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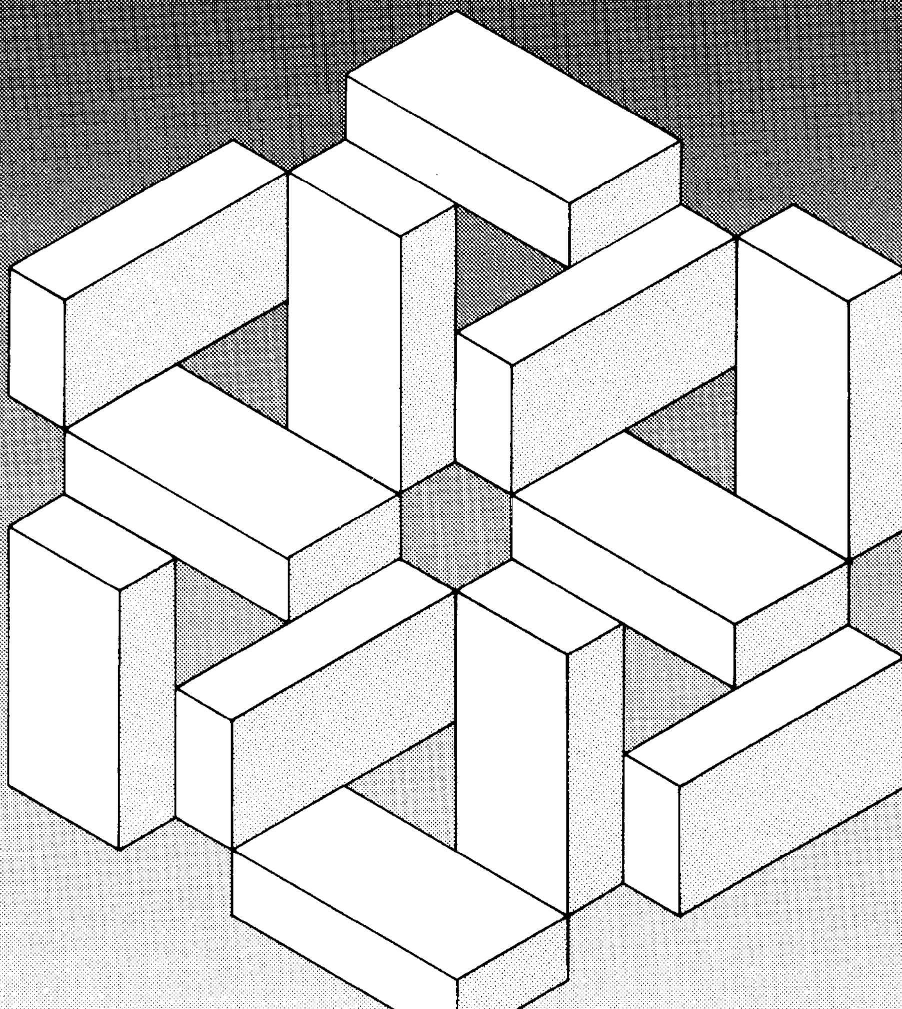
Equity Redemption and Member Equity Allocation Practices of Agricultural Cooperatives



Abstract

Equity Redemption and Member Equity Allocation Practices of Agricultural Cooperatives

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It has been nearly 20 years since a comprehensive study of agricultural cooperatives' equity redemption practices was conducted. This report, based on 1991 survey data, provides an in-depth analysis of this unique cooperative practice. The study evaluates the importance of cooperative principles in carrying out equity redemption programs and discusses the frequency of use and characteristics of systematic and special equity redemption programs. The primary emphasis is on centralized cooperatives, although federated and mixed membership cooperatives practices are also evaluated.

Key Words: Cooperatives, equity redemption, patronage allocation, per-unit capital retains, base capital plans, revolving equity plans.

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Preface

This publication reports the results of a survey of farmer cooperatives conducted in 1991 and 1992 on current equity redemption practices of agricultural cooperatives, including how equity is distributed between allocated and unallocated accounts.

The information was obtained from a series of questions incorporated in the Agricultural Cooperative Service's (ACS) survey of fiscal 1991 financial results of agricultural cooperatives in the United States. This current information on equity redemption practices is needed because the last comprehensive study was conducted nearly 20 years ago. Many changes have occurred in the intervening years in the financial, operational, and structural makeup of agricultural cooperatives.

The study explores the entire range of equity accumulation and redemption issues for different categories of cooperatives (commodity type, size, geographical region, and structure). It also draws comparisons, where appropriate, to the 1974 study.

Equity redemption practices are at the center of all financial considerations with which a cooperative must deal. Cooperatives are very diverse in how equity redemption issues are addressed. ACS hopes the results from this study will guide cooperatives considering changes or refinements to their equity programs and serve as a reference tool to professional advisors.

Throughout the 18 months it took to gather and analyze data for this report the authors acknowledge the considerable support and assistance from ACS' Statistical and Technical Services staff -Charles Kraenzle, Ralph Richardson, Celestine Adams, Jacqueline Penn, Katherine DeVille, John Stutzman, and John Wells.

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Highlights

Eighty-six percent of agricultural cooperatives reported their equity was subject to redemption for fiscal 1991. Those whose equity was not subject to redemption were primarily small, low-equity cooperatives that had little if any net income available to allocate.

Of those with equity subject to redemption, 89 percent had some type of active systematic or special redemption program. Of more significance, they represented 96 percent of all member equity subject to redemption.

Since the last comprehensive equity redemption study, conducted using 1974 data, use of systematic programs has significantly increased.

Larger cooperatives, with more than $10 million in total assets, reported much greater use of systematic programs than smaller cooperatives. Revolving fund programs were most predominant, being used by 92 percent of cooperatives with systematic programs alone or in combination with special programs. The average revolving fund period was 16 years, but improved to 14 years when a weighted average was used based on total equity used.

Grain and farm supply cooperatives were heavily dependent on special programs to redeem equity. Ninety-five percent of cooperatives using special redemption programs redeemed to estates.

Three constant themes dominated this study in relation to equity redemption performance:

(1) financial strength did not necessarily indicate superior equity redemption performance;
(2) smaller cooperatives were more reluctant to redeem members' equity regardless of financial condition; and
(3) throughout the whole spectrum of size and financial condition, grain and farm supply cooperatives demonstrated the poorest equity redemption performance.

While improvements were noted in some aspects of equity redemption, more should be done to keep ownership and control of cooperatives in the hands of current users. More use of systematic programs is needed along with aggressive application of special programs.

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Equity redemption and net income allocation practices are activities unique to cooperatives. Practices vary among cooperatives, but the underlying strategy is designed to achieve the same result, namely to function as a mechanism for obtaining equity capital to finance operations and to distribute or allocate net income to member-users.

The most common method used is to issue patronage refunds. A patronage refund is the net income of a cooperative allocated to a patron in proportion to the value or quantity of business the patron does with the cooperative. Usually some portion of the patronage refunds is distributed in cash, but the majority is normally retained by the cooperative as retained patronage refunds.

The equity redemption and equity allocation process begins with the retention of patronage refunds. It culminates when the retained patronage refunds are paid to members in the practice called equity redemption. It is defined as the payment in cash or other property for previously issued equities [1].[1]

Equity redemption and allocation practices are not just unique financial characteristics of cooperatives. They are the embodiment of cooperative principles and practices. Adherence to cooperative principles in the administration of an equity redemption program is also important when evaluating performance.

COOPERATIVE PRINCIPLES AND EQUITY REDEMPTION

Today's cooperative principles are derived from the original principles and practices of the Rochdale Society [2]. References to them are found in various Federal and State statutes, and provide a general legal basis for establishing guidelines governing equal treatment of members for income allocation and equity redemption.

No statute legislates specific requirements for equity redemption, but application of cooperative principles and equity redemption are related. Some State laws do specify that certain percentages of net income be placed in unallocated reserves, so the net income allocation process may be partially controlled.

The cooperative's bylaws govern its allocation and redemption activities. This document generally specifies circumstances under which members are required to provide capital and describes the process used for acquiring and redeeming equity. The authority and responsibility for administering the cooperative's capital program belong to the board of directors. The board must be aware of the important role cooperative principles play in allocation and redemption practices.

Adherence to cooperative principles can be challenging when contemplating equity redemption and member equity allocation alternatives. It is important to discuss these principles and how they apply to equity redemption and allocation practices. Cooperative principles will be discussed from the perspective of the contemporary set that Agricultural Cooperative Service (ACS) advocates:

[1] Numbers in brackets refer to publications cited in references section.

1. The Owner-User Principle-People who own and finance the cooperative are those who use it.
2. The User-Control Principle-People who control the cooperative are those who use it.
3. The User-Benefits Principle-The cooperative's sole purpose is to provide and distribute benefits on the basis of use.

There are equity redemption and equity allocation elements contained in each of these three principles. With the owner-user principle, the key element is that ownership financing should be provided by the current users of the cooperative. Compliance with this principle necessitates that a cooperative have an active method to keep members' equity investment aligned with their use of the cooperative. Equity redemption plans have an important role in this process.

Such a plan also promotes adherence to the user-control principle because a program that fosters investment by current users usually means that voting control is vested in those current members.

The importance of member equity allocation is manifested in the user-benefits principle. This means that a cooperative's net income is distributed or allocated to members on the basis of current usage. This allocation may be made as cash, kept in the business for a period of time as a retained patronage refund, or a combination of both. Although cash refunds provide an immediate benefit to the member, retaining the majority of patronage allocations in the business benefits the cooperative in two ways. It provides additional financial strength and supplies funds to retire older equities. This shifts investment to the hands of current users. It's important that current users receive the allocation benefit of any net income their patronage has created. Only then can the "service at cost" standard fundamental to cooperative operations be satisfied.

In reality, however, remaining faithful to the principles while contemplating equity redemption decisions can be a significant challenge for a cooperative. An overriding consideration may be the need to retain sufficient capital to maintain the cooperative's viability or finance growth through capital improvements or acquisition. At times, the capital needs of the cooperative and the allocation and redemption expectations of the membership may conflict. The board of directors faces one of its most challenging responsibilities in such situations.

EQUITY REDEMPTION AND ALLOCATION PRACTICES

Study Methodology

Questions on equity redemption practices, cash patronage distribution, per-unit retains, and equity allocation were included in the ACS annual statistical survey of cooperatives which covered results for fiscal 1991 [3]. Forms used to survey equity redemption questions were sent to all cooperatives except grain and farm supply cooperatives with sales under $15 million. Sampling procedures were used because the number of cooperatives in these two groups was so large. Complete responses were obtained from 2,008 cooperatives. This information was expanded to represent the entire population.

The study covers essentially the same population as ACS' annual survey with minor differences. The equity redemption study covered 4,353 cooperatives, compared with 4,494 for the fiscal 1991 survey.

Size of the survey groups was different because three groups were excluded from the equity redemption study. Excluded were cooperatives currently being reorganized, groups of livestock associations because only consolidated information was available, and sugar beet bargaining associations. There were insufficient responses to represent the group. The livestock and bargaining cooperatives had small amounts of assets and net worth.

For 1991, the ACS annual survey of farmer cooperatives reported total cooperative assets of $31.3 billion and net worth of $14 billion. Although the equity redemption population was 3 percent smaller than the ACS survey, the dollar amount of the assets and net worth of the cooperatives excluded from the study was minimal. The value of total assets and net worth for the equity redemption study population was very similar to the agency survey.

Several modifications were made to the commodity classifications in this study compared with the classifications used in the ACS survey. Cotton ginning and marketing cooperatives were combined. Rice, sugar, tobacco, and miscellaneous marketing cooperatives were combined into an "other marketing" category. Nut marketing cooperatives were included with fruit and vegetable marketing cooperatives, and livestock, poultry, and wool marketing cooperatives were combined.

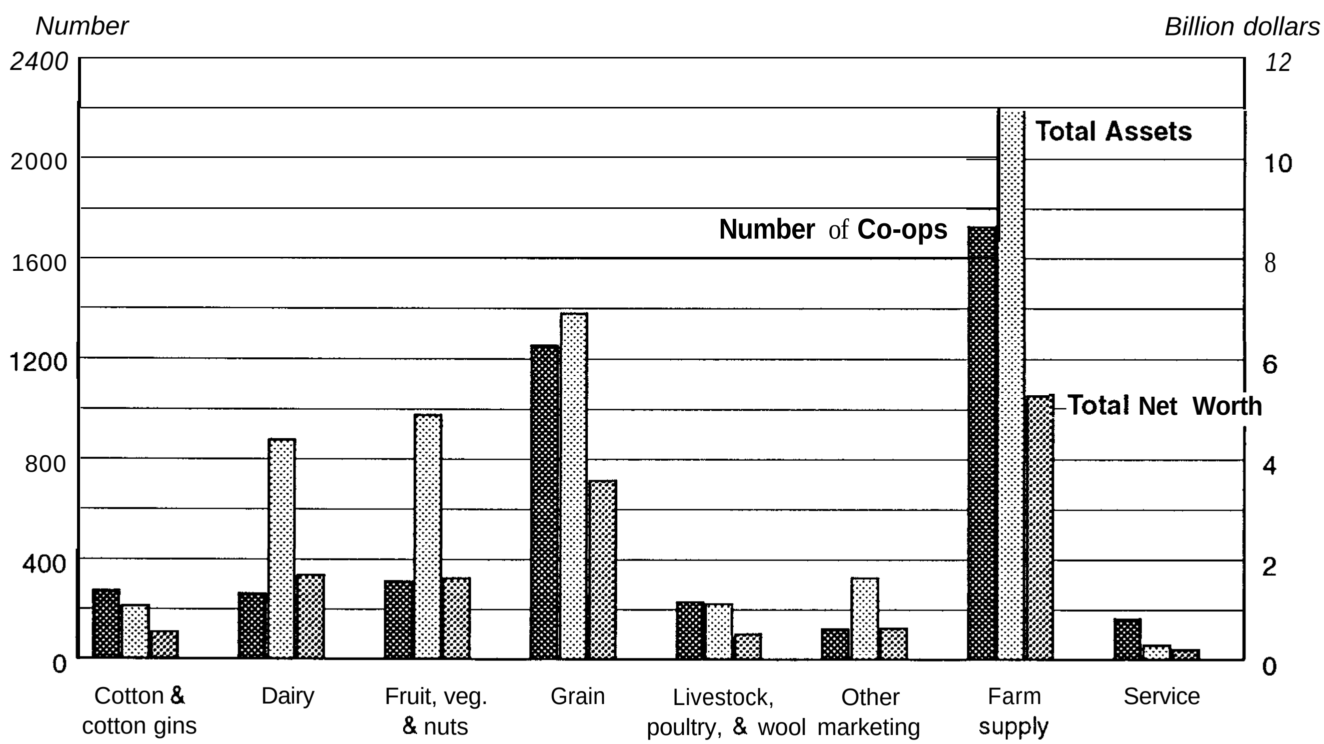
Figure 1 shows the number of cooperatives, total assets, and total net worth for each commodity group. The farm supply group had the largest number of cooperatives and the largest amount of assets and net worth. This group contained both small cooperatives providing supplies to localized areas and large ones that manufactured and/or distributed supplies over large geographical areas. These small and large cooperatives were organized together in expansive integrated systems.

Grain cooperatives constituted the next largest group. Their organizational structures were similar to the farm supply group. Many grain cooperatives also handled farm supplies. Farm supply and grain cooperatives represented more than two-thirds of all cooperatives and the two groups had a similar percentage of total assets and net worth. In contrast, dairy and the fruit, vegetable, and nut groups represented only 13 percent of the total number of cooperatives, but had 30 percent of total assets and 23 percent of the net worth.

Comparison with 1974 Study

An initial objective of the 1991 study was to provide a current equity redemption benchmark for use in comparing results with the 1974 survey by Brown and Volkin [4] (Table 1). The 1974 study identified cooperatives with and without equity redemption programs. The 1991 study went a step further, breaking down the "no active program" cooperatives into two categories-those whose equity was subject to redemption but did not redeem, and those whose equity was not subject to

Figure 1- **Number of Cooperatives, Total Assets, and Total Net Worth**



redemption. In both studies, equity redemption programs were divided into two categories-systematic and special.

There are three types of systematic equity redemption programs:

Revolving Fund Plan
Base Capital Plan
Percent-of-All-Equities

Special equity redemption programs are activated by events that happen to individual members such as when they die, retire from farming, or reach a prescribed age.

The 1991 study indicated 76 percent of all cooperatives had some type of active equity redemption program versus 71 percent in 1974. Within these totals there have been two important shifts in types of programs. Most significant was the one-third increase, from 32 percent in 1974 to 42 percent in 1991, of those cooperatives employing some type of systematic program either alone or in combination with one or more special programs.

Also noteworthy was the 5-percentage-point decrease, from 39 percent in 1974 to 34 percent in 1991, of those cooperatives who redeem equity using only special programs. This improved use of systematic programs is encouraging because it supports the hope that more cooperatives recognize the importance of keeping ownership investment in the hands of current users.

The redemption comparisons were based on the number of cooperatives in each category. A comparison was also made on the proportion of cooperative members whose equity was or wasn't redeemed under some type of program. Results showed the same 5- percentage-point improvement in active equity redemption programs:

	1974		1991	
	Active program	No program	Active program	No program
	Percent			
Number of cooperatives	71	29	76	24
Number of members	74	26	79	21

Table 1- Comparison of equity redemption practices, 1974 and 1991

	1974[1]	1991
	Percent	
Systematic programs only	12	16
Special programs only	39	34
Systematic and special programs	20	26
Subtotal	71	76
No equity redemption programs	29	10
Not subject to equity redemption	([2])	14
Total	100	100

[1] Equity Redemption Practices of Agricultural Cooperatives, FCS Research Report 41, USDA, FCS, Washington, DC (April 1977)
[2] This data was not collected separately in the 1974 research. For comparison, the 29 percent of cooperatives reporting no equity redemption programs in 1974, is similar to the 24 percent shown in 1991 for cooperatives having no program or whose equity was not subject to redemption.

Equity Redemption Features

The critical question posed in the survey was whether a cooperative's equity was subject to redemption. The response determined the rest of the equity redemption questions that applied. Eighty-six percent of cooperatives (Table 1) indicated that their equity was subject to redemption in 1991. There were two categories among those whose equity was subject to redemption: those with active systematic and/or special programs and those that had not redeemed equity in recent years for a variety of reasons. The remaining 14 percent indicated their equity was not subject to redemption.

Equity Not Subject to Redemption

For cooperatives whose equity was not subject to redemption, the decision to operate this way was based on organizational and operational factors and not on weak financial condition. On the surface, operating this way appeared to conflict with cooperative principles, particularly the owner-user and owner-benefits tenets. Closer examination, however, revealed that many do operate in accordance with cooperative principles to the extent possible, given their organizational and operational framework. Based on the organizational and operational characteristics (Table 2), it was logical for cooperatives to operate in this fashion and still advocate the cooperative way of doing business.

This group of cooperatives was primarily low- or no-equity organizations who either paid all net income in cash, or generated such small amounts of net income from large membership bases that allocation was impractical. In most cases their asset base was small with nominal amounts of allocated equity both on the basis of average investment per member (centralized cooperatives) and as a percent of total net worth.

The large concentration of these types of cooperatives in the Northeast is due primarily to the presence of many small livestock auction operations and wool poolers with little or no assets or equity.

Practices by Organizational Structure

Although centralized, federated, and mixed membership cooperatives were surveyed for this study, the primary focus is to identify the equity redemption practices of centralized cooperatives. This focus was chosen because equity redemption by centralized cooperatives flows directly to the farmer member.

Federated and mixed membership cooperatives hold a significant part of all equity, but the redemption flow to their member cooperatives, for the most part, is one level removed from the farmer members. The ultimate decision to redeem equity to the individual farmer member rests with the local cooperative, but these decisions are greatly influenced by the redemption decisions of the federated because most locals have considerable equity tied up by investments in their federated cooperatives.

See Table 3 to compare the differences in practices between these three structural types.
Although the total percent of cooperatives who reg-

Table 2— **Characteristics of cooperatives whose equity was not subject to redemption**

Size characteristics	89 percent with assets less than $1 million
Net worth as a percent of total assets	17 percent
Average allocated equity (centralized only)	$43 per member
Allocated equity as a percent of net worth	22 percent
Sales to total assets (centralized only)	9.4 to 1
Geographical concentration	Northeast region (36 percent)
Principal commodity types	Livestock, poultry, and wool (28 percent) Farm supply (23 percent)

Table 3— **Comparison of equity redemption programs by organizational structure**

	Centralized	Federated and mixed membership
	Percent	
Systematic programs only	15	51
Special programs only	35	10
Systematic and special programs	26	13
Subtotal	76	74
No active equity redemption programs	10	13
Not subject to equity redemption	14	13
Total	100	100
Total number of cooperatives	4,211	142

ularly redeemed equity was very similar between centralized and federated and mixed cooperatives, varied types of programs were used.

Federated and mixed cooperatives rely more heavily on systematic programs, while centralized cooperatives depend more on special programs. When centralized cooperatives do operate a systematic program, it is usually in combination with one or more special programs.

There is no notable difference between centralized and federated cooperatives whose equity is subject to redemption, but have no active program. Likewise, there is little variation between those whose equity is not subject to redemption.

Cash Patronage Allocation

The cash portion of a current fiscal year's allocated net income is an integral part of the allocation and equity redemption process. A minimum of 20 percent of allocated net income must be paid in cash to qualify for the special income tax treatment afforded to cooperatives for deducting allocated patronage from taxable income.

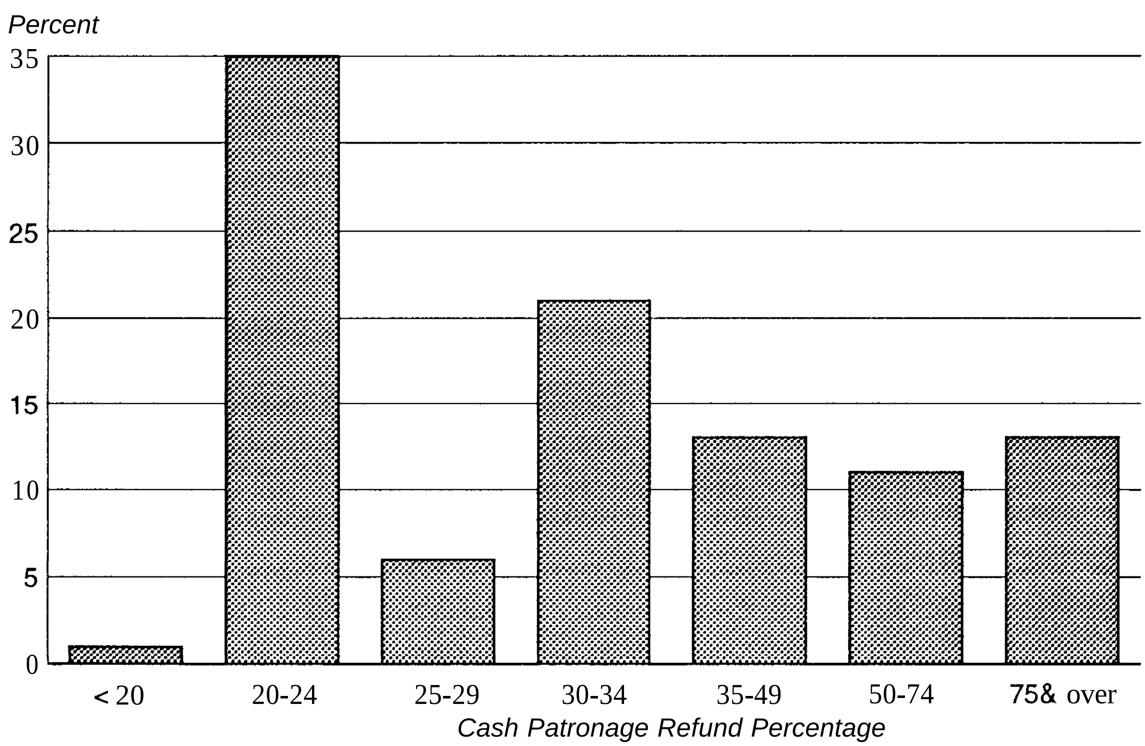
Figure 2 shows cash patronage payments generally ranged from 20 to 100 percent. The most prevalent cash patronage payment, 20 to 24 percent, was paid by 35 percent of cooperatives. The average cash patronage payment was 38 percent of allocated net income. In those cases where less than the required 20 percent in cash was refunded, the cooperatives paid the related income tax and the patronage allocations were treated as nonqualified patronage refunds.

PRACTICES OF CENTRALIZED COOPERATIVES

Six categories were used to analyze the types of equity redemption practices that cooperatives used:

1. Systematic only-cooperatives that redeemed equities using one or more systematic programs.

Figure 2— **Levels of Cash Patronage Refunds Paid by Centralized Cooperatives**



2. Systematic and special-cooperatives using one or more systematic programs in combination with one or more special programs.

3. Systematic and estates-cooperatives that use one or more systematic programs and also redeem to estates. The distinction between this category and the systematic and special category is made because redemption to estates is the predominant special program practice.

4. Special only---cooperatives that redeem equities using only one or more special programs, including estates.

5. Estates only-cooperatives that redeem equity only to estates.

6. No active program-cooperatives whose equity is subject to redemption, but have not redeemed equities under any circumstances for at least 3 years.

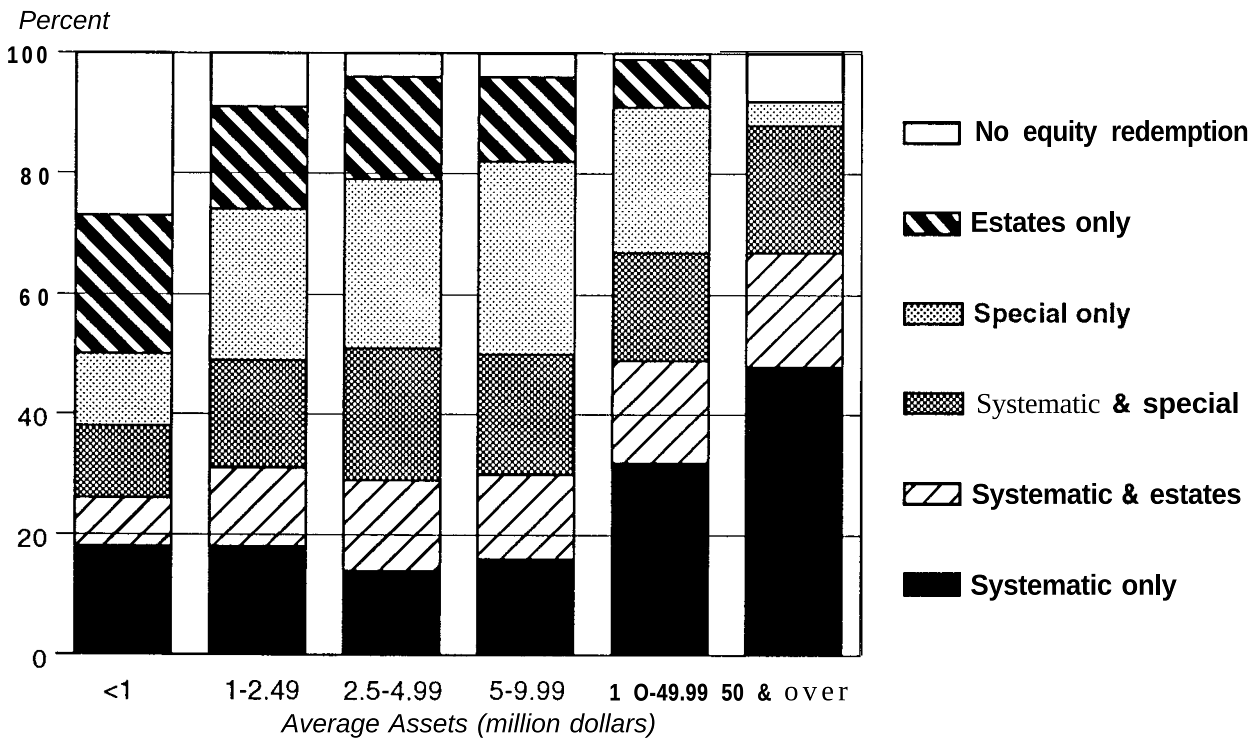
Figure 3 portrays the difference in equity redemption practices based on the size of the cooperative's total assets.

There is a distinct relationship between asset size and the type of equity redemption program(s) used. For example, larger cooperatives (assets of $10 million and larger) rely primarily upon systematic programs. Smaller cooperatives (less than $10 million in assets) depend more on special programs. More information on this correlation will be cited in sections dealing with specific programs and practices.

The following tabulation shows the important distinction between the number of cooperatives with active redemption programs and the amount of equity represented by these programs.

Type of program	Number of co-ops	Percent of equity
	percent	
Systematic only	17	25
Systematic and special	13	19
Systematic and estates	18	23
Special only	23	20
Estates only	18	9
No active program	11	4

Figure 3— Equity Redemption Practices of Centralized Cooperatives



Forty-eight percent of cooperatives whose equity was subject to redemption had systematic programs. But these cooperatives held 67 percent of total equity. Those with no equity redemption program held only 4 percent of the total equity. When the total amount of equity is considered, 96 percent of equity was held by cooperatives with active redemption programs.

Practices by Commodity Type

Table 4 reports use of the six combinations of equity redemption categories, using the eight commodity groupings previously identified.

Forty-eight percent of all cooperatives used systematic programs. Dairy cooperatives were the largest users of systematic programs, alone or in combination with special programs. Eighty percent of dairy cooperatives had some type of systematic program in use. Fruit, vegetable, and nut cooperatives ranked second with 74 percent, followed by cotton and cotton gin cooperatives at 71 percent.

Grain cooperatives were the most frequent users of special programs, both as their only type of equity redemption and in combination with some type of systematic program. Eighty-six percent of grain cooperatives used some type of special program. Farm supply cooperatives ranked a close second with 82 percent. Seventy-two percent of all cooperatives had some type of special program.

Figure 4 illustrates the contrasts in equity redemption practices between different commodity types. It also shows similarities in equity redemption practices between grain and farm supply cooperatives. For example, on a combined basis, only 8 percent of grain and farm supply cooperatives used systematic programs exclusively. In contrast, only 8 percent had no active program.

The graph also illustrates the high use of special programs. Much of the comparability in equity redemption practices between grain and farm supply cooperatives was attributable to similar geographical locations, parallel organizational and operational characteristics, and membership attitudes.

Table 4— Equity redemption programs used by centralized cooperatives

Commodity type	Program category					
	Systematic only	Systematic & special	Systematic & estates	Special only	Estates only	No active program
	Percent [1]					
Cotton and cotton gins	62	3	6	1	4	24
Dairy	39	17	24	6	5	8
Fruits, vegetables, and nuts	64	6	4	7	2	17
Livestock, poultry, and wool	18	2	20	14	16	31
Other marketing	24	9	5	10	12	41
Service	50	16	11	5	—	19
Subtotal average	50	9	10	6	5	21
Grain	6	17	17	31	21	8
Farm supply	9	11	22	27	22	8
Subtotal average	8	14	20	29	21	8
Average, all types	17	13	18	23	18	11

[1] Totals may not add due to rounding

By contrast, equity redemption programs varied considerably among marketing (other than grain) and service cooperatives. There was a high reliance on systematic programs, but also a significant incidence of cooperatives with no active programs.

The reasons behind this were often size-related. Larger marketing cooperatives frequently had heavy investments in processing and marketing operations that required aggressive equity programs. Smaller cooperatives usually performed more limited functions such as providing transportation, bargaining, or assembly of farm products that required less investment in assets, a more modest need for equity, and consequently, less aggressive equity programs. A number of smaller cooperatives had no programs.

The highest frequency of cooperatives in the no active program category were those with assets of less than $1 million such as other marketing cooperatives at 41 percent and the livestock, poultry, and wool group at 31 percent (Table 4).

Systematic Programs

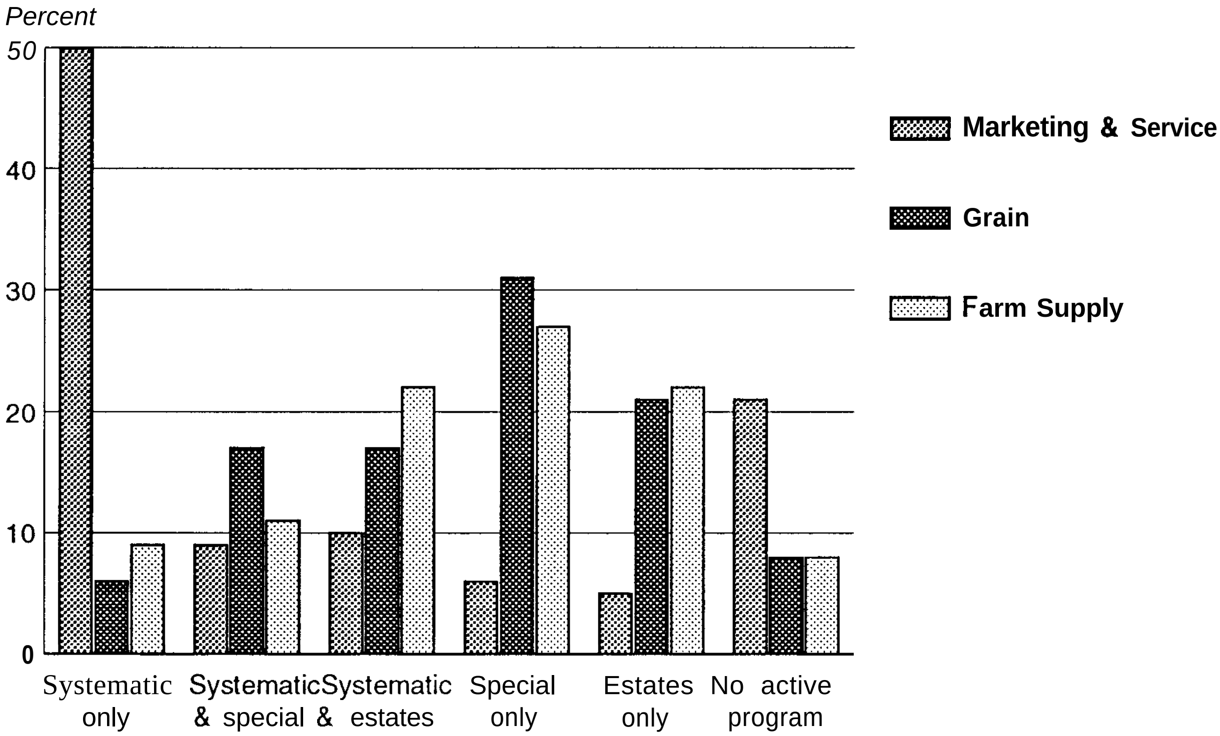
Three basic types of systematic redemption programs are used by cooperatives:

1. Revolving Fund-Equities are redeemed or revolved out on a first-in, first-out basis
2. Base Capital-Equities are redeemed as an integral part of a base capital program
3. Percent-of-all-Equities-Equities are redeemed as a percentage of all outstanding equities, regardless of the year issued.

The small number of cooperatives, who redeemed under some type of systematic basis other than the three described, will be discussed later.

Of the three types, the revolving fund was most prevalent. Of the cooperatives who employed some type of systematic program, 91.9 percent used the revolving fund method (Table 5). Cooperatives using the revolving fund program by itself or in combination with other regular or special programs

Figure b-Comparison **of Equity Practices, Centralized Cooperatives**



represented 44 percent of cooperatives whose equity was subject to redemption. Only 2.4 percent of cooperatives with systematic programs used a base capital plan. Most cooperatives used only one systematic plan, but a few used a base capital plan or percent-of-all-equities plan in combination with a revolving fund program.

The percent-of-all-equities program, used by 4.5 percent of those with systematic programs, is mostly found in cooperatives in the Central and Upper Midwest.

There were several miscellaneous practices under which a small number of cooperatives redeemed equities. **These operated** in a substantially different manner than the traditional systematic programs. The most prevalent was when a cooperative with 2 to 10 members agreed to periodically redeem equity. In this situation, the decision was made by the entire membership group.

Another example of a miscellaneous program occurred when a cooperative reorganized or several cooperatives consolidated. In these cases, equity was redeemed under special rules to equalize investment among different membership groups.

A third type of miscellaneous situation was when a local cooperative received an equity distribution from its federated cooperative and passed all the funds through to its members.

Revolving Fund Method

The revolving fund method of capitalization uses a first-in, first-out method of redeeming equity to patrons. As with other equity redemption determinations, the decision to redeem equity under the revolving fund method rests with the board of directors. A target revolving fund length may be established as a matter of policy, but the board of directors must retain the discretion to alter it depending on the cooperative's financial ability to redeem.

Although it represented the predominant type of systematic equity redemption program, there was a great variation among cooperatives regarding the length of their revolving fund periods. The average was 16 years (Table 6), but the range was from 2 years to more than 50 years. For report purposes, revolving periods were divided into six groupings: 1-5 years, 6-10 years, 11-15 years, 16-20 years, 21-25 years, and more than 25 years.

Performance by Size of Cooperative

The analysis on how cooperatives of different size performed **in the management of their** revolving fund equity redemption programs is based on six asset-based size categories-less than $1 million, $1 million to $2.49 million, $2.5 million to

Tables- Systematic equity redemption programs used by centralized cooperatives by commodity type

Commodity type	Type of systematic program: Revolving fund	Base capital	Percent-of-all-equity	Other plans	Multiple plans [1]
	Percent [2]				
Cotton and cotton gins	97.0	0.7	1.2	1.8	(0.7)
Dairy	90.6	5.2	—	6.1	(1.9)
Fruits, vegetables, and nuts	92.0	9.6	0.6	2.4	(4.5)
Grain	88.2	2.8	8.4	0.8	(0.2)
Livestock, poultry, and wool	100.0	—	—	—	—
Other marketing	89.2	8.2	—	2.6	—
Farm supply	93.5	0.2	5.2	1.3	(0.2)
Service	90.6	—	—	9.4	—
Average, all types	91.9	2.4	4.5	1.9	(0.8)

[1] Negative values represent the frequency of use of more than one systematic plan
[2] Totals may not add due to rounding

$4.99 million, $5 million to $9.99 million, $10 million to $49.99 million, and $50 million or more.

Table 6 identifies the average revolving fund period for each of the six categories. There was very little difference in average revolving periods for cooperatives with less than $10 million in total assets. Above that asset level, there was a significant improvement in revolving fund performance, particularly for cooperatives with $50 million or more in total assets.

The reason for the better performance by larger cooperatives was not demonstrated by relative financial strength. In fact, an inverse relationship existed. Cooperatives with assets of $50 million or more had an average equity-to-asset relationship of 38 percent. For cooperatives with less than $1 million in assets, the relationship was 74 percent.

Performance by Commodity Type

At 8 years, service cooperatives had the shortest average revolving fund period (Table 7). Grain and farm supply cooperatives, at 19 years, had the longest.

Also **shown** in Table 7 is the average revolving cycle length weighted by equity. This had the effect of shortening the revolving fund cycle for most commodity groups because of the better performance of larger cooperatives.

The weighted-average length of revolving fund for all cooperatives was 14 years compared with the numerical average of 16 years. Improvement was also noted in the number of commodity groups with revolving fund lengths of 10 years or less. Reporting average revolving periods on an equity-weighted basis may present a more meaningful comparison from a member's point of view.

The range of revolving periods for each of the eight commodity types is shown in Table 8. Service cooperatives had the most aggressive revolving practices with 80 percent of the cooperatives redeeming equities in 10 years or less and no cooperatives whose revolving cycle extended beyond 20 years.

At the other end of the spectrum, only 17 percent of the grain and 16 percent of farm supply cooperatives revolved equity in 10 years or less. These two types also reported having the highest percentage with revolving periods exceeding 20 years (21 percent for grain and 25 percent for farm supply).

Performance by Geographic Region

For purposes of this study, eight geographical regions of the United States were used to compare performance. Figure 5 shows these regions and the States within each.

Table 6—Revolving fund performance of centralized cooperatives by asset size

Asset size	Average revolving fund period	Equity/assets
Dollars	*Years*	*Percent*
Less than 1 million	17	74
1 million - 2.49 million	17	71
2.5 million - 4.99 million	16	62
5 million - 9.99 million	15	59
10 million - 49.99 million	13	43
50 million or more	10	38
Average, all sizes	16	47

Table 7-Average revolving period length of centralized cooperatives by commodity type

Commodity type	Equity/assets	Revolving fund period	Weighted length of revolving period [1]
	Percent	*Years*	
Cotton and cotton gins	49	11	14
Dairy	38	15	10
Fruits, vegetables, and nuts	35	10	9
Grain	56	19	17
Livestock, poultry, and wool	48	12	16
Other marketing	47	13	9
Farm supply	65	19	17
Service	69	8	9
Average, all types	47	16	14

[1] Weighted average is based on total equity of centralized cooperatives with revolving funds.

Figure 5— **Equity Redemption Study Geographical Regions**

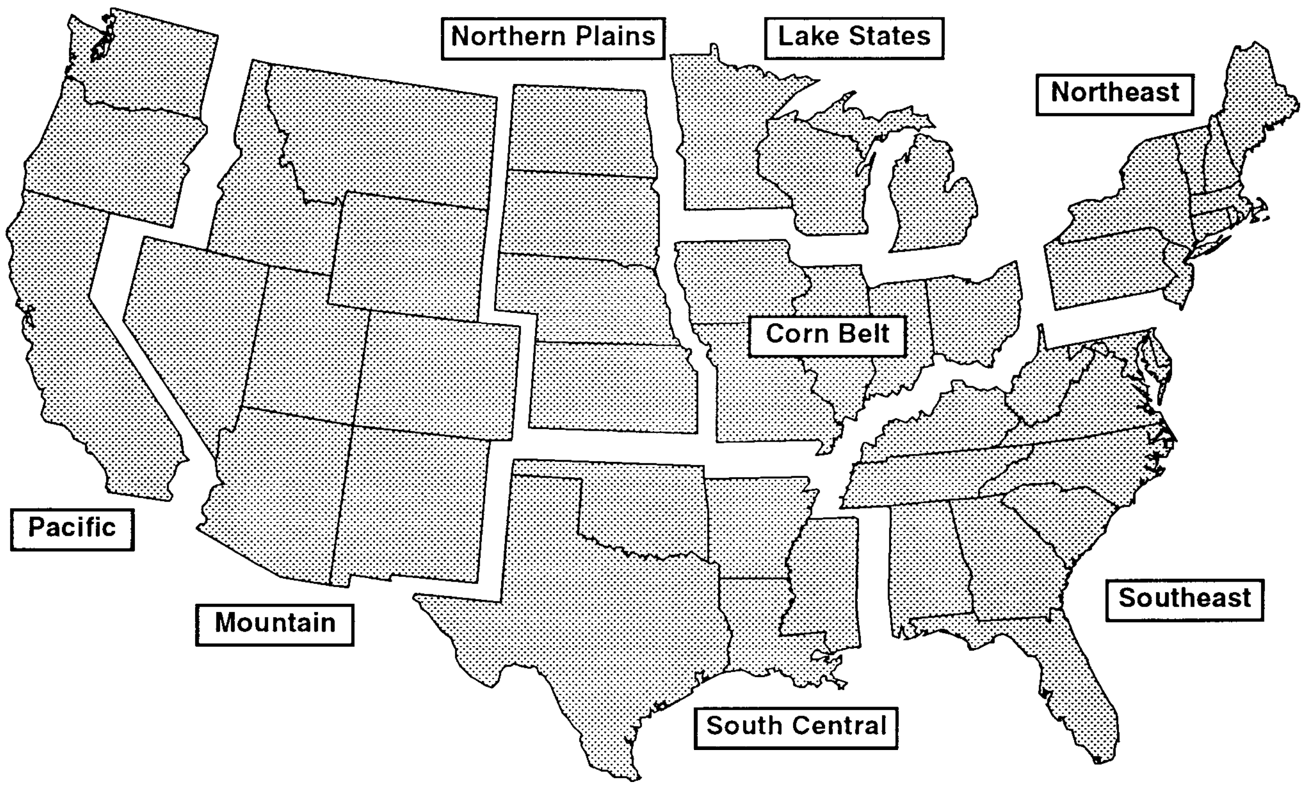


Table 8— Length of revolving fund periods of centralized cooperatives by commodity type

Commodity type	Length of revolving fund period (Years)					
	1-5	6-10	11-15	16-20	21-25	Over 25
	Percent [1]					
Cotton and cotton gins	19	41	19	15	—	6
Dairy	9	29	20	22	8	11
Fruits, vegetables, and nuts	19	42	28	6	3	2
Grain	2	15	31	30	8	13
Livestock, poultry and wool	23	43	11	12	6	5
Other marketing	19	37	29	—	—	15
Farm supply	3	13	24	35	10	15
Service	32	48	12	7	—	—
Average, all types	8	22	25	26	7	12

[1] Totals may not add due to rounding

The Pacific region had the shortest average revolving period at 9 years (Table 9). At the other end of the spectrum were the Northern Plains states with an average revolving period of 24 years. As with size of cooperative, financial strength is not the determinant in regional differences. Cooperatives in the Northeast and Pacific regions have the weakest equity-to-assets position, but report the shortest revolving periods. This performance within a geographical region is primarily a function of the commodity types located there.

Equity/Asset Ratio and Revolving Fund Length

Table 10 compares the financial characteristics of cooperatives with different length revolving cycles. The relationship between financial strength, as measured by the equity/asset ratio, and the length of revolving cycle presented a complex situation.

When all with revolving fund programs were considered, cooperatives with shorter revolving periods had lower equity/asset ratios. Within specific commodity groups, however, this relationship was not present. To portray this, cooperatives with revolving fund programs were divided into three groups--grain, farm supply, and all other cooperatives (Figure 6).

On a combined basis, grain and farm supply cooperatives had average equity/asset ratios of 60 percent, compared with 40 percent for all other cooperatives. In looking at the equity/asset relationship across the entire spectrum of revolving cycle lengths, the ratios remained fairly constant. The inverse relationship between financial strength and revolving cycle length could be due to the dominant position grain and farm supply cooperatives occupied in the longer revolving fund periods (Figure 7), but care should be taken in evaluating

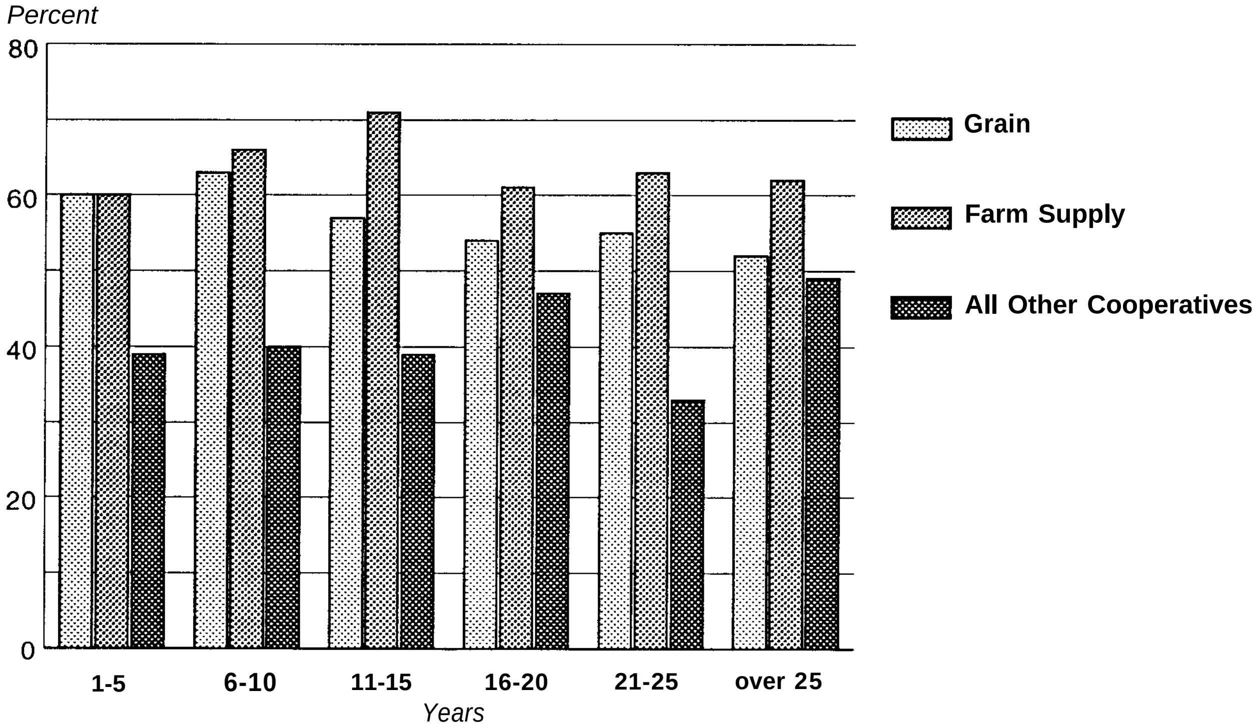
Table 10— Financial characteristics of centralized cooperatives by length of revolving fund periods

Revolving fund periods	Equity/assets	Net income/sales	Average revolving period
Years	*Percent*		*Years*
I - 5	42	2.5	4
6 - 10	43	1.2	8
11-15	49	1.3	13
16-20	53	2.3	18
21 - 25	52	1.1	22
Over 25	54	1.5	40
Average, all periods	47	1.6	16

Table 9— Revolving fund performance of centralized cooperatives by geographical region

Region	Average assets	Average net worth	Equity/assets	Revolving period
	Dollars		*Percent*	*Years*
Northeast	14,462,000	5,360,000	37	12
Southeast	10,157,000	4,728,000	47	15
Lake States	5,322,000	2,906,000	55	18
Corn Belt	7,226,000	3,629,000	50	17
South Central	6,592,000	3,235,000	49	15
Northern Plains	2,960,000	1,856,000	63	24
Mountain	7,763,000	3,874,000	50	18
Pacific	11,760,000	4,540,000	39	9
Average, all regions	7,368,000	3,486,000	47	16

Figure 6— Equity/Asset Ratios and Revolving Fund Lengths of Centralized Cooperatives



this information because of errors that can arise when aggregating data across a diverse population.

Base Capital Plan Method

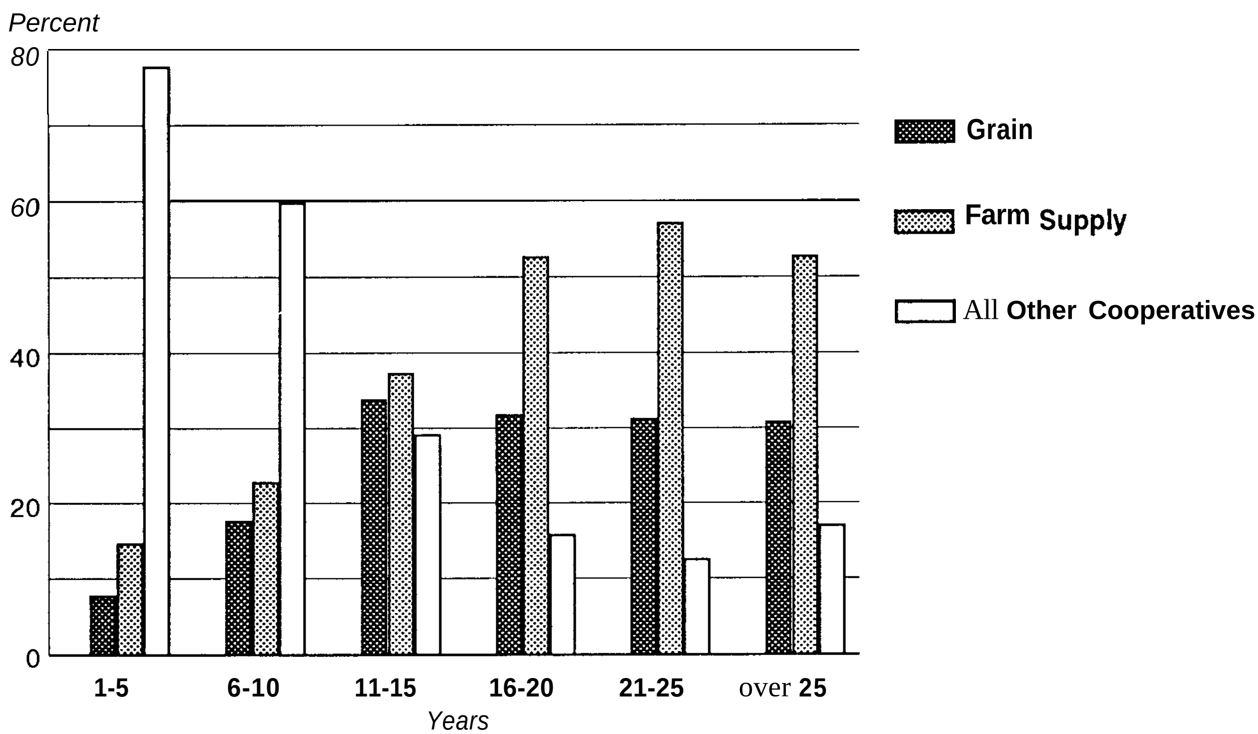
The method by which base capital plans operate provides an equitable link between a member's investment and use of the cooperative. A base capital plan provides equity where a member's capital obligation is determined annually as a proportion of the member's share of total patronage for a specified base period. Under-invested patrons build equities and overinvested patrons' equities are redeemed usually on a formula basis[1].

Base capital plans have been used as an equity accumulation and redemption program for more than 30 years, but only a small number of cooperatives employ the program. Centralized cooperatives in only six of the eight commodity types operate with base capital programs. The average base period in use was 7 years. The shortest base period was 1 year and the longest 10 years. Shown below is the average base period for each of the six commodity groups with cooperatives having base capital plans. Because of the small number of cooperatives using the program, some caution should be used in interpreting the data.

Commodity type	Average base period
	years
Cotton and cotton gins	8
Dairy	4
Fruits, vegetables, & nuts	7
Grain	8
Other marketing	6
Farm supply	6
All cooperatives	7

Cooperatives with base capital plans use per-unit capital retains, retained patronage refunds, or a combination of both to acquire capital. Forty percent used per-unit capital retains exclusively. An additional 40 percent relied entirely on retained

Figure 7-Number **of Cooperatives and Length of Revolving Fund of Centralized Cooperatives**



patronage refunds. The remaining 20 percent used a combination of the two programs.

Twenty-four percent of the cooperatives with a base capital program also used the revolving fund method for redeeming a portion of their equity. Cooperatives that had both types of programs generally operated them to keep two equity sources separate. In most instances, the cooperative was in transition from one equity redemption program to the other. The average revolving fund period for these cooperatives was 11 years, versus an average base period of 5 years.

Percent-of-all-Equities Program

Only a limited number of cooperatives used the percent-of-all-equities method of redemption. Consequently, the data reported should be interpreted with caution.

With this method, cooperative boards of directors establish a percent of all allocated equities to be redeemed, regardless of the year the equities were issued. The most common redemption percentage reported was 10 percent, comparable to a IO-year revolving fund period. Percentages ranged from 2 percent to 15 percent. Cooperatives redeeming lower percentages (2-5 percent) usually did so in combination with one or more special programs.

In citing the primary advantage of the percent-of-all-equity program, one respondent said, “Everyone gets a check.” This was particularly important to younger members in supplementing their cash flow compared with having their entire investment in the cooperative tied up for longer periods.

Special Equity Redemption Programs

This report identifies six categories of special redemption payment programs used by centralized cooperatives:

1. patrons' estates,
2. patrons who achieve a certain age,
3. patrons no longer farming or retired from farming,
4. patrons who move out of the trade territory,
5. patrons claiming certain hardships, and
6. other programs.

Special equity redemption programs are used by cooperatives, exclusively, or in combination with systematic programs. Cooperatives may use more than one special program at the same time, but the most prevalent type is the payment made to a patron's estate.

Table 11 illustrates how frequently these special programs are used, either alone or in combination with systematic programs. Those using special programs represented 72 percent of all cooperatives whose equity was subject to redemption.

Patrons' Estates

Redemption to estates was the most prevalent (95 percent) special program (Table 11). Cooperatives use a variety of payment procedures in their redemption practices. Some paid automatically when documentation was presented confirming a patron's death. Others required redemptions be approved on a case-by-case basis by the board. Some cooperatives were also required to obtain their lender's approval.

In some instances, the cooperative did not pay out the entire amount at time of death. Rather, the capital stock investment was paid and the estate had to wait for the regular redemption cycle to receive any retained patronage dividends.

In a number of cooperatives, a specific dollar amount was established each year for redemption to estates. If claims exceeded the amount set aside for that year, then the estate, usually on a first-come, first-serve basis, was put on a waiting list until funds became available. One cooperative, instead of paying out the actual amount of equities to the estate, paid a lump sum death benefit and the equity was paid out on the regular redemption cycle. In general, cooperatives made equity redemption payments to estates once a year, although others paid monthly or when requested.

Redemption to Estates Only

As shown in Table 11,633 cooperatives or 25 percent of the total number of centralized cooperatives who used special equity redemption pro-

Table 11— Number of centralized cooperatives using special programs alone or in combination with systematic programs, by program type

Category	Number of co-ops	Type of program: Revolving fund	Base capital	Percent-of-all-equities	Estates	Retirement	Age of patron	Moveaways	Hardships	Other
Systematic and special	459	416	11	38	406	251	261	20	15	32
Systematic and estates	641	595	12	26	641	_	_	_	_	_
Special only [1]	845	—	—	—	761	341	606	81	10	45
Estates only [2]	633	—	—	—	633	_	_	_	_	_
Subtotal	2,578	1,011	23	64	2,441	592	867	101	25	77
Systematic only	629	577	18	15	—	—	—	—	—	—
Total	3,207	1,588	41	79	2,441	592	867	101	25	77

[1] The special category includes cooperatives who redeemed under one or more special programs, which may or may not have included estates.
[2] The estates only category includes cooperatives who redeem only to estates and used no other special or systematic redemption program.

Table 12-Characteristics of centralized cooperatives that redeem equity only to estates	
Average asset size:	$2.6 million (87 percent had less than $5 million in total assets)
Financial condition:	Equity/assets - 53 percent Return on assets - 3.3 percent Return on equity - 6.3 percent
Geographical concentration:	Eighty-five percent were in the Lake States, Corn Belt, and Northern Plains Regions
Principal commodity types:	Ninety-three percent were grain and farm supply cooperatives

grams, redeemed to estates only. Cooperatives who redeemed only to estates are highlighted because this is considered the minimum level of equity redemption performance by a cooperative.

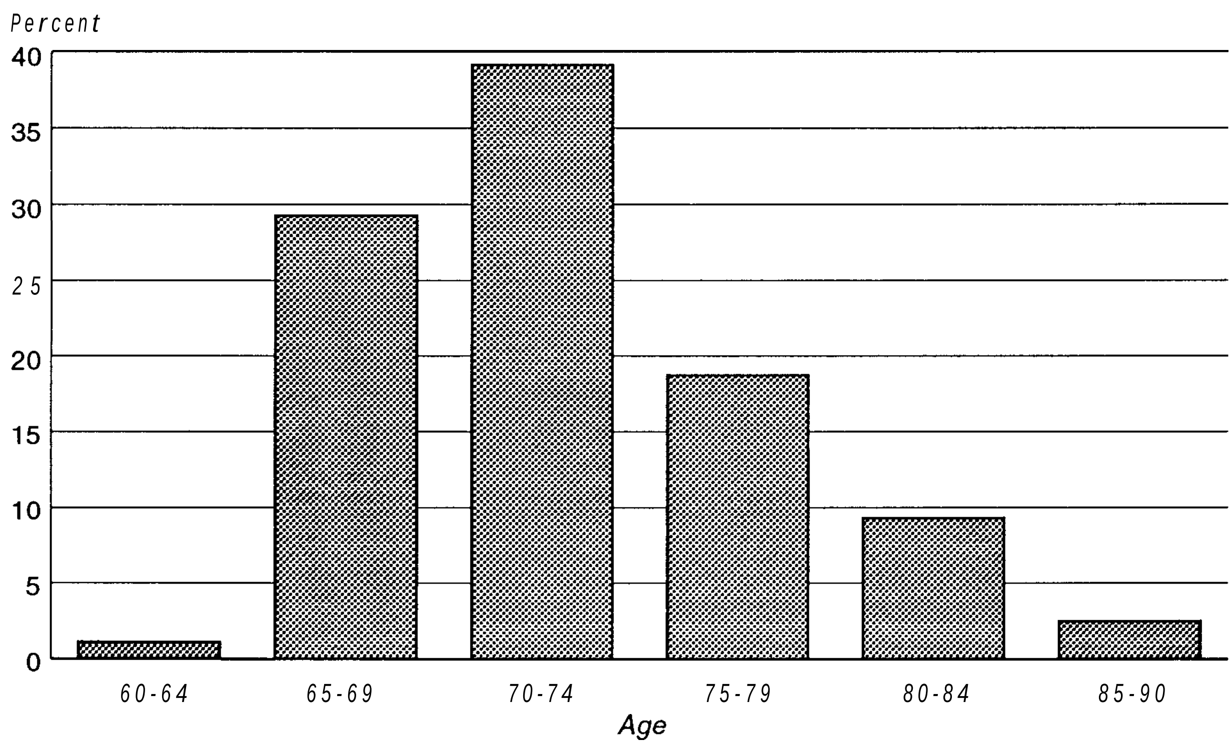
For these 633 cooperatives, 93 percent were grain and farm supply cooperatives, 87 percent had less than $5 million in total assets, and 85 percent were in the Upper Midwest (Lake States, Corn Belt, and Northern Plains regions). They were generally well-capitalized and had an average equity-to-asset relationship of 53 percent. Table 12 summarizes these and some of the other financial characteristics of cooperatives that redeemed only to estates.

Patron's Age

As **shown** in Table 11, age-of-patron was the second most prevalent special equity redemption program next to estates. Of more significance was the close alignment between these two programs. As an illustration, 93 percent of cooperatives who redeemed on the basis of patron's age also redeemed to estates. This relationship was to be expected because if a cooperative patron does not live until the redemption age, payment to the estate is the logical alternative.

Figure 8 shows the distribution of age at which cooperatives redeemed equities. Redemption

Figure 8— **Retirement Ages Used by Centralized Cooperatives**



ranged from 60 to 90 years of age. The most prevalent age range, at 39 percent, was 70 to 74. The average of all ages was 72 years.

Although this redemption program is easy to administer, many cooperatives had conditions, in addition to age, for determining a patron's eligibility to receive a redemption payment. Some redeemed at the stipulated age only if the patron was receiving Social Security payments. Some required that the patron be retired from farming. In other situations the equity was redeemed in annual installments, beginning at the stated age. Installment periods reported in the survey ranged from 5 to 20 years.

The practice of redeeming equity in installments over a period of years is a type of retirement program or annuity for the patron. To benefit the patron, however, the payments must begin at a fairly early age. This way, there is a reasonable expectation that the equities will be fully redeemed during the patron's lifetime. Most cooperatives that redeem in installments begin paying at age 65 over 5 to 10 year periods.

Cooperative members of federated regionals may have a split program. Equities based on local earnings were paid at one age and the remainder, based on refunds from the federated cooperative, was paid on a pass-through basis at the age established by the federated regional.

As with estate payments, some cooperatives established a specific total dollar amount to be redeemed each year and once those funds are spent, a qualifying patron must wait until the next redemption period. Cooperatives may also use a payment formula in which the amount available to redeem equities is apportioned by a predetermined formula, usually outlined in the bylaws. In these instances, estates are normally first priority, followed by patron's age. As above, if there isn't enough money available in a certain year, the patron must wait until a future period.

Many cooperatives said their patron's age programs were in transition. For example, they might have a goal to redeem to patrons at age 65, but were currently only paying to age 75. Many planned to gradually reach their goals, but the timing was dependent on financial results.

Retirement From Farming

While equity redemption to a patron who retires from farming was less prevalent than estate or age-of-patron special programs, it was still important. Twenty-three percent of cooperatives with special programs used this method (Table 11). Cooperatives usually imposed conditions on the circumstances under which redemption could occur. The most prevalent condition was that the equity holder no longer have any farming interests (could not own land or receive revenue from a farming operation). In some instances, cooperatives stipulated that a patron must have attained a certain age and be retired from farming to receive the redemption. This combined retirement with age-of-patron criteria.

Moves Out of Trade Territory

This program, although used by only 4 percent of the cooperatives with special programs (Table 11), is still important. It represents another way for cooperatives to keep their membership roles current and the investment in the hands of current users. Cooperatives using this method most frequently referred to it as redeeming equities to "moveaways."

Many cooperatives who redeemed to "moveaways" imposed a waiting period before equities were paid. In the survey, this waiting period ranged from 1 to 5 years. Some cooperatives also required that the former patron no longer have any farming interests.

Except for several fruit, vegetable, and nut cooperatives, the "moveaway" program was used exclusively by small grain and farm supply cooperatives (total assets less than $10 million), and primarily in the Corn Belt and Northern Plains regions.

Hardship Situations

Although cooperatives who redeemed equities under hardship situations represented only 1 percent of those with special equity redemption programs (Table ll), the practice is worth discussing because of the diversity of programs. Most noteworthy were the cooperatives that redeemed to a patron who becomes totally disabled. Otherwise, the other types of hardship situations are related to financial distress such as bankruptcy. Divorce was also listed as another criteria. Sometimes hardship redemptions are paid at a discount.

One common thread that prevailed in the survey responses was that redemption in hardship situations was generally handled on a case-by-case basis by the board. Most redemption practices (systematic or special) are carried out in accordance with established policies and procedures.

Other Special Redemption Programs

The "Other" category of special redemption programs classified cooperatives who redeemed equity in some manner that didn't fit into any other category, but was not carried out in sufficient quantity to justify a separate category. Three percent of cooperatives with special redemption plans had "Other" programs (Table 11).

The predominant situation was where patrons' investment falls below a certain level and/or no use of the cooperative had been made for some period of time (ranging from 2 to 10 years). Non-use of the cooperative usually occurred when patrons quit farming (other than retirement) or took their business elsewhere.

No Equity Redemption Program

This group of cooperatives, whose equity was subject to redemption, had no active programs at the time of the survey. In telephone inquiries to many of the respondents in this category, they said financial difficulty was the primary reason. These cooperatives did not feel they were strong enough financially to redeem equities, usually as a result of several years of operating losses.

Other cooperatives indicated their lender would not approve redemption because of a weak financial position. Some cooperatives chose not to allocate net income because members didn't want to pay taxes on the allocation. In several situations, poor record keeping made it difficult or impossible to determine what amounts were due to each patron.

By commodity type, Table 13 compares these cooperatives with those who had active equity redemption programs. Table **14** makes a geographi-

Table 13— Comparison of financial characteristics of centralized cooperatives with active and inactive equity redemption programs, by commodity type

Commodity type	Active redemption programs					Inactive redemption programs				
	Average asset size	Equity/ assets	Unalloc equity/ total equity	Net income/ sales	Return on total equity	Average asset size	Equity/ assets	Unalloc equity/ total equity	Net income/ sales	Return on total equity
	1,000 dollars	Percent				*1,000* dollars	*Percent*			
Cotton and cotton gins	4,598	49.5	9.6	3.8	25.2	949	62.6	8.5	10.9	29.1
Dairy	21,650	37.3	2.0	0.6	9.0	559	26.7	.*	0.6	15.0
Fruits, vegetables, and nuts	17,223	34.7	14.0	1.2	7.2	523	56.7	**	1.3	8.9
Grain	4,513	54.8	28.8	1.6	8.3	1,688	44.1	19.1	.	*
Livestock, poultry, and wool	30,113	45.3	24.3	1.4	15.1	1,068	49.5	18.5	0.3	10.8
Other marketing	18,638	40.2	17.6	0.4	2.2	10,318	38.6	17.3	3.2	15.4
Farm supply	2,768	64.1	26.5	2.6	9.0	1,485	49.4	13.3	0.8	3.9
Service	2,576	67.4	21.1	5.8	10.6	476	48.2	29.8	.	*
Average, all types	5,728	48.9	21.2	1.5	9.3	2,187	44.0	14.9	1.8	10.5

. Average net income was negative ** Unallocated equity was negative cal comparison by region. Most notably, cooperatives with active redemption programs were more than 2.5 times larger in average asset size than those with inactive or no programs. Even more significant size variances were revealed within individual commodity types or geographical regions.

Also noted was that cooperatives with no active program had a lower percentage of unallocated equity. Cooperatives experiencing losses usually charge these losses against unallocated equity [5]. The lower level of unallocated reserves and the presence of negative unallocated account balances in the dairy and fruits, vegetables, and nuts commodity areas probably indicates a recent history of losses. This is further supported by the overall operating losses in the survey year reported for grain and service cooperatives.

Four of the eight commodity groups in the no redemption program category probably had financial difficulties in recent years. Despite these specific examples, financial condition doesn't necessarily determine a cooperative's ability or willingness to redeem equity. Some caution should be exercised in interpreting the data because of the small number of cooperatives represented in certain commodity types in the no program area.

PRACTICES OF FEDERATED AND MIXED MEMBERSHIP COOPERATIVES

Federated and mixed membership cooperatives represented only 3 percent of the total agricultural cooperative population surveyed for this report, but their total assets, total sales, and total net income constituted a much larger percentage of the total for all cooperatives (Figure 9). For example, total assets of federated and mixed cooperatives represented 40 percent of total assets for all cooperatives. Total sales of federated and mixed cooperatives were 34 percent of all cooperatives. Net income was 44 percent.

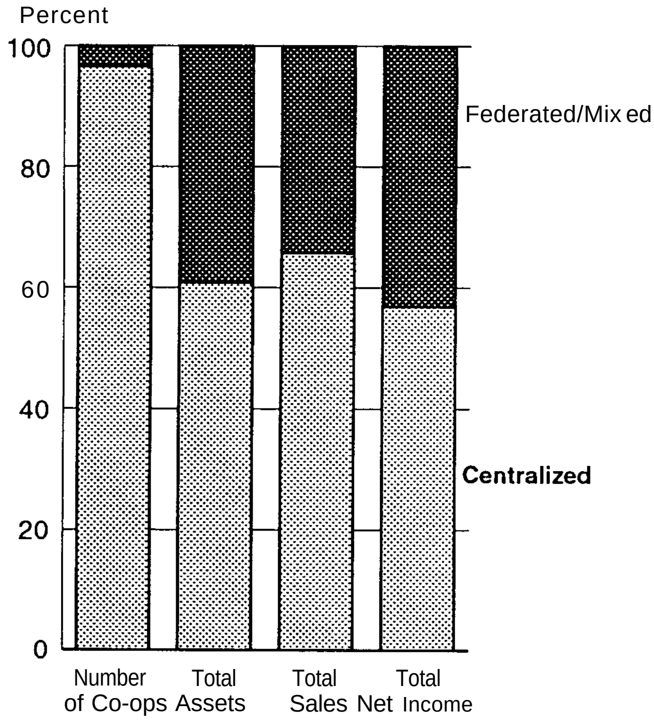
It is important to reiterate the information presented in Table 3 comparing the equity redemption practices of centralized versus federated and mixed cooperatives. Eighty-seven percent of federated and mixed cooperatives had equity that was subject to redemption, compared with 86 percent for centralized cooperatives. Seventy-four percent of federated and mixed cooperatives who had active redemption programs compared with 76 percent for centralized. Although these percentages were quite comparable, there was a notable difference in the mix of programs. Federated and mixed cooper-

Table 14—**Comparison of financial characteristics of centralized cooperatives with active and inactive equity redemption programs, by region**

Geographical Region	Active redemption programs					Inactive redemption programs				
	Average Asset size	Equity/ Assets	Unalloc Equity/ Total Equity	Net income/ Sales	Return on Total Equity	Average Asset size	Equity/ Assets	Unalloc Equity/ Total Equity	Net income/ Sales	Return on Total Equity
	1,000 dollars	Percent				1,000 dollars	Percent			
Northeast	19,672	38.5	12.1	1.3	10.2	432	25.7	•*	2.7	41.7
Southeast	8,161	47.4	17.3	1.8	12.1	7,341	39.7	38.2	1.1	4.0
Lake States	4,153	55.8	15.9	1.4	8.5	663	58.4	15.3	0.2	2.1
Corn Belt	5,670	50.7	34.8	1.3	8.7	3,177	35.4	25.0	•	•
South Central	5,144	51.0	11.9	1.7	11.6	1,038	68.2	7.0	2.1	11.5
Northern Plains	3,111	60.2	22.9	1.8	7.4	1,257	46.4	13.6	0.9	5.1
Mountain	4,513	55.3	21.8	1.7	10.1	765	69.6	31.6	4.0	14.0
Pacific	12,739	36.6	18.4	1.3	9.3	3,014	32.6	**	5.7	70.8
Average, all regions	5,728	48.9	21.2	1.5	9.3	2,187	44.0	14.9	1.8	10.5

• Average net income was negative ** Unallocated equity was negative

Figure 9— **Comparison of Number, Assets, Sales, and Income, Centralized vs Federated**



atives used systematic programs much more frequently. This section will examine the equity redemption practices of those cooperatives in detail. Primary emphasis will be on cooperatives who actively redeemed equities.

By Commodity Type

Table 15 illustrates the distinctive equity redemption practices of certain commodity types. For instance, cooperatives in the "other marketing" category relied exclusively on systematic programs. All cotton and cotton gin cooperatives also used systematic programs, some in combination with special programs. At the other end of the spectrum, 75 percent of livestock, poultry, and wool cooperatives had no active program and the remainder only redeemed to estates. Table 15 supports the observation that federated and mixed cooperatives are generally substantial users of systematic programs.

For certain commodity types, the practices of federated and mixed cooperatives closely paralleled the practices of their centralized locals. This is particularly true for grain and farm supply cooper-

Table 15— **Federated and mixed membership cooperatives by commodity type and equity redemption category**

Commodity type	Number of co-ops	Equity redemption category					
		Systematic only	Systematic & special	Systematic & estates	Special only	Estates only	No program
		Percent					
Cotton and cotton gins	13	85	—	15	—	—	—
Dairy	13	42	16	24	—	—	18
Fruits, vegetables, and nuts	11	58	—	9	9	—	24
Grain	10	44	11	—	11	—	34
Livestock, poultry, and wool	4	—	—	—	—	25	75
Other marketing	2	100	—	—	—	—	—
Farm supply	39	38	8	13	14	15	12
Service	33	87	—	4	—	—	9
Total federated and mixed membership cooperatives	124	58	5	10	6	6	15

atives who rely heavily on special equity redemption programs at both levels. This is not surprising because so many local cooperatives were heavily invested in their federated regionals.

Systematic Programs

The revolving fund method was used by more than half the federated and mixed cooperatives whose equity was subject to redemption. The predominant users of revolving funds were service, grain, and cotton and cotton gin cooperatives. Revolving cycle periods ranged from 1 to 32 years. The average for all federated and mixed cooperatives was 10.5 years. A breakdown of the average length of revolving period, by commodity type, is shown in Table 16 for both the numerical and equity-weighted averages.

Contrary to the results with centralized cooperatives, the average revolving fund period, weighted by equity, was significantly longer. The average equity-weighted revolving period was 17 years, 62 percent higher than the 10.5 year numerical average. On an equity-weighted basis the average revolving fund period for centralized cooperatives declined 13 percent (Table 8). It should be noted, however, that the equity-weighted results for federated and mixed cooperatives were influenced by a large regional farm supply cooperative whose revolving fund period exceeded 25 years. Nevertheless, the majority of federated and mixed commodity types showed longer average equity-weighted revolving periods than the unweighted length.

Table 16— **Federated and mixed membership cooperatives average revolving periods by commodity type**

Commodity type	Average revolving period: Length	Average revolving period: Weighted by equity [1]
	Years	
Cotton and cotton gins	10.4	10.6
Dairy	10.1	15.6
Fruits, vegetables, and nuts	10.0	14.1
Grain	17.6	14.6
Livestock, poultry, and wool	—	—
Other marketing	2.0	2.0
Farm Supply	16.2	20.3
Service	5.2	7.7
Average, all cooperatives	10.5	17.0

[1] Weighted average is based on total equity of federated and mixed membership cooperatives with revolving funds.

SUMMARY OF FINDINGS

The primary objective of the 1991 equity redemption study was to gain a comprehensive insight into current equity redemption and allocation practices of agricultural cooperatives. The extensive data base created will serve as a valuable benchmark for subsequent evaluations. Future studies, however, should be conducted more frequently than the 20-year hiatus since the last in-depth survey.

A goal of this survey was to provide a basis for comparison with the 1974 Brown and Volkin study. The most encouraging change observed was a notable improvement in the number of cooperatives that redeemed equity by using some type of systematic program. The improvement may have occurred, however, because of an increase in the average size of cooperatives, and not necessarily as a result of more progressive policy.

The study showed that larger cooperatives (assets exceeding $10 million) were more aggressive than smaller ones in their equity redemption practices.

This phenomenon of smaller cooperatives was a constant theme throughout the study. It is understandable in some respects because smaller cooperatives had less financial sophistication and reduced flexibility due to higher relative investment in longer term (fixed) assets, more equity tied up in other cooperatives, and lower performance demands by membership. On the other hand, smaller cooperatives were often in better financial position to redeem, so it is disturbing that performance levels were not higher.

At the tail end of the spectrum were cooperatives whose equity was subject to redemption, but had no active program. Eleven percent of centralized cooperatives occupied this category (Table 4). Many had legitimately suspended equity redemption activity because of financial stress due to cumulative years of operating losses. Others appeared quite capable financially of carrying out some type of program. The scope of the study did not permit an in-depth investigation of the reasons, on a cooperative-by-cooperative basis, for this lack of performance.

A fascinating group of cooperatives were those whose equity was not subject to redemption. The initial tendency was to be critical of these organizations for not adhering more precisely to cooperative principles. In reality, however, their financial and operational characteristics generally made equity redemption impractical or infeasible.

In these cooperatives, the owner-user principle and user-control principle were followed fairly closely. The adherence to the user-benefit principle, however, is less clear. The study, however, supports the fact that they meet the test in other facets of operating on a cooperative basis (such as group action and providing a missing service) that demonstrate the existence of economic need.

ISSUES AND CHALLENGES

During both the data gathering and analysis phases of this project, information was obtained or issues were identified that are worthy of comment apart from the actual report of findings. Some issues also indicate that certain cooperatives or groups of them could benefit from a self-evaluation of the role equity redemption should play **in their organizations.**

Member Equity Investment Levels

The amount of equity invested per member was closely related to the cooperative's functions. For example, cooperatives performing processing or manufacturing services had larger per- member equity levels than those providing services or limited handling of product.

Table 17 shows that cotton; dairy; and fruit, vegetable, and nut cooperatives had the highest average investment per member. Each type had extensive processing and marketing operations. Contributing to the higher member investment level was the fact that these three groups had the lowest average number of members.

Also demonstrated in Table 17 is that cooperatives with higher average levels of member investment had more aggressive equity redemption programs. Cooperatives that redeemed equity using only systematic programs had the highest member investment level.

The implications of these relationships to equity redemption considerations are quite clear. Cooperatives having fewer members with a higher level of investment are more responsive in their equity redemption practices. Financial considerations aside, these cooperatives really don't have much choice. A smaller membership, having a significant investment in the organization, will have strong expectations about the cooperative's equity redemption performance.

Table 17-Number **of members and member investment in centralized cooperatives by commodity type and equity redemption practices**

Commodity types and redemption practices	Average members per cooperative	Average investment per member
	Number	*Dollars*
Commodity type:		
Cotton **and** cotton gins	**380**	**4,063**
Dairy	**481**	**9,627**
Fruits, vegetables, and nuts	451	6,936
Grain	673	2,341
Livestock, poultry, and wool	1,611	1,012
Other marketing	3,170	1,328
Farm supply	972	1,172
Service	1,082	721
Average, all types	882	1,980
Redemption practice:		
Systematic only	423	7,257
Systematic & special	1,120	2,515
Special only	971	1,383
No redemption program	777	1,031
Not subject to equity redemption	785	43
Average, all practices	882	1,980

In contrast, cooperatives with larger memberships and lower per-member investment generally were less aggressive or responsive in their equity redemption practices. Revolving fund cycles were longer and there was more reliance on special programs. This combination places much less pressure on the cooperative to perform. The issue is whether these members had any less right to expect equity to be redeemed in a timely fashion.

Grain and Farm Supply Cooperatives

Grain and farm supply cooperatives were the two largest commodity groups, in terms of both number of cooperatives and number of members. With such a large representation of the agricultural cooperative community, it was disappointing that these cooperatives, on average, did not as a group demonstrate a higher level of equity redemption performance.

For example, grain and farm supply cooperatives had the longest average revolving periods (Table 8) and the highest usage of special programs (Table 4). What conditions or characteristics of these groups contributed to their less favorable equity redemption performance?

One answer lies in their greater use of a combination of systematic and special plans (Table 4). The following tabulation lists the combined average revolving periods for grain and farm supply cooperatives with revolving funds only and with combinations of revolving fund plans and special plans. Only cooperatives with revolving funds were included.

Program types	Length of revolving fund
	years
Revolving funds only	17
Revolving funds and estates	18
Revolving funds and special plans	21
Average	19

The data above indicate that when grain and farm supply cooperatives use special programs in conjunction with a revolving fund, the revolving cycle moderately lengthens. The implication is that the demands of redeeming to estates and/or other types of special programs reduces the amount of funds available for revolving fund redemption and stretches out the revolving fund period. This is a contributing factor to grain and farm supply cooperatives having the longest average revolving cycles of all commodity types.

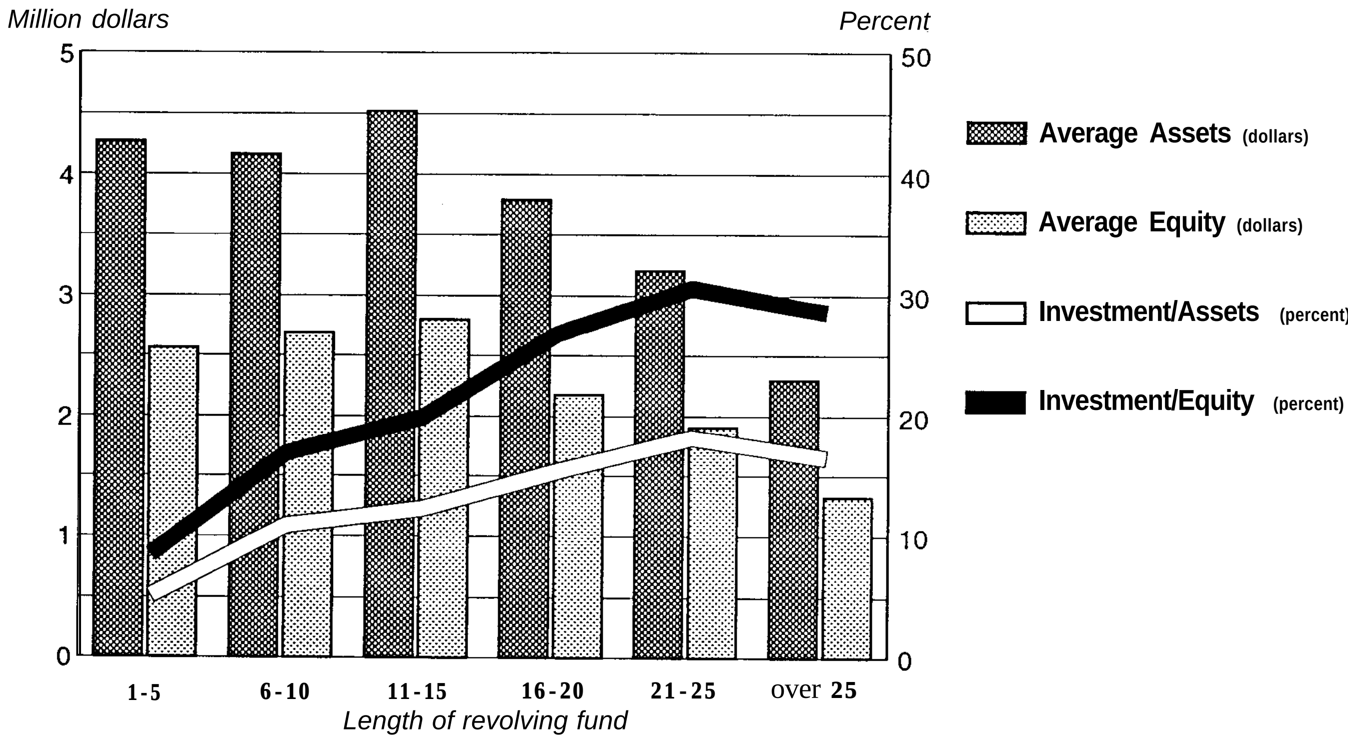
Another area that impacts on equity redemption performance for grain and farm supply cooperatives is the amount of investment they have in other cooperatives. Figure 10 shows that the higher the percentage of assets a cooperative has invested in other cooperatives (excluding credit institutions), the longer the revolving period. A parallel relationship between the percentage of equity represented by investment in other cooperatives is also shown in Figure 10.

This has implications, in particular, for local grain and farm supply cooperatives, because of their extensive memberships in one or more federated regionals. In many cases, locals are quite dependent on the redemption practices of their regionals. Grain and farm supply federated regionals have the longest revolving fund periods among federateds. This has to be a factor in the lower revolving fund performance of local grain and farm supply cooperatives.

Size had a major impact on equity redemption performance. The average asset size of cooperatives with revolving fund periods exceeding 15 years decreased as the revolving fund length increased (Figure 10). Table 6 also shows that smaller cooperatives had longer revolving fund periods. On average, grain and farm supply cooperatives were smaller than most other commodity groups (Table 13) and had the longest revolving fund periods.

Earlier in this section the equity redemption implications of weak financial ties that exist in a large membership organization with small average investment per member were discussed. Grain and farm supply cooperatives had among the highest average number of members per cooperative and the lowest average investment per member. This

Figure 10— Average Assets, Average Equity, Investment/Assets, Investment/Equity of Centralized Grain and Farm Supply Cooperatives



was **another** consideration in evaluating their equity redemption performance.

The five characteristics outlined earlier for grain and farm supply cooperatives are all indicators of why these cooperatives are the poorest equity redemption performers.

Why is this performance accepted by the membership and defended by the cooperative? From the membership's viewpoint, do product prices and quality of service overshadow the importance of equity redemption? And from the cooperative's perspective, does the lack of yearly patronage commitment from the members suggest that a conservative financial approach be taken? If either reason, or both, are at stake, an evaluation of the relationship between the cooperative and its members may be the key to improving equity redemption performance.

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