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Top 100 Cooperatives 1980 Financial Profile

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ABSTRACT

Top 100 Cooperatives 1980 Financial Profile. Donald R. Davidson, Donald W. Street, and Roger A. Wissman; Cooperative Management Division; Agricultural Cooperative Service; U.S. Department of Agriculture; ACS Research Report No. 24. August 1982

The Nation's 100 largest cooperatives had fiscal 1980 sales totaling $50.3 billion; assets, $17 billion; debt, $7.2 billion (short-term, $3.6 billion and long-term, $3.6 billion); other liabilities, $4.9 billion; net worth, $4.9 billion; net margins, $1.2 billion; per-unit capital retains, $170 million; sources and uses of funds, $3 billion; and net losses, $69 million. Equity capital declined steadily over the past 18 years (1962-80), dropping from 52.4 percent to 28.6 percent of total assets. Conversely, borrowed capital during that time increased from 28.6 percent to 42.2 percent. Seventy-one of the top 100 cooperatives operated primarily on a net margins basis and 29, mainly on a pooling basis.

Key Words: Cooperative financing, capital structure, assets, members' equity, borrowed capital, revenues, net margins or savings, pooling, per-unit capital retains, source and use of funds.

Foreword

As cooperatives continue to expand operations and add new services to meet members' changing needs, up-to-date financial information becomes of utmost importance. With this in mind, cooperative management division of Agricultural Cooperative Service (ACS) initiated a project in 1981 to provide as current information as possible on changes and trends in financing the largest U.S. cooperatives.

An outside program review group recommended ACS also make this kind of study *on an annual basis* to assist policymakers and cooperative management, directors, and members in financial planning and performance evaluation.

This first annual profile of the 100 largest cooperatives focuses its analysis on the major elements of capital structure and the main factors responsible for changes in financial condition each year. It maintains continuity with earlier ACS finance studies, with comparative data for 1976 and earlier years obtained from Farmer Cooperative Research Report No. 17, *The Changing Financial Structure of Farmer Cooperatives*, published in 1980.

Some significant new facets were added to the 1981 profile study. A distinction was made between short- and long-term sources of debt, while previous ACS financial studies reported only changes in *total* borrowed capital. Also, marketing cooperatives in the top 100 were classified, for the first time, as operating on a pooling or net-margin basis. Most important, source-and-use-of-funds data were brought into the analysis.

Cooperative management division also wishes to thank the cooperatives that provided information for this study and Mark Howard, Lori Farland, and James Johnson for their assistance in helping tabulate data and prepare tables.

Charles A. Kraenzle

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Agricultural Cooperative Service

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Preface

The overall objective of this study is to present a financial profile of the 100 largest U.S. cooperatives, showing changes and trends in the major elements comprising their capital structures. More specific objectives were to:

• Determine the level of debt and equity financing to support total assets, including amounts and sources of short- and long-term debt and relative levels of current and fixed assets. Of specific interest is the degree of leverage and liquidity when compared by major function and products marketed.

• Analyze distribution of net margins and losses and determine the importance of allocated and unallocated distributions of capital and their impact on equity structure.

• Create a combined statement of source and application of funds to analyze the relative importance of particular sources and uses including net margins; per-unit capital retains; new long-term borrowing; cash patronage refunds received and paid; purchases of property, plant, and equipment; equities redeemed; and retirement of existing long-term debt.

• Determine distribution of 100 largest cooperatives based on size of sales and assets, identifying areas of growth and significant changes in comparison with previous studies.

• Establish the unique financial differences between cooperatives operating primarily on a pooling basis and those generating net margins.

• Quantify nonfinancial characteristics of the 100 biggest U.S. associations and note changes that have occurred over time. These nonfinancial characteristics include items such as major function performed, membership structure, type, location (State and Farm Credit District), organizational structure, and tax status.

Selection of the 100 biggest cooperatives was based on 1980 dollar sales volume of associations with assets of not less than $15 million. The size limitation on assets was used to exclude sales agencies operating on a commission basis with comparatively small capital requirements and cooperatives involved almost exclusively in bargaining activities. Using this asset cut-off amount, the cooperative with the smallest 1980 revenues in the top 100 had assets of $16.4 million—and the largest, $2.1 billion.

Annual and audit reports revealed great variation in the amount of financial information presented. However, in most cases, the reports contained sufficient data for constructing a financial profile. Only six cooperatives' annual reports did not contain a statement of changes in financial position.

If cooperatives would be more uniform and complete in presenting financial information, especially in their annual reports, it would help ACS researchers be more precise in their analysis of data from these reports. For example, in several instances, reports did not specify *all* sources of borrowed funds. These "nonspecified" sources, amounting to $413 million, and equaling 6 percent of the top 100's total fiscal 1980 debt outstanding, were prorated to all sources listed, based on the proportion of specified sources.

Highlights

The Nation's 100 largest cooperatives had 1980 sales of $50.3 billion, compared with $29.3 billion in 1976. Sales in 1980 ranged from $4.8 billion to $61.8 million, with a median of $229 million. Total 1980 revenues of $50.3 billion represent 54 percent of *all* U.S. cooperatives' gross business volume.

Compared with only 8 in 1976, 13 cooperatives had sales of at least $1 billion in 1980. Yet in contrast, 60 percent of the 1980 *Fortune* 500 companies had sales greater than $1 billion.

Total assets of the 100 largest cooperatives amounted to $17 billion in 1980, compared with $10.3 billion in 1976. The $17-billion mark represents an estimated 58 percent of all cooperatives' total 1980 assets. This indicates the predominant influence the largest 100—equal to 1.6 percent of all U.S. cooperatives—have on the overall financial picture.

In 1980, assets of cooperatives on the top 100 list ranged from $15.8 million to $2.1 billion, with a $67.2-million median, compared with a range of $10.7 million to $1.2 billion and a median of $49.3 million for 1976.

Three of the top 100 had assets of at least $1 billion in 1980, compared with only 1 in 1976. On the other hand, nearly half of the 1980 *Fortune* 500 had assets greater than $1 billion.

Net worth, as a percent of total assets, has been steadily declining during the past 18 years (1962-80). At the same time, the proportion of debt in the capital structure has persistently increased. Members' equity, as a percent of total assets, fell from 52.4 percent in 1962 to 28.6 percent in 1980. Conversely, borrowed funds, as a percent of total capitalization, increased from 28.6 percent to 42.2 percent over the same period.

Allocated equity represented the bulk of members' capital, declining from 89 percent in 1962 to 86 percent of the largest 100's 1980 net worth of $4.9 billion. Unallocated equity has shown a gradual rise over the 18-year period, increasing from 11 to 14 percent.

Total debt outstanding for fiscal 1980 amounted to $7.2 billion, consisting of $3.6 billion in short-term debt and 3.6 billion in long-term debt. Banks for Cooperatives continue to be the primary source of borrowed funds.

Seventy-one of the top 100 cooperatives operated primarily on a net-margin basis and 29, mainly on a pooling basis. Of the 29 pooling associations, 18 reported part of their activities on a net-margin basis and 11 recorded no operations this way. Of the 89 cooperatives operating partially or wholly on a net-margin basis, 80 had 1980 net margins totaling $1.2 billion and 9 incurred net losses of $69 million.

In comparison, 95 of the 100 biggest companies included in the *Fortune* directory of largest U.S. industrial corporations—which included only 1 of the top 100 cooperatives—had 1980 net income totaling $58 billion, with 5 showing net losses.

Net margins of $1.2 billion for 1980 were distributed as follows: patronage refunds, 73.7 percent (47 percent in cash and 53 percent in noncash allocations), 15.4 percent retained as unallocated equity, 9.5 percent paid for Federal and State income taxes, and 1.4 percent as cash dividends on capital stock.

Per-unit capital retains deducted by 38 of the top 100 cooperatives in 1980 amounted to $170 million. Marketing cooperatives handling fruits and vegetables, dairy products, rice, cotton and cotton products, sugar, and nuts were the predominant users of per-unit capital retains in 1980. Eleven of the 29 pooling cooperatives—all marketing organizations reporting *no* activities on a net-margin basis—accounted for 42 percent of total per-unit retains deducted in 1980.

Sources and uses of funds (SAUF) of the 100 largest cooperatives totaled $3 billion in 1980. Net margins were the single most important source of funds in 1980, contributing $1.2 billion. New long-term borrowing ranked next in importance, providing $752 million.

Four major uses of funds were made by the top 100 in 1980. In order of importance, they were (1) build assets, $1.1 billion; (2) pay cash patronage refunds and redeem prior years' equity, $606 million; (3) reduce long-term debt, $427 million; (4) increase working capital, $361 million.

Federal income tax status of the top 100 cooperatives has trended toward nonexemption. In 1970, 62 qualified as Section 521 or "exempt" organizations, compared with 34 in 1980.

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This first profile shows the financial structure of the 100 largest U.S. cooperatives based on 1980 data (referred to as the top 100) as well as trends in major capital elements over the past 18 years (1962-80). Cooperatives are different in many respects from other types of business enterprises in their financial and organizational makeup, and these differences have been given due attention in this profile analysis.

One big difference in the way cooperatives operate is found in several marketing associations that function on a pooling basis with *no* net margins. Eleven of the top 100 were placed in this category, with 18 others also operating on a pooling basis, with *part* of their activities reported on a net-margin basis. This distinction was important when determining total net margins or savings generated by the group. Net proceeds of pooling cooperatives that contained cost of (or payment for) products were not included in net-margin tabulations.

Breaking from past ACS financial studies, borrowed capital was separated into its long- and short-term aspects because of the primary importance of being able to distinguish long-term debt in evaluating financial position and in calculating debt-equity ratios. Capitalization is used to refer to total debt and equity capital, while recognizing that some financial writers exclude short-term debt when speaking of a company's capitalization.

Beside balance sheets and operating (or income) statements, statements of changes in financial position were put to good use in this profile report. Only 6 of the 100 biggest cooperatives did not include the last statement in their 1980 annual reports.

Data obtained from the statements of changes in financial position were used in constructing comparative source-and-use-of-funds (SAUF) statements for different types of cooperatives in the top 100. SAUF statements add an important new dimension to the financial profile of the 100 largest cooperatives in 1980 and establish a base for subsequent annual profile studies.

Financial data for the cooperatives' fiscal 1980 operations were obtained from their annual or audit reports. Comparative information for 1976 and earlier years was obtained from Farmer Cooperative Research Report No. 17, *The Changing Financial Structure of Farmer Cooperatives*, published in 1980.

Information could not be obtained for only 1 of the largest 100 cooperatives. It was, however, one of the smaller associations. Therefore, the cooperative ranked No. 101 in size on the list was included in the study, completing the top 100 list for 1980.

CHARACTERISTICS OF 100 LARGEST COOPERATIVES

Cooperatives on the 1980 top 100 list are not all the same as those comprising the 1976, 1970, and 1962 groups. Eighty-six of the cooperatives on the 1980 list were the same as those on the 1976 list, and 84 on the 1976 list were identical to those in the 1970 group.

A major factor bringing about changes in the makeup of the 100 largest cooperatives has been the combining of operations among several of these organizations. For example, 9 of the 14 listed in 1976 but not appearing in 1980 resulted from merger or consolidation with other associations on the 1976 roster.

In May 1977, Far-Mar-Co merged with Farmland Industries—both in the top 10 in 1976; and in March 1980, FS Services and Illinois Grain Corporation (in the top 15 in 1976) consolidated operations to form GROWMARK. The other 5 of the 14 cooperatives in the 1976 listing that disappeared from the 1980 listing were omitted because: 2 discontinued business, one's assets were too small to qualify for the list, another's revenues were not large enough, and 1980 financial information on 1 of the smaller cooperatives was not available.

Table 1—Largest 100 cooperatives, classified by major function, for fiscal years ended in 1970, 1976, and 1980

Major function	1970	1976	1980
	Number of cooperatives		
Marketing	62	60	62
Marketing/farm supply	22	26	27
Farm supply	16	14	11
TOTAL	100	100	100

Type and Membership Structure

The top 100 cooperatives have been classified several ways to show their basic characteristics. Since 1970, 60 to 62 have been primarily engaged in marketing activities, while the number involved in both marketing and supply functions has risen from 22 to 27, and those mainly in farm supplies have declined from 16 to 11 (table 1).

During the seventies, several of the top 100 began processing and marketing farm products in addition to their basic activities of manufacturing, purchasing, wholesaling, and retailing farm production supplies. By striving to offer more complete lines of supplies and to coordinate both inputs and outputs connected with food and fiber production, these producer-owned businesses have as their broader goal a more efficient and productive agriculture.

Marketing is a generic term and does not indicate the wide variety of commodities handled by the top 100 cooperatives engaged in this function. Since 1970, the number of the biggest associations involved in marketing products of some kind has increased from 84 to 89 (table 2).

Dairy and grain marketing cooperatives have noticeably strengthened their positions in the top 100 since 1970, increasing from 19 to 24 and 14 to 22, respectively, over the 10-year period. Receipts from marketing, compared with farm supply sales and income from other sources accounted for 71 percent of the $50.3 billion in gross business volume the top 100 reported for their fiscal years ended in 1980.

Considering membership structure, 56 were centralized (individual farmer-members); 28, federated (cooperative members); and 16, mixed or with both types of members (table 3). Also of interest is that 13 were local associations, indicating their growth and diversification at the grassroots level. The locals were all centralized. Because they usually served several counties and dealt directly with farmers, their membership was composed strictly of individual farm operators.

All five of the local grain marketing associations operated substantial farm supply departments. The other eight locals were composed of one cotton, five fruit and vegetable marketing, and two dairy associations. One dairy local merged with one of the nine diversified regionals on January 1, 1981. However, it was included in the 1980 financial profile study, because it completed its 1980 fiscal year on December 31.

Basic Financial Characteristics

Eighty of the top 100 were classifed as regionals, with 1980 individual sales ranging from $4.8 billion to $61.8 million, with a median of $238.4 million (table 4).

The median revenue figure for all of the 100 equaled $229 million—just a little below that of the 80 regionals, which are the dominant type of organization in this largest group of farmer-owned enterprises. Regionals comprised 43 centralized, 21 federated, and 16 mixed cooperatives (table 3). In general, they serve an area consisting of a number of counties or in some cases, several States. All federated cooperatives are classified as regionals, as are centralized associations serving more than 8 or 10 counties, and cooperatives with large volumes that are not strictly federated or completely centralized.

Table 2—Principal product marketed by top 100 cooperatives, for fiscal years ended in 1970, 1976, and 1980

Product[1]	1970	1976	1980
	Number of cooperatives		
Dairy products	19	22	24
Grain, soybeans, and products	14	21	22
Fruits and vegetables	18	15	16
Diversified[2]	14	11	9
Cotton and cotton products	6	5	7
Rice	4	4	4
Sugar	2	3	3
Poultry products	3	3	2
Nuts	2	2	2
Livestock	2	0	0
TOTAL	84	86	89

[1] Accounts for more than 50 percent of total revenues obtained from marketing activities.

[2] Substantial amounts of several products are marketed prohibiting a 1-commodity classification.

Table 3—Type and membership structure of the 100 largest farmer-owned marketing and supply cooperatives, 1980

Type of cooperative	Membership structure			
	Centralized [1]	Federated [2]	Mixed [3]	Total
	Number			
Local: [4]				
Grain, soybeans, and products	5	0	0	5
Fruits and vegetables	5	0	0	5
Dairy products	2	0	0	2
Cotton and cotton products	1	0	0	1
Subtotal	13	0	0	13
Regional: [5]				
Dairy products	19	2	1	22
Grain, soybeans, and their products	2	9	3	14
Fruits and vegetables	6	1	3	10
Diversified	2	1	6	9
Farm supply	0	6	2	8
Cotton and cotton products	3	2	1	6
Sugar	3	0	0	3
Rice	4	0	0	4
Nuts	2	0	0	2
Poultry products	2	0	0	2
Subtotal	43	21	16	80
Interregional: [6]				
Farm supply	0	3	0	3
Grain, soybeans, and products	0	3	0	3
Fruits and vegetables	0	1	0	1
Subtotal	0	7	0	7
TOTAL	56	28	16	100

[1] Individual farmers make up the membership.
[2] Membership composed of two or more local, regional, or interregional associations.
[3] Has both individual farmers and cooperatives as members.
[4] Provides cooperative services in a local area or community or one or several counties. The association has individual farmers as members and may be affiliated with a regional or other cooperatives.
[5] Serves a district consisting of a number of counties, or, in some cases, a number of States. Regionals include all federated cooperatives, centralized associations serving more than 8 or 10 counties, and cooperatives with large volumes that are neither strictly federated nor strictly centralized.
[6] One whose members are mainly regional cooperatives and is owned and controlled by these organizations.

Seven interregionals made the top 100 list, with individual revenues ranging from $3.3 billion to $236 million and a median of $496 million (table 4). Their membership consisted mainly of regional cooperatives. Federated cooperatives may be regarded as regional or interregional associations, depending on whether they have principally local or regional members. Three of the seven interregionals were farm supply concerns; three, grain marketing enterprises; and one, a fruit and vegetable marketing organization.

Some interregionals had regional members surpassing them in sales volume. For example, one grain marketing interregional with 1980 revenues of $236 million had three regional member cooperatives with sales ranging from $281 million to $802 million. Another interregional grain cooperative had 1980 sales of $3.3 billion and 12 member cooperatives. One of its members is the largest U.S. farmer-owned cooperative, with 1980 revenues of $4.8 billion.

The top 100's financial structure for fiscal 1980 operations shows total assets of $17 billion, compared with $10.3 billion in 1976 (tables 5, 20, and 21). Their $17 billion in assets are estimated to equal 58 percent of all cooperatives' total 1980 assets. This provides an indication of the predominating influence the top 100 cooperatives, equal to 1.6 percent of the estimated 1980 total number (6,400) of associations, have on the overall financial picture.

Three major financial items make up the top 100's $17 billion worth of assets (table 5). These consist of current assets, 61 percent; property, plant, and equipment, 29 percent; and investments in marketing and supply cooperatives and Banks for Cooperatives, 7 percent. All total 97 percent of total assets. Other assets and investments account for the other 3 percent.

Likewise, total capitalization consisted of three major elements, with current liabilities of $8.2 billion being the biggest single item, amounting to 48 percent. Long-term debt of $3.6 billion equaled 21 percent and equity capial of $4.9 billion, 29 percent. Organizations with a fairly high current-to-total-assets ratio—such as, the 61 percent ratio of the 100 largest cooperatives—normally require a lower percentage of equity to total assets than businesses with low current-to-total-asset ratios.

Note that the top 100 cooperatives' major noncurrent asset—property, plant, and equipment of $4.9 billion—is fully covered by $4.9 billion in equity capital. This indicates a substantial portion of the $3.6 billion in long-term debt is being used to finance working capital. Moreover, total long-term capital of $8.8 billion (long-term debt, other-term liabilities, and equity capital) contained 55 percent equity, which represents a fairly strong long-term financial position.

Table 4—Variation in revenue size of local, regional, and interregional cooperatives comprising the 100 largest associations, for fiscal years ended in 1980

Revenues	Locals (13)	Regionals (80)	Interregionals (7)
	Million dollars		
High	147.1	4,765.5	3,269.4
Median	101.4	238.4	496.1
Low	74.6	61.8	236.4

Table 5—Top 100 cooperatives' combined balance sheet for fiscal years ended in 1980

Assets	*Million dollars*
Current assets	$10,347
Noncurrent assets:	
Investments:	
Cooperatives [1]	1,163
Unconsolidated subsidiaries [2]	199
Other investments	175
Subtotal	1,537
Property, plant, and equipment [3]	4,862
Other assets	249
TOTAL	16,995
Liabilities and equity capital	*Million dollars*
Liabilities:	
Current:	
Short-term debt	$3,577
Other liabilities	4,615
Subtotal	8,192
Noncurrent:	
Long-term debt	3,601
Other liabilities	341
Subtotal	3,942
Equity capital	4,861
TOTAL	16,995

[1] Includes investments in marketing and farm supply associations and Banks for Cooperatives.
[2] Includes investments in unconsolidated subsidiaries, associated companies, and joint ventures.
[3] Net of accumulated depreciation.

Income Tax Status

Cooperatives that qualify under Section 521 of the Internal Revenue Code generally operate with little or no taxable income. Such cooperatives are often referred to as Section 521 or "tax-exempt" associations. Those that do not qualify under Section 521—often called "nonexempt" or Nonsection 521 associations—are liable for income tax on net income used to pay a return on capital and on receipts not distributed to patrons as true patronage refunds in the manner prescribed by the Code.[1]

The big change during the seventies in the top 100's income tax status has been the trend toward nonexemption (table 6). In 1970, 62 qualified as Section 521 "exempt" cooperatives, compared with 34 in 1980. On the other hand, the number on the top 100 list operating as Nonexempt associations increased from 38 in 1970 to 66 in 1980. Within 10 years, there has been an almost complete reversal in the importance of the two tax options.

None of the 11 farm-supply cooperatives on the 1980 list operated as Section 521 organizations; while 5 of the 16 included in the 1970 roster maintained Section 521 status.

Marketing/farm supply associations have also made a big switch to Nonexempt status. In 1970, 9 of 22 such cooperatives were Nonexempt organizations, compared with 22 of the 27 marketing/farm supply associations on the 1980 list. The story is much the same when looking at the largest group on the list, the marketing cooperatives, although, 29 of the 62 associations on the 1980 list still operated as Section 521 organizations. This compares with 44 of the 62 associations that operated this way in 1970.

Why the change to nonexempt status? Several factors seem to explain the shift. Operating as a Nonexempt association allows more freedom in the way patronage refunds are distributed and how retained margins are treated.

Exempt cooperatives must treat nonmembers the same as members in making refunds, and business with nonmembers cannot exceed 50 percent of the association's total business. Further, purchases for persons who are neither members nor producers cannot exceed 15 percent of the cooperative's total purchasing volume.

Such restrictions have caused several of the top 100 associations to give up their exempt status. For example, many desire to pay patronage refunds only to members and treat nonmember margins as retained earnings to make better use of investment tax credits.

[[1]Nelda Griffin, David Volkin, and Donald R. Davidson, *Cooperative Financing and Taxation*, Cooperative Information Report 1, Section 9, ACS, USDA, Feb. 1981.]

Location of Headquarters

Among the 29 States with the top 100 cooperatives, California, with 20, had the highest number of any State (table 7). Eight of the 20 cooperatives in California were fruit and vegetable marketing associations, half of the 16 in the top 100.

Considering the other 28 States with top 100 cooperatives headquartered in their respective boundaries, Texas was second with 8 associations and Minnesota, third with 7. Missouri and New York each had 6; Iowa, Ohio, Virginia, Florida, and Oregon each had 4; Illinois, Mississippi, Arkansas, Wisconsin, and Washington each had 3; Indiana, Michigan, Massachusetts, and North Carolina each had 2; and 10 States had one each.

Although California had the largest number of the top 100 cooperatives, Missouri ranked No. 1, based on size of total revenues and assets of associations headquartered in the State. On this basis, Minnesota was No. 2 and California, No. 3. From a regional standpoint, the 19 cooperatives with headquarters in 5 States in the West North Central region had the largest combined revenues and assets.

Table 6—Top 100 cooperatives' major function and income tax status for fiscal years ended in 1970, 1976, and 1980

Major function and status	1970	1976	1980
	Number of cooperatives		
Marketing:			
Section 521 ("exempt")	44	30	29
Nonsection 521 ("nonexempt")	18	30	33
Subtotal	62	60	62
Marketing/farm supply:			
Section 521 ("exempt")	13	6	5
Nonsection 521 ("nonexempt")	9	20	22
Subtotal	22	26	27
Farm supply:			
Section 521 ("exempt")	5	0	0
Nonsection 521 ("nonexempt")	11	14	11
Subtotal	16	14	11
All Cooperatives:			
Section 521 ("exempt")	62	36	34
Nonsection 521 ("nonexempt")	38	64	66
TOTAL	100	100	100

Table 7—The 100 largest farmer-owned marketing and supply associations classified by number, total assets and revenues, and region and State, for fiscal years ended in 1980.[1]

Region and State	Cooperatives with headquarters in State	Revenues	Assets
	Number	*--Million dollars--*	
West North Central:			
Missouri	6	$10,658	$ 3,421
Minnesota	7	7,760	2,394
Iowa	4	2,070	352
Kansas	1	—	—
South Dakota	1	—	—
Subtotal	19	21,101	6,554
East North Central:			
Illinois	3	2,914	1,590
Ohio	4	1,576	399
Wisconsin	3	697	155
Indiana	2	—	—
Michigan	2	—	—
Subtotal	14	7,236	2,753
Pacific:			
California	20	4,778	2,204
Washington	3	613	261
Oregon	4	576	158
Subtotal	27	5,967	2,623
West South Central:			
Texas	8	3,846	672
Arkansas	3	—	—
Oklahoma	1	—	—
Subtotal	12	5,265	1,195
South Atlantic:			
Virginia	4	996	322
Florida	4	688	290
North Carolina	2	—	—
Georgia	1	—	—
Maryland	1	—	—
Subtotal	12	4,073	1,332
Middle Atlantic:			
New York & Pennsylvania	7	3,870	1,391
East South Central:			
Mississippi	3	797	572
Tennessee	1	—	—
Kentucky	1	—	—
Alabama	1	—	—
Subtotal	6	2,085	917
New England	2	—	—
Mountain	1	—	—
Subtotal	3	708	230
TOTAL	100	$50,305	$16,995

[1] To maintain confidentiality of information, no financial data are shown, and dashes are indicated, when number of cooperatives is less than three.

The West North Central region includes Missouri and Minnesota. The $2.1 billion in revenues and $6.6 billion in assets of the 19 cooperatives headquartered there were greater than in any other area of the country. Next in importance was the East North Central region, with the 14 cooperatives in this 5-State area generating 1980 revenues of $7.2 billion and assets of $2.8 billion. The third most important region was the Pacific, with the 20 cooperatives in California dominating the 3-State area and a total of 27 of the 100 largest U.S. cooperatives headquartered there. Their 1980 sales volume amounted to $6 billion and assets equaled $2.6 billion.

Another important area where several of the top 100 cooperatives are found is the West South Central region—Texas, Arkansas, and Oklahoma. Texas had 8 of the 12 associations headquartered in this region. Four of the 7 organizations in the 100 biggest cooperatives classified as cotton and cotton products associations were located in Texas. Altogether, the 12 cooperatives in the region produced revenues of $5.3 billion in fiscal 1980, with assets totaling $1.2 billion.

Nineteen of the top 100 cooperatives were headquartered in the South and Middle Atlantic regions. New York was the major State in the Middle Atlantic area, accounting for 6 of the 7 top 100 associations in this 3-State region. Four of the six New York cooperatives were dairy marketing organizations; one, with several marketing and farm supply activities, was classified as "diversified"; and the other, as a fruit and vegetable association.

Farm Credit District Comparisons

An important characteristic of the 100 largest associations is that they obtain the major portion of their borrowed funds from 13 Banks for Cooperatives—composed of 12 Farm Credit District Banks and 1 Central Bank. Table 8 lists the 12 Farm Credits Districts by name and shows the number of the top 100 cooperatives with headquarters in each one. Financial data for the Omaha and Wichita districts were combined to maintain confidentiality of information.

Sacramento District had the largest number of top 100 cooperatives—21, with the St. Louis District and St. Paul District each with 12 (fig. 1). Note that loans to a cooperative with members in two or more Farm Credit Districts may, in some instances, be handled by a different Bank for Cooperatives than the one in which its headquarters is located.

The St. Louis Farm Credit District led all others, based on size of revenues, assets, debt, net worth, and net margins attributable to top 100 cooperatives headquartered in its borders. Other districts surpassed St. Louis in only one factor. Total per-unit retains deducted by top 100 associations in the Sacramento and Springfield Districts were larger. Each of these districts, and especially Sacramento, have several fruit and vegetable and dairy cooperatives that use per-unit capital retains as a major source of equity financing.

Seven of the 12 cooperatives headquartered in the St. Louis District were among the largest 25 on the top 100 list. Net worth of the 12 cooperatives equaled $1.5 billion and amounted to 28.4 percent of their total assets of $5.3 billion. The 12 cooperatives' equity-to-total-assets ratio was nearly identical to that of the 100 largest cooperatives—which equaled 28.6 percent for their fiscal years ended in 1980.

Other indicators of the size of the 12 St. Louis district cooperatives—relative to the total 100 cooperatives—is that their assets accounted for 31 percent of the total; debt, 32 percent of total borrowed capital; net worth, 31 percent of total equity; and net margins, 43 percent of total margins. On the other hand, the $81.8 million of per-unit capital retains deducted by 17 of the 21 cooperatives headquartered in the Sacramento Farm Credit District equaled 48 percent of the $170 million in total retains withheld.

Equity status in total assets of top 100 cooperatives in the 12 Farm Credit Districts ranged from 44 percent for the 6 associations headquartered in the Baltimore District to 22 percent for the 28 cooperatives in the Spokane and Sacramento Districts. Similarly, debt-equity ratios of the top 100 cooperatives in each of the Farm Credit Districts showed considerable variation. Debt in table 8 refers to the total of long- and short-term borrowed capital and does *not* include other current and term liabilities (table 5).

Figure 1

100 Largest Cooperatives

Distribution by Farm Credit Districts

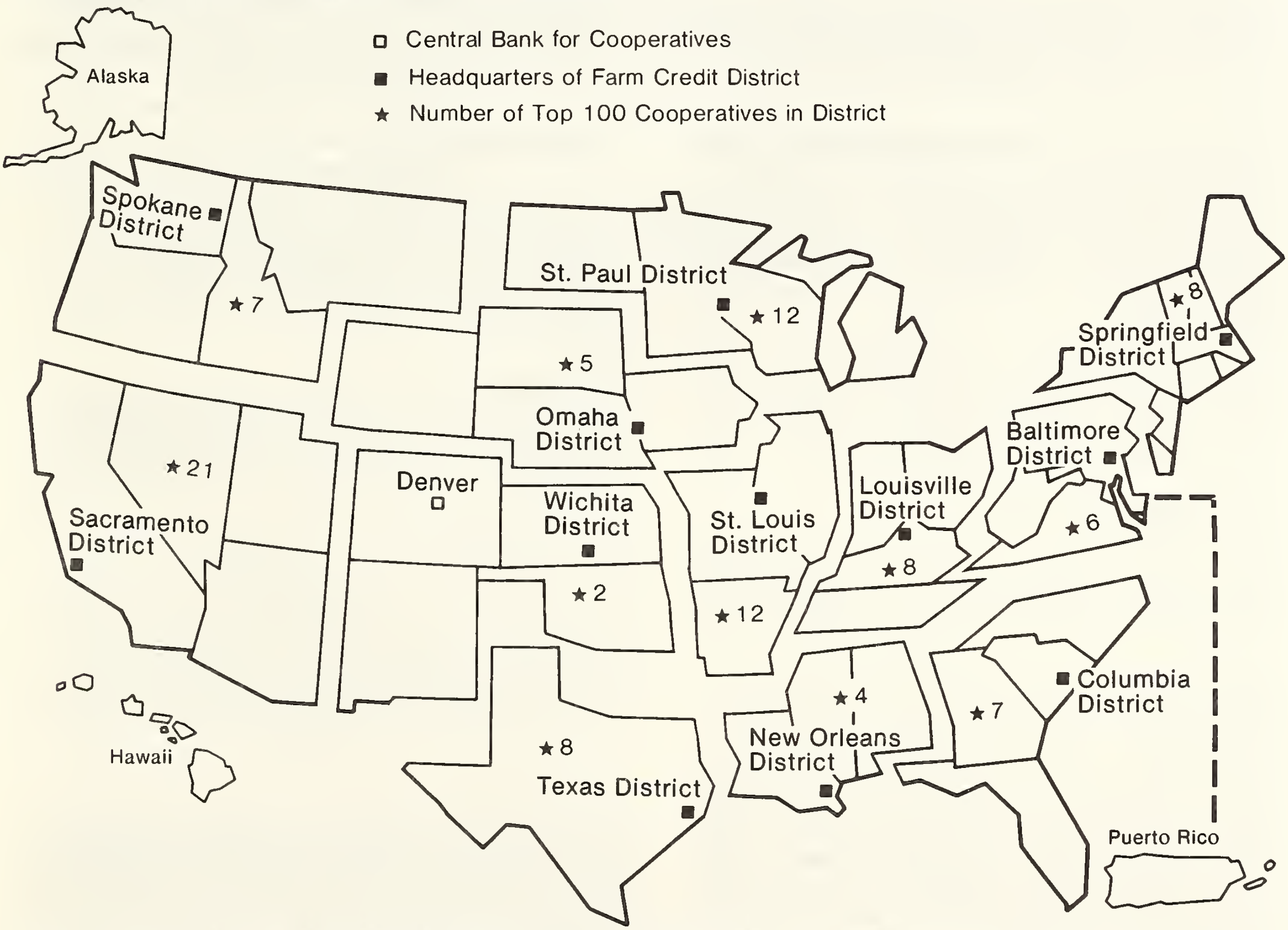


Table 8—The 100 largest cooperatives, classified by number and basic financial characteristics, by Farm Credit districts, for fiscal years ended in 1980[1]

Farm credit districts	Coopera-tives[2]	Revenues	Assets	Debt	Net worth	Net margins	Per-unit retains
	Number	*Million dollars*					
St. Louis	12	14,324	5,325	2,268	1,511	492	16.7
St. Paul	12	9,212	2,662	986	975	152	6.3
Sacramento	21	4,496	2,244	1,046	497	132	81.8
Springfield	8	4,329	1,506	566	350	74	21.4
Louisville	8	4,010	1,171	586	318	44	9.3
Texas	8	3,846	672	280	200	27	16.7
Omaha and Wichita[3]	7	3,348	937	391	270	80	0
Columbia	7	2,933	981	482	253	31	4.0
Baltimore	6	1,222	422	140	187	45	0.8
Spokane	7	1,189	418	137	91	18	5.3
New Orleans	4	946	657	296	209	55	7.6
TOTALS	100	50,305	16,995	7,178	4,861	1,150	169.9

[1] Gross financial figures are presented. Neither intercooperative business nor intercooperative investments have been eliminated.
[2] Number of cooperatives with headquarters in each district.
[3] These 2 districts are combined to preserve confidentiality of information. No financial data are shown when number of cooperatives is less than 3. Five of the 100 biggest cooperatives had their headquarters in the Omaha District and 2 in Wichita.

Debt-equity ratios for top 100 cooperatives in each Farm Credit District varied from lows of 75 percent and 101 percent, respectively, for the Baltimore and St. Paul Districts to highs of 191 percent and 210 percent for the Columbia and Sacramento Districts. The 12 cooperatives' debt-to-net-worth ratio of 150 percent in the St. Louis district represented the median ratio.

The debt-equity ratio provides one indication of management's strength in controlling the cooperative. The higher the ratio, the greater the interests of creditors—and their say-so in determining how the association operates.

SALES AND OTHER INCOME

Sales and other income—or total revenues—of the 100 largest cooperatives equaled $50.3 billion for fiscal years ended in 1980, compared with $29.3 billion in 1976 (table 9).

Net increase in revenues of $21 billion represents an annual compound growth rate of 14.5 percent over the 4 years. General inflationary pressures experienced in the economy contributed to the sales growth recorded by the top 100. When compared on a constant-dollar basis, the real growth rate exceeded 6 percent per year.[2] Note, however, that the firms on the top 100 list in 1976 are not identical to those in 1980. In fact, due to mergers within the top 100, the 1980 list actually contains more than 100 1976 firms. Therefore, the real rate of sales growth for the 1976 top 100 has been less than 6 percent per year.

Sources of Revenue

Marketing sales were, by far, the biggest income item, accounting for 69.9 percent of total revenues in 1976 and 70.5 percent in 1980 (table 9). Eighty-six of the top 100 were engaged in marketing activities in 1976 and 89 in 1980. (The various kinds of principal products marketed are shown in table 2.)

The proportion of farm supply sales decreased slightly over the 4-year period—declining from 29 percent of total revenues in 1976 to 28 percent in 1980. Although farm supply was the major function of 14 of the top 100 cooperatives in 1976 and 11 in 1980 (table 1), table 9 shows a larger number reported such sales in each period.

Effect of Major Function and Tax Status

Revenues of the 100 largest cooperatives differed, when they were classified by major function and income tax status (table 10). Considering first their total 1980 revenues of $50.3 billion, of importance is that 80 percent of these revenues were produced by 66 of the top 100 cooperatives that operated as Nonexempt associations.

[2] Based on weighted average of the indices of prices received by farmers, all farm products, and prices paid by farmers for production inputs and services. Weights were determined by the proportion of total sales accruing to marketing versus supply activities. Sources: *Survey of Current Business*. U.S. Dept. of Commerce, July 1981, and *Agricultural Statistics, 1980*." USDA, 1980.

Table 9—Significance of sources of revenue of the 100 largest farmers' marketing and supply cooperatives, for fiscal years ended in 1976 and 1980[1]

Sources of income	Cooperatives with any income from each source		Sales and other income			
	1976	1980	1976		1980	
	----Number----		*Million dollars*	*Percent of total*	*Million dollars*	*Percent of total*
Marketing sales	86	89	$20,446	69.9	$35,486	70.5
Farm supply sales	49	38	8,599	29.4	13,952	27.7
Other income	49	78	219	0.7	867	1.8
Total sales and other income	100	100[2]	$29,264	100.0	$50,305	100.0

[1] Intercooperative business has not been eliminated from these figures.
[2] Total cooperatives add up to more than 100 because several associations reported income from both marketing, farm supply, and/or other sources.

Table 10—Sales and other income of top 100 cooperatives, classified by major function and income tax status, for fiscal years ended in 1976 and 1980[1]

Major function and income tax status	Cooperatives				Sales and other income			
	1976		1980		1976		1980	
	Number	*Percent*	*Number*	*Percent*	*Million dollars*	*Percent*	*Million dollars*	*Percent*
Marketing	60	100.0	62	100.0	14,941	100.0	22,616	100.0
Section 521 ("exempt")	30	50.0	29	46.8	5,268	35.3	7,074	31.3
Nonsection 521 ("nonexempt")	30	50.0	33	53.2	9,673	64.7	15,542	68.7
Marketing/farm supply	26	100.0	27	100.0	10,985	100.0	22,683	100.0
Section 521 ("exempt")	6	23.1	5	18.5	1,426	13.0	2,770	12.2
Nonsection 521 ("nonexempt")	20	76.9	22	81.5	9,559	87.0	19,913	87.8
Farm supply	14	100.0	11	100.0	3,338	100.0	5,006	100.0
Section 521 ("exempt")	0	0	0	0	0	0	0	0
Nonsection 521 ("nonexempt")	14	100.0	11	100.0	3,338	100.0	5,006	100.0
Total	100	100.0	100	100.0	29,264	100.0	50,305	100.0
Section 521 ("exempt")	36	36.0	34	34.0	6,694	22.9	9,844	19.6
Nonsection 521 ("nonexempt")	64	64.0	66	66.0	22,570	77.1	40,461	80.4

[1] Intercooperative business has not been eliminated from these figures.

In comparison, in 1976, 64 Nonsection 521 (or Nonexempt) cooperatives generated 77 percent of the top 100 associations' total revenues. Since 1970, as mentioned earlier, more of the top 100 cooperatives have been selecting Nonexempt status. Based on business volume (table 10), Nonsection 521 associations have gained a more dominant position on the top 100 roster than their number indicates.

All revenues from top 100 cooperatives classified as farm supply, 14 in 1976 and 11 in 1980, came from Nonsection 521 associations. The marketing/farm supply cooperatives in the top 100 numbered 26 in 1976 and 27 in 1980; however, they produced 37 percent and 45 percent, respectively, of the top 100's total revenues in each of these years (table 10). Seventy-seven percent of the marketing/farm supply organizations were Nonsection 521 cooperatives in 1976, compared with 82 percent in 1980.

On the top 100 roster were 60 marketing associations in 1976 and 62 in 1980. Although they increased in number over the 4-year period, the percentage of the top 100 associations' total revenues attributable to them declined from 51 percent in 1976 to 45 percent in 1980. Farm supply cooperatives' proportion of total revenues declined somewhat over the same period. Fourteen on the 1976 list contributed 11 percent of total revenues, compared with 10 percent for the 11 farm supply cooperatives in 1980.

Twenty-nine of the 34 cooperatives on the 1980 list operating as Section 521 organizations were marketing associations and the other 5 were marketing/farm supply cooperatives. The 29 Section 521 cooperatives accounted for 47 percent of the 62 marketing cooperatives on the 1980 list; however, they contributed only 31 percent of the 62 cooperatives' 1980 total revenues of $22.6 billion (table 10).

This indicates the 29 Section 521 marketing cooperatives tended to be smaller operations than the 33 Nonsection 521 marketing organizations. The same relationship was also observed for the 27 marketing/farm supply cooperatives. The 5 Section 521 cooperatives accounted for 18.5 percent of the 27 associations but contributed only 12.2 percent of the $22.7 billion in total revenues.

Comparisons by Principal Product Marketed

The 62 marketing and 27 marketing/farm supply cooperatives generated $45.3 billion in 1980 sales and other income, which accounted for 90 percent of the top 100 cooperatives' $50.3 billion in total revenues for that year (table 11). The other $5 billion, equaling 10 percent of total revenues, was produced by the 11 farm supply cooperatives in the 1980 top 100 (table 10). Note that each of the two groups—the 62 marketing and 27 marketing/farm supply cooperatives—contributed half of the $45.3 billion in 1980 revenues.

Marketing sales of the 89 cooperatives amounted to 71 percent of the $50.3 billion in total revenues generated by the top 100 in 1980 (table 9). The 71 percent does not include the 89 cooperatives' revenues from farm supply sales and other income. When these items are included, the 89 associations' total revenues totaled $45.3 billion—equaling 90 percent of the top 100 cooperatives' total 1980 sales and other income.

Nonsection 521 cooperatives are becoming more predominant among the top 100, compared with those operating as Exempt cooperatives (table 11). Fifty-eight percent of the top 100 cooperatives engaged in marketing activities were Nonsection 521 in 1976, compared with 62 percent in 1980.

Moreover, the Nonsection 521 group engaged in marketing activities accounted for 74 percent of total revenues in 1976 and 78 percent in 1980. Or, stated differently, the 36 Exempt cooperatives averaged $186 million in revenues, compared with $385 million for the 50 Nonexempt organizations in 1976, and in 1980, averaged $290 million and $645 million, respectively.

When cooperatives in the top 100 engaged in marketing activities are classified by principal product marketed, 4 groups stand out in importance (based on size of revenues) as table 11 shows. In 1980, 22 cooperatives (21 in 1976) in the grain, soybeans, and products category reported $15.5 billion in revenues, compared with $9.6 billion 4 years earlier. The 22 cooperatives accounted for the largest proportion—34 percent—of the $45.3 billion in total revenues reported in 1980 by the 89 marketing and marketing/farm supply associations.

The next most important group based on revenue size were diversified cooperatives, accounting for 31 percent of the $45.3 billion in total revenues. Although diversified cooperatives declined in number from 11 to 9 between 1976 and 1980, this group showed the biggest growth in sales and other income over the 4-year period (table 11). Revenues more than doubled, from $6.5 billion in 1976 to $13.9 billion in 1980, a 114-percent increase.

Four of the 9 associations in the diversified group were in the top 10 of the 1980 list of 100 largest cooperatives, with 1 of these being the largest farmer-owned enterprise in the United States. These nine cooperatives, as the term "diversified" implies, were marketing/farm supply organizations engaged in processing and distributing several commodities as well as providing a broad line of farm production inputs to their members and other patrons.

Of interest, a fairly specialized group of cooperatives on the list showed the next largest growth rate over the 4-year period, cotton and cotton products cooperatives. Five in 1976 and 7 in 1980 more than doubled their revenues from $771 million to $1.6 billion, a 101-percent increase.

Cooperatives included in the "other products" classification were third in line as fast growers. Their revenues nearly doubled between 1976 and 1980, jumping from $836 million to $1.6 billion, representing a 96-percent increase. The cooperatives in this group were also the *same five* organizations for each period, composed of three sugar marketing and two nut marketing associations.

Table 11—Total revenues of marketing and marketing/farm supply cooperatives included in 100 biggest associations, classified by principal product marketed and income tax status, for fiscal years ended in 1976 and 1980[1]

Principal product marketed and income tax status	Cooperatives				Sales and other income			
	1976		1980		1976		1980	
	Number	*Percent*	*Number*	*Percent*	*Million dollars*	*Percent*	*Million dollars*	*Percent*
Grain, soybeans, and products	21	100.0	22	100.0	9,553	100.0	15,501	100.0
Section 521 ("exempt")	2	9.5	1	4.5	—	—	—	—
Nonsection 521 ("nonexempt")	19	90.5	21	95.5	—	—	—	—
Diversified	11	100.0	9	100.0	6,507	100.0	13,924	100.0
Section 521 ("exempt")	4	36.4	3	33.3	1,299	20.0	2,475	17.8
Nonsection 521 ("nonexempt")	7	63.6	6	66.7	5,208	80.0	11,449	82.2
Dairy products	22	100.0	24	100.0	5,479	100.0	8,666	100.0
Section 521 ("exempt")	11	50.0	11	45.8	2,160	39.4	2,403	27.7
Nonsection 521 ("nonexempt")	11	50.0	13	54.2	3,319	60.6	6,263	72.3
Fruits and vegetables	15	100.0	16	100.0	1,932	100.0	3,070	100.0
Section 521 ("exempt")	7	46.7	6	37.5	1,007	52.1	1,359	44.3
Nonsection 521 ("nonexempt")	8	53.3	10	62.5	925	47.9	1,711	55.7
Cotton and cotton products	5	100.0	7	100.0	771	100.0	1,549	100.0
Section 521 ("exempt")	4	80.0	6	85.7	—	—	—	—
Nonsection 521 ("nonexempt")	1	20.0	1	14.3	—	—	—	—
Rice	4	100.0	4	100.0	579	100.0	792	100.0
Section 521 ("exempt")	4	100.0	3	75.0	579	100.0	—	—
Nonsection 521 ("nonexempt")	0	0	1	25.0	0	0	—	—
Poultry products	3	100.0	2	100.0	—	—	—	—
Section 521 ("exempt")	1	33.3	1	50.0	—	—	—	—
Nonsection 521 ("nonexempt")	2	66.7	1	50.0	—	—	—	—
Other products[2]	5	100.0	5	100.0	836	100.0	1,643	100.0
Section 521 ("exempt")	3	60.0	3	60.0	—	—	—	—
Nonsection 521 ("nonexempt")	2	40.0	2	40.0	—	—	—	—
Total marketing and marketing/farm supply	86	100.0	89	100.0	25,926	100.0	45,299	100.0
Section 521 ("exempt")	36	41.9	34	38.2	6,694	25.8	9,843	21.7
Nonsection 521 ("nonexempt")	50	58.1	55	61.8	19,232	74.2	35,456	78.3

[1] To maintain confidentiality of information, no financial data are shown—and dashes indicated—when number of cooperatives is less than 3.

[2] For both 1976 and 1980, "other products" included 3 marketing cooperatives handling sugar, and 2 marketing associations handling nuts.

Table 12—Distribution of the 100 largest cooperatives, based on size of revenues, for fiscal years ended in 1976 and 1980

Sales and other income	1976	1980
	Number of cooperatives	
$1 billion and over	8	13
$500 million-$999.9 million	10	10
$250 million-$499.9 million	12	22
$100 million-$249.9 million	34	35
Less than $100 million	36	20
TOTAL	100	100

Sales Significance of Top 100

The 100 largest cooperatives' 1980 revenues of $50.3 billion were equal to 54 percent of all U.S. cooperatives' gross business volume. More than 300 of the Fortune 500 companies were in the $1-billion-and-over class in 1980, with Exxon's sales of $103 billion an estimated $23 billion higher than those of *all* U.S. farmer-owned cooperatives. Only 13 cooperatives had revenues greater than $1 billion in 1980, compared with 8 in 1976 (table 12).

The addition of 5 cooperatives in 4 years to the Billion Dollar Club indicates the growth-oriented nature of several associations in the top 100. Ten cooperatives entered the $250 million to $499.9 million group (the biggest growth class); and another, the $100 million to $249.9 million sales category, with the less-than-$100 million group losing 16 cooperatives.

Seven of the 13 cooperatives with sales of at least $1 billion were classified as marketing/farm supply (table 13). Four of the seven had mixed membership structures, with both individual farmers and cooperatives as members.

Table 13—Number of the 100 largest farmers' marketing and supply cooperatives with sales and other income of specific sizes, by major function and principal product marketed, for fiscal years ended in 1976 and 1980

Major function and principal product marketed	Total cooperatives		Cooperatives with sales and other income amounting to—											
			Less than $75 million		$75-$99.9 million		$100-$199.9 million		$200-$499.9 million		$500-$999.9 million		$1 billion and over	
	1976	1980	1976	1980	1976	1980	1976	1980	1976	1980	1976	1980	1976	1980
	Number													
MAJOR FUNCTION:														
Farm supply	14	11	2	0	2	1	3	2	4	4	3	2	0	2
Marketing	60	62	13	4	11	10	16	14	12	25	4	5	4	4
Marketing Farm/ supply	26	27	6	2	2	3	6	6	5	6	3	3	4	7
Total—all cooperatives	100	100	21	6	15	14	25	22	21	35	10	10	8	13
PRINCIPAL PRODUCT MARKETED:														
Diversified	11	9	0	0	1	0	5	2	1	3	1	0	3	4
Cotton and cotton products	5	7	2	2	1	1	1	2	1	1	0	1	0	0
Dairy products	22	24	5	2	4	1	7	8	3	10	2	1	1	2
Fruits and vegetables	15	16	7	0	2	7	3	2	3	6	0	1	0	0
Grain, soybeans, and products	21	22	3	1	2	2	1	4	7	6	4	4	4	5
Poultry products	3	2	1	1	1	1	1	0	0	0	0	0	0	0
Rice	4	4	1	0	0	1	2	0	1	3	0	0	0	0
Other products	5	5	0	0	2	0	2	2	1	2	0	1	0	0
Total marketing and marketing/farm supply cooperatives	86	89	19	6	13	13	22	20	17	31	7	8	8	11

Four of the seven marketing/farm supply associations in the $1 billion-and-above category were also classified as having diversified marketing activities, with the other three placed in the grain, soybeans, and products category. The largest cooperative on the 1980 top 100 list was classified as marketing/farm supply diversified. All seven were regionals.

The five new cooperatives joining the Billion Dollar Club in 1980 consisted of three marketing/farm supply and two farm supply associations. Both farm supply cooperatives had federated-type membership structures, one, a regional (with primarily local cooperatives as members), and the other, an interregional (with mainly regional associations making up its membership).

The 4 marketing associations in the 13 biggest cooperatives included 2 dairy and 2 grain, soybeans, and products enterprises. The only centralized organizations in the top 13 were the 2 dairy cooperatives. (However, 56 of the top 100 were centralized cooperatives, and 21 of these were dairy associations.) The two cooperatives marketing grain, soybeans and products were both federations: one, a regional and the other, an interregional cooperative.

Total and Median Sales Volume

The 80 regional cooperatives in 1980 accounted for $42.6 billion, or 85 percent of the $50.3 billion in total revenue reported by the top 100 cooperatives. Seven interregionals, with a combined sales volume of $6.3 billion, contributed 12 percent of the total, and the 13 local cooperatives' $1.4 billion supplied the other 3 percent.

Of the 11 cooperatives whose major function was handling farm supplies, 8 were regionals, and 3 were interregionals (table 14). The eight farm supply regionals had a median sales volume of $230 million, compared with $514 million for the three interregional farm supply associations.

Table 14—Total and median sales volume of the different types of cooperatives comprising the 100 largest farmer-owned marketing and supply associations for fiscal years ended in 1980[1]

Type of cooperative	Cooperative	1980 sales volume	
		Total	Median
	Number	*1,000 dollars*	
Local:[2]			
Grain, soybeans, and products	5	$509,479	$106,001
Fruits and vegetables	5	449,665	88,214
Dairy products	2	—	139,058
Cotton and cotton products	1	—	—
Subtotal	13	1,392,520	101,409
Regional:[2]			
Dairy products	22	8,387,716	215,151
Grain, soybeans, and products	14	10,989,744	649,726
Fruits and vegetables	10	2,311,758	224,844
Diversified	9	13,924,196	386,429
Farm supply	8	2,992,442	230,107
Cotton and cotton products	6	1,445,595	102,454
Sugar	3	1,180,737	322,946
Rice	4	791,710	215,072
Nuts	2	—	231,041
Poultry products	2	—	76,742
Subtotal	80	42,639,465	238,376
Interregional:[2]			
Grain, soybeans, and products	3	4,001,899	496,142
Farm supply	3	[3]	513,900
Fruits and vegetables	1	—	—
Subtotal	7	6,273,195	496,142
TOTAL	100	50,305,180[4]	228,971

[1] To maintain confidentiality of information, no financial data are shown-dashes are indicated-when number of cooperatives is less than 3.

[2] See footnotes, 4, 5, and 6, table 3.

[3] Data not shown to preserve confidentiality of single fruit and vegetable cooperative.

[4] Total sales of the 100 largest cooperatives—which represent 54 percent of the total business volume of all U.S. cooperatives—were $900 million less than Texaco's $51.2 billion of sales for 1980. Texaco ranked fourth in *Fortune's* list of 500 largest U.S. industrial corporations.

Of the 89 cooperatives engaged in marketing, 13 were locals; 72, regionals; and 4, interregionals (table 14). Five of the 16 fruit and vegetable cooperatives on the top 100 list were local associations, with 1980 total revenues of $449.7 million and a median of $88.2 million. Only 1 of the 16 fruit and vegetable associations was classified as a marketing/farm supply and it was an interregional, while the other 15 were classified as marketing cooperatives.

CHANGES IN FINANCIAL STRUCTURE

The two most widely used measures for expressing size of cooperatives—and other business enterprises—are volume of sales or revenues and amount of assets. As mentioned earlier, both assets and business volume were considered in selecting the 100 largest cooperatives. Organizations within the group from which the 100 biggest associations were chosen (based on revenues) had to have assets of at least $15 million.

Changes in Asset Size

Cooperatives in the 1980 top 100 had assets ranging from $15.8 million to $2.1 billion, with a median value of $67.2 million. This compares with a range of $10.7 million to $1.2 billion and a median of $49.3 million for 1976.

Total assets of the top 100 cooperatives amounted to $17 billion in 1980, compared with $10.3 billion in 1976. The largest 100 cooperatives' $17 billion in assets amounted to an estimated 58 percent of all cooperatives' total 1980 assets.

The most striking change between 1976 and 1980 was the growth in the number of cooperatives with assets of at least $200 million, from 10 to 24 (table 15). Likewise significant is the drop in the number of associations with assets less than $40 million, from 45 to 26.

Three of the top 100 cooperatives had assets of at least $1 billion in 1980, compared with only 1 in 1976. On the other hand, nearly half of the 1980 Fortune 500 companies had assets greater than $1 billion. Exxon's 1980 assets of $56.6 billion were estimated to be twice as great as those of all farmer-owned businesses.

Downtrend in Equity

Over the past 18 years, the trend in the top 100's equity capital as a percent of total assets has been steadily downward (fig. 2). Net worth of the top 100 cooperatives has fallen from 52.4 percent in 1962 to 28.6 percent in 1980, nearly 24 percentage points. Trends in net worth for the 100 largest corporations and the 100 largest cooperatives have been similar, in that both have moved downward and dropped about the same number of percentage points from their 1962 highs (table 16).

Conspicuously different is the level of equity capital between the two groups. Over the 18-year period, the top 100 industrial corporations have consistently maintained a higher net worth position, with the gap in the 2 levels widening from 12.9 percent in 1962 to 16.3 percent in 1980.

The 100 largest cooperatives, when classified by major function, marketing, marketing/farm supply, and farm supply, all experienced downward trends in equity financing over the 18-year period. The largest group—marketing cooperatives—experienced the biggest change, with net worth decreasing from 45 percent in 1962 to 24 percent in 1980.

Table 15—Size of the 100 largest cooperatives based on assets for fiscal years ended in 1976 and 1980

Size of assets	Cooperatives	
	1976[1]	1980[2]
Million dollars	*Number*	
$200 and over	10	24
$100-$199.9	17	11
$50-$99.9	23	31
$40-$49.9	5	8
$30-$39.9	12	9
$20-$29.9	23	11
$10-$19.9	10	6
TOTAL	100	100

[1] Assets ranged from a high of $1.2 billion to a low of $10.7 million.
[2] Assets varied from a high of $2.1 billion to a low of $15.8 million.

Table 16—Trends in net worth of 100 largest cooperatives compared with 100 biggest industrial corporations, for specified years

Organization	Equity capital			
	1962	1970	1976	1980
	Percent of total assets			
Top 100 cooperatives	52.4	39.1	34.0	28.6
Top 100 corporations[1]	65.3	54.5	49.5	44.9

[1] 100 biggest companies included in the FORTUNE directory of largest U.S. industrial corporations.

Starting and ending with the highest level of equity financing were the farm supply cooperatives. Of note, farm supply associations' 1962 level of net worth financing of 65.6 percent (table 17) was slightly above the 100 largest U.S. industrial corporations' 65.3 percent figure (table 16). However, by 1980, farm supply cooperatives had dropped to 39.8 percent, compared with 44.9 percent for the top 100 corporations.

Net worth of marketing/farm supply cooperatives showed the biggest drop during the 1962-80 period. Their equity status in total assets decreased from 55 percent in 1962 to 28 percent in 1980 (table 17), a 27-point drop, compared with the marketing group's 21.1-point decline, the farm supply group's 25.8-point decline, and the top 100 industrial corporations' 20.4-point decline over the same period.

Uptrend in Debt

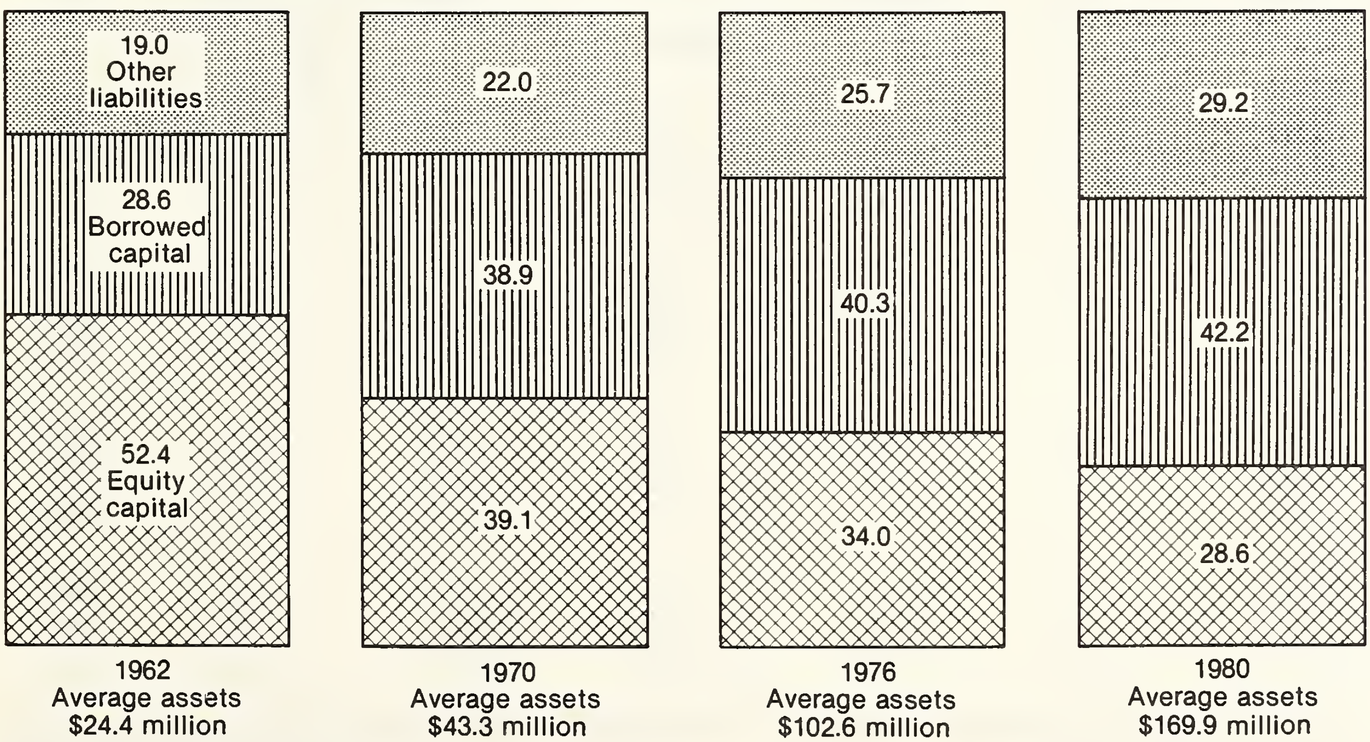
As a result of the top 100's downtrend in net worth, their borrowed capital and other liabilities—as a percent of total assets—has persistently increased (fig. 2). Over the 18-year period, debt capital climbed from about 29 percent to 42.2 percent of total assets. Likewise, other liabilities (accounts and proceeds payable, accrued items, deferred credits, and minority interest in members' capital) rose from 19 percent to 29.2 percent.

Another measure that illustrates the top 100's increased use of debt in financing assets is the debt-equity (D-E) ratio. Debt has become a more significant factor in the financial structure of the top 100 cooperatives during the 1962-80 period. In 1962, total debt (both short- and long-term) was a little over half the top 100 associations' combined net worth. By 1980, debt had grown to the extent that the ratio equaled 148 percent—or nearly 1-1/2 times the amount of equity in the organizations' total capitalization.

Marketing associations were the most highly leveraged group in the top 100 cooperatives (table 18). Their 1980 debt-equity ratio of 168 percent was 3 points higher than the marketing/farm supply cooperatives' ratio. In sharp contrast was the farm supply cooperatives' 1980 D-E ratio of 93.5 percent.

Figure 2

100 Largest Cooperatives
Trends in Financial Structure



Figures in bars are percent of total assets at close of fiscal years.

Even in 1980, total debt was less than total equity capital for the 11 farm supply cooperatives. However this situation may not last much longer. While the D-E ratio of the marketing cooperatives increased 2.6 times from 1962 to 1980, and the marketing/farm supply associations' ratio increased 2.9 times, farm supply organizations' ratio expanded 3.2 times during this period.

Differences Relative to Principal Product Marketed

From 1962 to 1980, each type of marketing cooperative had a large increase in dollar value of total assets and a large decrease in the proportion of those assets financed by net worth. With a rising price level and a selection process based on size, a continuing increase in assets would be expected.

The continuing decline in the proportion of net worth of all commodity groups shows the same trends as discussed earlier in the marketing and marketing/farm supply classifications.

Table 18—Debt-equity ratios of the 100 largest cooperatives, classified by major function, for fiscal years ended in 1962, 1970, 1976, and 1980

Year	Debt-equity ratios[1]			
	Marketing	Marketing/ farm supply	Farm supply	100 coop- eratives
	Percent			
1962......	65.2	57.2	29.6	54.6
1970......	104.0	115.0	65.2	99.5
1976......	137.0	130.0	82.2	118.0
1980......	168.0	165.0	93.5	148.0

[1] Debt includes total long- and short-term borrowed capital. Other liabilities are excluded.

Table 17—Changes in percentage of total assets represented by key financial items for the top 100 cooperatives, classified by major function, for fiscal years ended in 1962, 1970, 1976, and 1980[1]

Major function and year	Cooperatives	Total assets	Percentage of total assets represented by—		
			Debt	Other liabilities	Net worth
	Number	*Million dollars*	*Percent*		
Marketing:					
1962	61	1,018	29.4	25.5	45.1
1970	62	1,835	36.9	27.5	35.6
1976	60	3,724	40.7	29.3	30.0
1980	62	6,458	40.3	35.7	24.0
Marketing/Farm Supply:					
1962	21	974	31.4	13.7	54.9
1970	22	1,710	44.4	16.9	38.7
1976	26	4,233	42.5	24.9	32.6
1980	27	7,415	46.1	26.0	27.9
Farm supply:					
1962	15	374	19.3	15.1	65.6
1970	16	781	31.5	20.2	48.3
1976	14	2,303	35.6	21.1	43.3
1980	11	3,122	37.2	23.0	39.8
TOTAL:					
1962	97[2]	2,366	28.6	19.0	52.4
1970	100	4,326	38.9	22.0	39.1
1976	100	10,260	40.3	25.7	34.0
1980	100	16,995	42.2	29.2	28.6

[1] These are gross figures; intercooperative investments have been eliminated. All certificates fixed as to amount and maturity date are included with borrowed capital.
[2] Identical largest cooperatives were compared in 1970 and 1962. Since 3 of the biggest 100 in 1970 were not operating in 1962, data tabulation was restricted to 97 for 1962.

Table 19—Portion of total assets of marketing and marketing/farm supply cooperatives in top 100 associations, classified by principal product marketed, represented by major financial elements, for fiscal years ended in 1962, 1970, 1976, and 1980[1]

Principal product and year	Cooperatives	Total assets	Percentage of total assets represented by—		
			Debt	Other liabilities	Net worth
	Number	*Million dollars*	*Percent*		
Diversified:					
1962	14	745	31.9	13.7	54.4
1970	14	1,412	46.4	16.4	37.2
1976	11	2,881	44.8	24.5	30.7
1980	9	4,899	46.8	27.8	25.4
Grain, soybeans, and products:					
1962	14	347	33.8	12.2	54.0
1970	14	548	39.7	18.1	42.2
1976	21	1,976	38.9	24.7	36.4
1980	22	3,847	44.7	29.1	26.2
Dairy products:					
1962	19	318	22.8	31.2	46.0
1970	19	607	26.6	38.3	35.1
1976	22	1,069	28.1	40.8	31.1
1980	24	1,638	21.1	46.5	32.4
Fruits and vegetables:					
1962	16	292	39.2	25.7	35.1
1970	18	593	53.8	18.4	27.8
1976	15	1,037	53.7	24.0	22.3
1980	16	1,664	52.9	25.2	21.9
Cotton and cotton products:					
1962	6	80	31.1	28.4	40.5
1970	6	106	22.8	35.6	41.6
1976	5	256	61.3	20.8	17.9
1980	7	632	64.1	17.8	18.1
Rice:					
1962	4	38	18.9	30.9	50.2
1970	4	77	29.3	29.5	41.2
1976	4	158	39.3	27.1	33.6
1980	4	272	40.6	27.5	31.9
Other products:[2]					
1962	9	172	18.0	23.1	59.0
1970	9	202	17.7	30.7	51.6
1976	8	580	31.2	29.5	39.3
1980	7	921	28.8	42.2	29.0
TOTAL:					
1962	82	1,992	30.4	19.7	49.9
1970	84	3,545	40.5	22.4	37.1
1976	86	7,957	41.7	26.9	31.4
1980	89	13,872	43.4	30.5	26.1

[1] These are gross figures; intercooperative investments have not been eliminated. All certificates fixed as to amount and maturity date are included with borrowed capital.

[2] For 1962 and 1970, "Other products" consisted of 2 sugar, 2 nut, 2 livestock handling cooperatives, and 3 poultry handling cooperatives; 1976, 3 sugar, 2 nut, and 3 poultry cooperatives; 1980, the same as 1976 except only 2 poultry associations are included.

The decline in proportion of net worth is general. Two examples where a commodity group did not decline in proportion of net worth are the dairy products group between 1976 and 1980 and the cotton and cotton products group between 1976 and 1980 (table 19).

As the proportion of net worth dropped, the combined proportion of debt and other liabilities, of course, increased. However, among marketing groups, growth varied between debt and other liabilities.

For all marketing cooperatives in the top 100, the proportion of assets financed by debt increased sharply from 30 percent to 40 percent from 1962 to 1970 (table 19). However, in the time periods ending in 1976 and 1980, the proportion of debt increased only between 1 and 2 percentage points.

Proportion of debt for the dairy products cooperatives stayed at a comparable level throughout the 1962 to 1980 period. In fact, the 1980 proportion was slightly lower than that of 1962. All other marketing groups had sizeable increases in the relative use of debt over the entire 18-year period.

For the marketing group, "other liabilities" increased steadily as a percent of total assets over the 18-year period (table 19). Other liabilities are principally payments due members and suppliers. These liabilities are largely short-term and represent payments for products based on current prices. In periods of rising prices, the book value of all assets would lag the general increase, because not all assets are replaced yearly at current prices. The "other liabilities" category more fully represents current prices, and during periods of inflation, this category would tend to increase as a percent of total assets.

For the 1962 to 1980 period, "other liabilities" decreased or remained about the same for the cooperatives marketing cotton and cotton products, rice, and fruits and vegetables. The other groups had increasing amounts of "other liabilities."

The amount of "other liabilities" depend on suppliers' credit policies, cooperatives' payment policies toward members, product price level, and changes in business functions performed by cooperatives included in each group. These conditions vary from period to period. Some are the result of the cooperatives' policies, while others are not.

What Comparative Balance Sheets Show

For comparison, much of the previously presented data were recombined into a familiar balance sheet format for the 100 largest cooperatives. Comparative balance sheets for marketing, marketing/farm supply, and farm supply cooperatives are included in table 20 and for the commodity groups in table 21.

On the asset side, farm supply cooperatives have proportionally lower levels of inventory and lower total current assets than marketing or marketing/farm supply cooperatives (table 20). In 1980, current assets represented 69.3 percent of total assets for marketing cooperatives, but only 48 percent for farm supply cooperatives. Conversely, farm supply cooperatives have a larger proportion of total assets represented by property, plant, and equipment—more than 38 percent—compared to less than 26 percent for marketing cooperatives. Farm supply cooperatives included in the top 100 could generally be described as manufacturing and purchasing organizations with wholesale and/or retail operations.

On the liabilities side, marketing and marketing/farm supply cooperatives have relatively higher levels of short-term debt and current liabilities than farm supply cooperatives. Payments due members are highest for marketing cooperatives. Current liabilities represent more than 60 percent of total capitalization for marketing cooperatives, less than 45 percent for marketing/farm supply cooperatives, and nearly 32 percent for farm supply cooperatives. When viewing noncurrent liabilities, farm supply cooperatives employ relatively larger amounts of long-term debt than marketing cooperatives—29 percent of total assets as opposed to 16 percent. Noncurrent liabilities represent 27 percent of total assets for marketing/farm supply cooperatives.

Balance sheets also provide several useful comparisons concerning the magnitude of equity capital for the three groups (table 20). The 62 marketing cooperatives were more leveraged in 1980, with equity capital providing 24 percent of total capitalization. Equity capital provided nearly 28 percent and 40 percent of total capitalization for marketing/farm supply and farm supply cooperatives, respectively.

The largest 100 cooperatives have become more leveraged over time. However, this does not necessarily mean they are in a weaker financial position. Farm supply cooperatives, which compete in industries characterized by diversified products and high research and development costs, have maintained a stronger equity position. Marketing cooperatives, on the other hand, which generally have more homogenous inventories and relatively lower investments in plant and equipment, are more leveraged than the 100 cooperatives as a whole. Even though the top 100 has increased its total leverage, individual firms are influenced by the nature of their products and the competitive environment in determining makeup of capital structure.

In comparing balance sheets of the 89 marketing and marketing/farm supply cooperatives classified by principal product marketed, large variation is present in many individual items, due to institutional differences and the small number of observations in each group (table 21).

Although much variation is present in the current asset and current liabilities accounts, the current ratio for each commodity group is fairly consistent. Of the eight commodity groups, the current ratios for five fall within a range of 1.14 to 1.24. The seven cotton and cotton products cooperatives had the lowest ratio, 1.08; while nut and poultry products cooperatives ("other products" in table 21) had the highest current ratio, 1.37 to 1. Diversified cooperatives had the second highest ratio, 1.33 to 1.

The equity-to-total-assets ratio also varied widely by commodity groups. Equity capital provided to support total capitalization was highest for the nut and poultry products cooperatives ("other products" in table 21) at 39.7 percent. The lowest level of equity financing was reported by the 7 cotton and cotton products cooperatives, with net worth representing 18.1 percent of total assets.

Table 20—Comparative balance sheets for 100 largest cooperatives, classified by major function, for fiscal years ended in 1980

Item	Marketing (62)	Marketing/ farm supply (27)	Farm supply (11)	Total (100)
		Percent		
ASSETS:				
Current assets:				
Inventory	33.4	32.3	25.7	31.9
Other current assets	34.8	25.9	22.3	29.0
	68.2	58.2	48.0	60.9
Noncurrent assets:				
Investments:				
Cooperatives[1]	3.7	8.6	9.2	6.8
Unconsolidated subsidiaries[2]	0.3	1.6	1.9	1.2
Other investments	0.6	1.5	0.8	1.0
	4.6	11.7	11.9	9.0
Property, plant and equipment[3]	25.6	28.9	38.3	28.6
Other assets	1.6	1.2	1.8	1.5
TOTAL *(million dollars)*	$6,458	$7,415	$3,122	$16,995
LIABILITIES AND EQUITY CAPITAL:				
Liabilities:				
Current:				
Short-term debt	25.0	22.3	10.0	21.0
Payments due members	16.0	2.8	4.5	8.2
Other liabilities	19.2	19.7	17.1	19.0
	60.2	44.8	31.6	48.2
Noncurrent:				
Long-term debt	15.2	23.8	27.2	21.2
Other liabilities	0.6	3.5	1.4	2.0
	15.8	27.3	28.6	23.2
Equity capital	24.0	27.9	39.8	28.6
TOTAL *(million dollars)*	$6,458	$7,415	$3,122	$16,995

[1] Includes investments in marketing and farm supply associations and Banks for Cooperatives.
[2] Includes investments in unconsolidated subsidiaries, associated companies, and joint ventures.
[3] Net of accumulated depreciation.

Table 21—Comparative balance sheets for the 89 marketing and marketing/farm supply cooperatives in the top 100 associations, classified by principal product marketed, for fiscal years ended in 1980

Item	Dairy products	Grain, soybeans, and products	Fruits and vegetables	Diversified	Cotton and cotton products	Rice	Sugar	Other products[1]	Total
Number of cooperatives	24	22	16	9	7	4	3	4	89
					Percent				
ASSETS:									
Current assets:									
Inventory	18.9	30.6	49.4	31.5	42.7	29.6	44.1	47.8	33.3
Other current assets	44.3	35.6	20.1	26.6	33.6	24.4	23.3	26.7	30.5
	63.2	66.2	69.5	58.1	76.3	54.0	67.4	74.5	63.8
Noncurrent assets:									
Investments									
Cooperatives[2]	3.3	9.6	4.0	6.6	4.2	5.5	2.1	1.4	6.3
Unconsolidated subsidiaries[3]	0.8	0.6	—	1.9	1.0	0.4	—	—	1.0
Other investments	0.9	2.4	0.3	0.6	1.1	1.2	—	0.1	1.1
	5.0	12.6	4.3	9.1	6.3	7.1	2.1	1.5	8.9
Property, plant and equipment[4]	28.3	20.2	24.8	31.5	16.6	38.9	29.8	23.1	26.4
Other assets	3.5	1.0	1.4	1.3	0.8	—	0.7	0.9	1.4
TOTAL *(million dollars)*	$1,638	$3,846	$1,664	$4,899	$632	$272	$705	$216	$13,872
LIABILITIES AND EQUITY CAPITAL:									
Liabilities:									
Current:									
Short-term debt	5.2	27.5	34.0	21.0	53.2	16.1	11.4	32.4	23.5
Payments due members	25.5	2.8	13.5	1.8	8.8	16.3	38.8	12.5	8.9
Other liabilities	20.9	25.9	10.0	20.8	8.6	11.0	9.1	9.6	19.6
	51.6	56.2	57.8	43.6	70.6	43.4	59.3	54.5	52.0
Noncurrent:									
Long-term debt	15.8	17.2	18.8	25.8	10.9	24.6	14.6	5.8	19.8
Other liabilities	0.2	0.4	1.4	5.1	0.4	0.1	0.4	—	2.1
	16.0	17.6	20.2	30.9	11.3	24.7	15.0	5.8	21.9
Equity capital	32.4	26.2	21.9	25.4	18.1	31.9	25.7	39.7	26.1
TOTAL *(million dollars)*	$1,638	$3,846	$1,664	$4,899	$632	$272	$705	$216	$13,872

[1] Includes 2 marketing cooperatives handling nuts; and 2 marketing/farm supply associations handling poultry products.
[2] Includes investments in marketing and farm supply associations and Banks for Cooperatives.
[3] Includes investments in unconsolidated subsidiaries, associated companies and joint ventures.
[4] Net of accumulated depreciation.

BORROWED CAPITAL

The mainstay of cooperatives' debt financing has been Banks for Cooperatives. However, cooperative management is continually probing for new areas of short- and long-term sources of borrowed funds, and many of the top 100 associations obtain their debt capital from a variety of lenders.

Trends in Sources of Debt

From 1962 to 1980, Banks for Cooperatives have continued as the top 100 associations' primary source of borrowed funds (fig. 3), providing 50.5 percent of their total debt capital in 1962, increasing to 62 percent by 1970, and dropping to 58.4 percent by 1980.

In 1980, marketing associations obtained the largest proportion of their borrowed funds from Banks for Cooperatives (table 23). They had $2.6 billion in debt capital outstanding on their balance sheets, 65.7 percent of it from Banks for Cooperatives.

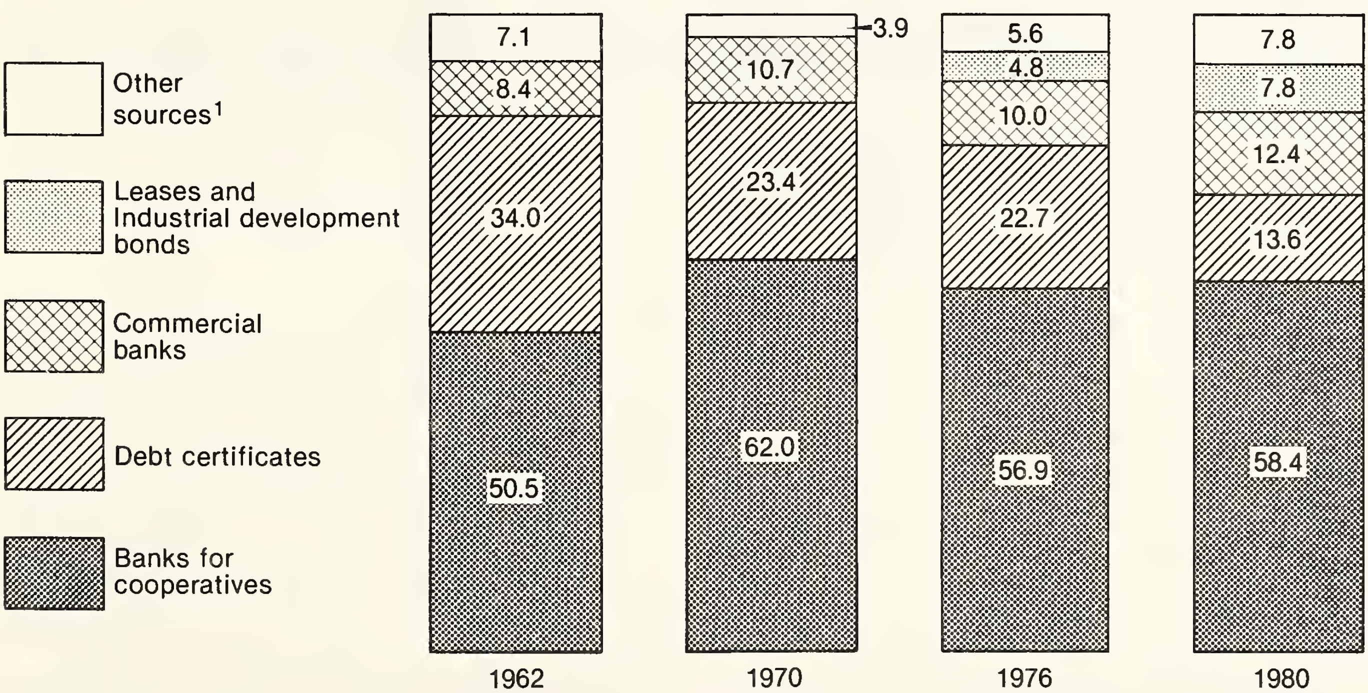
The marketing group has increased its use of Banks for Cooperatives. In 1962, 49 percent of their total borrowed funds came from Banks for Cooperatives, compared with 66 percent in 1980. Banks for Cooperatives' share of the total debt used by marketing/farm supply organizations also increased over the same period from 51 percent to 55 percent. On the other hand, farm supply associations obtained a smaller proportion of their total debt capital from Banks for Cooperatives in 1980 (51 percent) than in 1962 (55 percent).

Overall, debt certificates (debentures, certificates of indebtedness, and other debt instruments issued by the cooperatives) represented the second most important source of borrowed capital. Their trend in importance has gone down sharply, though, since 1962, when they accounted for 34 percent, compared with 13.6 percent in 1980 (fig. 3). Conversely, commercial banks, third in importance, increased their share of total borrowed funds the top 100 cooperatives used over the same period from 8.4 percent to 12.4 percent.

Commercial banks became the second most important source of debt capital for marketing cooperatives in 1980, increasing

Figure 3

100 Largest Cooperatives
Changes in Sources of Debt Capital



Figures in bars are percent of total debt capital.
[1] In 1962 and 1970, capitalized leases and industrial development bonds were included in "other sources".

their share from 12 percent to 14 percent over the 18-year period (table 22). In contrast, debt certificates marketing cooperatives issued dropped from 34 percent of their total debt capital in 1962 to 7 percent in 1980.

Since the midseventies, capitalized leases and industrial development (ID) bonds have made sharp gains as a source of long-term debt. In 1976, these two sources accounted for 4.8 percent of total debt outstanding, compared with 7.8 percent in 1980. For example, table 23 indicates 31 cooperatives reported capitalized leases on their balance sheets as the source of $337 million in long-term debt, equaling 4.7 percent of the 100 biggest cooperatives' total fiscal 1980 debt outstanding [3].

The biggest users of leases and industrial revenue bonds were farm supply cooperatives. In both 1976 and 1980, these items represented their second most important source of debt capital—after Banks for Cooperatives (table 22). Other

[[3] Donald R. Davidson, *Industrial Development Bond Financing for Farmer Cooperatives*. Farmer Cooperative Research Report No. 18, ACS-USDA, August 1980.]

Table 22—Sources of debt, expressed as a percentage of total borrowed capital, for the top 100 cooperatives by major function, based on amounts outstanding for fiscal years ended in 1962, 1970, 1976, and 1980

Major function and year	Cooperatives	Total borrowed capital	Percentage of total debt capital obtained from:					
			Banks for cooperatives	Commercial banks	Issuance of debt certificates	Leases and Industrial revenue bonds	Other cooperatives	Other sources [4]
	Number	*Million dollars*	*Percent*					
Marketing:								
1962	61	299	48.9	11.7	34.0	[1]	[1]	5.4[2]
1970	62	678	68.1	10.7	16.7	[1]	[1]	4.5[2]
1976	60	1,517	70.8	12.4	14.0	0.8	0.2	1.8
1980	62	2,601	65.7	14.1	7.2	3.8	0.5	8.7
Marketing/farm supply:								
1962	21	306	50.8	6.7	35.7	[1]	[1]	6.8[2]
1970	22	759	56.1	8.1	33.6	[1]	[1]	2.2[2]
1976	26	1,799	46.8	6.9	36.6	3.5	1.3	4.9
1980	27	3,416	54.6	8.5	23.1	7.0	1.4	5.4
Farm supply:								
1962	15	72	55.4	1.7	26.6	[1]	[1]	16.3[2]
1970	16	246	63.8	18.5	10.6	[1]	[1]	7.1[2]
1976	14	820	53.1	12.6	8.0	15.1	1.5	9.7
1980	11	1,161	51.1	19.3	0.9	21.7	1.9	5.1
Total:								
1962	97[3]	677	50.5	8.4	34.0	[1]	[1]	7.1[2]
1970	100	1,683	62.0	10.7	23.4	[1]	[1]	3.9[2]
1976	100	4,136	56.9	10.0	22.7	4.8	0.9	4.7
1980	100	7,178	58.4	12.4	13.6	7.8	0.9	6.9

[1] Data not reported separately but included in "other sources" for 1962 and 1970.
[2] See footnote 1.
[3] Identical largest cooperatives were compared in 1970 and 1062; because 3 of the biggest 100 in 1970 were not operating in 1962, data tabulation was restricted to 97 for 1962.
[4] Nonspecified sources, amounting to $413 million and equaling 5.75 percent of total fiscal 1980 debt outstanding of $7,178 million, were prorated to sources of debt listed in table based on the proportion of the specified sources.

sources of borrowed funds—shown in figure 3 as equaling 7.8 percent for 1980—consisted of several elements, as table 23 spells out in greater detail.

Loans from Commodity Credit Corporation and other government sources contributed 1.9 percent of the 7.8 percent of "other sources" indicated in figure 3. Debt capital obtained from insurance companies (1.4 percent); other cooperatives (0.9 percent); commercial paper (0.6 percent); and other sources (3 percent) made up the balance.

Significance of Short- and Long-Term Debt Sources

The $7.2 billion in total 1980 debt used by the top 100 cooperatives was about equally split between short- and long-term debt (table 23). This distinction is carried through to the balance sheet (tables 5, 20, and 21) to show the relationship of long-term debt to equity.

Different types or sources of debt were also used by the 100 largest cooperatives to meet either short- or long-term needs or both. Commercial paper, for example, is strictly a short-term source of borrowed funds. Four of the top 100 cooperatives had issued this paper, amounting to $46 million outstanding for their fiscal years ended in 1980 (table 23).

Industrial development bonds, on the other hand, are strictly a means of financing long-term debt capital needs. Thirty-two of the 100 largest cooperatives had $224 million in fiscal 1980 debt outstanding from this source. Banks for Cooperatives represented the chief supplier of both types of debt capital, with 60 of the top 100 cooperatives reporting $2.1 billion in short-term debt from this source and 84 organizations, $2.1 billion of long-term debt.

Sources of short- and long-term borrowed funds are shown separately in tables 24 and 25, respectively. Commercial paper is included only as a short-term source; whereas, insurance companies, capitalized leases, and industrial revenue bonds are only included as long-term sources of credit.

Share of short-term credit in Table 24 is based on short-term debt—less the current portion of long-term debt—and represents the amount outstanding at the end of the fiscal year. The peaks in short-term borrowing during the year would probably be higher than the amounts outstanding at year end in most cooperatives. The proportion of loans from each source at the peak borrowing period could have been substantially different from that at the close of the year.

Banks for Cooperatives were the major short-term lender for all groups of cooperatives presented in table 24. Commercial banks were the only other major source of short-term credit. However, for short-term credit, a few cooperatives sold commercial paper; associations handling products qualifying for government programs had loans from Commodity Credit Corporation; and several fruit and vegetable cooperatives had developed programs to pay interest on members' funds left with the cooperative.

Table 23—Sources of debt capital, number of the 100 biggest cooperatives using each source, and amounts outstanding for fiscal years ended in 1980[1]

Source	Cooperatives using each source		Amount of debt outstanding from each source			Percent of total
	Short-term	Long-term	Short-term	Long-term	Total	
	Number		*------Million dollars------*			*Percent*
Bank for cooperatives	60	84	2,081	2,111	4,192	58.4
Debt certificates and short-term notes	21	35	140	833	973	13.6
Commercial banks	18	20	504	387	891	12.4
Capitalized leases	0	31	0	337	337	4.7
Industrial development (revenue) bonds	0	32	0	224	224	3.1
Commodity Credit Corporation and other government	7	3	133	3	136	1.9
Insurance companies	0	10	0	102	102	1.4
Other cooperatives	5	5	20	49	69	0.9
Commercial paper	4	0	46	0	46	0.6
Other sources	23	63	15	193	208	3.0
Current portion of long-term debt	87	0	638	(638)	—	—
TOTAL			3,577	3,601	7,178	100.0

[1] Data on sources of debt capital were obtained from the cooperatives' 1980 annual or audit reports. In several instances these reports did not specify all sources of borrowed funds used. These "non-specified" sources—amounting to $413 million and equaling 5.75 percent of total fiscal 1980 debt outstanding—were prorated to all sources listed above based on the proportion of the specified sources.

Table 24—Significance of different short-term sources of borrowed funds for the top 100 cooperatives, classified by major function and principal product marketed, based on amounts outstanding for fiscal years ended in 1980

Major function and principal product marketed	Cooperatives	Total Short-term Debt[1]	Percentage of total debt from short-term sources obtained from: Banks for Coop-eratives	Commercial banks	Commodity Credit Corporation and other government	Certificates and notes	Commercial paper	Other sources[2]	Non-specified sources
	Number	*Million dollars*	*Percent*						
MAJOR FUNCTION:									
Marketing	62	1,502	57.4	23.2	6.7	5.9	2.3	0.1	4.4
Marketing/farm supply	27	1,212	73.9	3.4	1.6	3.1	.7	1.0	16.3
Farm supply	11	225	53.7	28.8	0	0	0	5.7	11.8
TOTAL	100	2,939	63.8	15.4	4.1	4.3	1.4	1.1	9.9
PRINCIPAL PRODUCT MARKETED:									
Diversified	9	625	57.9	4.0	3.0	5.8	.8	.3	28.2
Grain, soybeans and products	22	1,005	83.4	10.3	2.3	.9	.3	1.0	1.8
Dairy products	24	40	47.3	38.0	0	.8	0	1.6	12.3
Fruits and vegetables	16	543	59.2	28.0	0	9.0	2.9	.9	0
Cotton and cotton products	7	326	50.7	27.9	19.3	2.1	0	0	0
Rice	4	36	91.7	8.3	0	0	0	0	0
Sugar	3	70	15.6	0	21.3	0	24.7	0	38.4
Other	4	68	8.6	0	0	35.8	0	0	55.5
TOTAL	89	2,174	64.7	14.3	4.4	4.6	1.5	.7	9.7

[1] Total short-term debt excludes current portion of long-term debt equaling $638 million (See Table 23).

[2] "Other sources" include insurance companies, other cooperatives and "other sources".

Table 25—Long-term debt sources of funds, expressed as a percentage of total long-term debt, used by the top 100 cooperatives classified by major function and principal product marketed, based on amounts outstanding for fiscal years ended in 1980

Major function and principal product marketed	Cooper-atives	Total long-term debt[1]	Percentage of long-term debt obtained from: Banks for Coopera-tives	Commercial banks	Insurance companies	Capitalized leases	Industrial Develop-ment bonds	Issuance of debt Certifi-cates	CCC and other govern-ment	Other cooper-atives	Other sources
	Number	*Million dollars*	*Percent*								
MAJOR FUNCTION:											
Marketing	62	1,099	72.2	.7	4.5	3.1	5.5	8.6	.2	1.2	4.0
Marketing/farm supply	27	2,204	38.8	10.5	1.4	4.9	5.3	32.0	.1	1.5	5.5
Farm supply	11	936	42.9	14.7	2.0	19.7	4.3	1.0	0	0	15.4
TOTAL	100	4,239	48.4	8.9	2.4	7.7	5.1	19.1	.1	1.1	7.2
PRINCIPAL PRODUCT MARKETED:											
Diversified	9	1,667	32.8	13.3	1.9	5.4	3.9	33.9	0	2.0	6.7
Grain, soybeans, and products	22	715	63.2	.1	0	2.3	10.8	20.3	0	1.8	1.6
Dairy products	24	305	68.0	4.5	.1	1.3	6.9	8.8	0	0	10.5
Fruits and vegetables	16	336	58.8	.8	14.8	7.3	1.7	14.2	0	0	2.3
Cotton and cotton products	7	79	86.7	0	0	0	0	11.7	0	0	1.7
Rice	4	74	90.7	0	0	1.3	0	6.7	0	0	1.2
Sugar	3	112	89.3	0	0	4.5	3.7	0	1.9	0	.6
Other	4	15	59.8	0	0	10.4	20.4	0	6.8	0	2.6
TOTAL	89	3,303	49.9	7.2	2.5	4.3	5.3	24.2	.1	1.4	5.1

[1] Includes current portion of long-term debt equaling $638 million (see Table 23).

With long-term debt, Banks for Cooperatives were again the largest source. On the other hand, commercial banks, except for farm supply and diversified marketing cooperatives, were a minor source of term credit (table 25). Farm supply and diversified marketing cooperatives are large organizations that could be affected by bank loan limits and therefore need several sources of term credit.

Debt certificates were the second most important source of long-term borrowed funds. The greatest use of debt certificates was concentrated in the diversified marketing and grain, soybeans and products marketing groups. The marketing/farm supply functional group in table 24 mainly consists of these two marketing groups.

Capitalized leases are important to farm supply cooperatives, as 19.7 percent of their long-term debt came from such leases. For cooperatives outside the farm supply group, only 4.3 percent of term credit came from capitalized leases.

Industrial revenue bonds represented slightly more than 5 percent of total long-term debt. Maturities of industrial revenue bonds are usually longer than that of bank loans, and the stability they add to the debt capital mix increases their importance. Tax regulations and decisions of both Federal and local governments decide the applicability of this loan source to an individual cooperative.

Differences Relative to Product Marketed

The increase in borrowed funds by the top 100 cooperatives engaged in marketing activities has been accompanied by shifts in the relative importance of debt sources (table 26). Banks for Cooperatives have continued to be the major lender, but the proportion of borrowed capital supplied by debt certificates has dropped drastically. Since 1976, the importance of capitalized leases and industrial development (revenue) bonds, though still small, has been growing.

In the 1980 financial statements used for this study, some loan sources were not identified. For example, the term "notes payable" was often used with no further description given in the statements or accompanying notes.

In tables 22, 23, and 25, the amount of borrowed funds without a source given in annual or audit reports was allocated among sources based on distribution of borrowed funds for which the source was known. The amount of "nonspecified" borrowed funds in these tables was considered small enough that no major distortion would occur from this type of allocation. However, for tables 24, 26 and 27, the amount of borrowed capital from nonspecified sources was large enough, in some instances, that distortions could occur if unspecified funds were distributed among the various sources. For these tables, nonspecified debt is reported separately. The proportion of debt without a designated source should be considered when comparisons are made from these tables.

Marketing and marketing/farm supply cooperatives increased their total debt from $605 million in 1962 to more than $6 billion in 1980. From 1976 to 1980, the total debt of these cooperatives increased $2.7 billion, and cooperatives marketing grain, soybeans and products and diversified marketing cooperatives accounted for almost $2 billion in increased debt. Cooperatives marketing fruits and vegetables—and especially dairy products associations—had much slower increases in their total debt.

On average, the diversified marketing cooperatives are larger than any other group, and in 1980, their borrowings were the most diversified. Banks for Cooperatives were the major lender in 1980, but diversifed marketing groups borrowed the lowest proportion from this source (table 26). Although the proportion of debt certificates has dropped in this group, the 1980 level was 26 percent, representing $600 million or 65 percent of all certificates of the 89 cooperatives in the marketing and marketing/farm supply groups. The diversified marketing group obtained 50.4 percent of its borrowed funds from a combination of Banks for Cooperatives and commercial banks. All other groups—except the "other products" group—obtained at least two thirds of their borrowed funds from banks. For the seven cooperatives included in the "other products" group, sources of 25.6 percent of borrowed funds were not specified.

In 1980, cooperatives marketing rice and those marketing grain, soybeans, and products had the highest proportions borrowed from Banks for Cooperatives, 91 and 75 percent, respectively. Both have large seasonal inventories to finance. Associations marketing cotton and cotton products—and fruits and vegetables—made the greatest use of commercial banks.

Effect of Size on Kinds of Debt Used

The 10 largest cooperatives based on sales had total borrowed funds of $2.9 billion in 1980—or about 41 percent of the total amount borrowed by the top 100 (table 27). The 50 cooperatives with the smallest sales volume borrowed $893 million, only 12 percent of the total. The largest 10 cooperatives also had the lowest proportion borrowed from Banks for Cooperatives, and conversely, the smallest size classification had the highest proportion borrowed.

Banks for Cooperatives as well as other banks have limits on the amount that can be loaned to a single borrower. These loan limits encourage the largest cooperatives to develop alternate sources of debt. The relatively lower level of borrowing by the 10 largest cooperatives from Banks for Cooperatives demonstrates this. If the largest cooperatives continue to increase borrowings faster than bank loan limits, they will probably obtain a lower proportion of their debt capital from Banks for Cooperatives in the future.

The largest 10 cooperatives had a greater amount of borrowed capital from the issuance of debt certificates. These cooperatives obtained 19.4 percent of the borrowed funds from these certificates, almost $570 million, or more than 60 percent of all debt certificates issued by the top 100 cooperatives.

All four size groups had about the same share of their funds

Table 26—Percentage of total debt obtained from different sources by marketing and marketing/farm supply cooperatives in the top 100 associations, classified by principal product marketed, based on amounts outstanding, for fiscal years ended in 1962, 1970, 1976 and 1980

Principal product marketed and year	Cooperatives	Total debt capital	Percentage of total borrowed capital obtained from: Banks for cooperatives	Commercial banks	Issuance of debt certificates	Leases and industrial revenue bonds	Other sources	Nonspecified sources
	Number	*Million dollars*	*Percent*					
Diversified:								
1962	14	238	40.2	7.8	44.1	[2]	7.9	—
1970	14	655	54.5	7.2	35.9	[2]	2.4	—
1976	11	1,290	43.2	5.7	40.6	3.5	7.0	—
1980	9	2,293	39.7	10.7	26.3	6.8	8.8	7.7
Grain, soybeans, and products:								
1962	14	117	87.0	.6	10.7	[2]	1.7	—
1970	14	218	78.9	3.1	16.3	[2]	1.7	—
1976	21	769	64.8	4.1	25.4	3.0	2.7	—
1980	22	1,720	75.0	6.0	9.0	5.4	3.2	1.4
Fruits and vegetables:								
1962	16	115	36.9	9.0	46.5	[2]	7.6	—
1970	18	319	67.7	16.4	13.0	[2]	2.9	—
1976	15	557	70.7	14.1	13.0	.5	1.7	—
1980	16	880	59.0	17.6	11.0	3.4	8.7	0.3
Dairy products:								
1962	19	72	37.4	6.5	51.0	[2]	5.1	—
1970	19	162	49.9	9.2	33.0	[2]	7.9	—
1976	22	300	63.8	9.4	20.7	1.3	4.8	—
1980	24	345	65.6	8.4	7.8	7.2	6.2	4.8
Cotton and cotton products:								
1962	6	25	66.2	24.8	3.8	[2]	5.2	—
1970	6	24	84.5	[3]	[3]	[2]	15.5	—
1976	5	157	57.6	34.1	5.1	0	3.2	—
1980	7	405	57.7	22.5	3.9	0	15.9	[3]
Rice:								
1962	4	7	71.1	28.2	.7	[2]	0	—
1970	4	23	85.1	10.5	[3]	[2]	4.4	—
1976	4	62	84.6	14.8	.6	0	0	—
1980	4	111	91.0	2.7	4.5	.9	.9	[3]
Other products:[1]								
1962	9	31	42.9	42.0	8.1	[2]	7.0	—
1970	9	36	60.9	30.1	5.4	[2]	3.6	—
1976	8	181	73.8	19.8	5.4	0	1.0	—
1980	7	265	47.6	0	9.2	5.1	12.5	25.6
Total:								
1962	82	605	49.8	9.2	34.9	[2]	6.1	—
1970	84	1,437	61.8	9.3	25.6	[2]	3.3	—
1976	86	3,316	57.8	9.4	26.3	2.3	4.2	—
1980	89	6,018	56.6	10.4	15.4	5.3	7.5	4.8

[1] For 1962 and 1970, "other products" consisted of 2 sugar, 2 nuts, 2 livestock, and 3 poultry handling cooperatives; 1976, 3 sugar, 2 nut handling associations, and 3 poultry handling cooperatives; 1980 the same as 1976, except only 2 poultry associations are included.
[2] For 1962 and 1970, loans from "other cooperatives" and "leases" were not reported separately but were included in "other sources". A combination of the "other cooperatives," "leases" and "other sources" for 1976 will give a comparable total to the 1970 and 1962 "other sources" total.
[3] Less than 0.05 percent.

Table 27—Effect of size of top 100 cooperatives on sources of debt used, based on amounts outstanding for fiscal years ended in 1980

Cooperative size based on revenues	Total debt	Banks for cooperatives	Commercial banks	Issuance of debt certificates	Capitalized leases	Industrial Development bonds	Commodity Credit Corp. and other government	Other sources[1]	Source not specified
		Percentage of total debt obtained from:							
	Million dollars	*Percent*							
Largest 10	2,935	46.7	11.6	19.4	3.4	3.9	0.6	7.4	7.0
Next largest 15	2,006	59.0	11.7	7.3	8.3	2.9	2.2	3.3	5.3
Next largest 25	1,344	59.2	11.0	10.0	3.3	2.2	3.8	7.2	3.3
Lower 50	893	64.6	11.8	9.5	2.0	1.7	1.1	2.9	6.4

[1] Include insurance companies, other cooperatives, commercial paper, suppliers, and other sources.

borrowed from commercial banks, between 11 and 12 percent. However, in the largest 10 group, loans from commercial banks were about one-third short term and two-thirds long term. In each smaller size group, the short-term proportion of commercial bank loans increased—until in the fourth-size class (the lower 50), short-term loans were about 85 percent of commercial bank loans. This shows larger cooperatives used commercial banks for both long- and short-term debt, but smaller cooperatives used commercial banks mainly for short-term borrowing.

Within the four size classifications, the amount of funds from industrial development (revenue) bonds is greatest among the largest 10 cooperatives and declines in each of the smaller size classifications. Eight of the 10 cooperatives in the largest group used ID bonds, 9 of the 15 in the next largest group, and one-fifth of the cooperatives in both of the smaller groups. ID bonds used by the top 100 cooperatives increased as size increased.

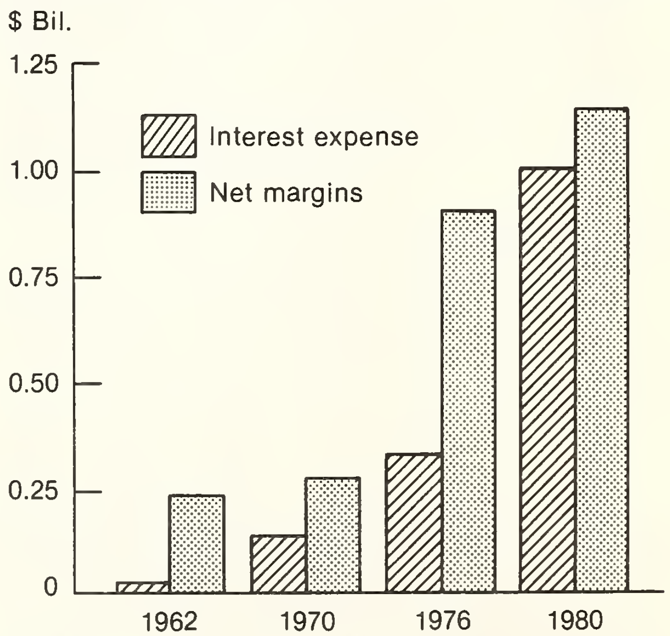
Trends in Interest Costs versus Net Margins

The increase in debt has been accompanied by higher interest rates, and as a result, total interest costs have jumped rapidly. Figure 4 shows an estimate of total interest costs for 1962, 1970, 1976, and 1980. This estimate was calculated by multiplying the top 100 cooperatives' total debt outstanding for each year shown by a representative yearly interest rate of the major cooperative lender, Banks for Cooperatives.

No allowance was made for increased borrowings that probably occurred in most cooperatives during the peak operating seasons of the year. Therefore, the amount of borrowed funds is understated. Also, use of a single interest rate does not consider differences between long- and short-term rates, differences between loan sources, or the effect of fixed interest rates on some term sources that remain in effect over the period of the loan. Because of these limitations, estimates are not meant to be a precise indication of an individual year's interest expense but do provide a consistent measure of relative interest costs between reported years. The combined total of net margins is also included in figure 4 for each year shown. The amount of net margins, of course, varies from year to year, and reported years may or may not be representative. However, the amounts shown indicate an upward trend in total net margins. This trend, however, is slower than the rapid increase in interest costs.

Figure 4

100 Largest Cooperatives
Dollars of Interest Expense and Net Margins



In 1962, interest expense—equal to only 13 percent of net margins generated that year—increased sharply to 49 percent in 1970, decreased to 36 percent in 1976, and jumped to 87 percent in 1980. Interest costs during this period have grown. from a relatively minor expense item to almost equal the level of total net margins.

EQUITY CAPITAL

In classifying equity, cooperatives use a variety of terms whose definitions are not necessarily uniform. For example, the preferred stock of one cooperative may have the same characteristics and the same source as what is called certificates of equity in another. Tables 28, 29, 30, and figure 5 show the breakdown of equity into three classifications. The allocated equity categories, capital stock (preferred and common), and equity certificates and credits have several common characteristics and should not be considered completely different classifications.

Sources of Equity

Additions to cooperative equity usually result from net margins issued as noncash patronage refunds. (The sections of this report on sources and uses of funds and on distribution of net margins and losses show amounts of retained patronage refunds relative to other sources of equity for 1980.) Retained patronage refunds are issued under many terms, including common stock, preferred stock, allocated equities, certificates of equity, and allocated book credits.

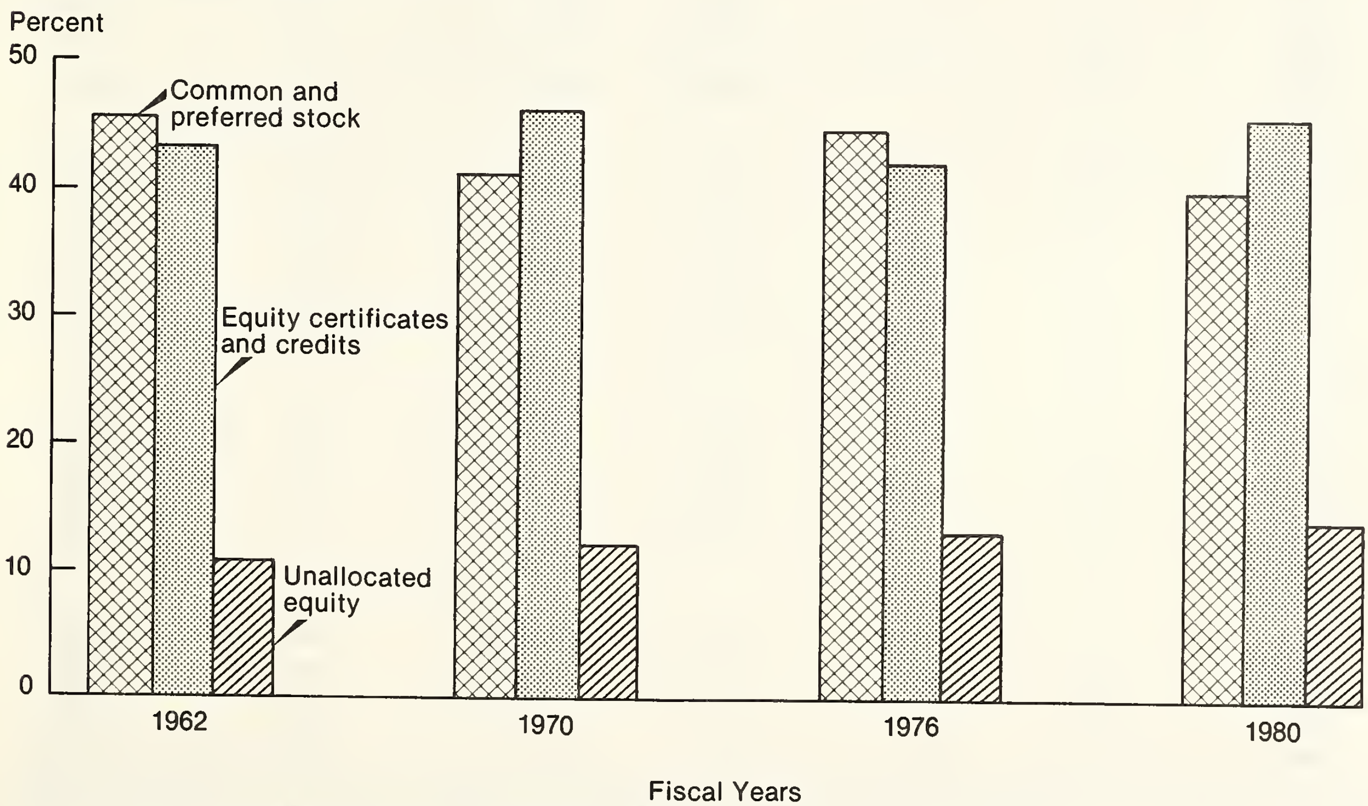
Some preferred and common stock, results from cash investment, and some of the equity certificates and credits classification are the result of per-unit capital retains. However, retained patronage refunds are the principal source of equity in both the common and preferred stock classification and in the equity certificates and credits category. Unallocated equity refers to retained capital not allocated to members on a patronage or other basis.

Trends in Types Used

From 1962 to 1980, the top 100 cooperatives gradually increased their use of unallocated equity (fig. 5). However, within the functional groups, sharper changes in the propor-

Figure 5

100 Largest Cooperatives
Trends in Types of Equity Capital



tion of unallocated equity occurred (table 28). Operating losses charged against unallocated equity was the most important reason for the drop in the proportion of unallocated equity for the marketing cooperatives. Marketing/farm supply cooperatives showed a continuing increase in unallocated equity during the past 18 years (1962-80).

When compared by commodity groups, equity structure is influenced by individual cooperatives in each group (table 29). Therefore, care must be used in making year-to-year comparisons, as a change in the number of cooperatives included in a group could result in changes in the types of equity utilized.

Cooperatives marketing dairy products, fruits and vegetables, and "other products" had relatively small proportions of capital stock and unallocated equity. Associations in these three groups often are organized as nonstock organizations and use membership certificates or some other type of equity instrument to represent members' equity. Also, these cooperatives are more likely to use per-unit capital retains and operate as Section 521 organizations.

Table 28—Types of equity capital used by the top 100 cooperatives, classified by major function, expressed as a percentage of net worth, for fiscal years ended in 1962, 1970, 1976, and 1980

Major function and year	Cooperatives	Net worth	Percentage of total equity capital represented by— Allocated capital: Common and preferred stock	Allocated capital: Equity certificates and credits	Unallocated equity
	Number	*Million dollars*	*Percent*		
Marketing:					
1962	61	460	29.8	59.4	10.8
1970	62	653	25.7	67.2	7.1
1976	60	1,117	28.4	69.0	2.6
1980	62	1,549	24.1	72.1	3.8
Marketing/farm supply:					
1962	21	534	42.5	45.5	12.0
1970	22	661	38.0	43.7	18.3
1976	26	1,379	35.7	42.3	22.0
1980	27	2,069	36.7	41.8	21.5
Farm supply:					
1962	15	245	83.0	8.8	8.2
1970	16	378	74.1	15.2	10.7
1976	14	996	75.5	11.7	12.8
1980	11	1,243	65.4	19.4	15.2
Total:					
1962	97	1,239	45.8	43.4	10.8
1970	100	1,692	41.3	46.4	12.3
1976	100	3,492	44.7	42.1	13.2
1980	100	4,861	40.0	45.7	14.3

Table 29—Net worth make-up of marketing and marketing/farm supply cooperatives in the top of 100 associations, classified by principal product marketed, expressed as a percentage of total equity capital, for fiscal years ended in 1962, 1970, 1976, and 1980

Principal product and year	Cooperatives	Total equity capital	Percentage of net worth represented by— Allocated capital: Common and preferred stock	Allocated capital: Equity certificates and credits	Unallocated equity
	Number	*Million dollars*	*Percent*		
Diversified:					
1962	14	405	42.9	41.8	15.3
1970	14	525	36.9	41.9	21.8
1976	11	886	38.3	38.3	23.4
1980	9	1,245	37.9	34.6	27.5
Grain, soybeans, and products:					
1962	14	187	57.2	29.8	13.0
1970	14	231	49.7	40.0	10.3
1976	21	719	44.7	35.6	19.7
1980	22	1,008	45.7	47.3	7.0
Dairy products:					
1962	19	146	24.6	69.5	5.9
1970	19	213	18.6	79.3	2.1
1976	22	332	10.9	91.4	(2.3)
1980	24	530	5.5	85.3	9.2
Fruits and vegetables:					
1962	16	102	9.9	86.7	3.4
1970	18	165	14.3	85.2	.5
1976	15	231	12.7	90.6	(3.3)
1980	16	365	14.8	79.7	5.5
Cotton and cotton products:					
1962	6	32	29.6	68.6	1.8
1970	6	44	22.7	76.2	1.1
1976	5	46	[1]	133.2	(33.2)
1980	7	115	19.6	73.4	7.0
Rice:					
1962	4	19	57.5	42.5	[1]
1970	4	32	53.6	46.2	.2
1976	4	53	63.2	36.7	.1
1980	4	87	51.8	46.0	2.2
Other products:[2]					
1962	9	102	15.6	69.2	15.2
1970	9	104	19.2	58.1	22.7
1976	8	229	21.3	72.7	6.0
1980	7	267	18.8	77.1	4.1
Total:					
1962	82	993	36.6	51.9	11.5
1970	84	1,314	31.9	55.4	12.7
1976	86	2,496	32.4	55.7	11.9
1980	89	3,617	31.3	54.8	13.9

[1] Less than 0.05 percent.
[2] For 1962 and 1970, "Other products" consisted of 2 sugar, 2 nut, 2 livestock and 3 poultry cooperatives; for 1976, 3 sugar, 2 nut and 3 poultry cooperatives; and for 1980, the same as 1976 excepting only 2 poultry associations are included.

Table 30—Effect of asset size of top 100 cooperatives on types of equity capital used, expressed as a percentage of net worth, for fiscal years ended in 1976 and 1980[1]

Cooperatives by size of assets and number	Total equity capital		Percentage of net worth represented by—					
			Allocated capital				Unallocated equity	
			Common and preferred stock		Equity certificates and credits			
	1976	1980	1976	1980	1976	1980	1976	1980
	Million dollars		----------	----------	Percent	----------	----------	----------
Largest 10	1,703	1,958	55.6	46.6	27.0	33.8	17.4	19.6
Next largest 90	1,789	2,903	34.4	35.6	56.4	53.8	9.2	10.6
Largest 100	3,492	4,861	44.7	40.0	42.1	45.7	13.2	14.3

[1] These are gross figures; intercooperative investments have not been eliminated.

Cooperatives without Section 521 tax status usually place net margins from nonmember business in unallocated equity. Cooperatives with Section 521 tax status are required to treat all patrons the same and usually have less nonmember business. Cooperatives using per-unit capital retains tend to rely mainly on this equity source and less (or not at all) on net margins.

The diversified marketing group had the highest level of unallocated equity. Cooperatives in this group are among the largest associations in the top 100 and have a wide range of marketing and farm supply operations.

Comparing the top 100 by asset size found the 10 largest cooperatives had a larger proportion of unallocated equity in their capital structures (table 30). The 10 largest associations, based on assets, consisted of 3 farm supply, 6 marketing/farm supply, and 1 marketing organization.

DISTRIBUTION OF NET MARGINS AND LOSSES

Eighty of the largest 100 cooperatives recorded net margins totaling $1.2 billion in 1980, compared with $0.9 billion in 1976. Trends in distribution of net margins are highlighted in figure 6, while more detailed comparisons are presented in tables 31, 32, and 33. Of the total net margins generated in 1980, 73.7 percent were distributed as patronage refunds. Patronage refunds were split into 47 percent cash and 53 percent allocated patronage.

When compared with the $1.2 billion in total 1980 net margins, cash patronage refunds accounted for 35 percent of total distributions; allocated patronage refunds, 38.7 percent; unallocated equity, 15.4 percent; Federal and state income taxes, 9.5 percent; and dividends on equity capital, 1.4 percent.

Trends in Methods Used

As shown in figure 6, the top 100 cooperatives continued to increase the proportional allocation of net margins as unallocated equity. This has been accompanied by a general percentage decrease in total patronage refunds. While this is the trend evident in figure 6, it ignores any fluctuations in the years for which data are unavailable. Yearly distributions can vary widely due to changes in operations or growth and expansion plans pursued by the cooperative.

Increased utilization of unallocated equity, however, does appear to represent a stable trend for several reasons. First is the buffer unallocated equity provides for handling net losses. This avoids assessing members directly or reducing their individual equity accounts. Second, unallocated equity avoids many problems associated with equity redemption. A third and major reason for the utilization of unallocated equity is the treatment of investment tax credits provided for in the Revenue Act of 1978.

In some instances, cooperative management may have the mistaken notion that investment tax credits can be used only by having unallocated equity. However, a cooperative can often obtain the advantage of investment tax credits just as well by using nonqualified written notices of allocation.

The impact of unallocated equity is an important issue facing cooperatives in the 1980's. Its desirability, when analyzed against long-standing cooperative principles, is a subject of wide disagreement. It is not the purpose of this study to determine the desirability of unallocated equity or an optimal mix in the distribution of net margins. Increased utilization of unallocated equity, however, appears to be a result of changes in tax laws and competitive pressures that affect cooperatives.

Differences Relative to Type of Cooperative

Marketing cooperatives experienced the largest percent drop in cash patronage refunds and total patronage refunds from 1976 to 1980 (table 31). The percentage of cash patronage refunds for the farm supply and marketing/farm supply cooperatives were fairly stable between 1976 and 1980. However, the percentage distribution of total patronage refunds declined for the same period. All three groups, however, increased the percentage of net margins retained as unallocated equity. Nonqualified allocated patronage refunds played a minor role in net margins distributions, consistent with prior years' allocations.

From 1976 to 1980, each of the three functional groups experienced actual increases in total net margins. Increases in total net margins over the 4-year period for marketing, marketing/farm supply, and farm supply cooperatives were $26 million, $105 million, and $108 million, respectively. The increase in total net margins for the top 100 was $240 million.

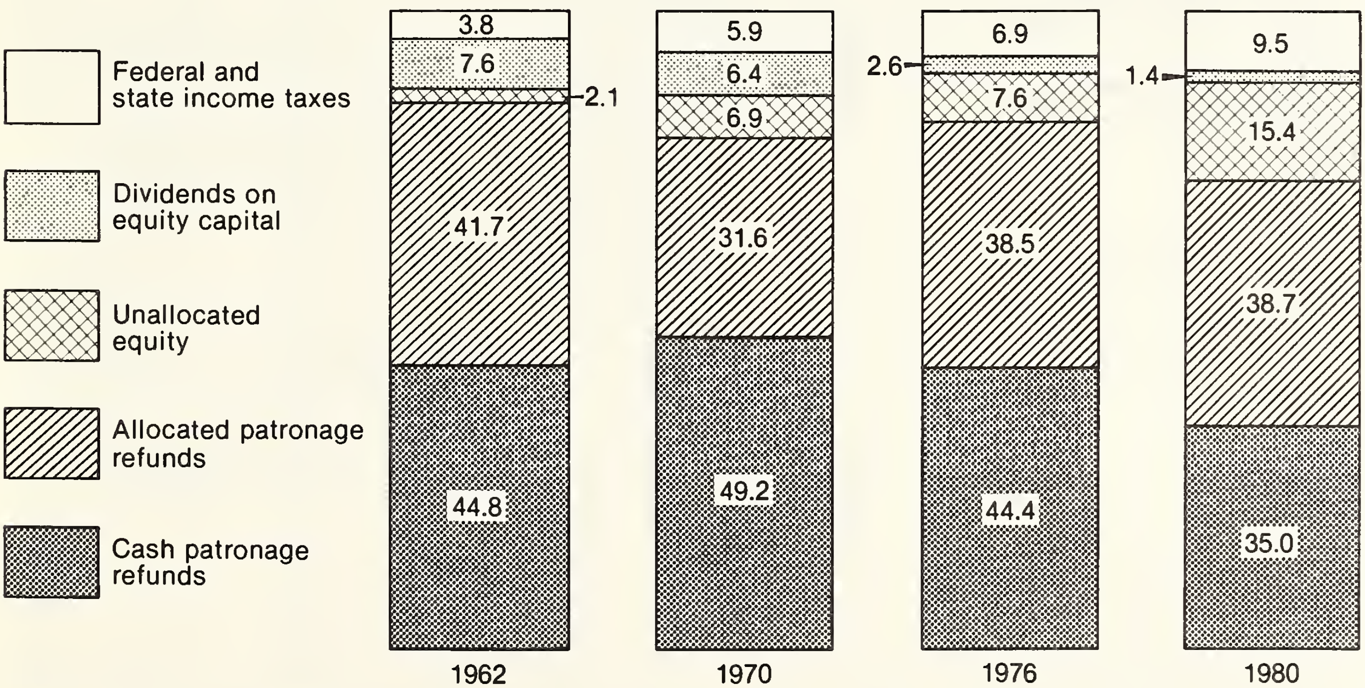
When compared by principal product marketed (table 32), the largest decrease in the percentage of net margins allocated as patronage refunds from 1976 to 1980 occurred in fruit and vegetable cooperatives. Cotton and cotton product cooperatives also paid out a smaller percent of cash patronage refunds than in 1976, but their total patronage refunds paid (both cash and noncash) were more than 98 percent of combined net margins—the high for all commodity groups in this study.

Effect of Asset Size

Considering asset size, both the largest 10 and the next 90 decreased their percentage distribution of net margins as patronage refunds. The largest 10, however increased their

Figure 6

100 Largest Cooperatives
Trends in Distribution of Net Margins



Figures in bars are percent of total net margins at close of fiscal years.

Table 31—Number of cooperatives in the top 100 associations, classified by major function and income tax status, with net margins and methods used in distributing them, for fiscal years ended in 1962, 1970, 1976, and 1980

Major function, year, and income tax status	Cooperatives with net margins[1]	Total net margins	Percentage of total net margins distributed as—					
			Patronage refunds on current year's business			Unallocated equity	Dividends on equity capital	Income taxes[2]
			Paid in cash	Allocated: Qualified	Allocated: Nonqualified			
	Number	*Million dollars*	*Percent*					
Marketing:								
1962	59	140	62.6	30.5	[3]	.7	5.1	1.1
1970	57	105	69.1	20.0	[3]	4.7	5.1	1.1
1976	53	244	68.9	19.5	1.2	5.4	2.8	2.2
Section 521 ("exempt")	26	148	84.0	8.7	.3	3.0	3.7	.3
Nonsection 521 ("nonexempt")	27	96	46.0	35.9	2.4	9.2	1.4	5.1
1980	44	270	32.7	39.5	.7	15.7	2.6	8.8
Section 521 ("exempt")	18	124	49.0	28.9	.6	5.6	5.5	10.4
Nonsection 521 ("nonexempt")	26	146	18.8	48.6	.9	24.4	.2	7.4
Marketing/farm supply:								
1962	21	63	16.1	58.8	[3]	2.3	15.7	7.1
1970	20	91	26.8	44.8	[3]	8.5	10.9	9.0
1976	26	377	29.9	42.1	[4]	11.9	4.0	12.1
Section 521 ("exempt")	6	70	21.2	59.7	0	3.5	12.0	3.6
Nonsection 521 ("nonexempt")	20	307	32.0	38.1	[4]	13.8	2.1	14.0
1980	25	482	31.0	41.0	0	16.0	1.8	10.2
Section 521 ("exempt")	3	8	43.2	56.5	0	0	.3	0
Nonsection 521 ("nonexempt")	22	474	30.7	40.7	0	16.3	1.9	10.4
Farm supply:								
1962	14	42	28.6	53.5	[3]	6.6	3.9	7.4
1970	15	77	48.4	31.7	[3]	8.2	2.7	9.0
1976	14	289	42.2	48.3	0.7	3.9	0.7	4.2
Section 521 ("exempt")	0	0	0	0	0	0	0	0
Nonsection 521 ("nonexempt")	14	289	42.2	48.3	0.7	3.9	0.7	4.2
1980	11	397	41.7	33.3	1.4	14.3	0	9.3
Section 521 ("exempt")	0	0	0	0	0	0	0	0
Nonsection 521 ("nonexempt")	11	397	41.7	33.3	1.4	14.3	0	9.3
Total:								
1962	94	245	44.8	41.7	[3]	2.1	7.6	3.8
1970	92	273	49.2	31.6	[3]	6.9	6.4	5.9
1976	93	910	44.4	38.0	.5	7.6	2.6	6.9
Section 521 ("exempt")	32	218	63.8	25.2	.2	3.1	6.4	1.3
Nonsection 521 ("nonexempt")	61	692	38.2	42.1	.6	9.0	1.4	8.7
1980	80[5]	1,150	35.1	38.0	.7	15.4	1.4	9.5
Section 521 ("exempt")	21	132	48.7	30.6	.6	5.3	5.2	9.8
Nonsection 521 ("nonexempt")	59	1,017	33.3	39.0	.7	16.7	.9	9.5

[1] Of the 100 largest cooperatives, 9 had net losses in 1980; 7, in 1976; 8, in 1970; and 3, in 1962.

[2] Includes Federal and State income taxes; operating statements of many cooperatives do not list them separately.

[3] Nonqualified allocations were not shown separately for 1962 and 1970: they were included with qualified allocations.

[4] Less than 0.05 percent.

[5] Of the 100 largest cooperatives in 1980, with assets of not less than $15 million; (a) 11 operated on a pooling basis with no net margins reported for any activities, and (b) 89 operated on a net margins basis for all or a part of their operations with 9 reporting net losses.

Table 32—Methods of distributing net margins used by marketing and marketing/farm supply cooperatives in the top 100 associations, operating partially or wholly on a net margins basis, classified by principal product marketed and income tax status, for fiscal years ended in 1962, 1970, 1976, and 1980[1]

Principal product marketed, year, and income tax status	Coopera-tives with net margins	Total net marg-ins	Percentage of total net margins distributed as—					
			Patronage refunds on current year's business			Unallocated equity	Dividends on equity capital	Income taxes[2]
			Paid in cash	Allocated				
				Qualified	Non-qualified			
	Number	*Million dollars*	*Percent*					
Diversified:								
1962	14	52	18.7	54.8	[3]	2.0	16.5	8.0
1970	12	70	23.1	44.8	[3]	9.0	12.7	10.4
1976	11	241	29.0	42.2	[4]	10.5	4.9	13.4
Section 521 ("exempt")	4	64	20.8	58.4	0	3.8	13.1	3.9
Nonsection 521 ("nonexempt")	7	177	32.0	36.3	[4]	12.9	1.9	16.9
1980	7	304	30.8	38.7	0	16.5	1.6	12.4
Section 521 ("exempt")	1	—	—	—	—	—	—	—
Nonsection 521 ("nonexempt")	6	—	—	—	—	—	—	—
Grain, soybeans, and products:								
1962	13	24	32.5	47.2	[3]	4.7	9.5	6.1
1970	13	28	30.9	50.8	[3]	9.6	4.8	3.9
1976	21	163	29.6	44.1	0	13.9	3.1	9.3
Section 521 ("exempt")	2	12	75.6	16.5	0	0	6.7	1.2
Nonsection 521 ("nonexempt")	19	151	26.0	46.3	0	15.0	2.7	10.0
1980	19	200	23.4	50.4	.3	17.0	2.0	7.1
Section 521 ("exempt")	0	0	0	0	0	0	0	0
Nonsection 521 ("nonexempt")	19	200	23.4	50.4	.3	17.0	2.0	7.1
Dairy products:								
1962	18	33	42.5	47.5	[3]	1.4	7.4	1.2
1970	17	21	36.5	42.1	[3]	13.9	5.3	2.2
1976	18	44	28.9	50.1	0	15.0	1.4	4.6
Section 521 ("exempt")	7	16	29.8	42.6	0	26.0	1.6	0
Nonsection 521 ("nonexempt")	11	28	28.4	54.3	0	8.9	1.3	7.1
1980	21	90	24.1	48.5	.8	21.5	.7	4.4
Section 521 ("exempt")	8	22	32.4	61.6	0	3.2	1.3	1.5
Nonsection 521 ("nonexempt")	13	68	21.5	44.4	1.0	27.3	.5	5.3

(continues)

Table 32—Methods of distributing net margins used by marketing and marketing/farm supply cooperatives in the top 100 associations, operating partially or wholly on a net margins basis, classified by principal product marketed and income tax status, for fiscal years ended in 1962, 1970, 1976, and 1980[1] (continued)

Principal product marketed, year, and income tax status	Cooperatives with net margins	Total net margins	Percentage of total net margins distributed as— Patronage refunds on current year's business: Paid in cash	Allocated: Qualified	Allocated: Nonqualified	Unallocated equity	Dividends on equity capital	Income taxes[2]
	Number	*Million dollars*	*Percent*					
Fruits and vegetables:								
1962	16	57	78.9	19.0	[3]	(.2)	2.2	.1
1970	16	32	89.6	1.5	[3]	2.2	5.3	1.4
1976	13	54	89.1	3.0	1.5	2.6	2.2	1.6
Section 521 ("exempt")	7	24	85.7	5.4	2.1	1.2	5.0	.6
Nonsection 521 ("nonexempt")	6	30	91.7	1.0	1.1	3.8	0	2.4
1980	8	53	45.0	1.4	0	20.9	3.9	28.4
Section 521 ("exempt")	3	24	18.0	0	0	20.7	8.8	52.5
Nonsection 521 ("nonexempt")	5	29	67.5	2.5	0	21.0	0	9.0
Cotton and cotton products:								
1962	6	10	55.9	42.1	[3]	(.1)	2.1	[4]
1970	6	13	75.3	23.8	[3]	[4]	.9	[4]
1976	4	43	96.3	3.5	0	[4]	0	.2
Section 521 ("exempt")	4	43	96.3	3.5	0	[4]	0	.2
Nonsection 521 ("nonexempt"	0	0	0	0	0	0	0	0
1980	6	68	75.4	22.8	1.1	.7	.1	0
Section 521 ("exempt")	5	—	—	—	—	—	—	—
Nonsection 521 ("nonexempt")	1	—	—	—	—	—	—	—
Rice:								
1962	4	3	27.4	55.1	[3]	[4]	17.5	[4]
1970	4	19	90.7	4.1	[3]	[4]	5.1	.1
1976	4	16	84.2	3.0	0	0	12.8	0
Section 521 ("exempt")	4	16	84.2	3.0	0	0	12.8	0
Nonsection 521 ("nonexempt")	0	0	0	0	0	0	0	0
1980	2	—	—	—	—	—	—	—
Section 521 ("exempt")	1	—	—	—	—	—	—	—
Nonsection 521 ("nonexempt")	1	—	—	—	—	—	—	—

(continues)

Table 32—Methods of distributing net margins used by marketing and marketing/farm supply cooperatives in the top 100 associations, operating partially or wholly on a net margins basis, classified by principal product marketed and income tax status, for fiscal years ended in 1962, 1970, 1976, and 1980[1]

Principal product marketed,year, and income tax status	Coopera-tives with net margins	Total net marg-ins	Percentage of total net margins distributed as—					
			Patronage refunds on current year's business			Unallocated equity	Dividends on equity capital	Income taxes[2]
			Paid in cash	Allocated: Qualified	Allocated: Non-qualified			
	Number	*Million dollars*	*Percent*					
Poultry products:								
1962	3	5	.8	87.6	[3]	[4]	11.6	[4]
1970	3	2	20.3	78.4	[3]	[4]	1.3	[4]
1976	3	6	19.8	79.4	0	.3	.4	.1
Section 521 ("exempt")	1	5	19.9	79.6	0	0	.5	0
Nonsection 521 ("nonexempt")	2	1	19.5	78.1	0	1.9	0	.5
1980	2	—	—	—	—	—	—	—
Section 521 ("exempt"	1	—	—	—	—	—	—	—
Nonsection 521 ("nonexempt")	1	—	—	—	—	—	—	—
Other products:								
1962	6	19	75.5	18.1	[3]	[4]	6.4	[4]
1970	6	12	72.7	16.6	[3]	.5	10.1	.1
1976	5	54	85.5	4.2	3.7	4.0	2.2	.4
Section ("exempt")	3	38	93.3	3.5	0	[4]	3.2	[4]
Nonsection 521 ("nonexempt")	2	16	66.9	6.1	12.4	13.3	0	1.3
1980	4	35	0	75.1	0	11.3	8.0	5.6
Section 521 ("exempt")	2	—	—	—	—	—	—	—
Nonsection 521 ("nonexempt")	2	—	—	—	—	—	—	—
Total:								
1962	80	203	48.2	39.3	[3]	1.2	8.3	3.0
1970	77	197	49.5	31.5	[3]	6.5	7.8	4.7
1976	79	621	45.3	33.2	.5	9.3	3.5	8.2
Section 521 ("exempt")	32	218	63.8	25.1	.2	3.2	6.4	1.3
Nonsection 521 ("nonexempt")	47	403	35.3	37.6	.6	12.7	1.9	11.9
1980	69	1,150	35.1	38.0	.7	15.4	1.4	9.5
Section 521 ("exempt")	21	133	48.7	30.6	.6	5.3	5.2	9.8
Nonsection 521 ("nonexempt")	48	1,017	33.3	39.0	.7	16.7	.9	9.5

[1] Of the 89 marketing and marketing/farm supply cooperatives operating in 1980; (a) 11 operated on a pooling basis with no net margins reported for any activities, and (b) 78 operated on a net margins basis, for all or a part of their operations, with 9 of these reporting net losses. In 1976, 86 cooperatives were classified in the marketing and marketing/farm supply category with 7 of these reporting net losses for that year. Data in this table are gross figures; intercooperative distributions have not been eliminated. Data on income tax status were not collected for fiscal years ended in 1970, and 1962.
[2] Includes Federal and State income taxes.
[3] Nonqualified allocations were not shown separately for 1970 and 1962, they were included with qualified allocations.
[4] Less than 0.05.

Table 33—Effect of asset size of 100 largest cooperatives on distribution of net margins for fiscal years ended in 1976 and 1980[1]

Cooperatives by size of assets and number	Total net margins		Percent of total net margins distributed as:											
			Patronage refunds on current year's business						Unallocated equity		Dividends on equity capital		Income taxes[2]	
			Paid in cash		Allocated: Qualified		Allocated: Nonqualified							
	1976	1980	1976	1980	1976	1980	1976	1980	1976	1980	1976	1980	1976	1980
	1,000 dollars		*Percent*											
Largest 10	415,184	622,929	31.1	36.4	47.7	36.9	0.5	0	8.2	14.2	2.5	0.7	10.2	11.7
Next largest 90	494,670	526,726	55.4	33.5	30.0	39.3	0.6	1.4	7.2	16.6	2.6	2.2	4.2	7.0
Largest 100	909,854	1,149,655	44.4	35.0	38.0	38.0	0.5	0.7	7.6	15.4	2.6	1.4	6.9	9.5

[1] These are gross figures; intercooperative distributions have not been eliminated. Per-unit capital retains fixed *without* reference to net margins are *not* included. All cooperatives with net losses are excluded.
[2] Includes Federal and State income taxes; operating statements of many cooperatives do not list them separately.

percentage distribution of cash patronage refunds between the 2 years shown, from 31.1 percent to 36.4 percent. Both groups increased their percentage distribution to unallocated equity in the 4 years shown (table 33).

In 1980, the 10 largest cooperatives, based on assets, accounted for 54.2 percent of total net margins generated by the top 100. The next largest 90 accounted for 45.8 percent of the total, a reversal from the situation in 1976, when the 10 biggest associations were responsible for 45.6 percent of total net margins and the next largest 90 provided the other 54.4 percent.

Differences in the distribution of net margins, when compared by tax status, are presented in tables 31 and 32. In total, both Section 521 and Nonsection 521 cooperatives decreased their percentage distribution of net margins as patronage refunds while increasing the percent distributed as unallocated equity. Section 521 or exempt cooperatives did, however, distribute a higher percent of net margins as patronage refunds and paid a higher percent in cash than did Nonsection 521 or nonexempt cooperatives in 1980. Surprisingly, however, percentage of net margins required to satisfy income tax liabilities were about equal for both groups.

Handling Net Losses

Nine of the top 100 cooperatives had net losses in 1980. All cooperatives with losses had marketing operations. Included were three dairy products, two fruit and vegetable, two diversified marketing, and two grain, soybeans and products cooperatives—with combined 1980 losses of $69 million. In 1976, seven cooperatives had net losses of $17 million—including four dairy products, two fruit and vegetable associations, and a cotton and cotton products cooperative (Table 34). Because of the small number of cooperatives with net losses, individual distribution decisions can change overall proportions.

Cooperatives have varying policies and agreements with members for handling losses. Some associations have member agreements that allow the organization to directly charge members for payment of their share of the loss based on member patronage during the year. Other cooperatives charge losses against the allocated equity of members and patrons and often against unallocated equity (table 34).

A cooperative with more than one division may incur a net loss in one and have net margins and pay patronage refunds

Table 34—Treatment of net losses by top 100 cooperatives, for fiscal years ended in 1976 and 1980

Item	1976	1980
Cooperatives with net losses (number)	7	9
Total amount of net losses (million dollars)	17	69
	Percent of total losses	
Cash payments from (to) members	24.3	(8.6)
Charged to allocated equity	23.4	41.8
Charged to unallocated equity	48.0	65.6
Income tax refund	4.3	1.2
TOTAL	100.0	100.0

in another, while experiencing an overall net loss for the year. This happened to several of the nine cooperatives reporting fiscal 1980 net losses for their total operations.

Cash patronage refunds—equal to 8.6 percent (or $6 million) of the $69 million in 1980 net losses—were deducted from total losses charged to equity in arriving at the $69 million of total net losses reported.

Losses are on a before-income-tax basis. In both years, income tax refunds were received by cooperatives with losses. Tax refunds absorbed 1.2 percent of $69 million in total net losses reported in 1980 and 4.3 percent of those incurred in 1976.

In both 1976 and 1980, the largest proportion of combined operating losses was charged to unallocated equity. Other studies also have found charges to unallocated equity to be the major way of treating net losses.

PER-UNIT CAPITAL RETAINS

In 1980, the largest 100 cooperatives deducted $170 million in per-unit capital retains to acquire equity capital (table 35). The amount of per-unit capital retains deducted in 1980 represents an $82-million increase over that of 1976. This increase was provided by the same number of cooperatives (38) in 1980 as in 1976.

Trends in Use

In 1980, one more marketing cooperative used per-unit retains, while two fewer marketing/farm supply cooperatives deducted per-unit capital retains, compared with the number in 1976 (table 35). One farm supply cooperative utilized per-unit retains in 1980, but none did so in 1976.

Predominant users of per-unit retains in 1980 were dairy, fruit and vegetable, rice, cotton and cotton products, sugar, and nut cooperatives (table 35). The largest increase in total and percentage per-unit capital retains was experienced by fruit and vegetable cooperatives. Total per-unit capital retains increased by $51 million or 316 percent over that of 1976.

Pooling versus Net Margins

The top 100 cooperatives were classified into one of three groups, based on characteristics of their operations, to examine the unique differences between pooling and nonpooling

Table 35—Number of top 100 cooperatives deducting per-unit capital retains, classified by major function and principal product marketed, and amount of such retains, for fiscal years ended in 1976 and 1980

Major function and principal product marketed	Cooperatives: Total		Cooperatives: Deducting any per-unit capital retains		Amount of per-unit capital retains deducted	
	1976	1980	1976	1980	1976	1980
	Number				*1,000 dollars*	
MAJOR FUNCTION:						
Marketing	60	62	35	36	86,609	162,277
Marketing/Farm supply	26	27	3	1	920	—
Farm supply	14	11	0	1	0	—
TOTAL	100	100	38	38	86,529	169,891
PRINCIPAL PRODUCT MARKETED:						
Dairy products	22	24	15	13	29,672	40,990
Fruits and vegetables	15	16	11	13	23,367	73,959
Rice	4	4	4	3	10,980	12,247
Other products[1]	5	5	4	4	15,476	27,681
Cotton and cotton products	5	7	2	2	—	—
Grain, soybeans and products	21	22	1	1	—	—
Poultry products	3	2	1	0	—	0
Diversified	11	9	0	1	0	—
TOTAL	86	89	38	37	87,529	162,425

[1] For 1976 and 1980 "Other products" includes 3 cooperatives handling sugar and 2 handling nuts.

associations (table 36). The three groups include cooperatives that: (1) conducted all operations on a pooling basis with no net margins, (2) operated primarily as a pool, with some operations reported on a net-margin basis, or (3) reported all operations on a net-margin basis.

Cooperatives were classified by examining audited financial statements. Cooperatives that did not establish a cost of product and did not report any net margins were placed in the first group. The second group included cooperatives that operated as a pool for the main product or commodity marketed but also generated net margins from other operations. In the third group were those who established a cost of product for sales and report operations on a net-margins basis.

The 11 pooling cooperatives (the first group) accounted for 41.6 percent of total per-unit capital retains deducted by the top 100 cooperatives in 1980 (table 36)—equaling $71 million. Pooling cooperatives reporting part of their activities on a net-margins basis accounted for 29.8 percent of total per-unit retains...while those operating on a net-margins basis deducted 28.6 percent of the total.

The 11 pooling cooperatives with no net margin activities were the predominant users of per-unit capital retains. Financial implications as to the use of per-unit capital retains are presented more clearly in the following discussion on sources and uses of funds.

SOURCES AND USES OF FUNDS

Three major financial statements are prepared annually by most cooperatives—an operating or income statement, a balance sheet, and a statement of sources and uses of funds

Table 36—Per-unit capital retains deducted by top 100 cooperatives operating on a pooling and net margins basis, for fiscal years ended in 1980

Operations	Cooperatives		
	Total	Deducting per-unit retains	Per-unit retains deducted
	Number	Number	*Mil. dol.*
ON POOLING BASIS:			
No activities reported on net margins basis:			
Fruits and vegetables	6	6	$ 49.7
Other products[1]	5	5	20.9
Subtotal	11	11	70.6
Part of activities reported on net margins basis:			
Fruits and vegetables	9	7	24.3
Other products[2]	9	5	26.3
Subtotal	18	12	50.6
ON NET MARGINS BASIS:			
Dairy products	21	10	35.9
Grain, soybeans, and products	21	0	0
Diversified[3]	9	1	[5]
Cotton and cotton products	4	1	[5]
Other products[4]	5	2	[5]
Farm supply	11	1	[5]
Subtotal	71	15	48.7
TOTAL	100	38	$169.9

[1] Includes cooperatives classified as rice (2); nuts; cotton and cotton products; and grain, soybeans, and products marketing associations.
[2] Includes cooperatives classified as dairy products (3), rice (2), cotton and cotton products (2), nuts, and sugar marketing associations.
[3] Substantial amounts of several products are marketed prohibiting a 1-commodity classification.
[4] Includes marketing and marketing/farm supply cooperatives handling poultry products (2), sugar (2), and fruits and vegetables.
[5] To maintain confidentiality of information, no financial data are shown when number of cooperatives is less than 3.

(statement of changes in financial position). This is the first year that information on sources and uses of funds (SAUF) has been collected on the largest 100 cooperatives. This information, used with balance sheets and operating statements, can provide a more accurate description of the financial characteristics of the top 100 cooperatives.

Overall View

The combined SAUF statement for the top 100 is presented in table 37 and highlighted in figure 7. In 1980, sources of funds totaled $3 billion. Of this total, operations generated 56.1 percent, with net margins and per-unit capital retains accounting for 80 percent of operational sources of funds. Other operational items included depreciation, depletion and amortization, 16.5 percent and noncash patronage refunds received, -4.2 percent. Noncash patronage refunds reduced total sources of funds by $125 million in 1980 for all 100 cooperatives. Viewed in another way, noncash patronage refunds received represented 10.9 percent of total net margins for the top 100 in 1980.

The largest nonoperational source of funds, new long term borrowing, provided 25.2 percent of the total. Redemption of investments, asset disposals, and sale of capital stock each provided less than 3 percent of total funds. Decreases in working capital provided about 4 percent of total fund sources in 1980.

Purchase of property, plant, and equipment required 30.6 percent of total uses for the top 100 cooperatives. Payments on long-term debt, cash patronage refunds, and increases in working capital accounted for 14.3, 13.9, and 15.9 percent, respectively. Redemption of equity represented 6.4 percent of total funds used—equaling $191 million. Absorption of net losses consumed 2.3 percent of total applications.

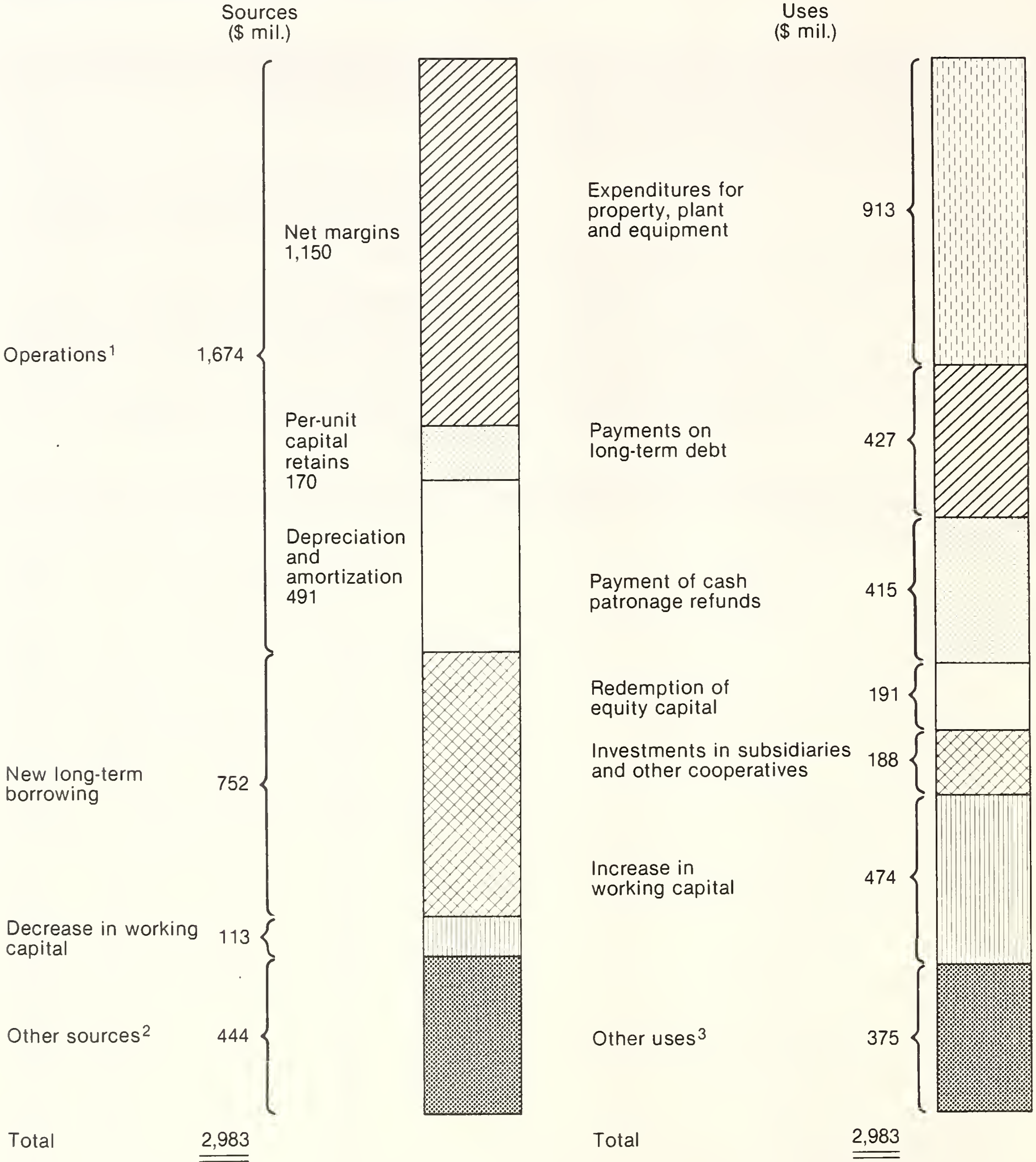
Table 37—Comparison of sources and uses of funds of the 100 largest cooperatives, classified by major function, for fiscal years ended in 1980.

Item	Marketing (62)	Marketing/ farm supply (27)	Farm supply (11)	Largest (100)
		Percent		
SOURCES OF FUNDS:				
Net margins	26.2	39.9	53.5	38.5
Per-unit capital retains	15.8	0	1.0	5.7
Add (deduct) items not using (providing) funds:				
Depreciation, depletion and amortization	15.0	18.9	14.7	16.5
Noncash patronage refunds	(.7)	(6.9)	(4.9)	(4.2)
Other items	(.1)	(.8)	(.2)	(.4)
Total from operations	56.2	51.1	64.1	56.1
New long-term borrowing	29.8	22.4	23.4	25.2
Redemption of investments in other cooperatives and banks for cooperatives	1.1	2.8	1.4	1.9
Assets disposals	2.1	4.0	2.1	2.8
Proceeds from sale of stock and/or certificates	3.1	2.0	0.2	2.0
Decrease in working capital	3.9	3.7	4.0	3.8
Other sources	3.8	14.0	4.8	8.2
Total sources (million dollars)	1,031	1,209	743	2,983
USES OF FUNDS:				
Purchase of property, plant, and equipment	32.6	33.7	22.6	30.6
Investment in subsidiaries and other cooperatives	5.3	8.2	3.9	6.3
Payment of cash patronage refunds	9.4	12.1	22.6	13.9
Payment of dividends on capital stock	0.8	1.0	0	0.7
Redemption of equity	8.5	4.8	5.8	6.4
Payments on long-term debt	12.0	13.4	19.1	14.3
Payment of income taxes	2.3	2.5	5.0	3.0
Absorb net losses	6.1	0.1	0	2.3
Increase in working capital	11.7	17.1	20.1	15.9
Other uses	11.3	6.7	0.7	6.7
Total uses (million dollars)	$1,031	$1,209	$743	$2,983

Figure 7

100 Largest Cooperatives

Sources and Uses of Funds (in millions of dollars)



[1] Less non-cash patronage refunds received and other non-fund receipts equaling $137 million.
[2] Includes assets disposals, redemption of investments, stock sales and other sources.
[3] Includes payment of income taxes, dividends on capital stock, absorption of net losses, and other uses.

Table 38—Differences in sources and uses of funds of the 89 marketing and marketing/farm supply cooperatives in the top 100 associations, classified by principal product marketed, for fiscal years ended in 1980.

Item	Dairy products	Grain, soybeans, and products	Fruits and vege tables	Diver-sified	Cotton and cotton products	Rice	Sugar	Other products[1]	Total
Number of cooperatives	24	22	16	9	7	4	3	4	89
					Percent				
SOURCES OF FUNDS:									
Net margins	30.0	37.6	16.3	36.9	58.1	5.3	37.9	29.7	33.6
Per-unit capital retains	13.8	0.8	23.0	0	2.8	32.2	9.3	44.3	7.3
Add (deduct) items not using (providing) funds:									
Depreciation, depletion and amortization	18.5	13.1	13.0	20.2	8.8	24.9	44.0	11.3	17.2
Noncash patronage refunds	(.7)	(7.0)	(.2)	(6.0)	(.8)	0	(.8)	0	(4.0)
Other items	(.4)	(1.4)	0	(.2)	0	0	0	0	(.5)
Total from operations	61.2	43.1	52.1	50.9	68.9	62.4	90.4	85.3	53.6
New long-term borrowing	27.9	32.5	33.4	21.6	18.8	18.4	2.7	10.4	25.8
Redemption of investments in other cooperatives and banks for cooperatives	0.4	4.5	2.1	1.4	1.8	1.2	0.4	0	2.0
Asset disposals	4.7	2.0	0.4	5.1	0.3	0.3	0.7	0	3.1
Proceeds from sale of stock and/or certificates	0.1	2.0	3.1	2.8	7.5	11.2	0	0	2.5
Decrease in working capital	2.2	4.6	3.8	4.0	1.1	4.7	5.6	2.1	3.8
Other sources	3.5	11.3	5.1	14.2	1.6	1.8	0.2	2.2	9.2
Total sources (million dollars)	$299	$532	$323	$825	$117	$38	$55	$51	$2,240
USES OF FUNDS:									
Purchase of property, plant and equipment	37.5	31.1	25.9	36.8	22.8	34.0	51.4	22.7	33.2
Investment in subsidiaries and other cooperatives	5.7	10.6	5.5	6.1	8.7	3.6	1.9	0.5	6.9
Payment of cash patronage refunds	7.5	8.2	7.7	11.5	45.8	0	5.4	0.6	10.9
Payment of dividends on capital stock	0.3	1.4	0.7	0.6	0	4.4	2.2	3.2	0.9
Redemption of equity	13.3	3.4	6.1	5.0	7.8	17.7	0.6	21.5	6.5
Payments on long-term debt	13.3	13.2	11.2	14.0	3.6	19.7	20.8	2.6	12.8
Payment of income taxes	1.3	2.5	4.6	2.3	0	0.1	3.0	0.4	2.4
Absorb net losses	1.2	8.4	4.7	0.8	0	0	0	0	3.1
Increase in working capital	15.6	12.6	9.1	18.5	9.0	15.2	13.5	14.1	14.5
Other uses	4.3	8.6	24.5	4.4	2.3	5.3	1.2	34.4	8.8
Total uses (million dollars)	$299	$532	$323	$825	$117	$38	$55	$51	$2,240

[1] Includes two marketing cooperatives handling nuts; and two marketing/farm supply associations handling poultry products.

Tables 37-42 present comparisons of source and use of funds by major function, principal product marketed, size, membership structure—and pooling as opposed to net-margin operations. Comparisons vary widely due to operational, institutional, and individual differences. The following analysis will compare and contrast differences and similarities presented by the various groups of cooperatives in the top 100 associations.

Importance of Net Margins

The most significant factor explaining the importance of net margins as a source of funds was whether individual cooperatives included in the group deducted per-unit retains. Table 42 shows the relative importance of per-unit capital retains to pooling and nonpooling cooperatives. Net margins did not provide any funds for 11 of the pooling cooperatives. The 18 pooling cooperatives reporting part of their activities on a net margins basis—and the 60 associations operating on a net-margins basis—received 37 percent of their total fund sources from net margins.

Net margins provided more than 50 percent of total sources of funds for three groups: interregionals (table 40), 55 percent; farm supply cooperatives (table 37), 54 percent; and cotton and cotton products cooperatives (table 38), 58 percent. Groups with a low proportion of total funds provided by net margins were fruit and vegetable, 16 percent; and rice, 5 percent—which rely more heavily on per-unit capital retains than net margins in funding their operations.

Effects of Inflation

A general trend evident throughout the top 100 was the relationship between asset disposals; depreciation, depletion and amortization—and expenditures for property, plant, and equipment (PP&E). For the group as a whole, expenditures for PP&E were 1.6 times the sum of depreciation depletion and amortization, and asset disposals.

For each comparison made in tables 35-39, except principal product marketed, this general relationship between depreciation, depletion and amortization, asset disposals, and PP&E is about 1.6 times. When compared on the basis of principal product marketed, a large amount of variation was present due to the small number of observations in several commodity areas. As the number of cooperatives in a group decreases, the financial statements for the group can be skewed by one or two firms.

These comparisons allow analysis of how quickly cooperatives are replacing their productive assets. When the effect of inflation is considered, depreciation, depletion and amortization—and asset disposals at book value, do not reflect the true replacement cost of PP&E. An expenditure of 1.6 times depreciation, depletion and amortization plus asset disposals for PP&E suggests cooperatives may be encountering difficulty in maintaining their productive assets in an inflationary economy. Such a determination, however, cannot be made with a single-year analysis. When combined with analyses of succeeding years, more accurate evaluations on the effect of inflation can be made.

Changes in Equity Position

Source-and-use-of-funds statements also provide a comparison of net changes in the equity position of cooperatives over particular accounting periods. Net additions to equity is represented by the sum of net margins, per-unit capital retains, and new stock and/or certificate sales—less cash patronage refunds, dividends paid on equity capital, equities redeemed, and net losses. This analysis does not distinguish between allocated or unallocated equity but merely reflects the change in total equity.

For 1980, the largest 100 cooperatives had a net equity increase equal to 22.9 percent of total funds, or $683 million. Net equity increases, when compared by the breakdowns in tables 37-42, show a large degree of similarity, especially table 42 (pooling basis) and table 41 (membership structure). The largest amount of variation in the net equity position occurred in table 38 (principal product marketed). The highest proportional addition to net equity was reported by sugar cooperatives, at 39 percent—or $21 million. The group showing the lowest increase in net equity position was the cotton and cotton products cooperatives, with a percentage of 14.8. This was due, in part, to their very high cash payout in 1980.

Of particular interest is comparison of local, regional, and interregional cooperatives' net equity increases in table 40. Local cooperatives had a proportionally higher increase in their net equity position than did regionals—27.1 percent versus 22.8 percent. The percentage for interregionals was lower (22.2 percent)...further highlighted by data in table 39 that compare source-and-use-of-funds by size of business. The smallest 50 cooperatives in the top 100 had a net equity increase equal to 26.4 percent of total funds, compared with the largest 10, with a net increase of 20.5 percent.

Farm supply cooperatives also achieved a higher net equity position than marketing or marketing/farm supply cooperatives—26.3 percent as opposed to 20.3 and 24.1 percent (table 37). This was apparently due, in part, to the greater ability of farm supply cooperatives to generate net margins.

Nature of Increased Leverage

As shown in other sections of this report, the top 100 cooperatives have become more leveraged over time. Analysis of

Table 39—Effect of size on sources and uses of funds of the 100 largest cooperatives, for fiscal years ended in 1980

Item	Largest 10	Next largest 40	Lower 50	Largest 100
		Percent		
SOURCES OF FUNDS:				
Net margins	35.8	44.7	30.8	38.5
Per-unit capital retains	1.0	6.8	13.9	5.7
Add (deduct) items not using (providing) funds:				
Depreciation, depletion and amortization	16.8	18.2	12.0	16.5
Noncash patronage refunds	(6.0)	(3.7)	(1.5)	(4.2)
Other items	(.2)	(.8)	(.2)	(.4)
Total from operations	47.4	65.2	55.0	56.1
New long-term borrowing	30.4	19.9	25.8	25.2
Redemption of investments in other cooperatives and banks cooperatives	1.5	2.7	1.0	1.9
Asset disposals	4.6	1.6	1.6	2.8
Proceeds from sale of stock and/or certificates	2.6	1.1	2.6	2.0
Decrease in working capital	2.8	5.4	2.5	3.8
Other sources	10.7	4.1	11.5	8.2
Total sources (million dollars)	$1,215	$1,234	$534	$2,983
USES OF FUNDS:				
Purchase of property, plant and equipment	35.6	28.1	24.9	30.6
Investment in subsidiaries and other cooperatives	6.7	7.1	3.5	6.3
Payment of cash patronage refunds	10.1	19.1	9.8	13.8
Payment of dividends on capital stock	0.5	0.9	0.5	0.7
Redemption of equity	5.0	6.4	9.2	6.4
Payments on long-term debt	13.7	17.1	9.2	14.3
Payment of income taxes	2.2	3.6	3.6	3.0
Absorb net losses	3.3	1.7	1.4	2.3
Increase in working capital	16.8	13.9	18.7	15.9
Other uses	6.1	2.1	19.2	6.7
Total uses (Million dollars)	$1,215	$1,234	$534	$2,983

Table 40—Variation in sources and uses of funds of the 100 largest cooperatives when classified into local, regional and interregional types of associations, for fiscal years ended in 1980[1]

Item	Locals	Regionals	Inter-regionals	All coopera-tives
Number of cooperatives	13	80	7	100
		Percent		
SOURCES OF FUNDS:				
Net margins	29.8	35.4	54.7	38.5
Per-unit capital retains	13.9	6.3	0	5.7
Add (deduct) items not using (providing funds:				
Depreciation, depletion and amortization	19.1	16.9	14.3	16.5
Noncash patronage refunds	(2.6)	(5.0)	(.6)	(4.2)
Other items	0	(.5)	0	(.4)
Total from operations	60.2	53.1	68.4	56.1
New long-term borrowing	27.4	26.3	19.4	25.2
Redemption of investments in other cooperatives and banks for cooperatives	1.7	2.3	0.1	1.9
Asset disposals	0.2	3.3	1.1	2.8
Proceeds from sale of stock and/or certificates	6.3	1.8	2.1	2.0
Decrease in working capital	2.7	4.2	2.8	3.8
Other sources	1.5	9.0	6.1	8.2
Total sources (million dollars)	$94	$2,385	$504	$2,983
USES OF FUNDS:				
Purchase of property, plant and equipment	36.3	32.1	22.2	30.6
Investments in subsidiaries and other cooperatives	3.8	7.5	1.1	6.3
Payment of cash patronage refunds	7.4	12.5	21.2	13.8
Payment of dividends on capital stock	0.7	0.8	0	0.7
Redemption of equity	9.4	6.3	5.7	6.4
Payments on long-term debt	14.2	13.8	16.8	14.3
Payment of income tax	1.0	2.6	5.6	3.0
Absorb net losses	5.4	1.1	7.7	2.3
Increase in working capital	20.0	15.1	19.2	15.9
Other uses	1.8	8.2	0.5	6.7
Total uses (million dollars)	$94	$2,385	$504	$2,983

[1] See footnotes 4, 5 and 6, table 3.

Table 41—Significance of membership structure on sources and uses of funds of the top 100 cooperatives, for fiscal years ended in 1980[1]

Item	Central-ized	Federated	Mixed	All coopera-tives
Number of cooperatives	56	28	16	100
		Percent		
SOURCES OF FUNDS:				
Net margins	25.4	47.5	36.6	38.5
Per-unit capital retains	18.0	0.3	1.8	5.7
Add (deduct) items not using (providing) funds:				
Depreciation, depletion and amortization	16.0	14.9	20.1	16.5
Noncash patronage refunds	(1.2)	(4.9)	(6.4)	(4.2)
Other items	0.1	0	(1.5)	(.4)
Total from operations	58.1	57.8	50.6	56.1
New long-term borrowing	26.1	24.8	24.8	25.2
Redemption of investment in other cooperatives and banks for cooperatives	1.4	2.3	1.7	1.9
Asset disposals	1.7	3.9	2.1	2.8
Proceeds from sale of stock and/or certificates	2.8	0.8	3.2	2.0
Decrease of working capital	3.1	2.5	7.2	3.8
Other sources	6.8	7.9	10.4	8.2
Total sources (million dollars)	$852	$1,416	$715	$2,983
USES OF FUNDS:				
Purchase of property, plant and equipment	28.7	28.6	36.6	30.6
Investments in subsidiaries and other cooperatives	5.6	7.4	5.1	6.3
Payment of cash patronage refunds	9.6	17.1	12.1	13.8
Payment of dividends on capital stock	0.9	0.2	1.2	0.7
Redemption of equity	9.2	4.9	5.7	6.4
Payments on long-term debt	11.2	16.9	12.9	14.3
Payment of income taxes	2.0	1.9	6.5	3.0
Absorb net losses	2.2	3.2	0.9	2.3
Increase in working capital	17.3	16.0	14.0	15.9
Other uses	13.3	3.8	5.0	6.7
Total uses (million dollars)	$852	$1,416	$715	$2,983

[1] See footnotes, 1, 2, and 3, Table 3.

Table 42—Sources and uses of funds of the 89 marketing and marketing/farm supply associations in the top 100 cooperatives, classified on a pooling and net margins basis for fiscal years ended in 1980.

Item	Pooling basis: No net margins[1]	Pooling basis: Part net margins[2]	Net margins basis	Total
Number of cooperatives	11	18	60	89
SOURCES OF FUNDS:		*Percent*		
Net margins	0	37.2	36.7	33.6
Per-unit capital retains	31.3	17.4	2.4	7.3
Add (deduct) items not using (providing) funds:				
Depreciation, depletion and amortization	11.0	14.2	18.4	17.2
Noncash patronage refunds	0	(.1)	(5.2)	(4.0)
Other items	6.1	0	(.6)	(.5)
Total from operations	48.4	68.7	51.7	53.6
New long-term borrowing	44.8	12.1	25.6	25.8
Redemption of investments in other cooperatives and banks for cooperatives	0.7	2.1	2.2	2.0
Asset disposals	0.3	0.5	3.9	3.1
Proceeds from sale of stock and/or certificates	1.5	6.6	1.9	2.5
Decrease in working capital	0.5	6.2	3.8	3.8
Other sources	3.8	3.8	10.9	9.2
Total sources (million dollars)	$225	$292	$1,723	$2,240
USES OF FUNDS:				
Purchase of property, plant and equipment	20.6	28.6	35.6	33.2
Investment in subsidiaries and other cooperatives	3.5	8.3	7.1	6.9
Payment of cash patronage refunds	0	26.0	9.7	10.9
Payment of dividends on capital stock	1.0	1.3	0.8	0.9
Redemption of equity	10.0	7.7	5.8	6.5
Payments of long-term debt	10.5	8.2	13.8	12.8
Payment of income taxes	0.2	5.0	2.5	2.4
Absorb net losses	0	5.2	3.2	3.1
Increase in working capital	11.6	7.7	15.9	14.5
Other uses	42.5	2.0	5.6	8.8
Total uses (million dollars)	$225	$292	$1,723	$2,240

[1] Cooperatives classified as operating on a pooling basis with no activities reported on a net margins basis.
[2] Cooperatives classified as operating on a pooling basis with part of their activities reported on a net margins basis.

source and use of funds statements can provide insight into the nature of the increased leverage of this largest group of U.S. cooperatives. The net difference between new long-term borrowing and payments on long-term debt quickly indicates increases or decreases in long-term debt over the accounting period. The top 100 increased their long-term debt by 10.9 percent of total funds in 1980—equal to $325 million. Only two groups presented in table 38 decreased their holdings of long-term debt: rice and sugar marketing cooperatives. Rice cooperatives decreased their long-term borrowed funds by $500,000 and sugar cooperatives by $10 million.

Cooperative groups with the largest proportional increases in long-term debt were the 11 pooling cooperatives with no activities reported on a net margins basis (table 36), fruit and vegetable cooperatives (table 38), and marketing cooperatives (table 37)—amounting to 34.3, 22.2, and 17.8 percent of total funds, respectively. Pooling and fruit and vegetable cooperatives are actually overlapping subsets of marketing cooperatives which rely more heavily on per-unit capital retains than on net margins to generate funds. Conversely, farm supply cooperatives increased their relative amount of long-term debt by only 4.3 percent of total funds.

Numerous factors affect the results just mentioned. Most obvious is that farm supply cooperatives allocated relatively fewer funds for purchase of property, plant, and equipment in 1980, although they paid a relatively higher amount in cash patronage refunds. In analyzing these findings, the researchers did not necessarily discover but merely saw certain long-term trends and events taking place in 1980.

A final analysis is the comparison between net equity position and net increase in long-term borrowing. In only three comparisons in tables 35-39 did the increase in long-term borrowing exceed the increase in equity position—as demonstrated by the 11 pooling cooperatives with no net margin activities in table 36 and the grain, soybeans, and products and cotton and cotton products groups in table 38.

The combined SAUF statement for all 100 cooperatives showed a net equity increase equal to 22.9 percent of total funds—compared to new long-term borrowing of 10.9 percent. The 12 percent difference, equal to $358 million, shows the equity increase was 2.1 times greater than the growth in term debt.

This observation indicates increases in leverage by the top 100 cooperatives in 1980 was the result of an increased dependence on short-term debt. This is consistent with balance sheet comparisons made in earlier sections of this report. The shift to short-term debt should not be surprising, however, given the reluctance of cooperatives to take on long term debt at historically high interest rates and the increasing use of variable rate loans by Banks for Cooperatives and other lending institutions.

Increased Liquidity

While the degree of leverage increased, there is evidence that the top 100 cooperatives improved their liquidity during fiscal 1980. The working capital position (current assets minus current liabilities) taken from table 5 is equal to 12.7 percent of total assets, or $2.2 billion. The net increase in working capital for the top 100 cooperatives, as shown in table 37, was 12.1 percent (Increases in working capital, 15.9 percent minus Decreases in working capital, 3.8 percent) of total funds used—or $361 million. The increase in working capital during fiscal 1980 of $361 million represents a 20.1-percent gain over the top 100's beginning working capital balance of $1.8 billion. The 20-percent gain in working capital more than offset inflationary increases, resulting in a real liquidity increase during 1980.

Similar comparisons for the functional groups found the marketing/farm supply cooperatives' percentage increase in working capital to be almost equal to that of the top 100, at 19.5 percent, or $162 million. The working capital increase for marketing cooperatives was $80 million, an increase of 15.8 percent in fiscal 1980. Farm supply cooperatives experienced the largest percent increase in working capital, 30.6 percent, equaling $120 million.

Percentage increases in working capital for the commodity groups were dairy products, 29.3 percent; grain, soybeans, and products, 12.6 percent; fruits and vegetables, 9.6 percent; diversified, 20.3 percent; cotton and cotton products, 33.3 percent; rice, 16.0 percent; and sugar, 8.4 percent.

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Agricultural Cooperative Service

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