higher for marketing than for farm supply.

Fixed-asset-turnover ratio is similar to the total asset turnover ratio and shows how well the cooperative is using its fixed assets. This ratio by itself might not give a complete picture of the cooperative's financial health. One with fully depreciated assets would have an artificially high ratio. Another that invested heavily in PP&E for future expansion would have a temporarily low ratio.

After a high in 1989 of 10.05, this ratio has remained relatively level in the 1990s until 1996. The fixed-asset-turnover ratio was relatively flat for the 1990s with spikes in 1989 and 1996 (figure 4). It was lowest in 1989 and 1993 (8.24 percent). In 1996, the ratio jumped to 9.78 from 8.46 (1995) then decreased slightly in 1997 because sales decreased 0.8 percent

Figure 3— Times Interest Earned

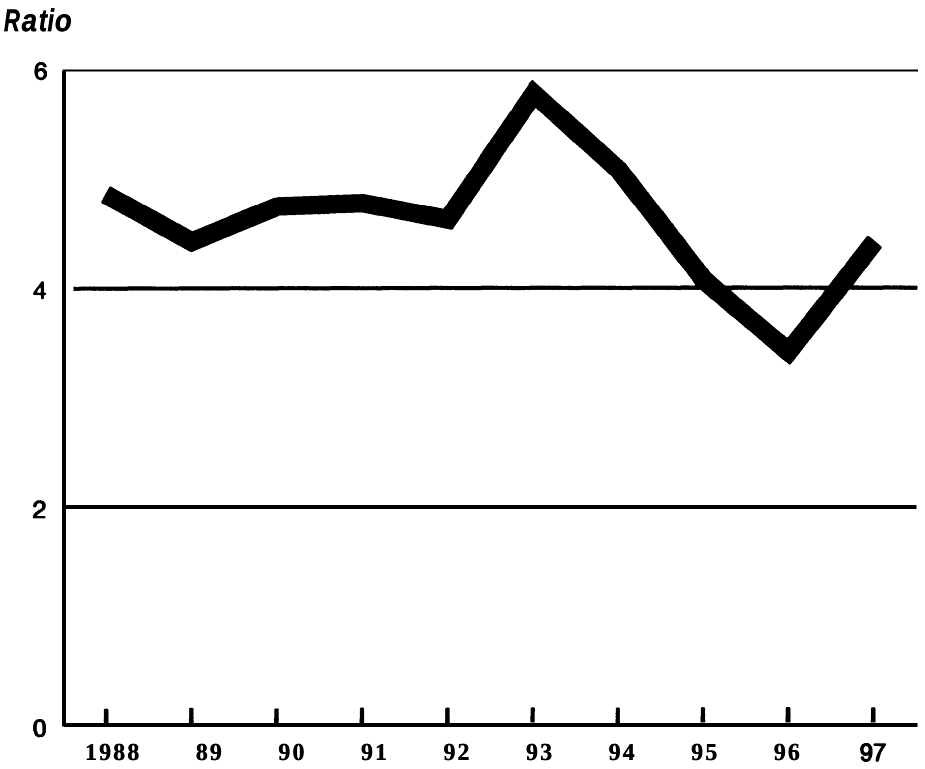
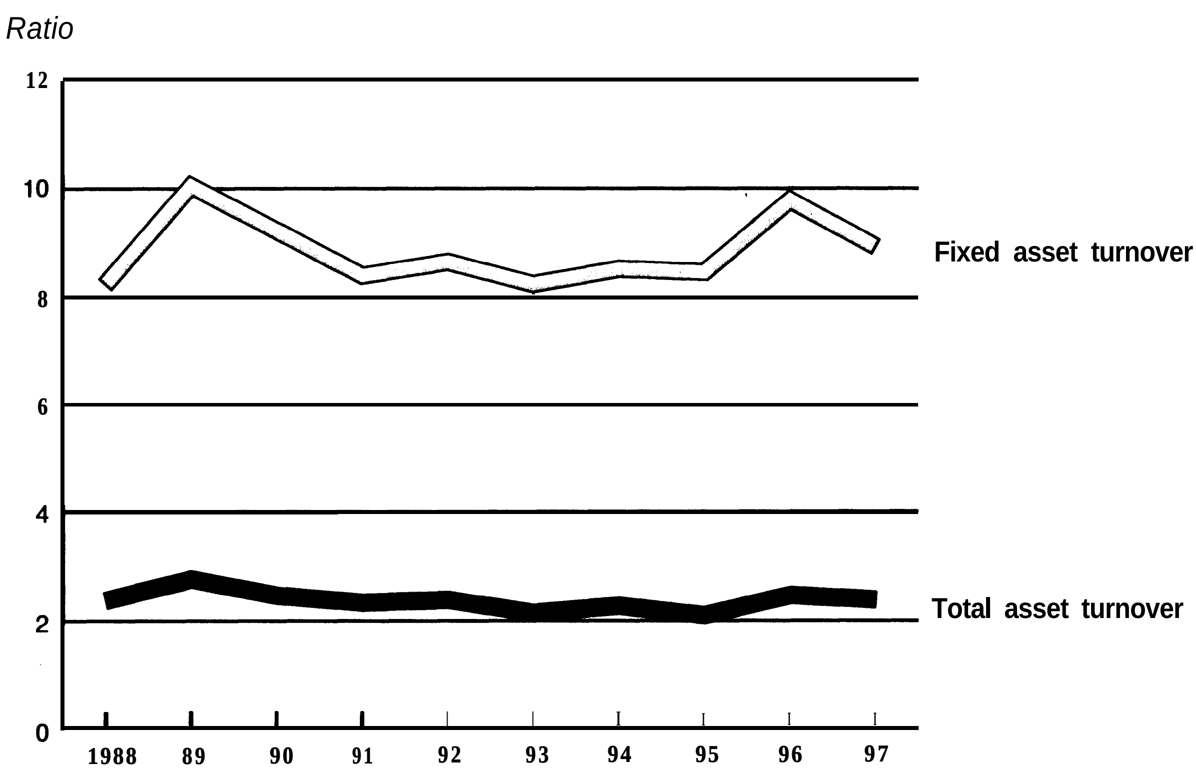


Figure A Total and Fixed Asset Turnover



while investment in fixed assets increased 8.7 percent. The measure for this ratio simply reflects cooperative conditions. An abnormally high ratio usually indicates very old, nearly depreciated fixed assets or the leasing of property and equipment.

A high ratio shows a favorable influence by increasing asset use, reducing financial leverage, and/or increasing return on equity, A high ratio, operationally, tends to reduce depreciation and interest costs. It may also increase costs related to operating leases, personnel and travel or delivery expenses. This ratio may be improved by restricting further investments in fixed assets; redesigning production, or office facilities to increase the sales generating potential of existing space and equipment; and/or selling idle machinery and parts, unused vehicles, and unnecessary equipment.

By size, the ratio of 9.85 was greatest for super cooperatives and by type, higher for marketing cooperatives.

Profitability Ratios

Profitability ratios, such as gross profit margin, indicate the efficiency of the cooperative's operations.

Gross *profit* margin is an important operating ratio. A small change can have a tremendous impact on local savings. It indicates the cooperative's pricing policy and cost of goods offered for sale.

For all cooperatives, the margin averaged 10.06 percent in 1997. It peaked in 1993 at 11.90 percent (figure 5). By size, the margin diminished as cooperative sales grew. At 14.78 percent, small cooperatives had the highest gross margin. By type, farm supply (17.33 percent) and mixed farm supply cooperatives (13.92 percent) had the highest margins in 1997 (table 18).

Return on total assets measures the rate of return on total investment. It measures performance. It is not sensitive to the leverage position of the cooperative. Although some assets were financed through debt, the ratio measures return to both members and lenders. This ratio fell by 0.18 percent to 8.76 percentbetween 1997 and 1996 (9.04) (table 19).

Net savings (before income taxes) increased 7.3 percent while interest expense decreased 23.7 percent and debt usage fell during the 2-year period (table 9). For the decade, this ratio was highest in 1989 and 1996 and has been increasing steadily since 1993 (figure 6).

Figure 5— Gross **Margin Percent**

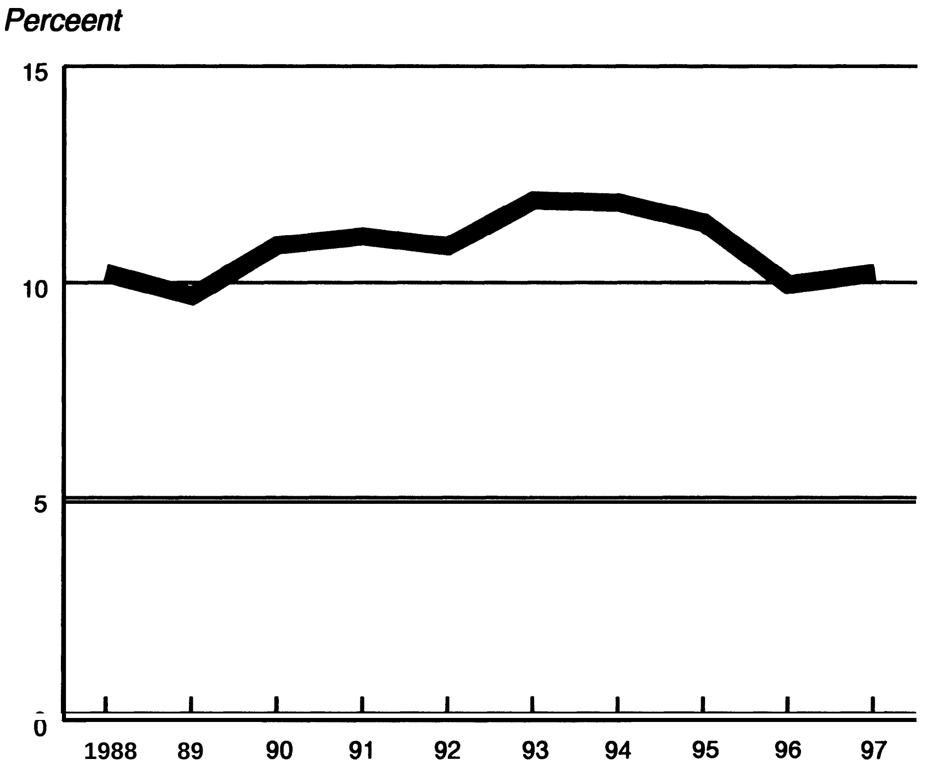


Table 18— Financial analysis ratios by cooperative type, 1997

tern	Farm Supply	Mixed farm Supply	Mixed Marketing	Marketing
Liquidity				
Current	1.72	1.46	1.27	1.17
Quick	0.95	0.76	0.68	0.52
Leverage				
Debt	0.35	0.43	0.49	0.56
Debt-to-total-equity	0.53	0.77	0.97	1.29
Times-interest-earned	5.97	3.71	5.36	2.48
Activity				
Total-asset-turnover	1.76	2.08	2.86	3.05
Fixed-asset-turnover	6.68	7.00	11.09	11.67
Profitability				
Gross profit margin	17.33	13.92	6.85	4.92
Return on total assets before interest and taxes	9.97	8.55	9.34	6.18
Return on total equity	11.89	9.96	13.60	7.63
Average total revenue	$6,268,763	$16,222,859	$25,677,369	$27,996,242
Average total assets	3,353,388	7,359,495	8,822,976	8,822,690

Table 19— Financial analysis ratios for all cooperatives, 1997 and 1996

Ratio	1997	1996
Non-cash patronage allocations	53.78	54.32
Current	1.38	1.36
Quick	0.72	0.68
Debt	0.45	0.47
Debt-to-total-equity	0.19	0.11
Times-interest-earned	4.43	3.41
Total-asset-turnover	2.39	2.47
Fixed-asset-turnover	8.93	9.78
Gross profit margin	10.06	9.95
Return on total assets before interest and taxes	8.76	9.04
Return on total equity	11.28	11.24
Average total revenue	$14,041,009	$14,050,432
Average total assets	5,579,390	5,451,626

Operationally, a high ratio tends to reduce interest cost and financially indicates a comparatively high rate of return on assets employed.

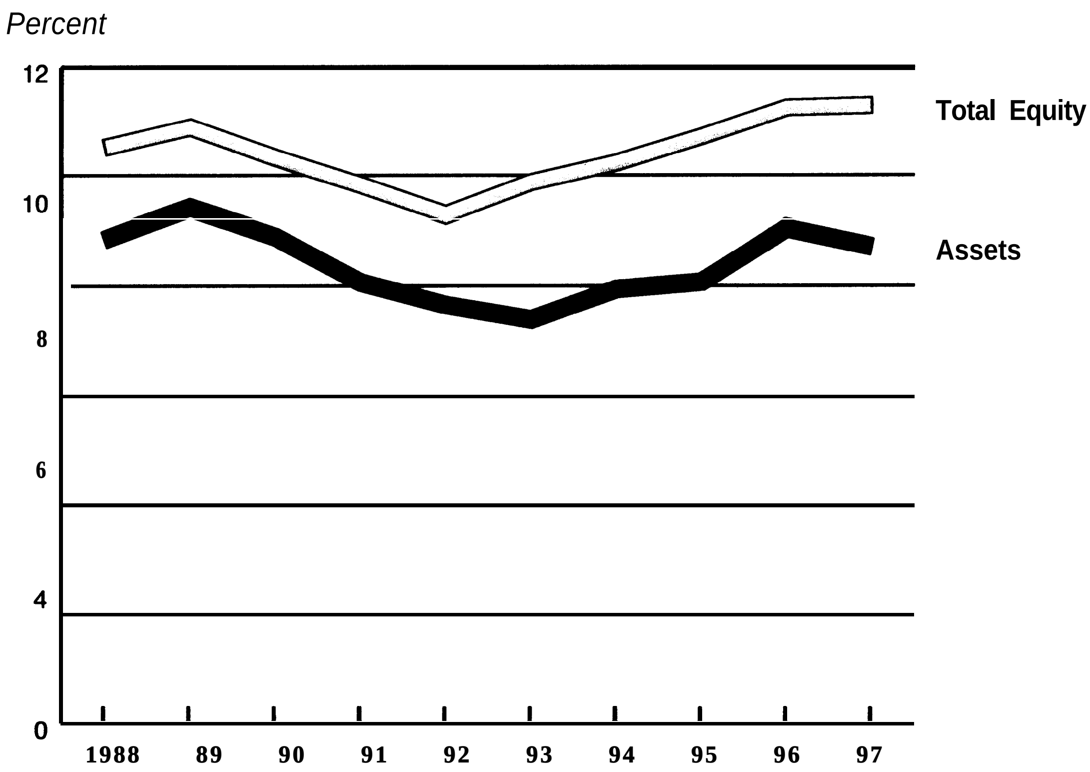
All cooperative sizes had between a 1 and 2 percentage point difference (table 17). Medium-sized cooperatives were slightly higher at 9.73 percent. This measure was highest for farm supply cooperatives at 9.97 percent.

Return *on total* equity represents member investment in their cooperative and is an important measure of profitability. This ratio is sensitive to the amount of debt capital in the cooperative and best used in conjunction with other measures such as the return on total assets. Net savings and total equity both increased to about 7 percent from 1996 to 1997.

Financially, a high ratio is preferred and tends to decrease financial leverage. However, a high ratio may also be a symptom of low investment adequacy. Operationally, this ratio tends to reduce interest cost over time but may occur when both total debt and interest costs are high.

Generally, this ratio increased as the cooperative grew in size. Super cooperatives had the highest return on total equity (12.51 percent). Ratios for cooperatives by type were: 1) mixed marketing, 13.60 percent; 2) farm supply, 11.89 percent; 3) mixed farm supply, 9.96

Figure 6— Return on Total Assets and Total Equity



percent; and 4) marketing cooperatives, 7.63 percent (table 18).

Summary and Conclusions

Although some elements of the balance sheet and income statement have decreased from 1994-95 reporting period, local cooperatives studied here generally had strong financial statements. Some highlights from the financial statements include: 1) assets increased 2 percent from 1996 to 1997; 2) about half of the accounts receivable were less than 30 days old; 3) investment in PP&E grew about 9 percent; 4) owner equities grew by about 7 percent and member ownership in the local exceeded 50 percent; 5) net sales decreased 0.8 percent; and 6) both total expenses and net income grew, 5 and 7 percent, respectively

Agricultural cooperatives continue to play a vital role in supplying goods and services to farmers and marketing their products. They are also important to rural communities, often one of the largest employers, and provide considerable tax revenues. The extensive consolidation of local cooperatives during the past two decades reflects attempts to maintain an adequate size from which to provide their members with expanded products and markets. Despite consolidation, cooperatives studied maintained an average of one other branch location from which to better serve members.

These cooperatives maintained strong ties to regional cooperatives, CoBank or the Bank for Cooperatives through which they obtained products, gained marketing opportunities, or borrowed needed capital. Investment in other cooperatives rose 14 percent from 1996. In turn, patronage refunds to local cooperatives from regionals and the banks increased 10 percent and made the year profitable for 60 cooperatives that would have otherwise had losses. But, local cooperatives cannot depend on large patronage refunds. With numerous locals losing money, even further consolidation of locals may be necessary in the future.

Grain and oilseeds inventories that decreased by about 22 percent and short-term debt that decreased by 29 percent pushed down interest costs 24 percent. The impact of the specified ratios follows:

1) liquidity ratios, current and quick, increased slightly in 1997 because current liabilities decreased

more than current assets while farm supply inventories increased at about the same rate as accounts receivable;

2) leverage ratios-debt ratio, went down slightly from 0.47 in 1996 to 0.45 in 1997;

3) **activi**ty ratios-total-asset-turnover ratio stayed about the same for the 2-year period-2.47 in 1996 and 2.39 in 1997, and finally;

4) profitability ratios-return on total assets ratio fell from 9.04 in 1996 to 8.76 in 1997 because net income increased more than total assets. Total assets reflected increased farm supply inventory while decreased interest costs increased net income.

Appendix table 1— **Common size balance sheets for farm supply cooperatives by cooperative size, 1997**

Item	Small	Medium	Large	Super
	Percent of assets			
Assets				
Current assets				
Cash and cash equivalents	8.98	6.64	4.93	2.34
Accounts receivable	15.11	14.46	14.62	13.02
Inventories--grain	0	0	0	0
-farm supplies	20.83	18.61	19.53	21.69
Prepaid expenses	2.50	1.36	1.02	1.10
Other current assets [1]	1.33	2.43	2.37	7.01
Total current assets	48.74	43.50	42.50	45.15
Investments and other assets				
Investments-Other cooperatives	29.03	27.03	24.67	24.08
-Bank for cooperatives	0.42	0.72	1.43	0.95
-Total	29.45	27.75	26.10	25.03
Other assets [2]	0.55	1.53	3.39	1.30
Total investments and other assets	30	29.28	29.48	26.32
Property, Plant, and Equipment				
At cost	54.66	64.63	62.90	61.74
Less accumulated depreciation	33.41	37.41	34.88	33.21
Net, property, plant, and equipment	21.26	27.22	28.02	28.52
Total **Assets**	100	100	100	100
LIABILITIES AND OWNER EQUITIES				
Current liabilities				
Current portion of long-term debt	1.68	1.85	1.61	1.59
Notes payable-seasonal	5.96	4.64	7.92	12.49
Accounts payable	6.08	6.56	7.94	7.70
Patrons credit balances and other liabilities	4.43	6.68	5.85	6.59
Accrued taxes	0.26	0.43	0.61	0.27
Accrued expenses	1.46	1.82	2.09	2.07
Patronage refunds (cash)	1.40	1.88	1.53	2.31
Total current liabilities	21.26	23.87	27.55	33.02
Long-term debt	5.67	8.33	12.12	7.87
Total Liabilities	26.93	32.20	39.67	40.89
Owner equities				
Allocated equity	55.35	53.19	48.23	43.21
Unallocated equity	17.72	14.60	12.09	15.90
Total owner equity	73.07	67.80	60.33	59.11
Total Liabilities and Owner Equity	100	100	100	100
Based on assets of:	$1,352,068	$3,785,930	$6,923,399	$14,652,318

[1] "Other" current assets include prepaid expenses and other receivables.
[2] "Other" assets include investments, goodwill, notes receivable, etc.

Appendix table 2—Common size balance sheets for mixed farm supply cooperatives by cooperative size, 1997

Item	Small	Medium	Large	Super
		Percent of assets		
Assets				
Current assets				
Cash and cash equivalents	4.74	4.42	4.16	4.30
Accounts receivable	23.33	17.01	15.11	16.09
Inventories—grain	6.36	2.22	3.37	4.60
-farm supplies	14.45	15.35	13.68	20.50
Prepaid expenses	0.69	0.48	0.69	0.74
Other current assets [1]	1.08	2.52	3.25	2.44
Total current assets	50.66	42	40.62	48.66
Investments and other assets				
Investments-Other cooperatives	23.17	25.10	23.99	18.58
-Bank for cooperatives	0.52	0.85	1.09	1.63
-Total	23.69	25.95	25.08	20.20
Other assets [2]	0.56	1.39	3.72	2.10
Total investments and other assets	24.25	27.34	28.81	22.31
Property, Plant, and Equipment				
At cost	65.75	80.06	71.22	72.65
Less accumulated depreciation	40.66	49.40	40.64	43.62
Net, property, plant, and equipment	25.09	30.65	30.58	29.03
Total Assets	100	100	100	100
LIABILITIES AND OWNER EQUITIES				
Current liabilities				
Current portion of long-term debt	1.52	1.43	2.02	1.54
Notes payable—seasonal	6.93	4.89	9.81	11.83
Accounts payable	7.88	8.53	6.62	9.68
Patrons credit balances and other liabilities	5.96	8.11	6.11	6.33
Accrued taxes	0.51	0.37	0.49	0.42
Accrued expenses	1.42	1.64	1.85	2.96
Patronage refunds (cash)	1.48	0.98	1.37	1.37
Total current liabilities	25.70	25.95	28.28	34.12
Long-term debt	4.62	10.62	13.63	12.31
Total Liabilities	30.32	36.56	41.90	46.43
Owner equities				
Allocated equity	48.43	46.50	45.55	43.32
Unallocated equity	21.25	16.93	12.55	10.24
Total owner equity	69.68	63.44	58.10	53.57
Total Liabilities and Owner Equity	100	100	100	100
Based on assets of:	$1,133,917	$3,179,745	$7,208,611	$15,312,266

[1] "Other" current assets include prepaid expenses and other receivables.
[2] 'Other" assets include investments, goodwill, notes receivable, etc.

Appendix table 3— Common size balance sheets for mixed marketing cooperatives by cooperative size, 1997

Item	Small	Medium	Large	Super
		Percent of assets		
Assets				
Current assets				
Cash and cash equivalents	19.94	10.18	6.10	11.03
Accounts receivable	9.93	11.80	13.10	11.25
Inventories-grain	15.71	12.42	10.80	13.63
—farm supplies	10.49	10.66	12.87	11.85
Prepaid expenses	0.40	0.57	0.86	0.79
Other current assets [1]	7.76	6.25	5.03	6.28
Total current assets	64.23	51.89	48.75	54.81
investments and other assets				
Investments-Other cooperatives	19.74	20.89	22.20	16.91
-Bank for cooperatives	0.17	0.94	1.16	1.44
-Total	19.91	21.82	23.36	18.35
Other assets [2]	0.01	2.08	0.62	1.16
Total investments and other assets	19.92	23.90	23.98	19.51
Property, Plant, and Equipment				
At cost	87.74	78.79	75.09	67.48
Less accumulated depreciation	71.88	54.58	47.82	41.81
Net, property, plant, and equipment	15.86	24.21	27.27	25.67
Total Assets	100	100	100	100
LIABILITIES AND OWNER EQUITIES				
Current iiabiiities				
Current portion of long-term debt	0.57	0.72	1.57	1.09
Notes payable-seasonal	4.18	8.33	7.05	9.36
Accounts payable	2.96	5.56	5.22	5.46
Patrons credit balances and other liabilities	13.44	9.94	16.42	25.32
Accrued taxes	0.27	0.64	0.69	0.98
Accrued expenses	0.28	1.26	1.01	1.30
Patronage refunds (cash)	0.15	1.68	1.66	1.69
Total current liabilities	21.85	28.13	33.62	45.20
Long-term debt	0.67	4.18	6.64	7.15
Total Liabilities	22.52	32.32	40.25	52.35
Owner equities				
Allocated equity	57.88	40.61	41.74	33.78
Unallocated equity	19.60	27.08	18.00	13.87
Total owner equity	77.48	67.68	59.75	47.65
Total Liabilities and Owner Equity	100	100	100	100
Based on assets of:	$1,215,186	$2,329,788	$4,378,259	$15,065,994

[1] "Other" current assets include prepaid expenses and other receivables.
[2] "Other" assets include investments, goodwill, notes receivable, etc.

Appendix table 4—**Common size balance sheets for marketing cooperatives by cooperative size, 1997**

Item	Small	Medium	Large	Super
		Percent of assets		
Assets				
Current assets				
Cash and cash equivalents	4.36	5.42	11.50	4.81
Accounts receivable	9.77	14.76	4.80	8.01
Inventories-grain	19.27	16.32	19.71	23.00
-farm supplies	7.20	8.01	7.48	8.08
Prepaid expenses	2.22	0.31	0.66	2.39
Other current assets [1]	5.61	6.97	7.03	8.68
Total current assets	48.44	51.78	51.17	54.96
Investments and other assets				
Investments-Other cooperatives	27.89	16.03	22.22	14.78
-Bank for cooperatives	0.26	1.62	1.38	1.89
-Total	28.15	17.64	23.60	16.67
Other assets [2]	0.00	0.06	0.73	2.11
Total investments and other assets	28.15	17.71	24.32	18.79
Property, Plant, and Equipment				
At cost	93.53	92.50	75.57	67.35
Less accumulated depreciation	70.11	61.99	51.07	41.10
Net, property, plant, and equipment	23.42	30.51	24.50	26.25
Total Assets	100	100	100	100
LIABILITIES AND OWNER EQUITIES				
Current liabilities				
Current portion of long-term debt	0.45	2.82	1.57	1.68
Notes payable--seasonal	12.80	3.89	8.76	16.48
Accounts payable	4.47	3.68	2.02	4.44
Patrons credit balances and other liabilities	3.79	11.10	25.65	22.54
Accrued taxes	0.28	0.73	0.39	0.63
Accrued expenses	0.79	0.69	0.81	1.14
Patronage refunds (cash)	0.58	1.90	1.40	1.15
Total current liabilities	23.16	24.82	40.60	48.06
Long-term debt	0.58	8.00	5.77	10.96
Total Liabilities	23.74	32.81	46.37	59.02
Owner equities				
Allocated equity	58.46	45.09	38.35	29.32
Unallocated equity	17.80	22.10	15.28	11.66
Total owner equity	76.26	67.19	53.63	40.98
Total Liabilities and Owner Equity	100	100	100	100
Based on assets of:	**$1,297,009**	**$1,754,803**	**$4,230,374**	**$13,907,696**

[1] "Other" current assets include prepaid expenses and other receivables.
[2] "Other" assets include investments, goodwill, notes receivable, etc.

Appendix table 5— Abbreviated income statement as a percent of net sales for farm supply cooperatives by cooperative size, 1997

Item	Small	Medium	Large	Super
		Percent of net sales		
Net sales	100	100	100	100
Cost of goods sold	83.59	82.50	82.19	82.70
Gross margins	16.41	17.50	17.81	17.31
Service and other income	2.76	3.75	3.42	3.57
Gross revenue	19.17	21.26	21.23	20.87
Expenses:				
Employee [1]	9.48	9.43	9.89	9.49
Administrative [2]	1.16	1.03	0.97	0.79
General [3]	4.12	4.56	4.83	4.42
Depreciation	1.96	2.55	2.27	2.54
Interest	0.79	0.89	1.08	1.02
Bad debts	0.27	0.22	0.20	0.14
Total expenses	17.78	18.68	19.23	18.40
Local savings	1.39	2.58	2	2.47
Patronage refunds received	2.42	2.53	2.30	3.47
Savings before income taxes	3.80	5.11	4.30	5.94
Less income taxes	0.21	0.32	0.27	0.51
Net income	3.59	4.79	4.03	5.43
Based on total sales of:	$2,385,862	$6,590,429	$12,612,288	$24,904,283

[1] Employee expenses include salaries and wages, payroll taxes, employee insurance, unemployment compensation, and pension expense.

[2] Administrative costs include professional services, office supplies, telephone, meetings and travel, donations, dues and subscriptions, directors' fees and expense, and annual meetings.

[3] General expenses include advertising and promotion, delivery (auto and truck), insurance, property, business and other taxes and licenses, rent and lease expenses, plant supplies and repairs, repairs and maintenance, utilities, miscellaneous, and other.

Appendix table 6— Abbreviated income statement as a percent of net sales for mixed farm supply cooperatives by cooperative size, 1097

Item	Small	Medium	Large	Super
		Percent of net sales		
Net sales	100	100	100	100
Cost of goods sold	90.43	82.50	82.19	82.70
Gross margins	9.57	17.50	17.81	17.31
Service and other income	5.93	3.75	3.42	3.57
Gross revenue	15.50	21.25	21.23	20.84
Expenses:				
Employee [1]	7.58	9.43	9.89	9.49
Administrative [2]	1.17	1.03	0.97	0.79
General [3]	3.65	4.56	4.83	4.42
Depreciation	1.44	2.55	2.27	2.54
Interest	0.77	0.89	1.08	1.02
Bad debts	0.18	0.22	0.20	0.14
Total expenses	14.79	18.68	19.24	18.40
Local savings	0.71	2.57	1.99	2.44
Patronage refunds received	1.08	2.53	2.30	3.47
Savings before income taxes	1.79	5.10	4.29	5.91
Less income taxes	0.15	0.32	0.27	0.51
Net income	1.64	4.78	4.02	5.40
Based on total sales of:	$2,775,455	$6,881,339	$13,164,365	$33,827,605

[1] Employee expenses include salaries and wages, payroll taxes, employee insurance, unemployment compensation, and pension expense.
[2] Administrative costs include professional services, office supplies, telephone, meetings and travel, donations, dues and subscriptions, directors' fees and expense, and annual meetings.
[3] General expenses include advertising and promotion, delivery (auto and truck), insurance, property, business and other taxes and licenses, rent and lease expenses, plant supplies and repairs, repairs and maintenance, utilities, miscellaneous, and other.

Appendix table -r-**Abbreviated income statement as a percent of net sales for mixed marketing cooperatives by cooperative size, 1997**

Item	Small	Medium	Large	Super
	Percent of net sales			
Net sales	100	100	100	100
Cost of goods sold	93.85	93.14	93.43	93.12
Gross margins	6.15	6.86	6.57	6.88
Service and other income	3.65	3.41	3.58	3.87
Gross revenue	**9.80**	10.27	10.15	10.75
Expenses:				
Employee [1]	4.47	4.41	4.03	4.08
Administrative [2]	0.73	0.52	0.42	0.32
General [3]	3.40	2.86	2.87	3.05
Depreciation	1.35	1.18	1.28	1.34
Interest	0.19	0.39	0.60	0.63
Bad debts	0.	0.11	0.10	**0.05**
Total expenses	10.14	9.47	9.30	9.47
Local savings	-0.34	0.80	0.85	1.28
Patronage refunds received	1.12	1.40	1.65	1.46
Savings before income taxes	0.78	2.20	2.50	2.74
Less income taxes	0.09	0.18	0.18	0.25
Net income	**0.69**	2.02	2.32	2.49
Based on total sales of:	**$2,910,389**	**$7,606,070**	**$13,665,643**	**$42,006,597**

[1] Employee expenses include salaries and wages, payroll taxes, employee insurance, unemployment compensation, and pension expense.
[2] Administrative costs include professional services, office supplies, telephone, meetings and travel, donations, dues and subscriptions, directors' fees and expense, and annual meetings.
[3] General expenses include advertising and promotion, delivery (auto and truck), insurance, property, business and other taxes and licenses, rent and lease expenses, plant supplies and repairs, repairs and maintenance, utilities, miscellaneous, and other.