USDA

United States Department of Agriculture

Rural Business-Cooperative Service

RBS Research Report 154

Analysis of Financial Statements:

Local Farm Supply, Marketing Cooperatives

Abstract

This report analyzes the balance sheets and income statements of local farm supply and marketing cooperatives, comparing 1995 and 1994 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.

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U.S. Department of Agriculture

RBS Research Report 154

March 1997

Price: Domestic-S4.50; Foreign—$5.00

Preface

This report studied the financial statements of local cooperatives, comparing 1995, 1994, 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-Cooperative Service (CS) and made this report possible. Special thanks to CS staffers David S. Chesnick and Charles A. Kraenzle for reviewing the initial draft.

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Highlights

Financial statements of 1,610 local farm supply and marketing cooperatives were used for this report. The statements of 432 cooperatives were used to compare 1995 to 1994, while 1,610 cooperatives were used to look at 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 14 percent from 1994 to 1995. In 1995, average net sales for all cooperatives studied was $12.2 million, up 8 percent from 1994. More than 36 percent of the cooperatives studied were small cooperatives-sales of less than **$5** million.

Cooperatives not only were important to their member/patrons, but also were an important asset to their rural communities. They were probably one of the community's larger employers, employing an average 21 full-time and 9 part-time employees with an average annual payroll of $707,000.

Petroleum products and fertilizer were the two principal farm supplies sold. Marketing activities (mainly grains and oilseeds) provided more than 54 percent of sales for these cooperatives.

Average total assets grew 17 percent between 1994 and 1995, fueled by large increases in inventories. To finance the growth in assets (mainly inventories), total liabilities grew 31 percent while owner equities increased 5 percent.

Interest expenses, although less than 1 percent of net sales, increased 42 percent largely due to increased short-term debt used to finance inventory buildup. Local savings was down 24 percent, but with an increase of 37 percent in patronage refunds received, net income for these cooperatives was up 14 percent.

Financial ratio analysis was used to look at 1 O-year trends for the 1,610 cooperatives in the data base. The financial ratio analysis revealed these findings:

- The current ratio (current assets/current liabilities) was fairly steady around 1.5 between 1988 and 1994, with a slight downturn in 1995. The quick ratio (current assets-inventory/current liabilities) mimicked the current ratio's trend.

- Total debt-to-asset ratio was 0.25 in 1995, higher than most recent years but lower than the high of 0.3 in 1985.

- The fixed-asset-turnover ratio, a measure of asset utilization, has averaged at least 9.1 for the past 3 years (i.e., net sales were 9.1 times property, plant, and equipment levels).

- Return on total assets measures the rate of return on total investments. At 8 percent, this measure was down slightly from 1994.

- Return on allocated equity before taxes has grown dramatically in the decade from 5 percent to 14 percent.

Analysis of Financial Statements: Local Farm Supply, Marketing Cooperatives

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Local agricultural cooperatives play a vital role in providing goods and services to their patrons and the rural community. This report analyzes their financial statements for comparative purposes for cooperative managers, directors, and members. Ratio analysis and trends will be discussed. The presentation is sub-divided into four cooperative sizes and types to make the information more useful.

The 432 local cooperatives had farm supply sales (petroleum, fertilizer, feed, etc.) that averaged $5.6 million in 1995 while marketing sales (corn, wheat, soybeans, etc.) averaged $6.6 million. Income from services (product delivery, fertilizer application, grains and oilseeds hauling and storage, etc.) averaged SO.4 million per year.

These cooperatives were not only important to, their member/patrons, but also an important asset to their rural communities. The cooperatives paid an average of $43,000 in annual property taxes. They were also a large employer in their communities, averaging 21 full-time and 9 part-time employees with an average annual payroll of $707,000.

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 of directors 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

Staff of the Cooperative Services (CS) program in USDA's Rural Business-Cooperative Service annually survey farmer cooperatives. Data from this survey are used in this study. To be included, a cooperative had to sell some farm supplies. No cooperative that exclusively markets members' products was included. In addition to selling farm supplies, the cooperative also had to provide an annual report that had a detailed income statement.

There are 1,610 cooperatives in the CS Farm Supply and Services (FSS) database. This report focuses on 432 cooperatives that provided information in both 1995 and 1994 when comparing those years and on all 1,610 cooperatives when looking at long-term trends (1985 through 1993 [1]) in the financial ratio analysis section. 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 sizes by sales volume, using actual figures. No attempt was made to deflate these values. Sales groupings used in this report were the same as in prior reports (see CS—RR 134 and RR 138) and, for the 432 cooperatives, sizes and types used are summarized in table 1.

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[1] **The data in the FSS database does not include 1991. It was omitted in an effort to disseminate information in a more timely fashion. At the time, it was thought that information from 1991 would be included in the future, but as that information became less and less current, it is less likely to become part of the database.**

In classifying by total sales alone, product mix was ignored. For example, a cooperative with $10 million in sales that exclusively marketed grains and oilseeds could be considered small relative to 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 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-42 percent in 1995 sold only farm supplies; 16 percent were mixed; 24 percent were mixed marketing; and 18 percent were marketing (table 2). Of the respondents, 36 percent were small; 24 percent, medium; 23 percent, large; and 17 percent, super. Both types of marketing cooperatives tended to be larger 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 432 cooperatives that provided information in both 1995 and 1994. In the financial ratio analysis sections, data between the years were not completely comparable in that the same cooperatives did not respond to the CS survey every year. Information in the FSS 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 432 cooperatives and rural communities. These cooperatives operated 643 branches and had a significant business impact on 1,075 rural communities in terms of taxes and employment (table 3). Super cooperatives that averaged almost five branch outlets impacted more rural communities. Marketing cooperatives had an average of two branch outlets.

Sales Mix

The respondent cooperatives had five major farm supply and two marketing categories (table 4). Petroleum was the dominant production supply item sold by small and medium cooperatives. Sales of small cooperatives, the most numerous, averaged $2.8 million in 1995. Farm production supplies represented the bulk (86 percent) of their sales. As cooperatives grew in size, the importance of farm supplies declined (64 percent for medium-sized cooperatives, 52 percent for large, and 32 percent for super).

Table r-Size and type definitions used for respondent cooperatives

Cooperative size	Definition	Number
Small	up to $5 million in total sales	156
Medium	$5 million to $10 million	103
Large	$10 million to $20 million	96
Super	$20 million and more	75
Cooperative type		
Farm supply	total net sales from farm supplies[1]	161
Mixed farm supply	from 50 to 99 percent	70
Mixed marketing	from 25 to 49 percent	103
Marketing	less than 25 percent	78

[1] The definition of farm supply cooperatives differs from prior reports. These cooperatives now have 100 percent farm supply sales instead of 90 to 100 percent.

Table z-Respondent cooperatives by size and type

Cooperative type	Cooperative size: Small	Medium	Large	Super	Total
	Number				*Percent*
Farm supply	122	37	19	3	41.90
Mixed farm supply	14	23	22	11	16.20
Mixed marketing	12	28	33	30	23.84
Marketing	a	15	24	31	18.06
Percent of total	36.11	23.84	22.69	17.36	100.00

Sales of mixed farm supply cooperatives averaged $12 million with $5 million in farm supply sales. Petroleum was the most important farm supply item sold, with feed a close second.

Average sales of marketing and mixed marketing cooperatives were $22 million and $18 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.

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 assets- 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). *Inventories* 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

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

Cooperative type	Average	Total	Cooperative size	Average	Total
Farm supply	.92	55	Small	.36	55
Mixed farm supply	1.79	122	Medium	.95	96
Mixed marketing	1.78	178	Large	1.59	153
Marketing	2.33	177	Super	4.52	339
All	1.43	643			

Table 4—**Average farm supplies sold and products marketed as a percent of total sales, and change from 1994 to 1995**

Item	1995	1994	change, 1994 to 1995
		Percent	
Farm supplies sold:			
Feed	9.22	10.17	1.48
Seed	.90	.98	3.05
Fertilizer	10.45	10.44	12.10
Crop protectants	7.42	7.87	5.52
Petroleum products	12.64	13.20	7.23
Other	4.91	5.29	3.04
Total	45.54	47.95	6.33
Products marketed:			
Grains and oilseeds	53.79	52.05	25.59
Other	.67	—	—
Total	54.46	52.05	9.10
Total sales	100.00	100.00	11.96
Based on sales of:	$12,203,699	$10,900,239	

equity as well as equity (patronage) paid 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 **debt—** 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. Each member has one share and one vote. The other form includes **noncash** allocated certificates which are member investments in the cooperative based on use.

Allocated equity could be classified as stock if the cooperative was incorporated or certificates of ownership if not incorporated. In most cases, cooperative stock or ownership certificates are not generally traded between members and, if sold, require board approval. *Unallocated equity* is the retained earnings of the cooperative and often thought of as **nonmember—nonpatron**age 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 an operating period-a **12-month** fiscal year. The balance sheet represents the cooperative's assets, liabilities, member equity, and their relationship to each other. This report analyzes the balance sheets of 432 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 1995 and 1994. Appendix tables l-4 show common size balance sheets by size and type for 1995. In a common size balance sheet, 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. By cooperative size, total assets increased from $1.5 million for small cooperatives to $16.2 million for super-size cooperatives (table 7). By cooperative type, total assets were $2.7 million for farm supply, **$6.2** million for mixed farm supply, $7.8 million for mixed marketing, and $9 million for marketing (table **8).**

Current Assets

Looking first at current assets, cash and cash equivalents as a percent of total assets decreased as cooperative size increased. For small cooperatives, cash was 7.4 percent of total assets. But, this dropped to 1.9 percent for super cooperatives. Farm supply cooperatives held the most cash by type (5.3 percent), followed by mixed farm supply cooperatives (2.8 percent).

From 1994 to 1995, current assets increased by 24 percent. Most of this growth occurred in inventories, principally grains and oilseeds inventories. Overall, these inventories increased 51 percent and farm sup-

Table 5—**Common size balance sheet and change in accounts, 1994 to 1995**

	1995	1994	Percentage change
Assets		*Percent*	
Current assets			
Cash and cash equivalents	3.12	4.69	(22.33)
Accounts receivable	10.95	11.89	7.22
Inventories--grains and oilseeds	22.36	17.23	51.23
-farm supplies	11.83	11.52	19.70
Prepaid expenses	0.92	1.21	(11.42)
Other current assets	7.41	6.48	33.18
Total current assets	56.59	53.02	24.37
Investments and other assets			
investments-other cooperatives	16.79	18.42	6.18
-Bank for Cooperatives	1.43	1.18	40.98
-total	18.22	19.61	6.28
Other assets	.96	.88	27.28
Total investments & other assets	19.18	20.49	9.10
Property, plant, and equipment			
At cost	64.14	68.69	8.79
Less accumulated depreciation	39.91	42.20	10.21
Net PP&E	24.23	26.49	6.54
Total assets	100.00	100.00	16.52
Liabilities and owner equities			
Current liabilities			
Current portion of long-term debt	3.23	3.46	8.75
Notes payable-seasonal	16.45	11.15	71.68
Accounts payable	5.21	6.48	(8.20)
Patrons credit balances & other liabilities	14.64	12.94	31.83
Accrued taxes	.64	.73	3.55
Accrued expenses	1.52	1.50	17.85
Patronage refunds (cash)	1.21	1.23	15.46
Total current liabilities	42.91	37.48	33.39
Long-term debt	6.82	6.84	16.31
Total liabilities	49.73	44.32	30.76
Owner equities			
Allocated equity	37.03	41.76	3.30
Unallocated equity	13.24	13.92	10.83
Total owner equities	50.27	55.68	5.18
Total liabilities and owner equities	100.00	100.00	16.52
Based on total assets of:	**$5,630,189**	**$4,832,085**	

plies nearly 20 percent. By size, farm supply inventories increased about 10 percent more for large and super cooperatives and by type, about 5 percent more for both farm supply cooperatives. Grains and oilseeds inventories increased more than 55 percent for medium and super cooperatives. By type, they increased more than 50 percent for all but farm supply cooperatives.

There were also regional differences in inventory buildup. By looking at 103 cooperatives that had their grains and oilseeds inventories increase more than 50 percent, 65 cooperatives were in Iowa, Minnesota, or Nebraska. In dollar terms, inventory increased $178 million, with $128 million in these three States. Part of this buildup was due to low grains and oilseeds prices the prior year and farmers holding back sales.

But a grain railcar shortage in the upper Midwest also forced some cooperatives to resort to outdoor storage on the ground (with increased grain prices and especially corn prices, inventories of grains and oilseeds can be expected to be much lower in FY 96). Interest expenses in the three States increased by $7 million, in part to finance these inventories. Local savings fell $10 million and 30 cooperatives had losses in local income. Net income was up 16 percent for these cooperatives due to patronage refunds, so that only nine experienced losses.

Accounts receivable in this study were farm supply trade accounts, not grains and oilseeds trade receivables. Farm supply and grains and oilseeds trade receivables (“other” current assets) were separated to allow ratio analysis in a future section of this study. Accounts receivable for farm supply sales increased 7 percent, growing at about the same rate as the increase in farm supply sales.

The age of accounts receivable refers to how long ago the sale that started this receivable was made. Most cooperatives have credit sales with discounts offered to promote prompt payment. Terms might be 2 percent-10 days, net 30 days (no discount). Discounts might be offered on all farm supply sales or on certain products. The terms and what products had discounts were not known, but 96 cooperatives listed their discount on sales, and it was 1.22 percent on total farm supply sales.

The age of accounts receivable is known for 54 cooperatives for both years (table 6). Fifty-five percent were current. Another 14 percent were from 31 to 60 days old. The largest difference between the 2 years was nearly 12 percent of receivables were more than 6 months old compared with 8 percent in 1994.

Table 6— **Age of accounts receivable, 1995 and 1994**

Accounts receivable age	1995	1994
	Percent	
Current, 0 to 30 days	55.02	53.15
31 to 60 days	14.26	14.77
61 to 90 days	8.69	10.55
91 to 120 days	1.96	4.70
121 to 180 days	3.10	3.72
Greater than 6 months	11.63	7.70
Accounts written off this period	5.34	5.41
Based on accounts receivable of:	**$26,284,134**	**$24,160,885**

Investments and Other Assets

About 1.4 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 26 percent for small cooperatives to 13 percent for super cooperatives. Across types, marketing cooperatives had less invested than farm supply cooperatives. Other assets often included overdue accounts receivable and were generally less than 2 percent of total assets for all cooperative sizes and types (except large farm supply cooperatives, 4.2 percent).

Property, Plant, and Equipment

Net property, plant, and equipment (PP&E) as a percent of total assets tended to be between 22 percent and 26 percent for all cooperative sizes. Net PP&E increased 6.5 percent from 1994. Cooperatives that handled grains and oilseeds had higher dollar amounts of PP&E, probably due to extensive grains and oilseeds storage and handling facilities and, also, because these cooperatives were larger than farm supply cooperatives. But, both farm supply cooperatives had growth in net PP&E of at least 9 percent while both marketing cooperatives were less than 5.5 percent.

Current Liabilities

Current liabilities grew 33 percent between 1994 and 1995. The largest increase was in notes payable-seasonal used to finance current operations, and usually used for inventories, They grew from 11.2 percent of total assets to 16.5 percent. Farm supply cooperatives had a negligible change while mixed farm supply, mixed marketing, and marketing cooperatives all were up 5 percent.

Table 7—**Common size balance sheets by cooperative size, 1995**

	Small	Medium	Large	Super
Assets	*Percent of total assets*			
Current assets				
Cash and cash equivalents	7.41	4.59	3.03	1.93
Accounts receivable	13.10	14.05	11.96	9.07
Inventories-grains and oilseeds	3.29	11.38	18.46	31.21
-farm supplies	20.23	14.11	12.68	9.15
Prepaid expenses	2.15	.84	.83	.77
Other current assets	3.93	5.07	6.54	9.21
Total current assets	50.11	50.04	53.50	61.34
Investments and other assets				
Investments-other cooperatives	26.20	22.51	17.95	12.72
--Bank for Cooperatives	.37	1.39	1.41	1.65
-total	26.57	23.90	19.36	14.37
Other assets	1.15	1.40	1.50	.53
Total investments & other assets	27.72	25.30	20.86	14.90
Property, plant, and equipment				
At cost	60.87	67.77	71.20	60.07
Less accumulated depreciation	38.70	43.11	45.57	36.30
Net PP&E	22.17	24.66	25.64	23.76
Total assets	100.00	100.00	100.00	100.00
Liabilities and owner equities				
Current liabilities				
Current portion of long-term debt	1.76	3.05	4.11	3.12
Notes payable-seasonal	6.35	9.29	13.09	22.19
Accounts payable	6.38	5.88	6.09	4.35
Patrons credit balances & other liabilities	6.19	9.13	12.94	18.74
Accrued taxes	.44	.55	.65	.71
Accrued expenses	1.30	1.42	1.65	1.52
Patronage refunds (cash)	1.31	1.38	1.31	1.10
Total current liabilities	23.73	30.70	39.84	51.73
Long-term debt	4.13	7.03	7.27	7.03
Total liabilities	27.86	37.73	47.11	58.76
Owner equities				
Allocated equity	53.64	45.70	39.58	30.02
Unallocated equity	18.50	16.57	13.31	11.22
Total owner equities	72.14	62.27	52.89	41.24
Total liabilities and owner equities	100.00	100.00	100.00	100.00
Based on total assets of:	**$1,460,910**	**$3,558,985**	**$6,316,485**	**$16,249,985**

Table 8—**Common size balance sheets by cooperative type, 1995**

	Farm supply	Mixed farm supply	Mixed marketing	Marketing
Assets		*Percent of total assets*		
Current assets				
Cash and cash equivalents	5.34	2.78	2.66	2.30
Accounts receivable	13.59	15.15	10.41	7.09
Inventories-grains and oifseeds	0.00	16.32	27.53	35.66
-farm supplies	23.11	12.33	9.79	6.16
Prepaid expenses	2.05	.65	.68	.57
Other current assets	2.69	3.85	8.64	11.51
Total current assets	46.78	51.08	59.71	63.29
Investments and other assets				
Investments-other cooperatives	25.47	19.77	14.66	11.30
-Bank for Cooperatives	.72	1.39	1.67	1.69
-total	26.19	21.16	16.33	12.99
Other assets	2.12	1.31	.36	.63
Total investments & other assets	28.31	22.47	16.69	13.62
Property, plant, and equipment				
At cost	58.84	68.75	69.64	58.78
Less accumulated depreciation	33.93	42.30	46.04	35.69
Net PP&E	24.91	26.45	23.60	23.09
Total assets	100.00	100.00	100.00	100.00
Liabilities and owner equities				
Current liabilities				
Current portion of long-term debt	2.00	3.14	3.36	4.00
Notes payable-seasonal	6.79	15.67	18.91	20.90
Accounts payable	7.66	6.34	4.35	3.78
Patrons credit balances & other liabilities	5.27	7.06	16.47	23.78
Accrued taxes	.51	.55	.76	.67
Accrued expenses	1.86	1.88	1.54	1.03
Patronage refunds (cash)	1.62	1.51	1.23	0.74
Total current liabilities	25.71	36.15	46.62	54.90
Long-term debt	7.42	7.81	5.97	6.77
Total liabilities	33.13	43.96	52.59	61.67
Owner equities				
Allocated equity	52.05	45.05	32.67	26.52
Unallocated equity	14.82	10.99	14.74	11.81
Total owner equities	66.87	56.04	47.41	38.33
Total liabilities and owner equities	100.00	100.00	100.00	100.00
Based on assets of:	$2,731,412	$6,180,969	$7,762,383	$9,046,959

Patrons' credit balances and other liabilities grew by 32 percent, mostly due to the inclusion of payables due on grains and oilseeds trading and other marketing activities.

Accrued expenses and patronage refunds were the only other current liabilities that grew in double digits. Accrued expenses grew by 17.7 percent and were a slightly larger percentage of total assets for larger cooperatives and for both types of farm supply cooperatives. Cash patronage refunds and dividends grew by 15.5 percent, but was less than 2 percent of total assets for all sizes and types of cooperatives.

Long-term Debt

Long-term debt increased by 16.3 percent from 1994 to 1995. As a percent of total assets it generally increased with cooperative size, but interestingly, tended to be higher for both types of farm supply cooperatives. By type as a percent of total assets, long-term debt ranged from 6 percent to 7.8 percent with the farm supply cooperatives at the high end, about a percentage point higher than the marketing cooperatives. Twenty-nine percent of the cooperatives had no long-term debt. About half were small farm supply cooperatives and combined together, farm supply cooperatives made up more than half.

Nearly 66 percent of the cooperatives provided information that broke out four main sources of their $500 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 source in the "other" category. The local cooperative often purchases its farm supplies and markets its grains and oilseeds through a regional cooperative, which becomes a source of debt capital. 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 (59 percent). Others were regional cooperatives (32 percent), debentures or notes (5 percent), and commercial banks (4 percent). Most sources, except debentures and notes, extend lines of credit. Only 90 cooperatives reported their lines of credit for both years, but in total it increased by $20 million to $308 million in 1995. Of this line of credit, the unused portion fell by $20 million to $166 million in 1995.

Member Equities

Member equities to total assets represent the percent of the cooperative's assets owned by the members, with creditors claiming the rest. Over all sizes and types of cooperatives, members averaged 50.3 percent ownership of the cooperative, down from 55.7 percent in 1994.

Members of small cooperatives had the highest percentage of ownership (72.1 percent) while members of super-size cooperatives had the lowest (41.2 percent). By cooperative type, members of mixed farm supply cooperatives owned at least 56 percent of their cooperatives' assets while farm supply cooperatives' members owned more than 66 percent. Both types of marketing cooperatives had lower member ownership-38.3 percent for marketing and 47.4 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 53.6 percent and more than 45 percent for both farm supply cooperatives.

Unallocated equity averaged more than 13 percent of total assets for all sizes and types, but fell as cooperative size increased. By type, unallocated equity was around 15 percent of total assets for farm supply and mixed marketing cooperatives and around 11 percent to 12 percent for mixed farm supply and marketing cooperatives.

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. The statement measures the profitability of the cooperative for a given period of time. 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" income statement. 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 market-

Table 9—**Income statement and change in accounts, 1994 to 1995**

	1995	1994	Percent change
	Percent **of net sales**		
Net sales	100.00	100.00	7.82
Cost of goods sold	90.06	89.87	8.05
Gross margin	9.94	10.13	5.83
Service and other income	3.98	3.79	13.26
Gross revenue	13.92	13.92	7.85
Operating expenses			
Employee:			
Salaries and wages	4.69	4.36	15.97
Payroll taxes	.37	.36	9.31
Employee insurance	.49	.50	6.78
Pension expense	.14	.14	12.94
Total	5.69	5.36	7.16
Administrative:			
Professional services	.16	.13	34.45
Office supplies (includes postage)	.16	.16	7.72
Telephone, markets	.09	.09	7.18
Meetings and travel	.07	.07	7.52
Donations	.01	.01	9.92
Dues and subscriptions	.03	.03	15.51
Directors' fees and expense	.03	.03	6.26
Annual meetings expense	.02	.02	3.93
Total	.57	.54	13.66
General:			
Advertising and promotion	.16	.16	8.81
Delivery (auto & truck) expense	.68	.63	16.27
Insurance	.49	.51	2.83
Property & Business taxes	.33	.34	3.55
Other taxes and licenses	.15	.17	(4.96)
Rent and lease expense	.20	.20	9.28
Plant supplies & repairs	.22	.20	21.74
Repairs and maintenance	.68	.65	12.85
Utilities (includes dryer expense)	.49	.51	3.08
Miscellaneous expenses	.12	.11	17.21
Other expenses	.32	.39	(14.35)
Total	3.84	3.87	18.00
Depreciation	1.53	1.54	7.33
Interest expense	.89	.68	42.42
Bad debts	.11	.10	17.16
Total expenses	12.63	12.09	12.65
Local savings	1.29	1.83	(23.98)
Patronage refunds received	1.41	1.11	36.55
Savings before income taxes	2.70	2.94	(1.03)
Less income taxes	.31	.68	(51.01)
Net income	2.39	2.26	14.01
Based on sales of:	$12,187,025	$11,302,965	

ed-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. Service included 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 those incurred in the course of conducting normal business. They 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 attach great importance to 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 432 cooperatives and the change between 1994 and 1995. Appendix tables 5 to 8 show common size income statements by size and type for 1995.

Net Sales

The first item of the income statement analyzed in this report was net sales. It was determined by subtracting sales discounts and returns and allowances from gross sales. The average net sales for the 432 cooperatives in 1995 was $12.2 million, up $0.9 million or 7.8 percent from 1994. Net sales by cooperative size are presented in table 10, and by type in table 11. All sizes and types of cooperatives experienced a growth in net sales from 1994. If assets from tables 7 and 8 are compared to net sales in tables 10 and 11, sales for all types (except marketing) and sizes are about twice the level of assets.

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 this study, COGS includes the beginning inventory plus purchases and freight costs, minus purchase returns and allowances, purchase discounts, and ending inventory. So, 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 cooperatives. Both types of marketing cooperatives had a relatively high COGS when compared with farm supply cooperatives, which was to be expected because they were generally marketing grains and oilseeds for their patrons with only a few cents per bushel margin. There was negligible change in COGS by cooperative size and type between the 2 years.

Gross Margins

Gross margins were the excess of net sales over the cost of goods sold. The gross margin averaged 9.9 percent for all cooperatives, down from 10.1 percent in 1994. The gross margin or gross margin percentage is a very important operating ratio. A small change **in the gross margin has a tremendous impact on local savings. 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 operate at cost on a day-to-day basis. 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.

Because by definition, gross margin equals net sales less cost of goods sold, those 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-16.7 percent-had the highest gross margin. Although both types of farm supply cooperatives had less business volume than those that performed marketing activities, their gross margin percentage was from 6 to 10 percentage points higher. Small cooperatives, mostly selling farm supplies, had the highest gross margin by size (15.6 percent).

Table w-Abbreviated income statement as a percent of net sales for cooperatives by size, 1995

	Small	Medium	Large	Super
	Percent of net *sales*			
Net sales	100.00	100.00	100.00	100.00
Cost of goods sold	64.36	67.66	89.08	91.98
Gross margin	15.64	12.34	10.92	a.02
Service and other income	3.63	4.16	4.07	3.94
Gross revenue	19.27	16.50	14.99	11.96
Expenses				
Employee [1]	9.23	7.22	6.52	4.58
Administrative [2]	1.10	.79	.59	.44
General [3]	4.35	3.78	3.56	3.35
Depreciation	2.11	1.97	1.74	1.46
Interest	.68	.a2	.90	1.03
Bad debts	.23	.24	.18	.06
Total expenses	17.70	14.82	13.49	10.92
Local savings	1.57	1.68	1.50	1.04
Patronage refunds received	2.36	1 .a4	1.49	1.12
Savings before income taxes	3.93	3.52	2.99	2.16
Less income taxes	.24	.42	.49	.20
Net income	3.69	3.10	2.50	1.96
Based on total sales of:	$2,599,834	$7,010,685	$13,819,360	$37,104,303

[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.

Gross margins vary not only by cooperative, but also by farm supply sold or product marketed. Cooperatives, like other businesses, have different margins for different products. For 100 cooperatives that provided their individual product gross margins, these margins are shown in table 12. Margins vary due to product type and competition. For instance, fertilizer sold by the truckload has a different margin than a sale of a single bag. The services offered in conjunction with a sale (e.g., fertilizer spread on the field by a cooperative truck) have an impact on margin. Margins are also subject to competition. The gross margin discussed in the first paragraph of this section is a blended margin, made up of the margins of 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 19 percent. The maximum margin on fertilizer of 46 percent was for a small amount, probably a speciality fertilizer sold by the bag. Feed and petroleum margins were both around 17 percent. The margin of -302 percent on seed looks incorrect and needs further explanation. This margin was from a cooperative with more than $6 million in grains and oilseeds sales that sold $1,500 of seed for $400. The

Table 1 I-Abbreviated income statement as a percent of net sales for cooperatives by type, 1995

	Farm supply	Mixed farm supply	Mixed marketing	Marketing
	Percent of net sales			
Net sales	100.00	100.00	100.00	100.00
Cost of goods sold	83.32	85.06	91.82	94.02
Gross margin	16.68	14.94	8.18	5.98
Service and other income	3.81	4.99	4.03	3.55
Gross revenue	20.49	19.93	12.21	9.53
Expenses				
Employee [1]	9.63	8.89	4.85	3.36
Administrative [2]	1.02	.91	.44	.33
General	4.67	5.15	2.91	2.87
Depreciation	2.23	2.24	1.54	1.20
Interest	.85	1.09	.95	.94
Bad debts	.19	.22	.12	.05
Total expenses	18.59	18.50	10.81	8.75
Local savings	1.90	1.43	1.40	.78
Patronage refunds received	2.39	1.99	1.15	.91
Savings before income taxes	4.29	3.42	2.55	1.69
Less income taxes	.23	.20	.49	.21
Net income	4.06	3.22	2.06	1.48
Based on sales of:	$4,930,596	$11,534,034	$18,014,033	$21,917,039

[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.

seed may have been damaged, stolen, or sold for a loss, but for whatever the reason, it was a very small loss on minimal sales,

If the gross margin is extremely low, it may mean that the cooperative is in a very competitive market. For example, the two cooperatives with the lowest margins were located in close proximity and of course, in head-to-head competition. On further analysis, both cooperatives have been profitable over the past 5 years and have increased sales. They have even discussed merger, but membership has resisted this change. In this one instance, their low margins may be equated to low product prices-something that their members have noted by increasing their purchases from both cooperatives.

Grains and oilseeds were the only products marketed where gross margins were known. Grains and oilseeds margins were low, only around 4 percent. Around 10 cooperatives reported high grains and oilseeds margins of 18 and 19 percent. These high margins were all at mixed farm supply cooperatives that had feed sales. It is suspected that the high margins resulted from the grain and oilseed content in livestock feeds sold rather than the commodities themselves.

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, 1995**

	Weighted margin	Maximum	Minimum	Number of observations
		Percent		*Number*
Feed	16.53	28.76	2.38	a4
Seed	14.59	64.09	(301 .84)	78
Fertilizer	18.61	45.88	4.14	88
Crop protectants	13.86	24.96	2.66	a4
Petroleum products	16.46	41.23	2.45	55
Tires, batteries, & auto accessories	21.04	29.68	1.77	43
Machinery	13.88	19.24	11.09	4
Building materials	21.20	69.51	9.95	16
Food	23.44	33.00	11.71	7
Other farm supplies	19.50	48.35	(10.08)	90
Grains and oilseeds	4.16	18.81	.27	62

cooperatives provided many other services to their patrons, but these were the primary ones of the respondent cooperatives. This income averaged between 3.6 percent and 5 percent of net sales for all sizes and types of cooperatives.

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 property, plant, and equipment was sold to generate income, but usually it was the sale of a fully depreciated asset where the market value was greater than the book value. In some cases, disposal of a fully depreciated asset may mean 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, of course, were related to labor costs. Administrative expenses included a variety of overhead costs associated with a cooperative and indirectly related to revenue production. General expenses were those directly related to revenue production, The bulk were 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 5.7 percent of net sales for all respondent cooperatives. Employee expenses, up 7.2 percent from 1994, represented the smallest increase of all the major expense categories.

As a percent of net sales, employee expenses decreased as cooperative size increased. This expense decreased from 9.2 percent of net sales for small cooperatives to 4.6 percent for super cooperatives. By type, employee expenses as a percent of net sales were 9.6 percent for farm supply cooperatives and 3.4 percent for marketing cooperatives.

About 62 percent of the cooperatives (268) provided employee numbers and expenses (table 13). These expenses were for all employees. To equate part-time to full-time employees for purposes of this study, four part-time employees were considered as one full-time equivalent employee.3 Based on that calculation, the expense for a single employee averaged $30,119 for an average 19 employees, up 4 percent from 1994. By size, they ranged from $26,982 for small to $33,010 for super cooperatives and by type from $27,611 for those selling only farm supplies to $33,481 for mixed marketing cooperatives. Small cooperatives averaged 8 actual full-time employees (excludes part-time), medium, 16;

[3] Based on previous research conducted by CS economist David E. Cummins.

Table 13—**Calculated** salaries (using both full- and part-time employee expenses) and actual number of **full-time** employees, 1995

	Small	Medium	Large	Super	All
Farm supply salaries	$26,349	$31,151	$28,391	$30,600	$27,611
number of employees	9	21	44	42	14
Mixed farm supply salaries	28,144	31,452	32,324	33,394	31,596
number of employees	9	18	34	59	28
Mixed marketing salaries	31,568	31,704	34,832	34,106	33,481
number of employees	6	11	20	50	25
Marketing salaries	29,634	29,268	32,443	31,864	31,213
number of employees	4	6	11	39	19
All salaries	26,982	31,039	32,634	33,010	30,119
number of employees	8	16	24	47	19

Table 14—**Board** member **salaries**

Cooperative type	Salaries	Cooperative size	Salaries
Farm supply	$576	Small	$364
Mixed farm supply	1,087	Medium	639
Mixed marketing	559	Large	870
Marketing	739	Super	1,306
Average of all	684		

large, **24;** and super, 47. Farm supply cooperatives averaged 14 employees, mixed farm supply, 28; mixed marketing, 25; and marketing, 19.

Cooperatives with a significant proportion of their sales as farm supplies 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 9 **full-**time employees while a small marketing cooperative used fewer employees-often only a manager, bookkeeper, and two others.

Administrative Expenses

Administrative expenses were indirectly related to generating income. Managers usually had more control over administrative expenses than any other cost. In years when revenues were down, managers could reduce expenses in this area more easily than in other categories. 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.

Professional services (such as legal, accounting, and computer) and office supplies both comprised 0.16 percent of net sales-the largest administrative expense. In total, administrative expenses were less than 0.6 percent of net sales. These expenses fell from a high of 1.1 percent for small cooperatives to 0.44 percent for super cooperatives. As cooperative size increased, the highest administrative expense, professional services, fell as the cooperative relied more on its own employees to perform these tasks rather than purchase the services.

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 several hours of service each month to guiding their cooperative. Table 14 shows the number of directors and their compensation for 282 cooperatives in 1995. Board expenses seemed rather modest, averaging **$684** per director. The average board had seven directors. By size, small cooperatives paid directors the least ($364) and super paid the most ($1,306). By type, mixed farm supply cooperatives paid the most at $1,087 per director.

General Expenses

General expenses were usually fixed in the short run and 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 of these expenses (with the exception of advertising and promotion) were not under direct management control.

General expenses averaged 3.8 percent of net sales in 1995, Repairs and maintenance and delivery expenses at 0.68 percent of net sales were the largest in the general category, followed by insurance and utilities, both at 0.49. By cooperative size, general expenses were 4.4 for small cooperatives and 3.4 for super cooperatives. By cooperative type, these expenses were around 5 percent of net sales for farm supply cooperatives and around 3 for marketing cooperatives.

Depreciation, Interest, and Bad Debts

Depreciation expense averaged 1.5 percent of net sales; interest, 0.9 percent; and bad debts, 0.1 percent. By cooperative size, depreciation expense as a percent of net sales was 2.1 percent for small cooperatives and 1.5 percent for super cooperatives. By cooperative type, depreciation expense was 2.2 percent of net sales for farm supply cooperatives, 1.5 percent for mixed marketing, and 1.2 percent for marketing cooperatives.

As discussed earlier, interest expenses, especially for short-term borrowing increased dramatically, going from 0.7 percent of net sales in 1994 to 0.9 percent in 1995. Interest expenses were lowest among small cooperatives at 0.7, but grew to more than 1 percent for super cooperatives. By type, interest expenses were about 0.9 percent for all cooperatives except mixed farm supply which was highest at 1.1 percent.

Bad debts as a percent of net sales fell as cooperative size increased-O.2 for small cooperatives and 0.1 for super cooperatives. By cooperative type, bad debts were 0.2 for both farm supply cooperatives and around 0.1 for both marketing cooperatives.

Local Savings

Local savings or local income was generated from own operations (before taxes and patronage refunds from other cooperatives). Local savings as a percent of net sales was highest for small cooperatives (1.6 percent) and lowest for super cooperatives (1 percent). By type, local savings was the highest for farm supply cooperatives (1.9 percent) and the lowest for marketing cooperatives (0.8 percent). Small cooperatives, and especially farm supply cooperatives, had higher local savings than larger marketing cooperatives.

About 24 percent of the cooperatives in this study had losses. While small cooperatives have higher returns on net sales, 50 or one-third of them lost money. Table 15 shows losses by size and type. Thirty percent of the mixed farm supply cooperatives lost money. Most likely to lose money were small mixed farm supply cooperatives (57 percent).

Patronage Refunds Received

Patronage refunds received or income from other cooperatives resulted from locals doing business with other cooperatives, generally regionals, or cooperative banks such as CoBank or the Bank for Cooperatives.

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

Table k-Respondent cooperatives that had losses

Cooperative type	Cooperative size: Small	Medium	Large	Super	Average
	Percent				
Farm supply	28.69	10.81	10.53	33.33	23.20
Mixed farm supply	57.14	26.09	18.18	27.27	30.00
Mixed marketing	25.00	21.43	24.24	6.67	18.45
Marketing	50.00	26.67	29.17	16.13	25.64
Average	32.05	19.42	21.43	14.67	23.61

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. The dollar amount of patronage refunds between 1994 and 1995 was up 37 percent, suggesting 1995 must have been a good year for regional cooperatives, CoBank, or the Bank for Cooperatives. Patronage refunds received were 2.4 percent of net sales for small cooperatives and 1.1 percent for super cooperatives. By cooperative type, patronage refunds received as a percent of net sales were higher for farm supply cooperatives than for marketing cooperatives.

Patronage refunds were an important source of revenues. They allowed 71 (out of 102) cooperatives that had local losses to have net income.

Income Taxes

Cooperatives paid income taxes on earnings not allocated to members (retained earnings) and on dividend payments. The decision as to what amounts of income that were allocated to retained earnings and to members was made by the board of directors. 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 0.3 percent of net sales in 1995.

Income tax paid by cooperatives varied by size and type. Small cooperatives paid income taxes equal to 0.2 percent of their net sales, medium, 0.4; large, 0.5; and super, 0.2. All cooperatives except mixed marketing (0.5 percent) paid 0.2 percent of their net sales in income taxes.

Net Income

Net income is the term used here for profits on cooperative income statements. Net income as a percent of net sales decreased by cooperative size. For small cooperatives it was 3.7 percent of net sales, medium, 3.1 percent; large, 2.5 percent; and super, 2 percent. By cooperative type, farm supply had returns of 4.1 percent on net sales, mixed farm supply had 3.2 percent, mixed marketing cooperatives, 2.1 percent, and marketing cooperatives, 1.5 percent.

Net income (before taxes) 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 53 percent of net income before taxes was held as non-cash patronage allocations by the 287 cooperatives that provided income allocations. Cash patronage refunds were 22 percent. All distributions of income were basically unchanged from 1994. Only 9 of the 287 cooperatives reported dividends on preferred stock. The effective interest paid was 3.22 percent.

Table W-Distribution of net income before taxes

Item	1995	1994
	Percent	
Non-cash patronage allocations	52.91	54.43
Cash patronage refunds	22.42	22.51
Retained earnings	17.17	16.97
Taxes	7.35	5.96
Dividends	.15	.14
Net income before taxes:	$101,171,588	$94,112,032
Number of cooperatives:	287	330

Financial Ratio Analvsis

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.

Standard ratios were used in this report, including financial ratio analysis that allow 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 often chosen because of their comparability with prior studies. Therefore, most figures show ratios for the 11-year period for all 1,610 cooperatives. Data for 1994 and 1995 reflect information gathered from the same 432 cooperatives that reported for both years.

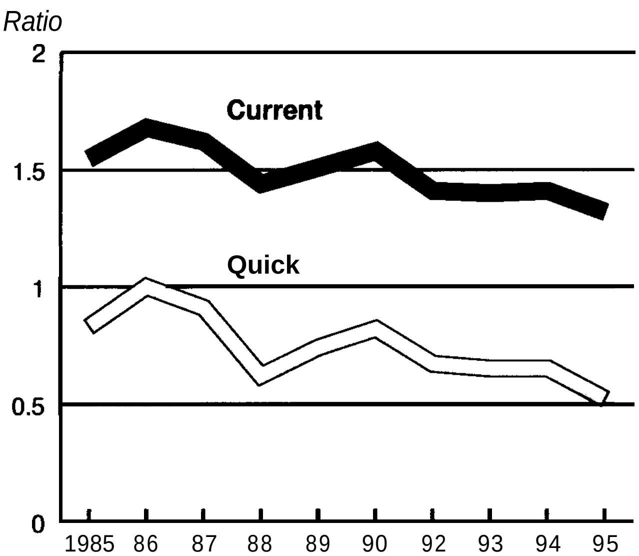
Performance ratios measure various levels of cooperative operations and generally have both a financial and operational impact. Four categories were used-liquidity, leverage, activity, and profitability. Many factors underlie each ratio and examining one ratio may not help pinpoint problems.

Liquidity Ratios

Liquidity ratios, such as current and quick, measure the cooperative's ability to meet short-term obligations. They focus on the cooperative's ability to 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 if comprised of mainly inventory.

If the ratio is less than 1, current liabilities exceed current assets and the cooperative's liquidity is threatened. Improvements in this ratio can be achieved 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 a greater portion of allocated savings (reducing the cash portion).

Figure i-Current and Quick Ratios



A high current ratio is a favorable condition financially because it 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 3 years before it took a slight downturn in 1995. The total current assets increased 24 percent while total current liabilities increased 33 percent. From 1994 to 1995, grains and oilseeds and farm supply inventories and dividends on equity were the only elements of current liabilities that grew. Higher grain and oilseed inventories are probably causing the 32-percent increase in patron credit balances and other liabilities (which contains grain trade payables).

The current ***ratio*** fell as cooperative size increased. The ratio was highest for small cooperatives (2.11) and fell to 1.19 for super cooperatives (table 17). By cooperative type, the ratio was 1.15 for marketing cooperatives and 1.82 for farm supply cooperatives (table 18).

Quick ratio is current assets minus inventories, divided by current liabilities. Inventories are excluded-the least liquid of all current assets. All elements of this ratio have increased. Financially, a high ratio

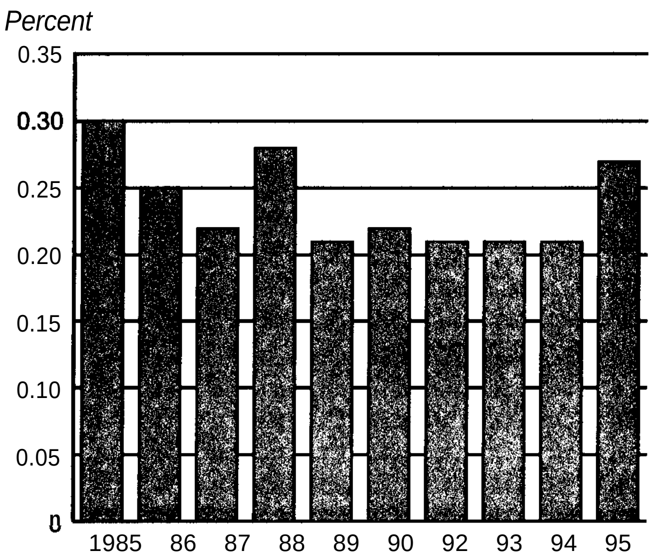
Table w-Financial analysis ratios by cooperative size, 1995

Ratio	Small	Medium	Large	Super
Liquidity				
Current	2.11	1.63	1.34	1.19
Quick	1.12	.80	.56	.41
Leverage				
Debts-to-assets	.12	.19	.24	.32
Debt-to-equity	.06	.11	.14	.17
Times-interest-earned	6.80	5.26	4.33	3.10
Activity				
Total-asset-turnover	1.78	1.97	2.19	2.28
Fixed-asset-turnover	8.03	7.99	8.53	9.61
Profitability				
Gross profit margin	15.64	12.34	10.92	8.02
Return on total assets before interest & taxes	8.20	8.54	8.51	7.29
Return on allocated equity	12.23	13.34	13.83	14.92

allows little dependence on the salability of inventory to meet current obligations. Operationally, the results are the same as with current ratio.

The quick ratio mimicked the movement of the current ratio. Small cooperatives (1.12) had the highest ratio and it decreased as size increased to 0.41 for super cooperatives (table 17). The quick ratio ranged from a low of 0.39 for marketing cooperatives to a high of 0.92 for farm supply cooperatives. This ratio was highest in 1986 and lowest in 1995 (figure 1).

Figure 2—**Total Debt-To-Asset Ratio**



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-to-asset ratio is defined as total debt divided by total assets. Elements of this ratio include long-term debt plus short-term debt and total assets. Long-term debt increased at the same rate as total assets, which may indicate some short-term obligations were being carried and converted to long-term debt. With inventories increasing in the short term, quick financing is needed, usually through the use of short-term debt.

In fact, short-term debt increased 72 percent between 1994 and 1995 (table 5). Lenders would rather see a low ratio indicating the cooperative's ability to repay the loan. Overall, this ratio increased from .21 to .27 because assets increased by 17 percent while debt increased by almost one-half (figure 2). Reducing debt, increasing savings, or financing a greater portion of assets with working capital may improve this ratio.

Larger cooperatives were financing more of their assets with debt, but the highest ratio for any size or type of cooperative was still only 0.32 (table 17). Small cooperatives had the lowest use of debt at 0.12. Debt usage was highest for marketing cooperatives at 0.32. This was twice the ratio for farm supply cooperatives. By type, farm supply cooperatives had the lowest use of debt.

Debt-to-equity ratio is calculated by dividing long-term debt by member equity. 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

Table w-financial analysis ratios by cooperative type, 1995

Ratio	Farm supply	Mixed farm supply	Marketing	Mixed marketing
Liquidity				
Current	1.82	1.41	1.15	1.28
Quick	.92	.62	.39	.48
Leverage				
Debts-to-assets	.16	.27	.32	.28
Debt-to-equity	.11	.14	.18	.13
Times-interest-earned	6.04	4.13	2.81	3.73
Activity				
Total-asset-turnover	1.81	1.87	2.42	2.32
Fixed-asset-turnover	7.25	7.06	10.49	9.83
Profitability				
Gross profit margin	16.68	14.94	5.98	8.18
Return on total assets before interest &taxes	9.27	8.42	6.35	8.09
Return on allocated equity	14.06	13.35	13.51	14.65

ratio increased from 0.12 in 1994 to 0.14 in 1995 (figure 3 & table 19). A low ratio is more favorable and financially impacts the cooperative through independence on outside sources of funds relative to owners' equity. A low ratio may also have an unfavorable impact indicating low return on equity. Operationally, a low ratio 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 down equity retirement programs, selling additional capital stock, or retaining a greater portion of allocated savings.

As cooperative size grew, so did their use of long-term debt. The ratio for small cooperatives was 0.06 and 0.17 for super cooperatives (table 17). Marketing cooperatives had, at 0.18, the highest ratio by type, while farm supply cooperatives were the lowest at 0.11. When looking at the trend, the ratio increased slightly each year from 1992 to 1995, but is much lower than prior years (figure 3).

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 before starting a slight downward trend for the next 2 years (figure 4). 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. Financially, a high ratio impacts the return on equity and tends to increase it. Over time operationally, a high ratio will reduce interest cost.

Interest coverage was the greatest for smaller cooperatives and generally fell as cooperative size increased to super cooperatives (table 17). By cooperative type, the ratio ranged from 2.81 for marketing to 6.04 for farm supply.

Table W-Financial analysis ratios for all cooperatives, 1995 and 1994

Ratio	1995	1994
Current	1.32	1.41
Quick	0.52	0.65
Debts-to-assets	0.27	0.21
Debt-to-equity	0.14	0.12
Times-interest-earned	3.65	4.65
Total-asset-turnover	2.16	2.34
Fixed-asset-turnover	6.93	8.83
Gross profit margin	9.94	10.13
Return on total assets before interest &taxes	8.04	8.66
Return on allocated equity	13.96	12.65

Figure **%--Debt-To-Equity Ratio**

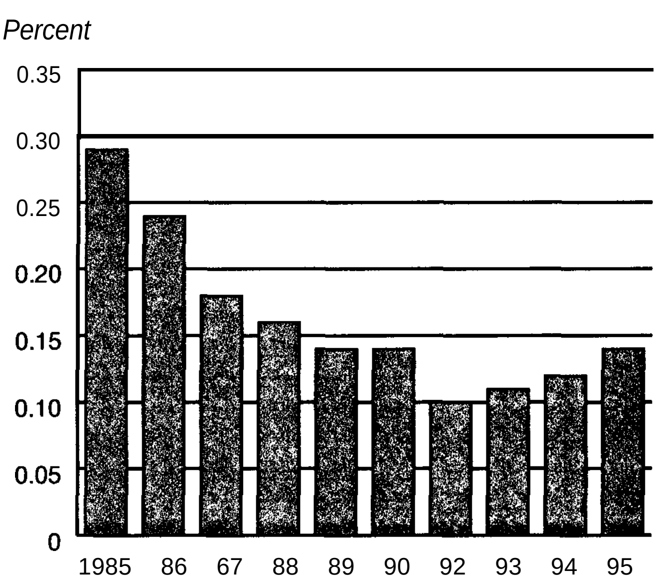
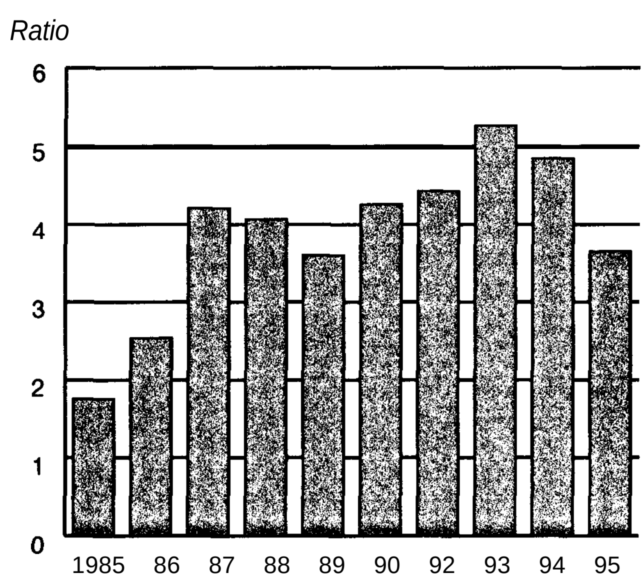


Figure 4—**Times-Interest-Earned Ratio**



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 was found by dividing net sales by total cooperative assets. This ratio has gone down slightly from 2.34 in 1994 to 2.16 in 1995 (figure 5). Both elements of this ratio increased-total sales by 8 percent and total assets by 17 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). Super cooperatives had the highest ratio at 2.28, indicating the most efficient use of assets. By cooperative type, the total asset turnover ratio was higher for marketing than farm supply. The total asset turnover ratio was lowest in 1995 at 2.16 and highest in 1989 at 3.01.

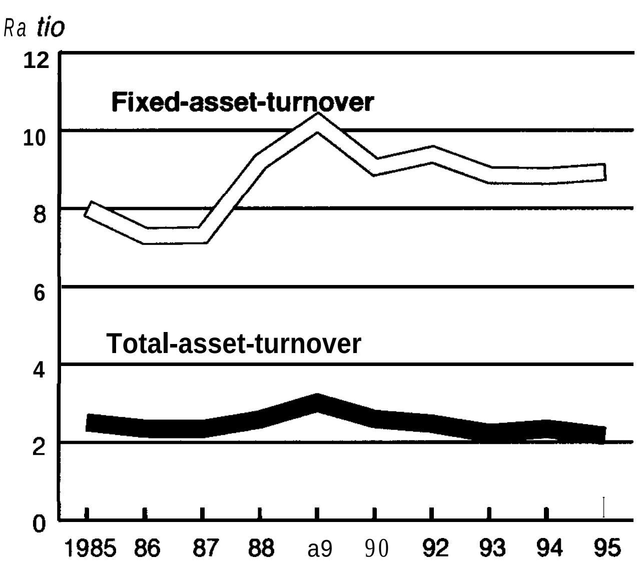
Fixed-asset-turnover ratio represents net sales divided by net property, plant, and equipment (PP&E). This ratio is similar to the total asset turnover ratio and shows how well the cooperative is using its fixed assets. This ratio by itself might not give a complete picture of the cooperative's financial health. A cooperative with fully depreciated assets would have an artificially high ratio. A cooperative that invested heavily in PP&E for future expansion will have a temporarily low ratio.

After a high in 1989 of 10.20, this ratio has remained relatively level for the 1990s. In 1995, the ratio was 8.93 and increased slightly from 1994 because sales increased 8 percent while investment in fixed assets increased 7 percent. The measure for this ratio may or may not show favorable or unfavorable conditions. It 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 financially exerts 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, a fixed-asset-turnover ratio of 9.61 was greatest for super cooperatives. By type, the ratio was the highest (10.49) for marketing cooperatives. The fixed-asset-turnover ratio was at its lowest in 1987 (figure 5).

Figure 5—Total- and Fixed-Asset-Turnover



Profitability Ratios

Profitability ratios, such as gross profit margin, indicate the efficiency of the cooperative's operations. Because a cooperative is owned by its user-members, many common industry profitability ratios have little meaning. For instance, profitability ratios measuring the return on common or preferred stock of similar investor-oriented firms are not appropriate because there is seldom an open market for cooperative stock.

Gross *profit margin* is found by subtracting the cost of goods sold from, net sales and then dividing this amount (gross margin) by net sales. The gross profit margin is an important operating ratio. A small change in the gross margin has a tremendous impact on local savings. It indicates the cooperative's pricing policy and cost of goods offered for sale.

For all cooperatives, the gross profit margin averaged 9.94 percent in 1995. The gross profit margin was the highest for respondent cooperatives in 1993 at 10.76 percent (figure 6). By size, gross profit margin diminished as cooperative sales grew. At 15.64 percent, small cooperatives had the highest gross margin. By type, farm supply and mixed farm supply cooperatives, at 16.68 percent and 14.94 percent, had the highest margins in 1995 (table 18).

Return on total assets measures the rate of return on total investment. It is calculated by dividing net income by total assets and usually calculated before interest and taxes. This ratio is a measure of 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 declined by 0.62 percent to 8.04 percent between 1994 and 1995 (table 19).

Net savings (before income taxes) declined 1 percent while interest expense increased 42 percent during the 2-year period (table 9). For the decade, this ratio was highest in 1992 and 1995 and has been fairly constant (figure 7). Operationally, a high ratio tends to reduce interest cost and financially indicates a comparatively high rate of return on assets employed.

Medium and large cooperatives had a higher return on total assets (table 17). Medium-sized cooperatives were slightly higher at 8.54 percent. By cooperative type, return on total assets was highest for farm supply cooperatives at 9.27 percent. Assets relative to revenue were higher for both types of farm supply cooperatives.

Return on allocated equity is net income divided by allocated equity. It was determined by subtracting unallocated equity from total member equities. It represents member investment in their cooperative and is an important measure of profitability.

This ratio increased 1 percent in 1995 (table 19). 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 increased 14 percent while allocated equity increased 3 percent from 1994 to 1995.

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

By size, this ratio increased as the cooperative grew in size. Super cooperatives had the highest return on allocated equity (14.92 percent). Farm supply and mixed farm supply cooperatives ratios were 14.06 percent and 13.35 percent and marketing and mixed marketing cooperatives were 13.51 percent and 14.65 percent (table 18).

Summary and Conclusions

Local cooperatives studied in this report generally had strong financial statements. Assets increased 17 percent from 1994 to 1995. More than half of the accounts receivable were less than 30 days old. Investment in PP&E grew 7 percent. Owner equities grew 5 percent and member ownership in the local exceeds 50 percent. Net sales grew 8 percent. Total expenses grew 13 percent while net income grew slightly faster, at 14 percent.

Figure 6— Gross Profit Margin

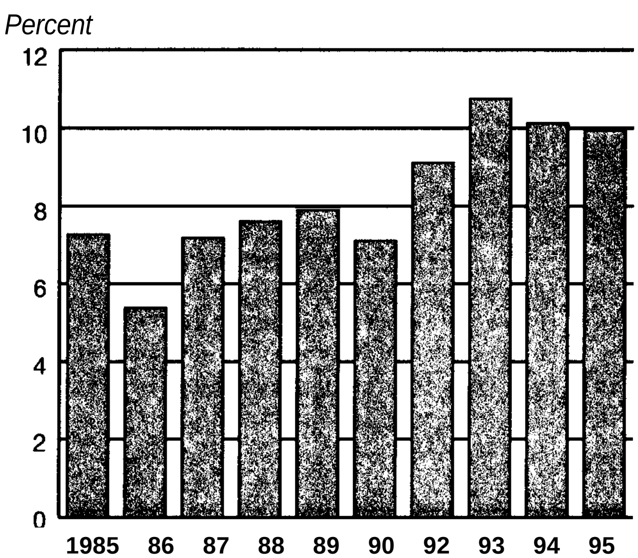
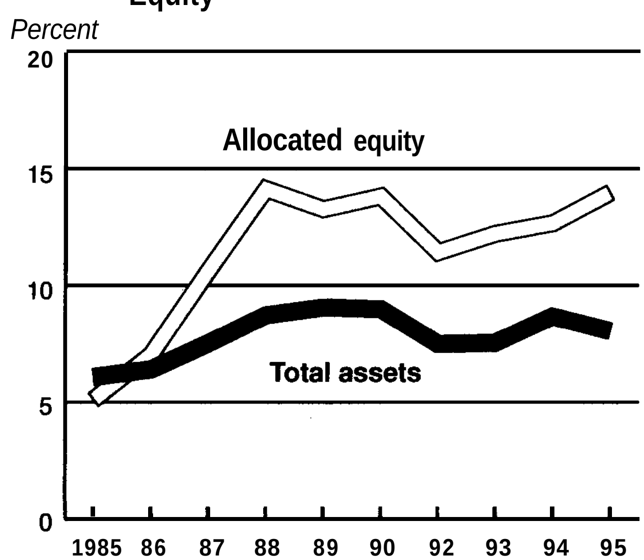


Figure 7— Return on Total Assets and Allocated Equity



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 two branch locations 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 8 percent from 1994. In turn, patronage refunds to local cooperatives from regionals and the banks increased 37 percent and made the year profitable for 71 cooperatives that would have otherwise had losses. But, local cooperatives cannot depend on large patronage refunds and with numerous locals losing money, further consolidation of locals may be necessary in the future.

An area of concern in the financial statements was the large buildup in inventories and subsequent increases in short-term debt. Grains and oilseeds inventories increased 51 percent; short-term debt climbed 72 percent and pushed up interest costs 42 percent. Inventory buildup and the subsequent growth in assets financed through additional debt had an impact on much of the ratio analysis:

1) Liquidity ratios, current and quick, declined slightly in 1995 due to increased grains and oilseeds and farm supply inventories;

2) Leverage ratios-debt-to-total assets ratio, jumped from 0.21 in 1994 to 0.27 in 1995 because assets increased 17 percent while debt increased almost 50 percent;

3) Activity ratios-total-asset-turnover ratio fell from 2.34 in 1994 to 2.16 in 1995 because total sales increased only 8 percent while assets increased 17 percent with much of the increase in inventories; and finally

4) Profitability ratios-return on total assets ratio fell from 8.66 in 1994 to 8.04 in 1995 because total assets increased more than net income. Total assets reflected increased inventory while increased interest costs lowered net income.

But increases in inventories are not expected to be a long-term trend. More current information suggests the inventory problem will be a non-issue in FY 1996. Prices for most grains and oilseeds increased greatly this past year and most inventories were probably liquidated to capture the higher prices. Other pressing issues are sure to arise in the coming year. Cooperatives are owned by their farmer/member/patrons. As long as those farmers want to own a business where they can purchase their supplies and market their products, cooperatives will continue to adapt to changing economic conditions.

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Eversull, E. Eldon, and David S. Chesnick, Analysis of Balance Sheets of Local Farm Supply and Marketing Cooperatives, U.S. Department of Agriculture, Rural Business-Cooperative Service, RR 138, January 1.

Appendix table 1—**Common size balance sheets for farm supply cooperatives, 1995**

Item	Small	Medium	Large	Super
	Cooperative size			
Assets	Percent of total assets			
Current assets				
Cash and cash equivalents	7.59	4.39	3.92	2.91
Accounts receivable	12.94	14.97	14.55	7.17
Inventories-rains and oilseeds				
-farm supplies	22.67	23.01	21.99	30.22
Prepaid expenses	2.51	.98	1.94	4.76
Other current assets	2.24	3.45	.80	9.07
Total current assets	47.95	46.80	43.20	54.15
Investments and other assets				
Investments-other cooperatives	27.83	25.80	23.46	18.91
-Bank for Cooperatives	.34	.67	1.42	.29
-Total	28.17	26.47	24.88	19.20
Other assets	1.08	1.91	4.17	.84
Total investments & other assets	29.25	28.38	29.05	20.04
Property, plant, and equipment				
At cost	57.81	59.84	58.88	59.79
Less accumulated depreciation	35.01	35.02	31.13	33.98
Net PP&E	22.80	24.82	27.75	25.81
Total assets	100.00	100.00	100.00	100.00
Liabilities and owner equities				
Current *liabilities*				
Current portion of long-term debt	1.87	1.75	2.51	1.94
Notes payable-seasonal	6.45	6.75	6.14	11.33
Accounts payable	6.61	7.25	7.92	14.26
Patrons credit balances & other liabilities	4.61	6.00	3.68	11.65
Accrued taxes	.42	.50	.63	.58
Accrued expenses	1.37	1.58	3.12	.88
Patronage refunds (cash)	1.43	1.52	1.94	1.82
Total current liabilities	22.76	25.35	25.94	42.46
Long-term debt	4.26	8.43	10.87	6.73
Total liabilities	27.02	33.78	36.81	49.19
Owner equities				
Allocated equity	54.86	53.25	51.02	35.46
Unallocated equity	18.12	12.97	12.17	15.35
Total owner equities	72.98	66.22	63.19	50.81
Total liabilities and owner equities	100.00	100.00	100.00	100.00
Based on total assets of:	$1,490,412	$4,063,398	$6,774,303	$11,165,924

Appendix table 2—**Common size** balance sheets **for mixed farm supply cooperatives, 1995**

Item	Cooperative size: Small	Medium	Large	Super
Assets	Percent of total assets			
Current assets				
Cash and cash equivalents	3.18	3.12	3.36	2.00
Accounts receivable	18.06	16.64	15.66	13.49
Inventories—grains and oilseeds	10.92	12.02	10.92	24.42
-farm supplies	13.61	9.97	13.34	12.57
Prepaid expenses	.68	.72	.77	.50
Other current assets	5.12	2.86	3.47	4.61
Total current assets	51.57	45.33	47.51	57.59
Investments and other assets				
Investments-other cooperatives	26.41	22.85	22.09	15.08
-Bank for Cooperatives	.95	1.82	1.12	1.46
-Total	27.36	24.67	23.21	16.54
Other assets	1.82	1.92	1.23	.96
Total investments & other assets	29.18	26.59	24.44	17.50
Property, plant, and equipment				
At cost	72.87	67.36	72.74	65.31
Less accumulated depreciation	53.62	39.28	44.70	40.40
Net PP&E	19.25	28.08	28.04	24.91
Total assets	100.00	100.00	100.00	100.00
Liabilities and **owner equities**				
Current liabilities				
Current portion of long-term debt	1.70	3.06	3.45	3.07
Notes payable-seasonal	9.87	12.20	9.27	24.29
Accounts payable	7.70	5.76	6.18	6.66
Patrons credit balances & other liabilities	5.09	5.06	8.47	7.11
Accrued taxes	.61	.47	.51	.62
Accrued expenses	1.84	1.51	1.75	2.22
Patronage refunds (cash)	.71	1.28	1.78	1.49
Total current liabilities	27.32	29.34	31.41	45.46
Long-term debt	6.08	8.86	8.27	7.10
Total liabilities	33.40	38.00	39.68	52.56
Owner equities				
Allocated equity	48.40	49.74	50.18	37.24
Unallocated equity	18.20	12.28	10.14	10.20
Total owner equities	66.60	62.00	60.32	47.44
Total liabilities and owner equities	100.00	100.00	100.00	100.00
Based on total assets of:	$1,429,714	$4,041,710	$7,009,070	$15844,816

Appendix table 3—**Common size balance sheets for mixed marketing cooperatives, 1995**

Item	Cooperative size: Small	Medium	Large	Super
Assets	Percent *of total assets*			
Current assets				
Cash and cash equivalents	8.92	5.71	2.00	2.20
Accounts receivable	14.31	13.14	10.94	9.60
Inventories-grains and oilseeds	25.66	22.22	26.13	29.07
-farm supplies	11.32	9.64	9.95	9.69
Prepaid expenses	.23	.74	.38	.82
Other current assets	7.08	4.87	8.45	9.40
Total current assets	67.52	56.32	57.85	60.78
Investments and other assets				
Investments-other cooperatives	12.30	19.25	15.16	13.75
-Bank for Cooperatives	.18	2.17	1.84	1.56
-Total	12.48	21.42	17.00	15.31
Other assets	1.02	.48	.50	.26
Total investments & other assets	13.50	21.90	17.50	15.57
Property, plant, and equipment				
At cost	73.85	81.57	83.27	61.86
Less accumulated depreciation	54.87	59.79	58.62	38.21
Net PP&E	18.98	21.78	24.65	23.65
Total assets	100.00	100.00	100.00	100.00
Liabilities and owner equities				
Current liabilities				
Current portion of long-term debt	1.05	3.24	3.83	3.26
Notes payable-seasonal	4.44	7.08	18.08	21.74
Accounts payable	4.46	5.12	3.61	4.53
Patrons credit balances & other liabilities	19.13	15.57	18.09	15.86
Accrued taxes	.55	.70	.77	.77
Accrued expenses	.54	1.35	1.04	1.81
Patronage refunds (cash)	1.15	1.51	.92	1.31
Total current liabilities	31.32	34.57	46.34	49.28
Long-term debt	2.28	3.58	5.64	6.65
Total liabilities	33.60	38.15	51.98	55.93
Owner equities				
Allocated equity	46.17	34.99	31.96	32.10
Unallocated equity	20.23	26.86	16.04	11.97
Total owner equities	66.40	61.85	48.02	44.07
Total liabilities and owner equities	100.00	100.00	100.00	100.00
Based on total assets of:	$1,408,731	$2,984,345	$6,190,531	$16,492,384

Appendix table d-Common size balance sheets for marketing cooperatives, 1995

Item	Small	Medium	Large	Super
	Cooperative size			
Assets	Percent of total assets			
Current assets				
Cash and cash equivalents	10.09	6.38	3.38	1.59
Accounts receivable	3.33	6.44	6.71	7.30
Inventories-grains and oilseeds	10.71	26.53	33.41	37.35
-farm supplies	2.61	3.12	7.06	6.22
Prepaid expenses	1.74	.85	.50	.55
Other current assets	29.22	16.79	12.77	10.49
Total current assets	57.70	60.11	63.83	63.50
Investments and other assets				
Investments-other cooperatives	19.07	16.10	12.06	10.60
-Bank for Cooperatives	.13	1.43	1.09	1.88
-Total	19.20	17.53	13.15	12.48
Other assets	1.28	.20	.73	.63
Total investments & other assets	20.48	17.73	13.88	13.11
Property, plant, and equipment				
At cost	71.40	69.73	62.73	56.74
Less accumulated depreciation	49.57	47.57	40.44	33.35
Net PP&E	21.82	22.16	22.29	23.39
Total assets	100.00	100.00	100.00	100.00
Liabilities and owner equities				
Current liabilities				
Current portion of long-term debt	.82	7.59	6.85	3.07
Notes payable-seasonal	.12	16.73	16.63	22.65
Accounts payable	2.43	2.63	8.03	2.82
Patrons credit balances & other liabilities	16.35	16.88	19.22	25.59
Accrued taxes	.20	.61	.63	.69
Accrued expenses	.64	.75	1.04	1.06
Patronage refunds (cash)	.59	.82	.78	.72
Total current liabilities	21.15	46.01	53.18	56.60
Long-term debt	.77	5.14	5.12	7.40
Total liabilities	21.92	51.15	58.30	64.00
Owner equities				
Allocated equity	54.58	30.22	27.81	25.43
Unallocated equity	23.50	18.63	13.89	10.57
Total owner equities	78.08	48.85	41.70	36.00
Total liabilities and owner equities	100.00	100.00	100.00	100.00
Based on total assets of:	$1,143,857	$2,647,247	$5,492,362	$16,935,051

Appendix table &Abbreviated income **statement** as a **percent** of net **sales for** farm supply cooperatives, 1995

	Cooperative size			
	Small	Medium	Large	Super
	Percent of net sales			
Net safes	100.00	100.00	100.00	100.00
Cost of goods sold	82.58	82.87	82.01	90.78
Gross margin	17.42	17.33	17.99	9.22
Service and other income	3.48	4.28	3.78	3.77
Gross revenue	20.90	21.59	21.75	12.99
Expenses				
Employee [1]	10.09	10.09	10.18	5.59
Administrative [2]	1.21	1 .00	.92	.73
General [3]	4.54	5.00	5.00	3.33
Depreciation	2.32	2.40	2.24	1.47
Interest	.73	.96	.92	.73
Bad debts	.20	.27	.16	.08
Total expenses	19.09	19.72	19.40	11.93
Local savings	1.81	1.87	2.35	1.06
Patronage refunds received	2.72	2.49	2.17	1.60
Savings before income taxes	4.53	4.36	4.52	2.66
Less income taxes	.24	.15	.30	.19
Net income	4.29	4.21	4.22	2.47
Based on sales of:	**$2,469,399**	**$6,737,019**	**$13,008,043**	**$31,582,922**

[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, 1995**

	Cooperative size			
	Small	Medium	Large	Super
	Percent of net sales			
Net **sales**	100.00	100.00	100.00	100.00
Cost of goods sold	85.12	85.80	83.44	86.13
Gross margin	14.88	14.20	16.56	13.87
Service and other income	3.76	4.51	5.65	4.81
Gross revenue	18.64	18.71	22.21	18.68
Expenses				
Employee [1]	9.41	8.26	10.17	8.00
Administrative [2]	1.13	1.01	.86	.87
General [3]	4.61	4.67	5.69	4.99
Depreciation	1.53	2.40	2.39	2.11
Interest	.83	1.09	1.04	1.18
Bad debts	.48	.28	.17	.19
Total **expenses**	17.99	17.71	20.32	17.34
Local savings	.65	1.00	1.89	1.34
Patronage refunds received	1.69	2.10	2.27	1.72
Savings before income taxes	2.34	3.10	4.16	3.06
Less income taxes	.45	.14	.17	.21
Net income	1.89	2.96	3.99	2.85
Based on sales of:	$1,429,714	$4,041,710	$7,009,070	$15,044,816

[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 -I-Abbreviated income statement as a percent of net sales for mixed marketing co-ops, 1995

	Cooperative size			
	Small	Medium	Large	Super
	Percent of net sales			
Net sales	100.00	100.00	100.00	100.00
Cost of goods sold	90.95	91.49	92.12	91.78
Gross margin	9.05	8.51	7.88	8.22
Service and other income	3.27	4.28	4.02	4.01
Gross revenue	12.32	12.79	11.90	12.23
Expenses				
Employee [1]	5.38	5.05	4.91	4.78
Administrative [2]	.62	.55	.42	.42
General [3]	3.30	2.39	2.47	3.18
Depreciation	1.50	1.51	1.52	1.56
Interest	.37	.65	.98	.99
Bad debts	.26	.25	.23	.04
Total expenses	11.43	10.40	10.53	10.97
Local savings	.89	2.39	1.37	1.26
Patronage refunds received	.80	1.28	1.27	1.09
Savings before income taxes	1.69	3.67	2.64	2.35
Less income taxes	.12	.96	1.01	.20
Net income	1.57	2.71	1.63	2.15
Based on assets of:	$1,408,731	$2,984,345	$6,190,531	$16,492,384

[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 s-Abbreviated income statement as a percent of net sales for marketing cooperatives, 1995

	Cooperative size			
	Small	Medium	Large	Super
	Percent of net sales			
Net sales	100.00	100.00	100.00	100.00
Cost of goods sold	95.43	95.06	94.59	93.74
Gross margin	4.57	4.94	5.41	6.26
Gross revenue	10.40	8.12	8.49	9.93
Expenses				
Employee [1]	3.95	2.93	3.13	3.45
Administrative [2]	.52	.42	.35	.32
General [3]	3.08	2.12	2.32	3.09
Depreciation	1.33	1.16	1.16	1.21
Interest	.29	.52	.66	1.07
Bad debts	.07	.05	.10	.04
Total expenses	9.24	7.20	7.72	9.18
Local savings	1.16	.92	.77	.75
Patronage refunds received	1.63	.97	.65	.97
Savings before income taxes	2.79	1.89	1.42	1.72
Less income taxes	.05	.46	.16	.20
Net income	2.74	1.43	1.26	1.52
Based on sales of:	$1,143,857	$2,647,247	$5,492,362	$16,935,051

[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.

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Rural Business-Cooperative Service (RBS) provides research, management, and educational assistance to cooperatives to strengthen the economic position of farmers and other rural residents. It works directly with cooperative leaders and Federal and State agencies to improve organization, leadership, and operation of cooperatives and to give guidance to further development.

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.