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Asset growth for largest co-ops shows resilience to declining revenues

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Depressed ag sector puts squeeze on largest co-ops

Sales rebound for largest farmer co-ops, but net margins decline

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Mergers and consolidations continue to dominate the cooperative landscape. The reasons behind each are varied; however, cooperative leaders are continually searching for ways in which their organizations can serve a changing membership through cost-effective services. And while some of the mergers paid dividends this past year, others have not yet reached their potential. Let's review the statistics behind the performance of this changing cooperative landscape.

The largest cooperatives posted a 2.4-percent increase in sales. Sales revenue for the largest 100 agriculture cooperatives ranged from $68 million to $8.8 billion. The top five cooperatives contributed 48 percent of total sales in 1998, up from 46 percent in 1997. Combined sales for all 100 of the largest cooperatives totaled $67.9 billion (table 1). However, not all cooperatives experienced higher sales in 1998. Only 45 out of the top 100 cooperatives had an increase in sales, and 58 percent of that increase was attributed to a single cooperative.

Higher sales show promise

Figure 1 illustrates the source for the combined revenues of the largest agricultural cooperatives. Marketing revenue jumped 8.6 percent to $51.1 billion. Yet this increase should be taken with a grain of salt. Most of it was due to the push of one industry — dairy (table 2). After showing tremendous growth throughout the mid-1990s, farm supply sales fell dramatically in 1998. Combined farm supply sales for all cooperatives fell $2.4 billion to end the year at $16.8 billion. Leading the decline was petroleum, which accounted for more than half of the total drop in sales of farm supplies. Declines in fertilizer and feed sales were other major contributors. Only seed sales showed increases.

Dairy cooperatives were heavily involved in consolidation activities these past few years. These consolidations proved beneficial, with total sales jumping 29 percent to $18.1 billion in 1998. This was the only industry with significant gains in sales.

Grain cooperatives, on the other hand, experienced higher volumes of grain that put downward pressure on prices. Yet the increase in volume was not enough to offset the decline in prices, pushing sales down seven percent from 1997 to $4.1 billion in 1998. Farm supply sales for grain cooperatives fell three percent to $2.3 billion, dropping total sales to $6.3 billion, a 6- percent decrease.

Poultry and livestock cooperatives also felt the pressure of lower prices. Sales of these commodities dropped by 19 percent to $499 million. Rice cooperatives saw mixed results. Strong prices early for some varieties of rice showed promise. However, later in the year, rice cooperatives ended up with heavy stocks pushing down prices for other varieties. Over all, rice cooperatives ended the year with total marketing sales of $1.2 billion, down four percent from 1997.

Sales for cotton, sugar and fruit & vegetable cooperatives held relatively steady during 1998. Cotton prices were down slightly while quantity sold increased, leaving sales up 0.1 percent at $2.6 billion. Fruit & vegetable sales were mixed with fruit prices up and vegetable prices down. The net result brought total sales for fruit & vegetable cooperatives down 0.4 percent, ending 1998 with $6.4 billion in sales. Sugar sales were up one percent to $1.1 billion.

Diversified cooperatives increased their marketing sales, but a decline in their farm supply sales pulled total sales revenue down one percent to $17.2 billion. Total sales for the farm supply commodity group followed the overall trend of farm supply sales and dropped 11 percent to $14.6 billion.

Other operating income for the largest agriculture cooperatives was down 3.7 percent to $620 million. Other operating income usually consists of services associated with storage, hauling, and handling member's products, and spraying, spreading, and scouting members' fields. Most commodity groups had declining service revenue. The exceptions were farm supply and sugar cooperatives; these two groups had a combined increase in service revenues of $25 million.

Cost of goods sold for the largest agriculture cooperatives was $62.2 billion in 1998, an increase of 2.4 percent. The change in cost of goods sold closely followed the change in sales for each commodity group. Yet the net effect on gross margins was an increase of three percent. Cost of goods sold increased by $1.4 billion compared to an increase of $1.6 billion for total operating revenues. Gross margins for all of the largest cooperatives increased $181 million to end 1998 at $6.3 billion.

Gross margins for cotton, dairy, fruit

& vegetable, grain, and sugar cooperatives all increased. The surprising group was grain cooperatives. Despite lower sales revenue, gross margins were up 20 percent, reaching $486 million — the highest gross margin in five years. Gross margins for sugar cooperatives also hit a five-year high, ending 1998 up five percent at $262 million. Dairy cooperatives had the second highest percentage increase of 19 percent, ending the year at $1.1 billion. The cotton and fruit & vegetable co-ops each increased, at 10 percent and 4 percent, respectively, to end the year with gross margins of $183 million and $1.7 billion.

Conversely, farm supply and diversified cooperatives hit their lowest gross margins in the five-year period. Farm supply cooperatives' gross margins dropped nine percent to $909 million, while diversified cooperatives fell five percent to $1.3 billion. The poultry and livestock and rice co-ops also had lower gross margins. Poultry and livestock margins fell 10 percent, to $15 million, while rice margins dropped 1 percent, to $328 million.

Expenses jump

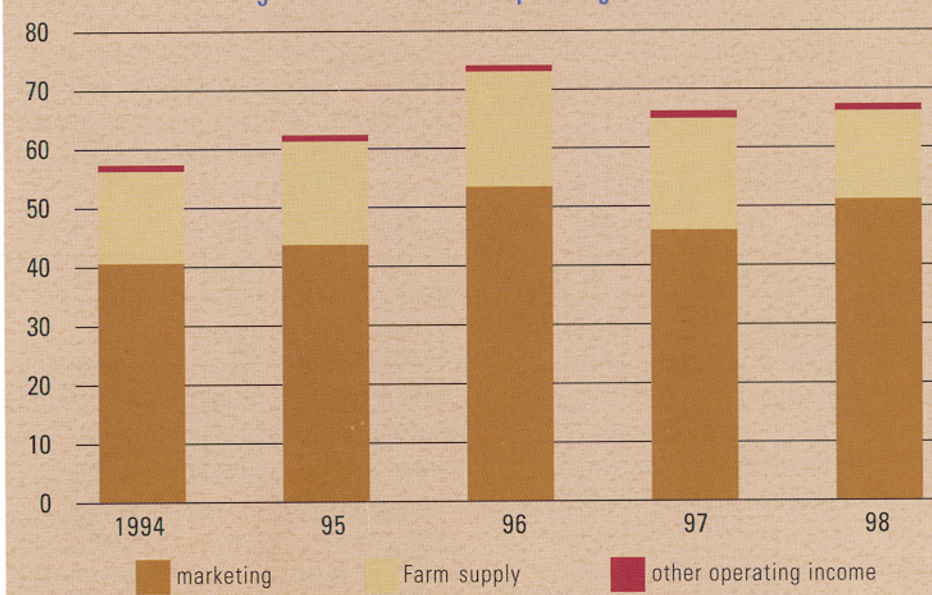
Operational efficiencies gained in 1997 did not carry over to 1998. Operating expenses for all the largest agricultural cooperatives jumped 7.2 percent to $5.3 billion in 1998. The increase more than offset any gains made in gross margins, and the net effect pushed down net operating margins by $176 million — a 15-percent drop. Wages were not the same driving factor in increased operating expenses as they were in 1997. In 1998, labor expenses increased only 3 percent.

All commodity groups experienced at least some increase in expenses relating to operations. However, some groups overcame the increases. Cotton, dairy, and grain cooperatives had enough gain in their gross margins to absorb increases in expenses. These cooperatives ended the year with higher net operating margins, reversing the

Table 1—Consolidated Statement of Operations, 1997-98, Top 100 Cooperatives

Operating Statement	1998	1997	Difference	% Change
	Thousand Dollars			
Change Revenues				
Marketing	51,135,466	47,077,126	4,058,340	8.62
Farm Supply	16,760,654	19,175,428	(2,414,774)	(12.59)
Total Sales	67,896,120	66,252,554	1,643,566	2.48
Other Operating Revenues	620,499	644,696	(24,197)	(3.75)
Total Operating Revenues	68,516,619	66,897,250	1,619,369	2.42
Cost of Goods Sold	62,232,480	60,794,107	1,438,373	2.37
Gross Margin	6,284,139	6,103,143	180,996	2.97
Expenses				
Operating Expenses	5,299,150	4,942,304	356,846	7.22
Net Operating Margins	984,989	1,160,839	(175,850)	(15.15)
Other Revenues (Expenses)				
Interest Expense	(594,458)	(527,142)	(67,316)	12.77
Interest Revenue	103,771	119,415	(15,644)	(13.10)
Other Income	342,517	181,499	161,018	88.72
Other Expenses	(68,555)	(35,218)	(33,337)	94.66
Patronage Revenue	96,057	282,511	(186,454)	(66.00)
Net Margins from Operations	864,321	1,181,904	(317,583)	(26.87)
Non-Operating Revenue (Expenses)	(12,066)	10,331	(22,397)	(216.79)
Net Margins	852,255	1,192,235	(339,980)	(28.52)
Distribution of Net Margins				
Cash Patronage Dividends	278,491	371,889	(93,398)	(25.11)
Retain Patronage Dividends	379,280	514,252	(134,972)	(26.25)
Nonqualified Noncash Patronage	20,115	31,083	(10,968)	(35.29)
Dividends	38,486	27,310	11,176	40.92
Unallocated Equity	56,974	112,465	(55,491)	(49.34)
Income Tax	78,909	135,236	(56,327)	(41.65)
Total Distribution	852,255	1,192,235	(339,980)	(28.52)

Figure 1—Sources of Operating Revenue



Prior years restated

decline witnessed in the past few years. Net operating margins for grain cooperatives increased a healthy 108 percent, $90 million at the end of 1998. Cotton cooperatives net operating margins increased five percent to $78 million, while dairy cooperatives jumped 28 percent to $216 million during the same period.

Diversified, farm supply and rice cooperatives compounded their problems with both lower gross margins and higher operating expenses. The five-percent increase in operating expenses, along with a decrease in gross margins, produced a 46-percent decline in net operating margins for diversified cooperatives. These cooperatives ended the year with net operating margins of $146 million, the lowest amount in five years. Farm supply cooperatives also ended the period with five-year lows in net operating margins. Higher labor expenses for farm supply cooperatives pushed operating expenses to their highest levels in the five-year period. As a result, net operating margins dropped 35 percent to $230 million. Meanwhile, net operating margins for rice cooperatives fell 14 percent to $32 million.

Poultry and livestock cooperatives were the only groups that lowered their operating expenses. These cooperatives lowered operating expenses 0.2 percent from their highest level in 1997. However, as a group, poultry and livestock cooperatives still had operating losses of nearly $3 million.

Other income and expenses lower net margins

Income and expenses indirectly related to the day-to-day operations fall into the category of "other income and expenses." These include interest income and expense, gains/losses on the sale of equipment, patronage refunds from other cooperatives, and any other income/expense not related directly to operations. These other incomes and expenses often relate to financing and investing activities of the cooperative.

After abating in 1997, total debt levels jumped six percent in 1998. This increase in debt caused interest expenses to jump 13 percent to $594 million, the highest level in five years. Most of the increases in interest expenses occurred in the dairy, diversified and farm supply cooperatives. Grain, poultry and livestock, and fruit & vegetable cooperatives also paid more for interest in 1998, but those expenses did not increase by the magnitude of the aforementioned cooperatives. On the other hand, cotton, rice and sugar cooperatives lowered their interest expenses.

Interest earned on member accounts and earnings from finance subsidiaries are generally accounted for as interest income. Interest income decreased 13 percent from 1997 to $104 million. This decline was due mostly to a single cooperative, which substantially lowered its investment balances. The excess cash generated from the sale was used for capital expenditures. Excluding that one cooperative, the total balance of interest income remained fairly constant in all cooperative categories.

Other income/expenses represents earnings or losses associated with the operations of joint ventures or unconsolidated subsidiaries. This income is usually indirectly related to operations. Along with increased merger activities, joint ventures with other cooperatives and investor-oriented firms are more popular among the largest cooperatives. This is evident by increases in revenues in this area. Income from these other activities jumped 87 percent to end the year at $274 million, up from $146 million in 1997. Most of this increase, however, was the result of two cooperatives, which accounted for 81 percent of the overall change.

With net margins as a percent of total revenues running at 1.2 percent, patronage refunds from other cooperatives can play a crucial role in determining whether a cooperative shows a gain or a loss. Seven cooperatives would have had a loss without patronage refunds, up from six in 1997. Generally, cooperatives cannot influence the amount of patronage they receive each year and they should rely on their own operations and not others to generate margins.

Patronage refunds from other cooperatives fell to their lowest level in the past five years. They dropped 66 percent to $96 million. The diversified and farm supply cooperatives were the hardest hit and accounted for nearly 95 percent of the $186 million decline. All the other commodity groups changed little from 1997. On a bright note, none of the diversified and farm supply cooperatives needed the patronage refund to salvage a loss on their operations.

The net result of all these changes lowered net margins from operations. Net margins from operations fell 27 percent to reach a five-year low of $864 million. While nearly half of the top agriculture cooperatives showed a decline, most of the drop was attributed to a few cooperatives in the diversified and farm supply sectors.

Overall, the revenues generated from sales increased for the combined top 100 cooperatives. However, cost of goods sold and operating expenses more than offset any gains in sales revenues. Higher interest expenses coupled with lower patronage refunds eliminated the gains made from joint ventures and unconsolidated subsidiaries. The summation of all these operations, along with a drop of $22 million in non-operating revenues, produced a $340-million drop in net margins. The largest cooperatives ended the year with net margins totaling $864 million. This is the lowest amount in the past five years.

Distribution of net margins

The top 100 cooperatives have long maintained a tradition of strong patronage refund practices. Despite lower net margins in 1998, the largest cooperatives allocated a higher percent of their earnings to members in the form of cash, qualified non-cash, and non-qualified non-cash patronage refunds. In 1998, cooperatives allocated 80 percent ($678 million) of their net margins, compared to 77 percent ($917 million) in 1997. Members received $278 million in cash payments in 1998. This represented 42 percent of allocated equity, the same percentage as in 1997, which saw $372 million paid out in cash. Non-qualified non-cash patronage refunds fell 35 percent to $20 million in 1998. Only four cooperatives used non-qualified refunds in 1998, down from seven in 1997.

A small number of cooperatives also distributed cash dividends on stock issued to members. Cooperatives paid out a record amount of these dividends in 1998. The dividends amounted to $38 million and represented five percent of total distributions in 1998. In 1997, $27 million was paid out in these dividends, which represented two percent of total distributions.

Most cooperatives retain a portion of their net margins as unallocated reserves. These reserves provide a source of growth capital for the cooperatives, a cushion for members' allocated equities in the event of a loss and a bonus to members from non-member business. The amount of unallocated equity fell 49 percent to $57 million. Distributions to unallocated equity represented seven percent of net margins. This was the lowest amount in the last five years. Interestingly, 11 cooperatives allocated more net margins to their members than they generated. These margins were taken out of the unallocated account.

The largest cooperatives paid $79 million in federal, state, and local income taxes in 1998, down 42 percent. This was the lowest amount paid in the last five years. However, excluding the qualified allocated equity, cooperatives paid an average tax rate of 41 percent on their taxable income. This was down from 44 percent in 1997.

Table 2—Total Operating Revenue by Commodity Group, 1997-98, Top 100 Cooperatives

	Total Revenues 1998	1997	Difference	Percent Change
cotton	2,576,090	2,570,431	5,659	0.2
dairy	18,112,007	14,067,370	4,044,637	28.8
diversified	17,453,481	17,581,079	(127,598)	(0.7)
fruit & vegetable	6,459,822	6,500,802	(40,980)	(0.6)
farm supply	14,653,090	16,372,659	(1,719,569)	(10.5)
grain	6,466,435	6,859,572	(393,137)	(5.7)
poultry & livestock	504,064	619,533	(115,469)	(18.6)
rice	1,173,017	1,229,844	(56,827)	(4.6)
sugar	1,118,613	1,095,960	22,653	2.1

In $1,000

Table 3—Net Margins by Commodity Group, 1997-98, Top 100 Cooperatives

	Net Margins 1998	1997	Difference	Percent Change
cotton	63,380	57,105	6,275	11.0
dairy	318,309	207,889	110,420	53.1
diversified	43,981	273,665	(229,684)	(83.9)
fruit & vegetable	77,002	95,966	(18,964)	(19.8)
farm supply	248,420	505,690	(257,270)	(50.9)
grain	87,562	42,863	44,699	104.3
poultry & livestock	45	1,333	(1,288)	(96.6)
rice	21,042	19,422	1,620	8.3
sugar	(7,486)	(11,698)	4,212	(36.0)

In $1,000

Industry Summary

Cotton cooperatives had an 11-percent increase in their net margins (table 3). The increase was not fueled by any major change. Rather, it was the cumulative effect of small changes in revenues and expenses which produced a $6 million increase in their bottom lines.

Dairy cooperatives were able to enjoy the fruits of their consolidations, which pushed up revenues tremendously while keeping costs in line with the added revenues. Yet, what really helped were the joint ventures and unconsolidated businesses. The $91 million increase in these facets of the dairy business played a big part in the $110 million increase in net margins.

Diversified cooperatives took a major hit to their bottom lines. The decline in revenues was greater than the decline in the cost of goods sold. Combining that with a jump in operating and interest expenses, provides the setting for an 84-percent drop in net margins. At $44 million, net margins reached the lowest level in five years.

Fruit & vegetable cooperatives did not have any major changes to their operations. However, the cumulative effect of a small decrease in sales and slightly higher operating expenses pushed their net margins down 20 percent to $77 million.

Farm supply cooperatives also took a major hit to their bottom lines. Declining sales, higher expenses, and lower patronage refunds received from other cooperatives pushed down net margins 51 percent to $248 million. This is the lowest amount in five years.

Grain cooperatives lowered their cost of goods sold in order to cover rising expenses. Unconsolidated businesses and joint ventures also proved to be helpful in fortifying their bottom lines. Their combined operations pushed up net margins $45 million, an increase of 104 percent from the five-year low in 1997.

Poultry and livestock cooperatives typically operate on low margins.

However, 1998 margins proved to be even slimmer than usual. Operations lost nearly $3 million. Interest income and patronage refunds were enough to overcome operating losses so this sector could end the year with $45,000 in net margins. This was down 97 percent from the 1997 five-year high of $1 million.

Rice cooperatives reached their highest net margins in five years. While sales and operating margins were lower in 1998, rice cooperatives lowered interest payments by decreasing debt levels. The result was an eight-percent increase in net margins to $21 million.

Finally, the sugar cooperative sector ended the year with a net loss. However, much of the loss was the result of non-member business. Interest expenses continued to eat up operating margins. Net losses for 1998 stood at $7 million. ■

Asset growth for largest co-ops shows resilience to declining revenues

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Editor's note: This is the second of three articles providing an overview of the cumulative performance of the nation's 100 largest farmer-owned cooperatives in 1998. The first part appeared in the November-December issue.

While the balance sheet is not a perfect indicator, it does provide a good snapshot of the overall financial strength of a cooperative business. The asset side of the balance sheet lists all the resources the cooperative has invested for its operations. The equity and liability side shows how these resources are financed.

Despite the lower revenues in 1998, total asset value increased by 10 percent, hitting a record high of $27 billion. Table 1 shows the consolidated balance sheet of the Top 100 agricultural cooperatives for the years ending in 1997 and 1998. Dairy cooperatives were the driving force behind this increase. Dairy cooperatives' assets jumped 34 percent in 1998 followed by diversified, fruit/vegetable, sugar and cotton co-ops. Farm supply, poultry/livestock and rice cooperatives were the only commodity groups to show a contraction in their asset base. Grain cooperatives didn't show much of a change.

Current assets rebound

Current assets are an important part of a business' liquidity. After falling 8 percent in 1997, current assets for the Top 100 rebounded with a 5-percent increase in 1998. This increase was the result of higher amounts of accounts receivable and inventory levels. Cash balances, on the other hand, continued their declining trend.

Why are cash balances important? Cash is the most liquid current asset. The value is known and there is minimal risk associated with it. However, holding too much cash is not optimal. The opportunity cost of investing in productive assets could be forgone if too much cash is held. Cash levels for all 100 cooperatives continue to fall, reaching a five-year low. Cash balances at the end of 1998 stood at $759 million, a 9- percent decline.

There are several reasons for the decline in cash balances. One relates to

Table 1—Combined Balance Sheet 1997-1998, Top 100 Agricultural Cooperatives

Assets	1998	1997	Difference	Change
Current Assets	Thousand $			Percent
Cash	759,386	834,032	(74,646)	(8.95)
Accounts Receivable	5,570,426	5,053,278	517,148	10.23
Inventory	5,721,322	5,479,140	242,182	4.42
Other Current Assets	1,134,936	1,148,951	(14,015)	(1.22)
Total Current Assets	13,186,070	12,515,401	670,669	5.36
Total Investments	3,507,187	2,894,563	612,624	21.16
Net PP&E	8,452,471	7,749,014	703,457	9.08
Other Assets	1,827,747	1,407,537	420,210	29.85
Total Assets	**26,973,475**	**24,566,515**	**2,406,960**	**9.80**
Liabilities				
Current Liabilities				
Total Short-Term Debt	2,903,766	3,349,553	(445,787)	(13.31)
Accounts Payable	3,422,342	3,059,852	362,490	11.85
Member Payables	636,405	534,467	101,938	19.07
Patron And Pool Liabilities	1,321,893	1,107,841	214,052	19.32
Other Current Liabilities	1,501,970	1,571,411	(69,441)	(4.42)
Total Current Liabilities	**9,786,376**	**9,623,124**	**163,252**	**1.70**
Total Long Term Debt Less Current Portion	5,804,913	4,856,132	948,781	19.54
Other Liabilities And Deferred Credits	1,038,060	721,186	316,874	43.94
Total Noncurrent Liabilities	6,842,973	5,577,318	1,265,655	22.69
Total Liabilities	**16,629,349**	**15,200,442**	**1,428,907**	**9.40**
Minority Interest	481,261	380,019	101,242	26.64
Member Equity				
Preferred Stock	1,427,613	1,817,836	(390,223)	(21.47)
Common Stock	681,041	653,496	27,545	4.21
Equity Certificates And Credits	5,986,067	4,773,403	1,212,664	25.40
Unallocated Capital	1,768,144	1,741,319	26,825	1.54
Total Equity	**9,862,865**	**8,986,054**	**876,811**	**9.76**
Total Liabilities And Equity	**26,973,475**	**24,566,515**	**2,406,960**	**9.80**

cash management practices leading to efficient use of cash by cooperatives, thus requiring lower cash balances. Another reason relates to better access to open lines of credit. Therefore, cooperatives do not need to hold excessive cash. On the negative side, some cooperatives are experiencing poor cash flows. Net cash flows for all cooperatives were down, mostly due to the poor cash flow from operations.

Only two commodity groups had an increase in their cash balances — dairy and grain. It's not a coincidence that both of these groups of cooperatives had an increase in their net margins and positive cash flows from their operations.

Accounts receivable are comprised primarily of debts owed to cooperatives by their members, usually for product purchases. Accounts receivable jumped 10 percent in 1998, ending the year at $5.6 billion. An increase in this category bears watching. If this increase in accounts receivable is a natural extension of higher sales revenue, then there shouldn't be much of a problem. However, if this increase is a result of tighter cash flows for members, the cooperative may be looking at a higher writeoff for bad debts in the future. Accounts receivable for all Top 100 cooperatives reached 8.1 percent of total operating revenues, up from 7.6 in 1997.

Farm supply, grain, poultry/livestock and sugar cooperatives had lower accounts receivable in 1998. As a percent of total revenues, only farm supply, grain and sugar cooperatives experienced declining values over the past five years. Poultry/livestock and rice cooperatives displayed an increasing trend of accounts receivable to total revenues. The other cooperatives fluctuated and did not show any trends.

Inventories often constitute a substantial portion of current assets. In 1998, inventories were 43 percent of total current assets. However, inventories often have little to do with a cooperative's liquidity. In most cooperatives, a certain level of inventory must be kept. If inventories are inadequate, sales volume declines below an attainable level. Conversely, excessive inventories expose a cooperative to storage costs, insurance, taxes, obsolescence, and physical deterioration. Inventories are considered to be the least liquid of all current assets.

Inventory levels for the Top 100 increased 4 percent in 1998, to $5.7 billion. Farm supply, grain and rice cooperatives carried fewer inventories in 1998 compared to 1997. Much of the decline for these cooperatives can be attributed to lower sales. Fruit/vegetable cooperatives had the largest dollar value increase in inventories, followed by cotton, dairy, diversified, and sugar cooperatives. Poultry/livestock cooperatives typically do not carry much inventory.

Investments hit record highs

Cooperatives invest in both non-cooperative and cooperative ventures. Non- cooperative investments usually indicate investments in joint ventures or other for-profit subsidiaries. Investments in other cooperatives generally represent business done with those cooperatives. Total investments in cooperatives and other businesses increased dramatically (21 percent) in 1998, reaching a record $3.5 billion (table 2). Most of this increase is due to two cooperatives. These two cooperatives accounted for 34 percent of the total amount invested by the Top 100 in 1998, up from 22 percent in 1997.

Investments in other cooperatives (excluding financial cooperatives) increased 13 percent to end the year at $1.7 billion. The majority of the investment here reflects non-cash patronage refunds. However, more recently these investments have been taking the form of joint ventures between two or more cooperatives. Diversified and farm supply cooperatives make up the majority of investments in other cooperatives.

Investment in other businesses reached $1.5 billion, a jump of 41 percent. Most of these investments are in "for profit" joint ventures with other cooperatives or businesses. The dairy cooperatives held more than 50 percent of total investment in non-cooperative businesses in 1998. These investments mostly involved processing facilities and other value-added activities.

Investment in cooperative banks remained steady despite the drop in funds borrowed from these financial

Table 2—Cooperative Investment From 1994-1998, Top 100 Agricultural Cooperatives

	1994	1995	1996	1997	1998
			Thousand $		
Bank For Cooperatives	367,257	385,911	415,851	356,622	356,278
Other Cooperatives					
20% or Less Ownership	808,539	940,411	1,181,843	1,070,340	1,208,529
Greater Than 20 % Ownership	226,760	274,922	362,136	438,224	492,258
Other Businesses					
20% or Less Ownership	39,297	157,827	127,936	159,344	172,357
Greater Than 20% Ownership	168,885	61,206	102,641	357,118	520,320
Other Investment	537,449	447,165	472,833	512,915	757,445
Total Investment	**2,148,187**	**2,267,442**	**2,663,240**	**2,894,563**	**3,507,187**

Table 3—Sources Of Short-Term Debt 1994-1998, Top 100 Agricultural Cooperatives

	1994	1995	1996	1997	1998
			Thousand $		
Current Portion Long-Term Debt	435,984	389,816	901,549	984,351	611,995
Banks For Cooperatives	1,137,871	1,596,793	1,665,247	1,289,646	1,058,240
Commercial Banks	506,034	593,588	703,848	658,400	838,360
Notes Issued By Cooperatives	228,848	268,233	328,839	256,327	228,484
Other Nonfinancial Entities	24,176	26,824	14,049	20,990	15,909
Commercial Paper	95,062	147,767	108,699	134,063	146,083
Government Sources	49,432	28,203	45,677	3,078	4,685
Other Sources	4,998	4,474	1,326	2,698	10
Total Short Term Debt	**2,482,405**	**3,055,698**	**3,769,234**	**3,349,553**	**2,903,766**

institutions. Investment in cooperative banks stood at $356 million in 1998, down $1 million from 1997.

Investment in fixed assets continues to expand

Cooperatives need to invest in fixed assets in order to be competitive. These include investing in such things as state-of-the-art processing facilities or equipment that makes their operations run more efficiently.

Investment in fixed assets by the Top 100 has steadily increased since 1994. Fixed assets increased 9 percent, to $8.5 billion in 1998. Driving this expansion were dairy, diversified and farm supply cooperatives. These three commodity groups accounted for 78 percent of the total increase. Two commodity groups, rice and poultry/livestock, had a net decline in fixed assets.

Other assets jumped 30 percent, ending the year at $1.8 billion. These assets include such things as goodwill, patent rights and long-term receivables. Diversified cooperatives hold nearly 60 percent of the total amount of other assets.

Current liabilities inch upward

After peaking in 1996, short-term debt has fallen each of the last two years. Table 3 compares the amount of various short-term debts over the past five years. Short-term debt fell 13 percent, to $2.9 billion in 1998.

Leading the decline were grain and farm supply cooperatives. Some grain cooperatives appear to have refinanced some of their long-term debt, causing a $399 million drop in the current portion of long-term debt, a decline of 93 percent. Farm supply cooperatives required less operating loans in 1998. Total short-term loans outstanding fell 45 percent, to $268 million.

However, just four cooperatives were the driving force behind the decline in short-term loans for farm supply cooperatives. These cooperatives appeared to transfer their operating loans with cooperative banks to long-term bonds issued by the cooperative.

Poultry/livestock and rice cooperatives also required fewer operating loans in 1998. All sources of short-term debt for these commodity groups were lower in 1998. The amount of operating loans for rice fell from $183 million to $136 million while those for poultry/livestock fell 2 percent to $92 million.

Cotton and sugar cooperatives increased their use of every type of short-term loan. Cotton cooperatives increased their amount of operating loans by 43 percent, to $167 million. Sugar cooperatives mirrored the increase of cotton, jumping 44 percent, to $65 million. The largest increase from both commodity groups was with the cooperative banks, which accounted for 62 percent (cotton co-ops) and 65 percent (sugar co-ops) of the increase.

Fruit/vegetable and dairy cooperatives both lowered the amount of long-term debt currently due, mostly through refinancing their term debt. However, the increase in operating loans from all sources pushed up the total amount of short-term debt. Both commodity groups increased the amount of operating loans from both cooperative and commercial banks. Fruit/vegetable cooperatives jumped 20 percent, to $475 million, while dairy increased 5 percent, to $183 million.

Diversified cooperatives increased the amount of long-term debt, thus also increasing their current portion of that debt. They also transferred their operating loans from notes and cooperative banks to commercial banks. The net result was an increase of 7 percent, to $1.2 billion of outstanding short-term debt.

Accounts payable for the Top 100 increased by 12 percent, to $3.4 billion. Most of this increase was due to the dairy and diversified commodity groups. Dairy had the largest increase, $219 million, a 51-percent increase. The diversified cooperatives increased the amount in their accounts payable by $197 million, ending the year at $1.2 billion.

Only farm supply and poultry/livestock cooperatives had lower accounts payable. Farm supply cooperatives had the largest decrease, $137 million, ending the year with $821 million. Poultry/livestock cooperatives typically carry few accounts payable and 1998 was no exception as this sector had only $6.5 million worth of accounts payable, compared to $7.3 million in 1997.

Cotton, fruit/vegetable, grain and sugar cooperatives also had increases in their accounts payable. Yet, they were not in the magnitude of the dairy and diversified cooperatives. Rice coopera-

Table 4—Sources Of Long-Term Debt 1994-1998, Top 100 Agricultural Cooperatives

	1994	1995	1996	1997	1998
			Thousand $		
Bank For Cooperatives	1,929,252	2,256,784	2,747,684	2,831,301	2,567,208
Bond Issued By Cooperative	807,075	1,076,743	1,305,092	1,225,200	2,196,060
Commercial Banks	495,095	378,430	673,887	900,694	701,160
Insurance Companies	490,501	398,279	355,366	512,670	597,030
Industrial Development Bonds	224,134	212,834	192,108	181,011	197,715
Capital Lease	63,147	54,477	57,758	63,668	34,463
Other Nonfinancial Entities	22,457	8,079	6,034	19,096	16,355
Government Source	2,360	1,224	1,064	1,044	894
Other Sources	110,713	128,557	159,463	105,799	106,023
Total Long-Term Debt	**4,144,734**	**4,515,407**	**5,498,456**	**5,840,483**	**6,416,908**
Long-term Debt Less Current Portion	**3,708,750**	**4,125,591**	**4,596,907**	**4,856,132**	**5,804,913**

Table 5—Sources of Member Equity 1994-1998, Top 100 Agricultural Cooperatives

	1994	1995	1996	1997	1998
			Thousand $		
Preferred Stock	1,413,779	1,636,409	1,762,257	1,817,836	1,427,613
Common Stock	538,958	570,932	602,265	653,496	681,041
Equity Certificates And Credits	4,392,034	4,320,151	4,911,467	4,773,403	5,986,067
Unallocated Capital	1,254,377	1,556,453	1,656,132	1,741,319	1,768,144
Total Equity	**7,599,148**	**8,083,945**	**8,932,121**	**8,986,054**	**9,862,865**

tives, at $33 million, showed no change.

"Members payable" represents cash patronage refunds, dividends and revolving equity that have been declared but not yet paid. Liabilities in this area jumped 29 percent, to reach $1.3 billion. The largest increase is attributed to the dairy cooperatives, which accounted for 88 percent of the total increase in member payables. Farm supply cooperatives were the only commodity group to have a significant decline in the members' payable, dropping 51 percent to $95 million.

Funds owed to members in the form of patron and pool liabilities jumped $214 million, ending the year at $1.3 billion. Dairy, fruit/vegetable and grain cooperatives account for 77 percent of the total patron and pool liabilities outstanding. Of these three, only the grain cooperatives experienced a decline.

Long-term debt jumps

Continuing a trend that started in 1997, the largest agricultural cooperatives appear to be transferring some of their short-term debt to long-term. As mentioned earlier in this report, short-term debt fell 13 percent. During this same period, long-term debt less current portion jumped 20 percent, to reach an all-time high of $5.8 billion. Table 4 illustrates the sources of long-term debt for all top 100 cooperatives.

Cooperative banks continue to provide the bulk of long-term debt. However, the use of these sources fell 9 percent, ending the year at $2.6 billion. Pushing this decline were farm supply, dairy and grain cooperatives. These three commodity groups represent 39 percent of total borrowed funds from this source. Grain cooperatives had the largest decline. Their use of cooperative banks fell 130 percent, to $237 million, which represented 70 percent of the total decline. The use of cooperative banks by farm supply cooperatives fell $94 million, ending the year at $564 million, while dairy dropped $15 million, ending the year at $191 million.

However, all commodity groups did not share this decline. Diversified, fruit/vegetable and sugar cooperatives, which compose 55 percent of this source's total amount, increased their use of cooperative banks. Diversified cooperatives increased their use of these funds by 23 percent while fruit/vegetable and sugar both had a 3-percent increase.

Commercial banks held less cooperative debt in 1998 than in 1997. Cooperatives borrowed $200 million less from this source, down from a record high of $901 million in 1997. Only the diversified commodity group borrowed more from commercial banks, increasing their amount from $380 million to $438 million.

An interesting trend in the last few years is cooperatives financing their own debt by issuing bonds. Only poultry/livestock, rice and sugar did not issue their own debt. While diversified cooperatives held 43 percent of the total amount of debt issued by the largest cooperatives, it was the dairy, farm supply and grain cooperatives that contributed the largest increase. These three commodity groups accounted for 83 percent of the $971 million increase. It appears that cooperatives are transferring their debt from traditional sources to these self-financing instruments.

Other sources of debt include debt held by insurance companies, industrial development bonds, capital leases, and government and other non-traditional sources. The use of these other sources increased by 8 percent. Most of this increase is due to diversified and farm supply cooperatives, which make up 81 percent of the total other sources of debt.

Minority interest continues rapid expansion

When a cooperative holds more than a 50-percent interest in a subsidiary, the cooperative must consolidate the financial statements of the subsidiary with its own statements. If the cooperative does not own 100 percent of the subsidiary, there will be a minority interest that represents the claim of outside investors in the subsidiary that is consolidated into the parent cooperative.

The amount of minority interest held in cooperatives' subsidiaries increased by 27 percent, to $481 million. However, almost all of that increase was a result of one cooperative, which acquired several subsidiaries and joint ventures during the year.

Member equity hits record high

Total member equity jumped 10 percent in 1998, to a record high $9.9 billion. Table 5 shows the breakdown of the various types of equity.

Common stock is generally used to represent the voting rights in an incorporated cooperative and represents 7 percent of total equity outstanding. However, a few cooperatives use common stock as a form of equity allocation. These cooperatives accounted for most of the increase, with a majority of the increase (58 percent) coming from one diversified cooperative. Two fruit/vegetable and one grain cooperative accounted for another 41 percent of the increase. With the exception of these four cooperatives, there is usually little change in the amount of common stock outstanding.

Almost all cooperatives use equity certificates to allocate equity to members. Equity certificates increased to $6 billion up $1.2 billion from 1997. All commodity groups showed an increase. However, nearly 40 percent of the increase was from one cooperative transferring its allocated equities from preferred stock to equity certificates. Several other cooperatives transferred equity from their unallocated account to equity certificates. This is why the amount of equity certificates jumped despite lower net margins generated by these cooperatives.

Preferred stock may represent investments by employees and the general public as well as members. Several value-added activities by some cooperatives use preferred stock for investment in these activities. In other instances, retained patronage refunds and per-unit retains are classified as preferred stock. Whatever the reason, the combined value of preferred stock fell by 21 percent, to $1.4 billion in 1998. As mentioned earlier, much of the decline was due to reclassification of preferred stock to allocated certificates.

Unallocated equity is generally income from non-member business and other income on which the cooperative has paid taxes. It is typically used as a reserve to offset losses incurred. In 1998, dairy, farm supply and rice cooperatives were the only commodity groups to show an increase in their unallocated equity. The increase in these three commodity groups was more than enough to offset the drop in the other five groups. Total unallocated equity increased 2 percent to $1.8 billion. ■

Depressed ag sector puts squeeze on largest co-ops

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Editor's note: This is the final article in a three-part series providing an overview of the cumulative fiscal performance of the nation's 100 largest agricultural cooperatives in 1998. Part I appeared in the November-December issue; Part II begins on page 28 of this issue.

Agriculture continues to suffer through a period of depressed commodity prices, impacting not only farmers but the businesses that deal with them. Cooperatives are no exception. While some cooperatives are weathering this crisis well, most are not as fortunate.

The average performance measures for all 100 cooperatives show some deterioration during 1998. Tools developed to analyze cooperatives' financial performance include four types of performance measurements. These measurements are standard ratios found in most financial textbooks. A list of these ratios and averages for all Top 100 cooperatives are presented in Table 1.

These major areas of measurement include:

- Liquidity, which shows the cooperative's ability to meet short-run obligations;
- Leverage, which shows the risk associated with financing and the cooperative's ability to meet its long-term and short-term obligations;
- Activity, which shows the efficiency of how well the cooperative uses its assets; and
- Profitability, which shows the net return on the cooperative's operations.

Liquidity

The most common liquidity ratios used today are the current and quick ratios. Both evaluate a cooperative's short-term liquidity by measuring the degree to which it can meet its short-term obligations. Liquidity implies the ability to convert assets into cash in the current period. Liquid assets include cash, marketable securities, accounts receivable, inventories and other debt that is to be paid to the cooperative within the current fiscal year. Figure 1 illustrates the average liquidity ratios for all Top 100 cooperatives.

The current ratio is calculated by dividing total current assets by total current liabilities. The higher the ratio, the more liquid the cooperative is. However, a note of caution is warranted. Interpreting these ratios — beyond the conclusion that they represent current resources over current obligations at a given point in time — requires a more in-depth look at the trends of the individual parts that make up the ratio. For example, during a period of business contraction, current liabilities may be paid off while there may be a concurrent, involuntary accumulation of inventories and uncollected receivables causing the ratio to rise.

The average current ratio for all the largest 100 agricultural cooperatives declined from 1.38 to 1.35 in 1998 — the lowest value in the past five years. Even though combined current assets for the combined Top 100 cooperatives increased more than the combined current liabilities, as reported in an earlier article, most of these cooperatives found the opposite true. This illustrates the influence of some of the largest cooperatives on the combined balance sheets.

Fruit/vegetable, grain, and rice cooperatives, on average, had increasing current ratios. The other commodity groups had either no change or a lower

Table 1—Ratios for all Top 100 cooperatives for 1994-1998

	1994	1995	1996	1997	1998
			ratio		
Current ratio	1.38	1.37	1.36	1.38	1.35
Quick ratio	0.77	0.75	0.78	0.79	0.77
Debt-asset	0.60	0.61	0.62	0.60	0.60
L-t debt to equity	0.40	0.41	0.45	0.49	0.51
			times		
Times interest earned	6.00	4.62	4.73	5.85	5.44
Asset turnover	3.55	3.41	3.65	3.76	3.47
Fixed asset turnover	18.48	16.86	17.03	18.63	15.12
			percent		
Gross profit margin	15.10	14.77	13.62	13.45	14.27
Net operating margin	2.61	2.57	2.11	2.01	1.95
Return on total assets	6.90	7.30	7.16	7.39	7.25
Return on member equity	11.73	11.19	11.00	12.04	11.83

average value for their current ratio. The fruit/vegetable cooperative group had a higher current ratio, due mostly to a build-up of inventory. For grain cooperatives, the ratio was generally higher, due mostly to lower current debt. It was also higher for rice cooperatives because of higher accounts receivable, which — along with lower debt — slowed the decline in current assets.

Lower cash balances and accounts receivable — combined with higher debt, accounts payable and pool liabilities — pushed down the current ratio for cotton cooperatives. The dairy cooperative sector's decline was attributed to higher accounts payable and liabilities due members in relation to current assets. Diversified co-ops had lower inventory levels, higher short-term debt and accounts payable while farm supply co-ops had lower amounts of receivables, which pulled down their current ratio. For poultry/livestock cooperatives, a combination of several factors caused the decline in the current ratio. Sugar remained unchanged from the prior year.

The quick ratio is calculated the same way as the current ratio, but inventories are excluded from current assets. The theory behind this suggests that inventories cannot be converted to cash as quickly as other current assets during liquidation. Also, if the inventory needs liquidation, the cash value would likely be much less than the book value. Therefore, it can be argued that the quick ratio is a better measure of liquidity.

The average quick ratio for all cooperatives followed that of the current ratio and fell from 0.79 to 0.77 in 1998. However, the decline in the

FIGURE 1—Current and Quick Ratio

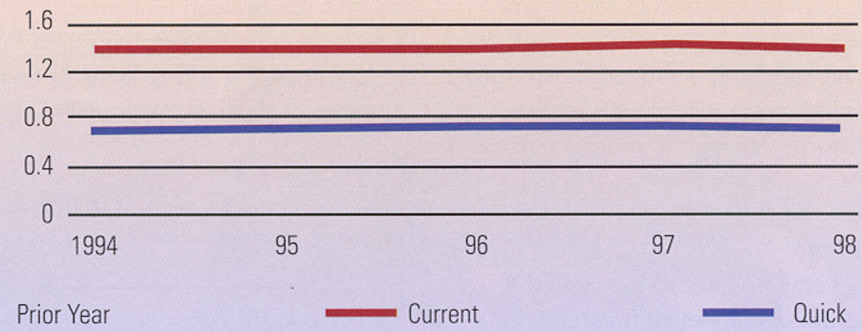


FIGURE 2—Dept to Asset Ratio

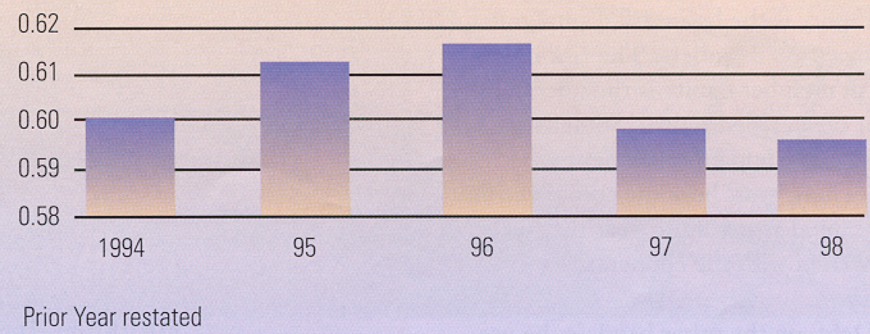
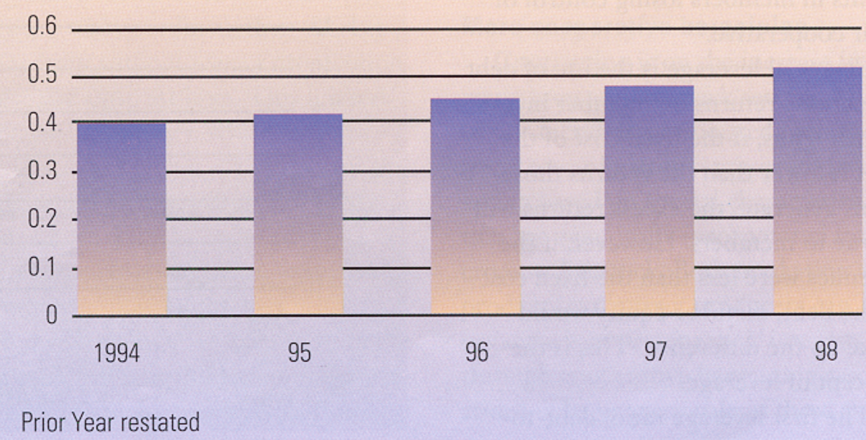


FIGURE 3—Long-term dept to equity



quick ratio was not as large as the drop in the current ratio. This would indicate that, on average, inventory levels are either not increasing as fast as other current assets, or that they are falling faster than other current assets.

Cotton, fruit/vegetable and farm supply co-ops had larger declines in their quick ratios than in their current ratios. These cooperatives had a relative buildup of inventory over the past year. However, cotton co-ops maintained a strong liquid position, with an average quick ratio above 1.0. All other commodity groups averaged fewer inventories compared to other current assets.

Leverage

Leverage relates to the capital structure or sources of financing for a cooperative. There are several important perspectives on analyzing capital structure, including an examination of the difference between debt and equity.

Equity is the basic risk capital put up by co-op members. The risk inherent in member equity is the uncertainty or unspecified return. Sometimes there is no defined repayment schedule. There must be some equity within the capital structure to bear the risk associated with the cooperative's business.

Debt, on the other hand, is the use of external funds and must be repaid at specified times regardless of the cooperative's financial condition. Failure to pay the principal or interest typically results in members losing control of their cooperative.

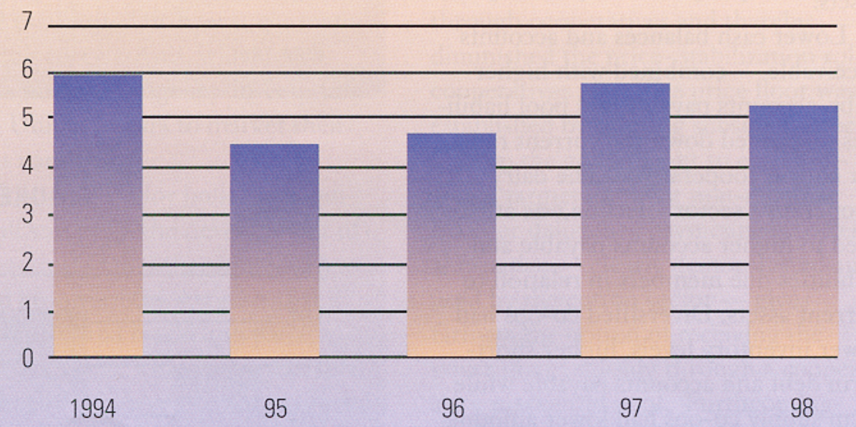
Financial leverage is the use of debt to increase returns on member investments. Thus, if the fixed cost of the debt is lower than the returns those funds generate, the excess returns will accrue to members. However, if the revenues were less than the fixed cost of the debt, member equity would make up the difference. This is the concept of leverage.

The first leverage ratio, debt-to-asset, is calculated by dividing total liabilities by total assets (figure 2). This represents the claims of outside interests on the cooperative's assets. The average debt-to-asset ratio for all cooperatives remained steady at 0 .60. With the exception of poultry/livestock cooperatives, most commodity groups didn't remain constant.

Cotton, dairy, diversified, and fruit/vegetable co-ops increased their relative use of debt. Cotton and fruit/vegetable cooperatives used higher amounts of working loans to finance an increase in their inventories and receivables. Both dairy and diversified co-ops increased overall assets. However, dairy relied on short-term debt and member payables to finance the expansion while the diversified co-op sector relied heavily on long-term debt.

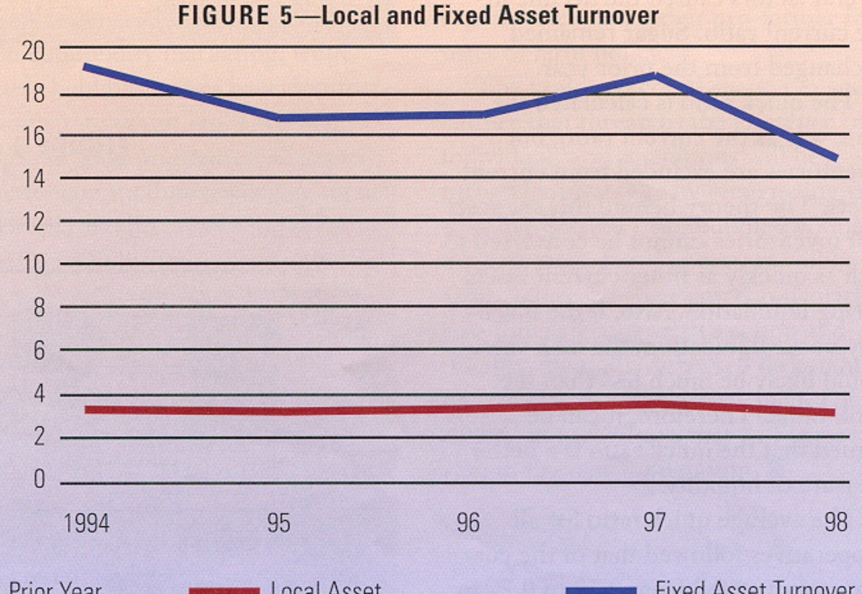
The other co-op commodity groups showed a strengthening of their equity base. Farm supply cooperatives used members' equity to pay off a substantial portion of their working loans. Grain cooperatives transferred current debt for long-term debt and paid off the rest with retained patronage

FIGURE 4—Times interest earned



Prior Year restated

FIGURE 5—Local and Fixed Asset Turnover



refunds. Rice cooperatives apparently sold off inventory and used the proceeds to pay off working loans. Sugar cooperatives increased fixed assets through retained patronage refunds.

The second leverage ratio is long-term debt-to-equity (figure 3). Since both equity and long-term debt take a long-run view of financing, it should be a natural comparison between the two. Unlike the relatively unchanged debt-to-asset ratio discussed earlier, the long-term debt-to-equity ratio increased steadily over the past five years to end 1998 at 0.51. This would indicate that, on average, either cooperatives are transferring their debt from short-term to long-term or they are decreasing the amount of member equity in relation to long-term debt.

Diversified, fruit/vegetable, grain, poultry/livestock and rice cooperatives were leading the trend of shifting their capital structure to more long-term debt in relation to equity. Diversified and fruit/vegetable cooperatives accumulated more debt than equity, with a larger percentage of that debt being long-term. Meanwhile, most of the grain, poultry/livestock and rice cooperatives had a higher amount of equity financing, but are also moving their debt from short-term to long-term obligations.

Cotton and dairy are using more overall debt in their operations but are also using more equity for long-term financing. Sugar cooperatives are generally moving from debt to equity financing while farm supply cooperatives have maintained similar balance in their capital structure.

The last leverage ratio is the times interest earned (TIE). This mainly looks at how many times net revenue will cover interest expense. It is calculated by dividing earnings before interest and taxes by interest payments. A note of caution: this ratio looks at the minimum expenditures needed to cover debt payments. It does not include fixed payments such as principal and lease payments.

The average TIE ratio for the largest cooperatives dropped from 5.8 to 5.4 in 1998 (figure 4). This marks the first decline since 1995. Both higher interest expenses and lower net margins before interest and taxes pushed the average ratio lower for all.

Some cooperatives were able to improve their TIE ratio. Cotton co-ops had a larger increase in their income than interest expense. Thus, they had a higher interest cover ratio. Grain, rice and sugar cooperatives lowered interest rates while increasing their bottom line. Fruit/vegetable co-ops improved their average ratio, primarily as a result of one cooperative. Without that co-op to pull up the average, fruit/vegetable cooperatives would be at the same level as in 1997.

The situation was very similar for the dairy sector, where one cooperative pulled down the average. This cooperative, which typically carries a small amount of debt, had a substantial increase in debt while income fell. Diversified and poultry/livestock co-ops had higher debts and interest expenses while net margins before interest and taxes fell. Farm supply cooperatives generally had lower net margins pulling down their TIE.

FIGURE 6—Gross and Net Operating Margin Percentage

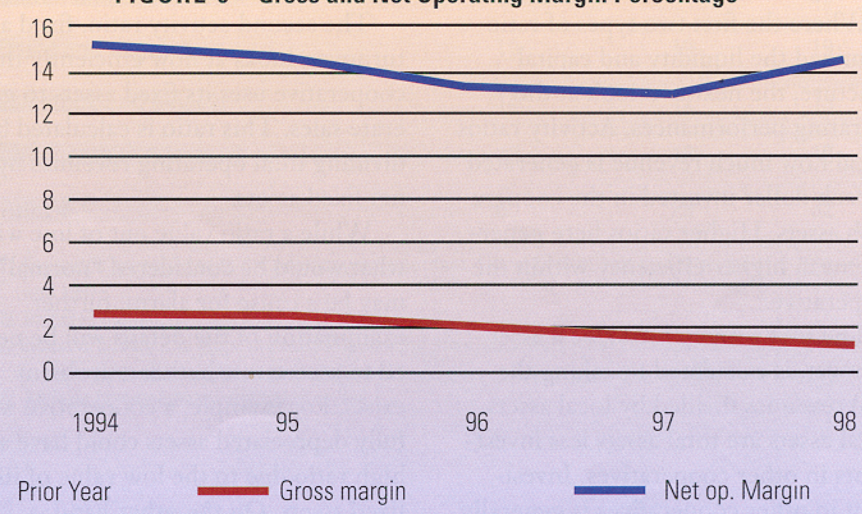
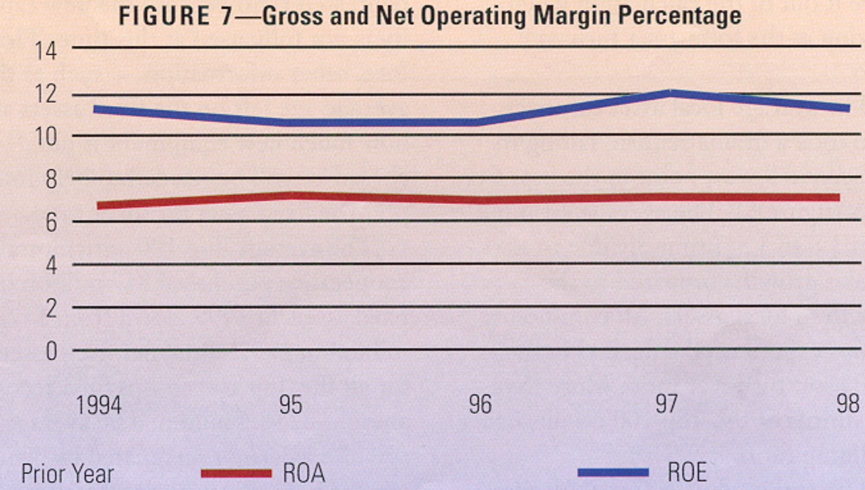


FIGURE 7—Gross and Net Operating Margin Percentage



Even though the average cooperative had five times the earnings to cover interest expense, diversified, poultry/livestock and sugar cooperatives had average TIE ratios between 1 and 2. This does not necessarily mean further stress in these sectors would be a cause for grave concern for these cooperatives. Many of these cooperatives operate on a pooling basis and, after all expenses, the final payment to members leaves little margin for distribution. Thus, these cooperatives generally have low TIE ratios. However, the diversified co-ops have been carrying a large amount of debt and the decline in their net margins is a concern.

Activity

Where the first two types of ratio examined the liquidity and capital structure, the next two look at the operating performances. Activity ratios reveal how much revenue is generated by each dollar invested in the cooperative's assets. Higher ratios here generally mean higher efficiency within the cooperative.

The first activity ratio, local asset turnover, is calculated by taking the total revenues divided by local assets. Local assets are total assets less investments in other cooperatives. Investment in other cooperatives is generally not considered a revenue-producing asset. Therefore, it makes sense to leave it out of the calculation when looking at the local asset turnover ratio.

The average local asset turnover ratio took a dramatic turn, falling to the second lowest point in the past five years (figure 5). The average ratio fell from 3.8 to 3.5, primarily due to slower sales growth compared to the growth in local assets. All commodity groups experienced a decline in their local asset turnover ratio. More than two-thirds of the Top 100 co-ops had a declining ratio.

The commodity groups with the largest changes were dairy and poultry/livestock. The dairy cooperatives increased their average local assets at a higher rate than the increase in sales, causing the turnover ratio to fall. Poultry/livestock co-ops' ratio was pushed down by lower sales. Cotton cooperatives would be in the same situation as poultry/livestock cooperatives, with the exception of one cooperative that cushioned the fall for all cotton cooperatives. Diversified, farm supply, grain and rice cooperatives also saw their ratio fall due to lower sales. Meanwhile, sugar co-op ratios fell because of a relatively higher increase in local assets compared to their sales. The local asset turnover ratio for fruit/vegetable cooperatives fell because of both higher local assets and lower sales.

The second activity ratio, fixed asset turnover, looks at how efficiently the cooperative uses its fixed assets to generate sales. This ratio is calculated by dividing total operating revenues by net fixed assets.

While a ratio value out of line with what would be considered "normal" may be a cause for alarm, further examination of the details will be needed to ascertain whether a problem exists. For example, a cooperative with fully depreciated assets could have a high ratio due to the low value of its fixed assets. On the other hand, a cooperative that is expanding its operations could have a temporarily depressed ratio because the new capacity is not fully used at this time. Therefore, other information — such as the average age left on the fixed assets and how much new equipment is purchased — will be needed to help interpret the fixed asset turnover ratio.

The average Top 100 agricultural cooperative purchased $17 million in fixed assets in 1998, down from $17.8 million in 1997. Total net fixed assets for all the Top 100 co-ops hit a record amount of $8.5 billion. The average age of fixed assets (estimated by dividing net fixed assets by depreciation expense) was down from 9.3 years in 1997 to 9.1 years in 1998. These figures would suggest that while cooperatives are expanding their fixed asset base, the industry as a whole didn't build excess capacity. At the same time, though, a few cooperatives had substantial investments and appeared to have built excess capacity for future growth.

The average fixed asset turnover ratio fell from 18.6 to 15.1 in 1998 — the lowest in the five-year period. Most commodity groups had a lower average fixed asset turnover ratio caused by lower sales. However, dairy cooperatives actually had higher sales without a corresponding increase in assets. Yet, a few dairy cooperatives had substantial declines in their ratio that pulled down the average ratio for the group. While a couple of cotton cooperatives increased their capacity, most of the decline in their fixed asset turnover was caused by lower sales. Similarly, fruit/vegetable cooperatives increased their average capacity along with lower sales.

Profitability

Profitability ratios measure the power of the cooperative's earnings. With poor earnings, the co-op may find it cannot meet its obligations and will be forced out of business. However, cooperatives can have other objectives than to accumulate high returns. The nature of a co-op is to fill a market need of its members. Therefore, co-ops' profitability ratios can be, and usually are, lower than those of investor-owned firms. However, comparisons of the same cooperative or group over time are very informative. The four profitability ratios used in this report include gross margin percent, net operating margins, return on total assets and return on member equity.

Gross margins are the excess of revenues above the cost of goods sold. All operating and non-operating expenses plus payment of patronage refunds, dividends and income taxes must be covered by the gross margins. Gross margins also indicate the pricing policy of the cooperative. In other words, is the cooperative charging enough for the products sold or paying too much for member products to cover its expenses?

Figure 6 depicts the five-year trend for the average gross margin percentage and net operating margins for the Top 100 agricultural cooperatives. Following a gradual decline since 1994, gross profit margins increased to 14 percent of total sales in 1998, up from 13 percent in 1997. More than 70 of the Top 100 cooperatives registered an increase in their gross margins.

Dairy cooperatives were the only commodity group averaging a lower gross margin percentage. The situation facing most dairy co-ops was that the costs associated with their sales increased more than their revenues. Thus, gross margins were suppressed. No other commodity group averaged a lower gross margin percentage.

Net operating margin percentage looks at the amount of margins that is generated by operations expressed as a percent of total revenue. It is calculated by taking the gross margin less operating expenses and dividing that by total revenue. Indirect income/expense items (patronage refunds, interest income/expense, gains/losses on the sale of assets, and any other extraordinary revenues or expenses not directly related to operations) are not included in the calculation.

Net operating margins as a percent of total revenues continued a downward trend, reaching its lowest level at 1.9 percent. Only two commodity groups had an increase in net operating margins percentage: fruit/vegetable and grain co-ops. The fruit/vegetable cooperatives had both declining revenues and operating expenses. However, the decline in revenues was relatively greater than the decline in expenses. Grain cooperatives also showed declining revenues. Yet, they were able to control their operating expenses and actually increase their operating margins. All other commodity groups experienced lower net margin percentages. Diversified, cotton, farm supply, poultry/livestock rice and sugar all averaged higher gross margins but lower net margins. This would indicate these cooperatives lost some efficiency within their operations.

Return on total assets (ROTA) is calculated by taking net margins before taxes and interest divided by total assets. This ratio looks at the return on the total investment by all parties associated with the cooperative. After reaching a five-year high of 7.39 percent in 1997, return on total assets took a dip in 1998, ending the year at 7.25 percent (figure 7). Only fruit/vegetable and grain cooperatives averaged a higher ratio in 1998. Grain cooperatives saw improvement in their net margins, enabling them to post a higher average return on assets. Fruit/vegetable cooperatives, while averaging higher net margins, relied on slower growth of their asset base compared to their net margins to boost their return on assets.

Lower net margins were the cause for most declining ROTA values. However, some industries — such as the dairy and sugar commodity groups — showed a higher increase in their asset base compared to their net margins. A few cotton cooperatives also experienced a larger increase in their asset base. This will put downward pressure on their ROTA ratios. Some of these cooperatives appear to be building for the future. The other cooperatives generally had lower margins pulling down the ratio.

The last ratio compared in this report is the return on member equity (ROE). It is calculated by dividing the net margins after interest and taxes by total member equity. The reason interest and taxes are excluded is because interest is a return to creditors and taxes are a return to government. Excluding these will provide a true return on member equity. What is interesting about this ratio is the fact that despite the wide fluctuations between the different years for each cooperative, the average return on member equity for all Top 100 cooperatives has remained steady between 11 percent and 12 percent.

Diversified, farm supply and poultry/livestock cooperatives had substantial declines in their average ROE ratios, pulling down the overall average. Much of this decline is attributed to declining margins. Sugar cooperatives again ended the year with a net loss, yet the loss was not as large as the prior year and their return on equity improved. Fruit/vegetable cooperatives boosted their ROE with the help of two cooperatives. Dairy, cotton, grain and rice cooperatives all had a larger percentage increase in their net margins compared to their increase in equity.

In summary, the downturn in the agriculture sector hurt farmers and their businesses. Liquidity indicators point toward a less liquid position for many larger cooperatives at the same time they accumulate more debt. At present, there doesn't seem to be too much of a concern. However, if the lower activity and profitability of these cooperatives doesn't improve, agriculture could see more consolidation and change in the cooperative community. ■