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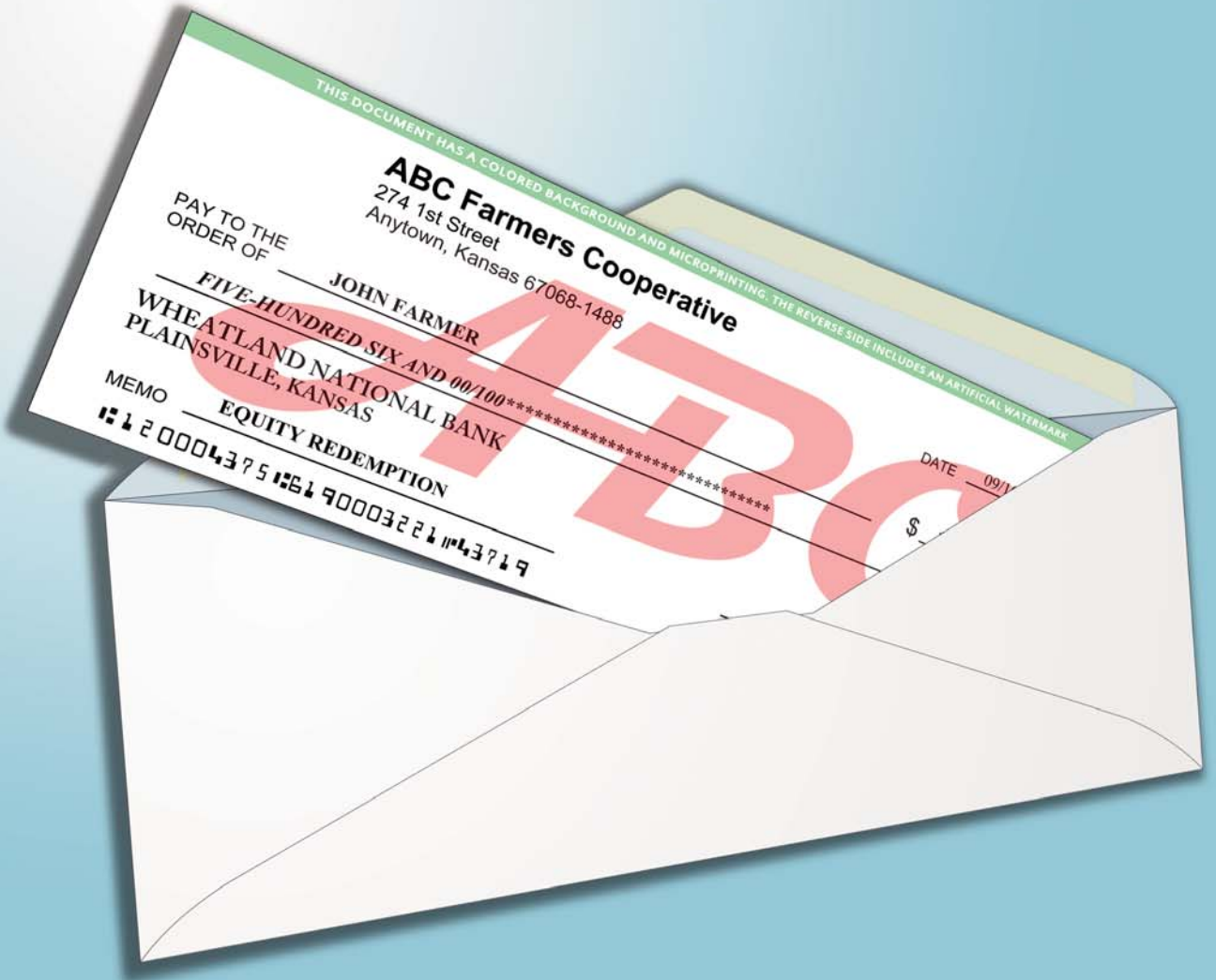


Cooperative Equity Redemption

United States
Department of
Agriculture

Rural Business—
Cooperative
Programs

Research
Report 220



Abstract

A 2008 survey of 2,473 U.S. farmer, rancher, and fishery cooperatives was conducted to examine their equity redemption practices. The 792 respondents provided information on whether they had redeemed allocated equity in 2008 and if so, by what method. A revolving fund was most often used for redeeming member's equity, closely followed by redemption to patrons' estates. Information from 460 cooperatives that responded to both this and a 1991 equity redemption study is also compared. Additionally, the responses were grouped into eight cooperative types based on products sold or marketed and into seven asset sizes.

Key words: cooperatives, equity redemption, revolving fund, patrons' estates, patron's age, percent of all equities, base capital plan.

Cooperative Equity Redemption

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Preface

This report presents the 2008 equity redemption practices of 792 U.S. farmer, rancher, and fishery cooperatives and compared these responses with those given to a 1991 survey. With 460 cooperatives responding to both surveys, changes in redemption practices are noted over the 18-year span of these studies. Results are also presented by type and cooperative size based on 8 marketing, service, and supply classifications and 7 different asset sizes, and by State with information representing cooperatives based in 36 States.

This information provided in this report should act as a guide for cooperative managers and boards of directors in comparing their equity redemption practices with cooperatives of similar type, size, and location. The author thanks the cooperatives that participated in this study and Dr. David Barton and Dr. Michael Boland, both at Kansas State University, and Roger Wissman, retired Rural Development-United States Department of Agriculture agricultural economist, for reviewing the survey instrument and a draft of this report.

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Highlights

Almost 800 U.S. farmer, rancher, and fishery cooperatives provided information about their equity redemption practices in this study, with 460 respondents participating both in this and a 1991 study. Surveyed cooperatives provided information on their equity redemption plans:

- The revolving fund method of equity redemption (44 percent usage) is most often used by local cooperatives, but is closely followed by redeeming patrons' estates (43 percent).
- Almost all cooperatives use a combination of redemption plans to redeem equity.
- When comparing the 2008 and 1991 survey results from the same cooperatives, the single most important change found was the decrease in estate redemption from 71 percent in 1991 to 47 percent in 2008. This change may be in part due to the increased formation of family farms as corporations, a business entity that does not end when one owner dies.
- The revolving fund length remains long, especially for grain and oilseed and farm supply cooperatives whose revolving fund length averages at least 18 years.
- When looking at their net-worth-to-total-assets ratio, little difference was found in the financial strength of cooperatives that redeemed equity in 2008 compared to those that did not redeem equity.
- When looking at time series data from 2003 through 2008, the respondents appear to be financing operations with more retained earnings and using more debt capital.

Cooperative Equity Redemption

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Cooperatives are unique in that they are owned by their members—members who control the business and benefit from the goods and services that it provides. There are three fundamental principles of a cooperative business:

1. User-owner—the people who own and finance the business are those who use it.
2. User-control—the people who control the business are those who use it.
3. User-benefits—the cooperative's sole purpose is to provide and distribute benefits on the basis of use.

User-owners finance the cooperative through the accumulation of equity capital by direct investment, patronage refunds, and per-unit retains. Without equity accumulation, the cooperative cannot grow. To maintain investment proportionality among current users, equity redemption is used by most cooperatives.

Direct investment in a cooperative is usually through the purchase of an ownership share or shares. Preferred stock may also be used. Patronage refunds are net income allocated to a patron based on the quantity or value of business conducted with the cooperative. Per-unit retains are not based on net income, but rather on the amount of products sold through the cooperative or business conducted.

Allocating net income and redeeming equity are unique practices of cooperatives. The bylaws of the cooperative govern its net income allocation and equity redemption. The board of directors is responsible for determining the allocation of net income, equity redemption, and capital accumulation, subject to adherence to the cooperative's bylaws.

Equity Redemption Methods

Agricultural cooperatives are owned by their members, and they usually distribute earnings on member business back to members as allocated patronage refunds. Earnings on non-member business are usually kept by the cooperative as retained earnings.

Cooperatives' allocated equity is generally returned to members by a process called equity redemption. There are five major methods of equity redemption: (1) revolving fund; (2) patron's estate; (3) patron's age; (4) percent of all equities; and (5) base capital plan. Most of these methods are used in combination, and there are also some other special kinds of equity redemption. A combination of equity redemption methods could be a revolving fund redemption to eligible members and a redemption to the estate of a natural person member who died and was approved for payment. A special equity redemption could occur when two cooperatives merge and a class of one of the merging cooperative's equity is redeemed. As with all equity redemptions, redemption occurs according to the cooperative's bylaws when funds are available and is at the discretion of the Board of Directors.

Revolving fund—A revolving fund is the most common form of equity redemption—the first equity accumulated is also the first equity redeemed. If the revolving fund period is short, current users are financing the cooperative's operations and the redemption method is easily understood. As the revolving fund extends its revolvment period to 10 years and beyond, older members and even retired members are financing current operations. So the

cooperative principle of proportionality—current members financing the cooperative in proportion to their use—is not adhered to.

Patron's estates—In this study, patron's estates was the second most common form of equity redemption, closely following revolving plan in use by cooperatives. Generally a cooperative would pay the equity to the estate upon notification of the member's death. Some cooperatives do not pay out 100 percent upon notification, however. There may be, for example, a payment cap of \$5,000 per estate per year, so it could take several years to redeem all the equity. Also, some cooperatives pay a percent to the estate based on the year the equities were retained. Others may require both the wife and husband to die before the estate is paid.

If used exclusively, redeeming patron's estates does not adhere to the principle that current owners finance current cooperative operations. Estate redemption usually works out to a very long redemption period. It should be considered a minimally performing equity redemption plan.

Patron's age—The third redemption method is patron's age. For example, a cooperative redeems to patrons who reach the age of 70. Usually 100 percent of member equity is paid at that time.

A variation of this method is to pay a percentage to all members older than a certain age. So, if the cooperative redeemed a percent of all equities to those patrons over age 65 based on funds available, every member over age 65 would receive the same percent-age refund on his or her eligible equity.

Percent of all equities—Percent of all equities was the fourth most used method in this study. With percent of all equities redemption, every patron receives a redemption. The cooperative establishes a percentage of all equities to be redeemed regardless of the year they were issued. If the cooperative chooses to redeem 14 percent of its eligible equities each year, this is equivalent to revolving equity in 7 years.

Base capital plan—A base capital plan equates a member's use of the cooperative with the member's investment in the cooperative. The plan requires periodic adjustments to the member's equity investment to keep the investment proportional to use of the cooperative. Proportional use is found by determining each member's average patronage of the cooperative over the base period. At least annually, the capital requirements for the cooperative are calculated and each member's proportional patronage is determined. Based on this determination, some members will be over-invested, others under-invested, and some will be at

the required investment level. The over-invested members will have equity redeemed, while the under-invested members will be required to invest equity capital to be at the required investment level.

Few cooperatives were found to use a base capital plan. Mainly this is because there is a lack of dependable funding to make needed yearly adjustments between over- and under-invested members. Yearly variations in cooperatives' earnings do not routinely provide funds to make the needed adjustments. To provide a dependable source of funding, per-unit capital retains are often used in conjunction with base capital plans. Per-unit capital retains are used almost exclusively by marketing cooperatives. Per-unit capital retains are authorized by a cooperative's bylaws or other agreement between a cooperative and its members. The cooperative deducts a percentage of the proceeds of each unit marketed by the cooperative for its members. The per-unit capital retain provides a yearly pool of funds to bring the under-invested members up to the required investment level.

Comparison With 1991 Study

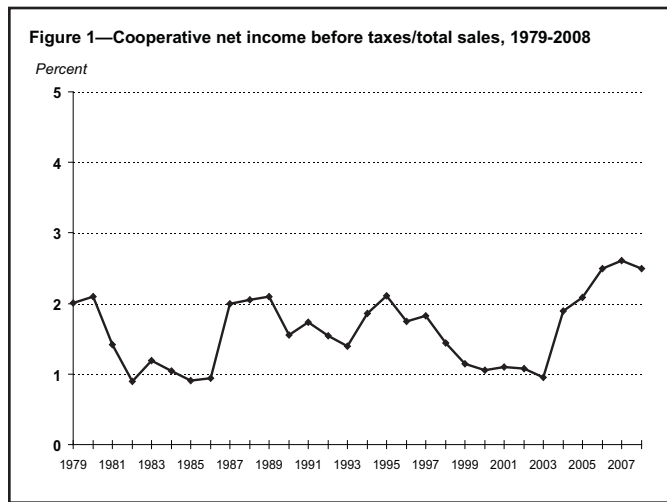
This study used the same methodology as a prior 1991 study [Rathbone and Wissman] conducted by Rural Development and surveyed the same farmer, rancher, and fishery cooperatives. Some questions were changed or re-worded at the advice of one of the retired researchers who conducted the 1991 survey. Some questions were also altered at the suggestion of two Kansas State University professors (Barton and Boland) who have conducted similar equity redemption studies.

The 1991 study analyzed the data by size of cooperative, type of products marketed or sold, and by region. Comparisons in this section to the prior study will be done by cooperative size, where size is determined by total assets. Six size classifications were used in the 1991 study, with the sizes as follows: <\$1 million in assets; \$1 million to \$2.49 million; \$2.5 million to \$4.99 million; \$5 million to \$9.99 million; \$10 million to \$49.99 million; and \$50 million and over. In this study, the \$10 million to \$49.99 million grouping was split into \$10 million to \$19.99 million and \$20 million to \$49.99 million, due to the large number of cooperatives that responded in those size groupings.

The eight type categories used in this study correspond to those used in the 1991 study, and are as follows: cotton and cotton gins; dairy; fruits, vegetables, and nuts; livestock, poultry, and wool; other market-

ing; service; grain and oilseed; and farm supply. Grain and oilseed and farm supply cooperatives dominate the results of this report, accounting for 31 percent and 43 percent respectively, or almost 75 percent of all respondents. Also, grain and oilseed and farm supply cooperatives have similar operations in that most grain and oilseed cooperatives sell some farm supplies and many farm supply cooperatives also market some grain. The location of respondents by State and region is given in Appendix Table 1.

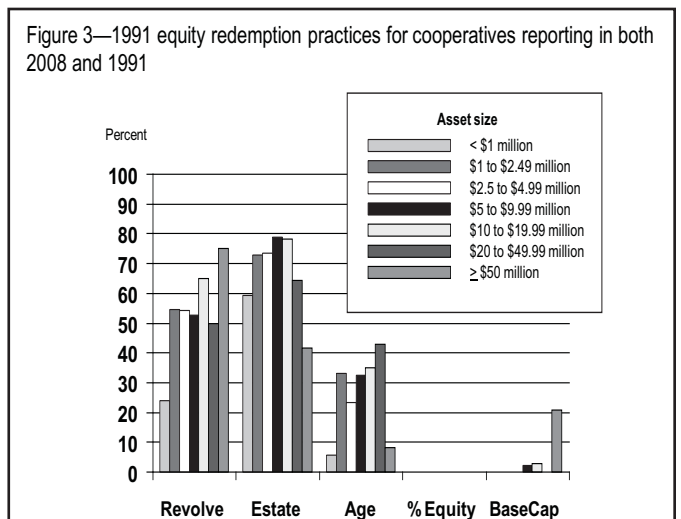
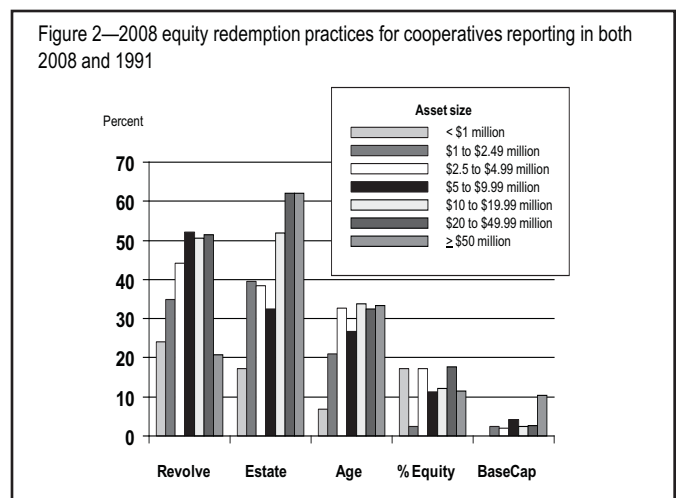
Funds available and the strength of the cooperative's balance sheet are an important part of a cooperative's equity redemption plans. The ratio of net income before taxes/total sales is shown in Figure 1. While this information represents all cooperatives and not just the 460 respondents from both 2008 and 1991, the ratio can be used as a proxy for the financial well-being of all cooperatives in these 2 years. Figure 1 shows that there was a marked increase in the ratio between 2003 and 2008, while the ratio trended down from 1989 to 1993. Since the strength of a cooperative's balance sheet is an important factor of equity redemption, it appears from this ratio that cooperatives may have been in a stronger financial position in 2008 than in 1991.



There were 439 local cooperatives and 21 regional cooperatives that responded to both surveys. Local cooperatives generally have sales and members in one or two States. Regional cooperatives have sales in many States, often with nationwide sales. Regional cooperatives usually have other cooperatives as members but can also have individual farmer, rancher, and fishery members.

In 1991 the median respondent had between \$2.5 million and \$4.99 million in assets. Almost 20 years later, the median respondent to the 2008 survey was

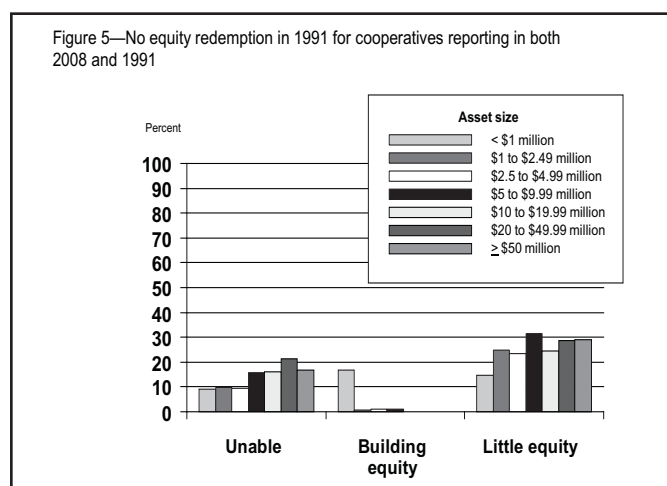
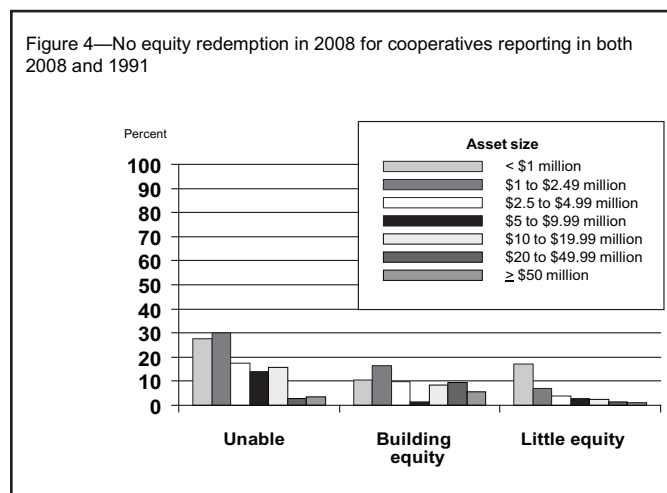
much larger, with \$5 million to \$9.99 million in assets. Figure 2 shows what methods local cooperatives use to redeem equity, arranged by cooperative size. Respondents often used the revolving fund and patron's estate methods of redeeming equity. In Figure 3 (Appendix Table 2), 1991 responses were similar to the 2008 responses, except that there was even a greater reliance on the use of the patron's estate method of redeeming equity. The movement from patrons' estates (71 percent in 1991 to 47 percent in 2008) equity redemption as the most used method to a revolving fund (52 percent in 1991 to 49 percent in 2008) is the single most important change in redemption practices noted between 2008 and 1991.



The reduced use of redeeming patrons' estates may be due to a change in the ownership of family farms. More family farms are now held in corporate or partnership ownership form rather than owned by individual farmers or ranchers. A corporation does not

cease to exist when one owner dies, so the lowered use of patrons' estates redemption in 2008 may be due to the change in ownership form of family farms.

In Figures 4 and 5 (Appendix Table 3), reasons for not redeeming equity in either 2008 or 1991 are given. The most common reason in 2008 is not having the financial resources to redeem equity. That contrasts with the most common 1991 response: that the cooperative had little or no equity to redeem.



Type comparisons—Analysis by type is presented in Appendix Table 4. Cotton and cotton gin cooperatives mainly use the revolving fund method of equity redemption. Dairy cooperatives' use of the revolving fund fell about 20 points between 1991 and 2008, while redeeming patrons' estates fell 10 points. In 1991 two local dairy cooperatives used a base capital plan. This increased to seven cooperatives in 2008.

Fruit, vegetable, and nut cooperatives mainly redeem equity with a revolving fund. Only one cooperative in 2008 and two in 1991 redeemed patrons'

estates. About one-third of service cooperatives are regional cooperatives. All of the service cooperatives mainly use revolving funds.

With at least 150 respondents in both years, information for farm supply and grain and oilseed cooperatives can be reported by type and size (Appendix Tables 5 and 6). Farm supply cooperatives reduced redeeming patrons' estates from 82 percent in 1991 to 50 percent in 2008. Grain and oilseed cooperatives' use of revolving funds trails redemption by patrons' estates in both 2008 and 1991. However, the use of patrons' estates fell by over 20 points between 1991 and 2008.

Redemption combinations—Most cooperatives use a combination of methods for equity redemption (Table 1). In 2008, local cooperatives that used the revolving fund also used patrons' estates redemptions 48 percent of the time; patron's age, 17 percent; percent of all equities, 10 percent; and base capital, 4 percent. The revolving fund was used alone by 94 local cooperatives. In 1991, 82 cooperatives only redeemed patrons' estates. This had fallen to 32 cooperatives in 2008.

For regional cooperatives, it appears there is a large increase in the use of percent-of-all-equities redemptions in 2008, but this information is missing for 1991. The 1991 survey did not list the percent-of-all-equities redemption method; it had to be handwritten in by the respondent as an "other redemption method." Thus, this information is no longer available.

Redemption differences—When comparing the 2008 and 1991 responses of the same cooperatives, there were a number of differences:

- A revolving fund is now used by 54 local cooperatives that did not do so in 1991, while 162 used a revolving fund in 1991 but did not do so in 2008 or had a blank response. In 2008, 51 local cooperatives said they did not redeem estates, whereas they did in 1991, and an additional 22 said that they redeemed estates in 2008 but did not do so in 1991.
- A patron's age method of redeeming equity is now used by 45 local cooperatives that did not do so in 1991. Seventeen cooperatives no longer use this method, and an additional 17 that used patron's age in 1991 left a blank response in 2008. In 2008, the most common age used by local cooperatives for redemption was 65 (23 cooperatives), with age 70 used by 20 cooperatives. Forty-three cooperatives used the same age in both studies, while 21 now have a lower age and 15 use a higher age for redemption.

Table 1—Combinations of equity redemption methods for cooperatives reporting in both 2008 and 1991

Cooperatives and combination of redemption methods	Revolving fund	Patrons' estates	Patron's age	Percent	Base capital plan	Used alone
				of all equities		Number
Local cooperatives, 2008						
Revolving fund	100.00	47.69	16.67	9.72	4.17	94
Patrons' estates		100.00	40.87	17.31	4.81	32
Patron's age			100.00	15.63	3.13	29
% of all equities				100.00	5.36	9
Base capital plan					100.00	3
Total (<i>Number</i>)	216	208	128	56	18	
Local cooperatives, 1991						
Revolving fund	100.00	63.76	13.97	n.a.	0.87	81
Patrons' estates		100.00	35.90	n.a.	1.28	82
Patron's age			100.00	n.a.	0.00	4
% of all equities				n.a.	n.a.	n.a.
Base capital plan					100.00	3
Total (<i>Number</i>)	229	312	117	n.a.	8	
Regional cooperatives, 2008						
Revolving fund	100.00	15.38	7.69	46.15	15.38	5
Patrons' estates		100.00	33.33	100.00	33.33	0
Patron's age			100.00	100.00	50.00	0
% of all equities				100.00	11.11	2
Base capital plan					100.00	1
Total (<i>Number</i>)	13	3	2	9	4	
Regional cooperatives, 1991						
Revolving fund	100.00	33.33	13.33	n.a.	13.33	8
Patrons' estates		100.00	40.00	n.a.	0.00	0
Patron's age			100.00	n.a.	0.00	0
% of all equities				n.a.	n.a.	n.a.
Base capital plan					100.00	0
Total (<i>Number</i>)	15	5	2	n.a.	2	

n.a. = Not available for 1991.

- In 2008, 22 local cooperatives said they use a base capital plan for equity redemption, compared to 6 in 1991.
- Only four local cooperatives responded in both 2008 and 1991 that they did not redeem equity in the current year because only small amounts or no allocated equities are held by patrons. Little or no allocated equity was given as the reason for not redeeming equity by 112 cooperatives in 1991, while only 16 gave that reason in 2008.
- Eleven cooperatives were financially unable to redeem equity in the current year in both 2008 and 1991. About an equal number of coopera-

tives (though not the same ones) were financially unable to redeem equity: 57 in 2008, and 65 in 1991.

All Respondents

There were 792 usable responses in total to the equity redemption survey of 2,473 farmer, rancher, and fishery cooperatives. Both local and regional cooperatives were surveyed, but with local cooperatives comprising 97 percent of the surveyed cooperatives, local cooperative responses also equaled 97 percent of the responses.

Over 72 percent of local cooperatives and over 81 percent of regional cooperatives redeemed equity in 2008. Local cooperatives most often redeem allocated equities by the revolving fund, at 44 percent; patrons' estates were used 43 percent of the time; patron's age, 27 percent; percent of all equities, 11 percent; and base capital plan, 4 percent (Appendix Table 7).

Regional cooperatives also use the revolving fund to redeem allocated equities most often, using this method 56 percent of the time. The next most used method by regionals was the percent of all equities, at 33 percent; followed by a base capital plan, 19 percent; patrons' estates, 15 percent; and patron's age, 11 percent.

Size and type comparison—Of the 792 respondents in 2008, 765 were local cooperatives that provided information on their equity redemption practices. The seven size categories used previously in comparing the 2008 and 1991 studies are used again to describe similarities and differences in cooperative equity redemption practices. The largest cooperatives redeemed patron equity more recently but had a revolving fund length that, at 17 years, was 4 years longer than the smallest cooperatives (Table 2). For the patron's age redemption method, smaller and larger cooperatives redeemed equity to patrons several years younger than did middle-sized cooperatives.

The eight type categories used in this study correspond to those used in the 1991 study, and are as follows: cotton and cotton gins; dairy; fruits, vegetables, and nuts; livestock, poultry, and wool; other marketing; service; grain and oilseed; and farm supply. Table 3 shows the number of respondents for each type of cooperative. Grain and farm supply cooperatives dominate this study, with 240 grain and oilseed respondents and 327 farm supply respondents. Grain and oilseed and farm supply cooperatives comprise 74 percent of all respondents, and even though listed separately, most are similar in that most grain cooperatives sell some farm supplies and many farm supply cooperatives also market some grain.

The revolving fund length of 18 and 20 years for grain and oilseed and farm supply cooperatives is very long. Service cooperatives and livestock, poultry, and wool cooperatives with a revolving fund length of 7 years or less are redeeming at least 14 percent of their allocated equities each year. Patron's age of redemption varies from 66 to 72 years old on average.

The cash patronage refund was much higher for smaller cooperatives than all other sizes (Table 4). Some functions performed by cooperatives required only limited financial resources. Bargaining coopera-

Table 2—Equity redemption, average year last redeemed, average revolving fund length, and average patron age, 2008

Total asset size	Cooperatives	Year last equity redeemed	Revolving fund-length	Patron's age-redemption age
	<i>Number</i>		<i>Years</i>	
Local cooperatives				
< \$1 million	85	2004	13	68
\$1 mill. to \$2.49 mill.	87	2005	18	73
\$2.5 mill. to \$4.99 mill.	101	2006	18	72
\$5 mill. to \$9.99 mill.	128	2007	17	73
\$10 mill. to \$19.99 mill.	135	2007	16	71
\$20 mill. to \$49.99 mill.	119	2007	17	71
≥\$50 million	110	2007	17	69
Total	765			
Regional cooperatives¹				
< \$2.5 million	5	2006	10	
\$2.5 mill. to \$9.99 mill.	3	2007	7	
\$10 mill. to \$19.99 mill.	5	2008	14	
\$20 mill. to \$49.99 mill.	3	2007	12	
≥\$50 million	11	2007	15	
Total	27			

¹ Some size groupings were combined to prevent disclosure of individual operations.

Table 3—Equity redemption by local cooperatives, average year last redeemed, average revolving fund length and average patron's age, 2008

Total asset size	Local cooperatives	Year last equity redeemed	Revolving fund-length	Patron's age-redemption age ¹
	<i>Number</i>		<i>Years</i>	
Cotton & cotton gins	31	2006	10	70
Dairy	45	2007	15	72
Fruits, vegetables, & nuts	47	2007	11	
Livestock, poultry, and wool	18	2007	7	
Other marketing	38	2005	10	66
Service	19	2007	6	
Grain and oilseed	240	2007	18	71
Farm supply	327	2007	20	71

¹ Where there are blank responses, information not available.

Table 4—Average cash patronage and average net worth to assets, 2008

Cooperative asset size	Equity redemption in 2008			No equity redemption in 2008		
	N ¹	Cash patronage paid	Net worth/assets	N ¹	Cash patronage paid	Net worth/assets
Local cooperatives	<i>Number</i>	<i>Percent</i>		<i>Number</i>	<i>Percent</i>	
< \$1 million	32	62.72	75.58	48	61.67	63.89
\$1 mill. to \$2.49 mill.	50	51.99	60.79	33	55.74	59.67
\$2.5 mill. to \$4.99 mill.	72	44.04	58.38	23	41.81	44.84
\$5 mill. to \$9.99 mill.	93	44.60	51.12	26	59.17	34.28
\$10 mill. to \$19.99 mill.	112	40.51	43.21	16	35.79	30.29
\$20 mill. to \$49.99 mill.	103	40.04	34.51	14	48.60	36.69
≥\$50 million	94	41.14	28.09	15	59.47	35.46
All	556	42.50	31.13	175	51.11	35.90
Regional cooperatives¹	<i>Number</i>	<i>Percent</i>		<i>Number</i>	<i>Percent</i>	
< \$2.5 million	3	26.86	81.01			
\$2.5 mill. to \$9.99 mill.	3	50.45	46.67			
\$10 mill. to \$19.99 mill.	3	39.59	64.39			
\$20 mill. to \$49.99 mill.	3	41.67	43.50			
≥\$50 million	10	44.53	27.40	4	73.33	39.54
All	22	41.85	27.86	4	73.33	39.54

¹ N does not equal 765 for local cooperatives or 27 for regional cooperatives as not all cooperatives responded to whether they redeemed equity in 2008.

tives, wool pools, and livestock auctions are examples. With a limited need for more resources, high levels of cash patronage refunds can be returned to members.

One measure of cooperative financial strength is the ratio of net worth to total assets. Smaller cooperatives financed about 60 percent of their assets with equity, while the largest cooperatives had an equity base of less than a third of total assets.

The revolving fund and patrons' estates redemption methods were used with similar frequency among

all local cooperatives, except that middle-sized cooperatives used a revolving fund more often than patron's estate redemption (Figure 6, Appendix Table 7). Smaller local cooperatives (Figure 7) were unable to redeem equity about 30 percent of the time, and 24 percent had little equity to redeem. About 9 percent of all sizes were not redeeming equity because they were trying to build their equity accounts.

All eight types of cooperatives paid at least 40 percent of their patronage refunds to members as cash

(Table 5). The net-worth-to-assets ratios for those cooperatives that redeemed equity in 2008 are not always better than that for cooperatives that did not redeem equities in 2008.

Table 5—Average local cooperative cash patronage and net worth to assets, 2008

Cooperative type	Cash patronage	Redemption in 2008	No redemption in 2008
		Net worth/assets	Net worth/assets
<i>Percent</i>			
Cotton & cotton gins	68.26	22.46	37.11
Dairy	47.70	30.28	36.31
Fruit, vegetable, & nut	63.36	34.92	33.99
Livestock, poultry, and wool	50.85	29.73	21.31
Other marketing	53.69	40.87	43.49
Service	63.63	76.45	53.45
Grain and oilseed	42.15	23.74	26.39
Farm supply	40.43	41.57	37.32

For the local cooperatives that redeemed equity in 2008, Figure 8 shows the programs or plans used and their frequency of use. With grain and oilseed and farm supply cooperatives comprising 74 percent of the surveyed cooperatives, those are the average responses. However, responses across cooperative types do show differences (Appendix Tables 8 to 15).

Over 60 percent of cotton and cotton gins and fruit, vegetable, and nut cooperatives use a revolving plan for redeeming allocated patron equities. Redeeming patrons' estates is heavily used by grain and farm supply cooperatives. About a third of grain and farm supply cooperatives redeem equities based on patron's age. Although few cooperatives overall use a base capital plan, over 12 percent of cotton and cotton gins and dairy cooperatives used this form of equity redemption.

In figure 8 it is quite evident that the highest proportion of cooperatives that did not redeem equity in 2008 was in livestock, poultry, and wool cooperatives. They most often said their reason was that they were trying to build up equity accounts (28 percent). Further analysis finds that 8 out of the 18 respondents had losses or no income in 2008, while another 5 had net incomes of less than \$10,000. It appears that most livestock, poultry, and wool respondents did not have funds available for equity redemption in 2008.

Figure 6—Equity redemption and types used by total asset size, 2008

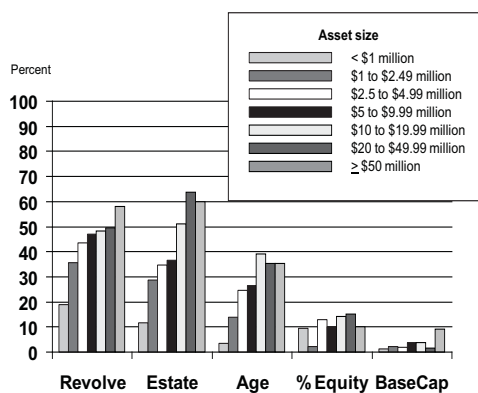


Figure 7—No equity redemption and reasons by total asset size, 2008

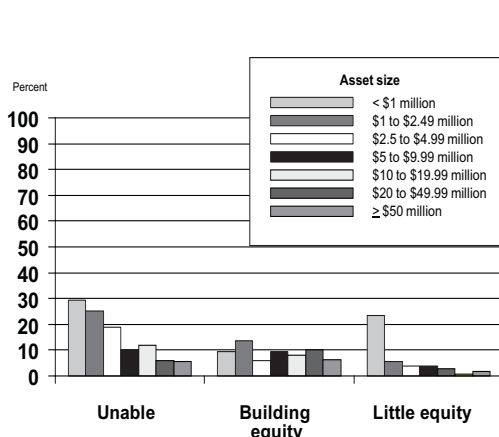
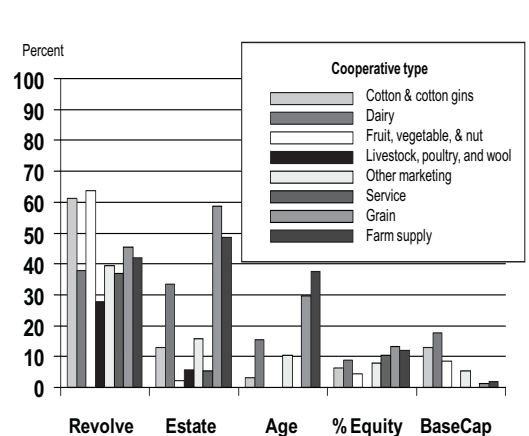


Figure 8—Equity redemption and types used by cooperative type, 2008



Twenty-three percent of locals and 15 percent of regionals did not redeem member allocated equity in 2008 (Table 6). While regional respondents did not give a reason for not redeeming allocated equity, locals were unable to redeem 14 percent of the time probably due to low net income or losses (Figure 9). In total there were 175 local cooperatives that did not redeem equity in 2008. Fifty-three of these cooperatives suffered losses in their own operations (negative local savings). Six had no net income, while 12 had net

income of less than \$20,000. There was little or no allocated equity held by 10 respondents, while 18 others had recent losses and had little or no retained earnings. The other 76 local cooperatives that did not redeem equity in 2008 did not have losses or low amounts of allocated equity.

Table 6—All respondents, no equity redemption in 2008 and reasons

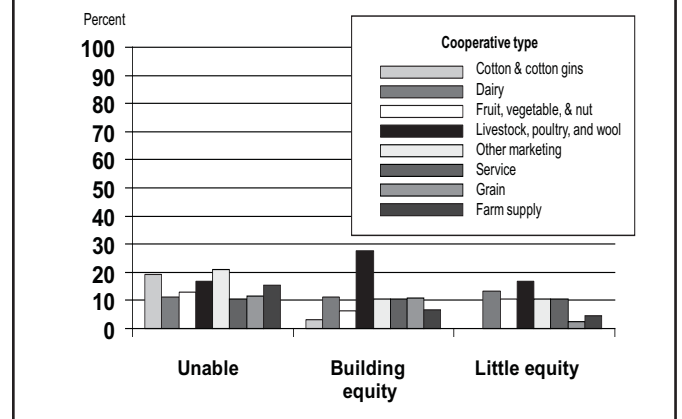
Cooperatives	Redeem equity in 2008	Reasons for not redeeming equity ¹		
		Unable	Building equity	Little equity
	No			
		<i>Percent</i>		
Local	22.88	14.12	8.89	5.36
Regional	14.81			
All	22.60 ²	13.64	8.59	5.18

¹ No responses if blank.

² There were 34 local and one regional cooperative that did not respond to this question, otherwise "All" should equal 27.02 percent.

Respondents were also asked if there were other reasons for redeeming allocated equities that were not covered by questions in the survey. Retirement from farming or moving out of the cooperative's trade territory was mentioned as an equity redemption reason by 33 respondents. Many respondents had very specific determinations of what it means to quit farming, for example: "When a patron quits farming and will no

Figure 9—No equity redemption and reasons by cooperative type, 2008



longer actively participate in any farming activities or receive any further farm income derived from cash rent or grain sales, the equity will be redeemed."

All of the equity redemption methods listed in Table 4 are used in combination by cooperatives (Table 7). The revolving fund was used by 339 local cooperatives, almost half of which also redeemed patrons' estates. Fifteen regional cooperatives used the revolving fund, with 40 percent of those cooperatives combining the revolving fund with the percent-of-all-equities redemption method. The revolving fund was the only redemption method used by 142 local cooperatives. Patrons' estates were only redeemed by 58 local cooperatives, while 46 only redeemed equities based on patron's age.

Table 7—Combinations of equity redemption methods and plans used alone, 2008

Cooperatives and combination of redemption methods	Revolving fund	Patrons' estates	Patron's age	Percent of all equities	Base capital plan	Used alone
						Number
Local cooperatives						
Revolving fund	100.00	47.49	18.58	10.32	3.54	142
Patron's estates		100.00	40.55	13.72	4.57	58
Patron's age			100.00	14.08	2.91	46
Percent of all equities				100.00	5.95	6
Base capital plan					100.00	5
Total (Number)	339	328	206	84	27	
Regional cooperatives						
Revolving fund	100.00	20.00	13.33	40.00	20.00	6
Patron's estates		100.00	50.00	75.00	50.00	0
Patron's age			100.00	66.67	66.67	0
Percent of all equities				100.00	11.11	2
Base capital plan					100.00	1
Total (Number)	15	4	3	9	5	

Further analysis shows that information from cooperatives reporting in both 2008 and 1991 (Table 1) is very similar to the 2008 information of all respondents in Table 7. This is the case for other information presented in this section. The respondent size is larger, but the responses overall are similar to those found in the prior section where the cooperatives had responded to both the 2008 and 1991 surveys.

Table 8 looks at equity ratios over 6 years by cooperative size. With over 100 cooperatives each year, except for the largest size, the information in this table is a good time-series representation of these ratios. The values presented for each ratio are the median, or middle, value by cooperative for each size grouping. As a median value, the ratio may be considered representa-

tive of the group as a whole, with the knowledge that the total group size ranges from 52 to 174 cooperatives (Table 4).

The ratio of retained earnings to total equity shows the use of retained earnings and allocated equity. Net income from nonmember business is the usual source of retained earnings (unallocated equity). Retained earnings are not subject to redemption, but allocated equities are. The use of retained earnings to finance operations increases with cooperative size, with the exception of the $\geq \$50$ million asset size that somewhat resembles the values for the smaller \$5 million to \$9.99 million asset cooperatives. Over the time series, it appears that all sizes of respondents, except

Table 8—Median equity ratios by local cooperative size, 2003 to 2008

Size based on total assets	2003	2004	2005	2006	2007	2008
	<i>Percent</i>					
Retained earnings to total equity¹						
< \$1 million	n.a.	14.33	0.23 ²	4.11 ²	11.21	13.07
\$1 mill. to \$2.49 mill.	n.a.	27.51	22.85	23.84	30.13	35.10
\$2.5 mill. to \$4.99 mill.	n.a.	29.51	29.39	31.41	29.31	31.84
\$5 mill. to \$9.99 mill.	n.a.	34.95	36.28	35.92	36.08	39.78
\$10 mill. to \$19.99 mill.	n.a.	37.78	40.11	39.53	36.94	39.19
\$20 mill. to \$49.99 mill.	n.a.	36.33	41.00	39.55	37.61	42.63
≥\$50 million	n.a.	35.81	34.62	35.30	37.84	41.89
All	n.a.	34.78	34.62	34.46	35.14	37.60
Equity-to-assets³						
< \$1 million	85.82	89.33	77.10	79.57	78.26	80.94
\$1 mill. to \$2.49 mill.	74.40	75.17	73.18	71.59	68.60	63.16
\$2.5 mill. to \$4.99 mill.	67.92	67.49	64.89	66.00	59.97	59.89
\$5 mill. to \$9.99 mill.	62.93	59.20	58.54	56.60	54.48	48.89
\$10 mill. to \$19.99 mill.	56.42	53.60	52.97	51.72	46.29	39.28
\$20 mill. to \$49.99 mill.	48.75	45.73	43.89	44.31	40.03	31.85
≥\$50 million	42.91	41.31	38.84	37.34	31.77	27.01
All	57.20	55.40	53.49	52.70	48.61	42.77
Adjusted-equity-to-assets⁴						
< \$1 million	100.00	100.00	100.00	100.00	100.00	100.00
\$1 mill. to \$2.49 mill.	99.18	99.68	99.29	99.09	97.11	96.73
\$2.5 mill. to \$4.99 mill.	96.47	96.42	96.82	98.19	97.21	97.91
\$5 mill. to \$9.99 mill.	91.65	91.75	92.38	92.50	91.84	91.98
\$10 mill. to \$19.99 mill.	90.75	91.39	90.12	90.86	90.37	86.08
\$20 mill. to \$49.99 mill.	83.84	82.77	81.92	82.39	80.05	81.02
≥\$50 million	74.63	76.01	75.81	76.13	73.03	72.08
All	90.73	90.65	90.12	90.63	89.58	88.05

¹ Retained earnings to total equity = retained earnings/total equity, median values for each size shown. No values for 2003 because retained earnings not available.

² These observations appear to be outliers.

³ Equity-to-assets ratio = total equity/total assets, median values for each size shown.

⁴ Adjusted-equity-to-assets ratio = total equity/(total assets-current liabilities), median values for each size shown.

the smallest, are generally accumulating retained earnings to finance operations. The smallest size has several outliers in the data series.

Generally, higher levels of retained earnings to total equity occur due to cooperatives either having more non-patronage-based income or distributing a higher amount of patronage income to retained earnings. Grain and oilseed and farm supply cooperatives comprise almost three fourths of the respondents. Such cooperatives generally have a higher proportion of non-member business, and thus more retained earnings, than other types of cooperative.

The ratio of equity to total assets measures the use of equity to finance the cooperative, and can be considered a measure of solvency or financial strength of the cooperative. Over the time series, it appears that less equity is being used to finance assets across all cooperative sizes, so respondents must be using more borrowed funds. Smaller cooperatives are stronger financially, because they finance a larger proportion of their assets with equity than larger ones.

Another measure of solvency or financial strength is shown by the adjusted equity ratio, where total equity is divided by total assets minus current liabilities. When current liabilities are subtracted from assets, the remainder is long-term debt and total equity, so the ratio shows the relative use of long-term debt and equity to finance the cooperative. A higher ratio indicates higher solvency or a greater use of equity to finance operations. The median value for small cooperatives of 100 indicates no use of long-term debt. Smaller cooperatives have less long-term debt. The ratio did not vary much over the time series, except for cooperatives with assets of \$10 million to \$19.99 million, where it dropped four points over the last 2 years, indicating more debt used.

Table 9 has the same information as Table 8, only this time the ratios are by cooperative type instead of cooperative size. With a range from 18 cooperatives to 327 in the type groupings, the information in this table may not be representative for most types other than grain and farm supply cooperatives, due to the low number of respondents. It is presented for comparison purposes. It is hard to determine what might be considered outliers in this table. For example, the ratio of retained earnings to total equity for cotton and cotton gins ranges from 0.00 to 15.77, with three responses at the low end and two at the high end. The very low numbers should be considered outliers, but it should be noted that they occurred in 3 consecutive years.

Over the time series, most types of respondents generally are accumulating retained earnings to

finance operations. Grain and oilseed cooperatives show the most pronounced use of retained earnings, increasing almost five points over the 5 years.

For the equity-to-total-assets ratio, it appears that over time less equity is being used to finance assets across all cooperative types, because respondents were using more borrowed funds. With the price increase in grains and oilseeds, and the corresponding increase in inventory values of these commodities, the equity-to-total-assets ratio for grain and oilseed cooperatives fell markedly in 2007 and 2008 as more funds were borrowed.

Median values of 100 for the adjusted equity to assets ratio in several years for dairy; livestock, poultry, and wool; and service cooperatives indicates no use of long-term debt. Cotton and cotton gins; fruit, vegetable, and nut; and grain and oilseed cooperatives all had a ratio of 80 or less in at least 1 year, so used more long-term debt.

Cooperative location—The 1991 study used eight U.S. regions to show cooperative responses to equity redemption by location. This study will present results mainly by State with a few States combined where there were less than three responses (Table 10). Appendix Table 15 shows the respondents by State to both the 1991 and 2008 surveys. Several States have very few respondents in 2008, so responses may not be indicative of overall use of redemption methods or types used. Also, with fewer respondents, there are many places in the tables where the category is blank because the respondent did not use the redemption plan listed or did not respond to all questions. Revolving fund length of 20 or more years was indicated in Florida and Georgia (combined), Tennessee, Virginia, Wisconsin, Illinois, Missouri, Arkansas, North Dakota, Colorado, and Montana.

Equity redemption in 2008 and the frequency of each type of redemption plan are presented in Table 11. The revolving fund method is the most widely used redemption plan, as discussed earlier, though most cooperatives use a combination of redemption methods and not just one plan.

In Tennessee, Minnesota, Iowa, Indiana, Ohio, Oklahoma, Kansas, Nebraska, and Wyoming, respondents most frequently redeemed patrons' estates. Patron's age redemptions were done by over half of the respondents in the following States: Minnesota, with 71 as the age of redemption; Wisconsin, 73; Nebraska, 70; North Dakota, 72; and Colorado, 69. Those States all used the oldest first method in redeeming equities by patron's age, rather than redeeming a percentage to all over a certain age.

Table 9—Local cooperative equity ratios by type, 2003 to 2008

Local cooperative type	2003	2004	2005	2006	2007	2008
	<i>Percent</i>					
<u>Retained earnings to total equity</u>¹						
Cotton & cotton gins	n.a.	0.62	0.00	0.54	15.77	10.60
Dairy	n.a.	17.59	18.85	15.58	19.36	23.41
Fruit, vegetable, & nut	n.a.	27.52	8.70	12.06	11.61	27.72
Livestock, poultry, and wool	n.a.	0.00	3.01	0.00	0.00	0.00
Other marketing	n.a.	32.34	20.70	32.34	28.19	23.62
Service	n.a.	7.34	6.49	1.99	9.13	9.66
Grain	n.a.	39.30	42.05	42.52	40.27	43.64
Farm supply	n.a.	36.40	37.03	35.58	36.61	38.84
<u>Equity-to-assets</u>²						
Cotton & cotton gins	61.30	55.93	57.72	55.87	59.03	52.90
Dairy	51.74	49.98	44.75	35.74	30.48	33.74
Fruit, vegetable, & nut	46.15	42.27	38.59	39.91	38.32	38.54
Livestock, poultry, and wool	99.45	93.43	61.00	80.94	80.94	90.47
Other marketing	53.87	62.57	59.76	55.87	53.29	42.54
Service	87.24	89.15	82.19	88.53	82.82	82.24
Grain	49.83	48.26	44.83	44.35	36.23	30.56
Farm supply	64.72	62.93	60.41	61.39	59.39	55.21
<u>Adjusted-equity-to-assets</u>³						
Cotton & cotton gins	96.23	83.61	90.32	80.65	78.68	84.76
Dairy	100.00	96.92	97.91	98.19	97.58	96.00
Fruit, vegetable, & nut	91.88	84.42	85.88	76.43	79.00	86.33
Livestock, poultry, and wool	100.00	98.19	99.82	94.76	100.00	100.00
Other marketing	84.42	89.43	86.88	87.86	91.17	90.64
Service	100.00	99.59	97.21	100.00	100.00	100.00
Grain	85.77	86.28	84.91	83.46	82.62	80.18
Farm supply	92.28	93.11	93.13	93.99	93.70	92.95

¹ Retained earnings to total equity = retained earnings/total equity, median values for each size shown. No values for 2003 because retained earnings not available.

² Equity-to-assets ratio = total equity/total assets, median values for each size shown.

³ Adjusted-equity-to-assets ratio = total equity/(total assets-current liabilities), median values for each size shown.

Patron's age redemptions are almost exclusively done in the Lake States, Corn Belt, Northern Plains, and Mountain regions. The predominate types of cooperatives in those regions are grain and oilseed and farm supply cooperatives.

"Percent of all equities" was used by less than 20 percent of all respondents in all States except Kansas, Montana, and Hawaii. Overall, a base capital plan was used by the fewest respondents. But by State, over 20 percent of the respondents redeemed equities by this method in the combined States of Massachusetts, New Jersey, and New York; and the combined States of Florida and Georgia; and Montana.

Over 60 percent of the respondent cooperatives in Maine, Pennsylvania, Maryland, North Carolina, Louisiana, Mississippi, and Hawaii did not redeem patrons' equities in 2008 (Table 12). There was a fairly even split between being financially unable to redeem

equity, building equity, and having little equity, as a reason for cooperatives in these States not redeeming equity.

Tables 13, 14, and 15 look at equity ratios over 6 years by cooperative location. Many of the States or combined States have few respondents. If there are not four respondents in any given State or combination of States, no value is presented in the table. The number of respondents by State ranges from 5 to 76 (Table 10).

The ratio of retained earnings to total equity shows the use of retained earnings and allocated equity. Retained earnings are not subject to redemption, while allocated equities are. As stated before, many of the States have few respondents, so only those States where outliers don't appear to be present will be discussed in this section. Net income from nonmember business is the usual source of retained earnings. The use of retained earnings to finance operations (Table

Table 10—Equity redemption by local cooperatives, average year last redeemed, average revolving fund length, and average patron's age, 2008¹

Region/ State	Local cooperatives	Year last equity redeemed	Revolving fund length	Patron's age-redemption age
	<i>Number</i>		<i>Years</i>	
<u>Northeast</u>				
Maine	8	2002	18	
Massachusetts, New Jersey, New York	18	2007	7	70
Pennsylvania	13	2000	15	
<u>Southeast</u>				
Alabama	5			
Florida, Georgia	9	2008	21	
Kentucky	4	2008	6	65
Maryland	3			
North Carolina	3			
Tennessee	19	2004	26	
Virginia	9	2007	21	65
<u>Lake States</u>				
Michigan	14	2007	11	65
Minnesota	76	2006	19	71
Wisconsin	50	2008	21	73
<u>Corn Belt</u>				
Iowa	58	2007	16	72
Illinois	55	2007	20	63
Indiana	11	2008	18	78
Missouri	30	2006	22	68
Ohio	21	2007	16	68
<u>South Central</u>				
Arkansas	12	2002	20	62
Louisiana	6	2002		
Mississippi	9	2007	16	
Oklahoma	18	2007	15	71
Texas	48	2005	15	73
<u>Northern Plains</u>				
Kansas	46	2008	18	70
Nebraska	30	2008	17	70
North Dakota	54	2007	20	72
South Dakota	27	2008	17	73
<u>Mountain</u>				
Colorado	13	2008	21	69
Idaho	5	2007	13	
Montana	14	2008	23	76
Utah	5	2008	6	
Wyoming	3	2006		67
<u>Pacific</u>				
California, Arizona, New Mexico	35	2008	6	
Hawaii	4	2008	9	
Oregon	11	2006	18	
Washington	19	2005	15	

¹ Where there are blank responses, information not available.

Table 11—Equity redemption methods of local cooperatives by location, 2008¹

Region/State	Redeem equity in 2008 Yes	Redemption methods				Percent of all equities	Base capital plan
		Revolving fund	Patron's estates	Patron's age ²			
				all	oldest first		
Percent							
Northeast							
Maine	25.00	12.50					
Massachusetts, New Jersey,							
New York	55.56	33.33	11.11	5.56	5.56		22.22
Pennsylvania	30.77	38.46	15.38		7.69		7.69
Southeast							
Alabama	20.00						
Florida, Georgia	44.44	22.22					22.22
Kentucky	75.00	25.00	50.00	25.00			
Maryland							
North Carolina							
Tennessee	84.21	36.84	63.16				15.79
Virginia	44.44	33.33	44.44	11.11			11.11
Lake States							
Michigan	78.57	57.14	28.57	7.14	7.14		7.14
Minnesota	84.21	43.42	56.58	55.26	34.21		14.47
Wisconsin	84.00	56.00	56.00	54.00	30.00		8.00
Corn Belt							
Iowa	84.48	46.55	65.52	34.48	17.24		15.52
Illinois	72.73	45.45	56.36	9.09	3.64		3.64
Indiana	90.91	27.27	45.45	45.45	18.18		9.09
Missouri	73.33	36.67	36.67	30.00	6.67		3.33
Ohio	85.71	52.38	61.90	9.52	4.76		19.05
South Central							
Arkansas	66.67	66.67	16.67	8.33			16.67
Mississippi	33.33	33.33					
Oklahoma	83.33	50.00	61.11	27.78	5.56		16.67
Texas	70.83	56.25	20.83	2.08			12.50
Northern Plains							
Kansas	86.96	47.83	69.57	23.91	8.70		21.74
Nebraska	83.33	30.00	66.67	60.00	30.00		10.00
North Dakota	75.93	35.19	48.15	51.85	44.44		14.81
South Dakota	55.56	22.22	40.74	48.15	29.63		14.81

Table 11—Equity redemption methods of local cooperatives by location, 2008¹ (Continued)

Region/State	Redeem equity in 2008 Yes	Redemption methods					Base capital plan
		Revolving fund	Patron's estates	Patron's age ²		Percent of all equities	
				all	oldest first		
Mountain				Percent			
Colorado	53.85	30.77	38.46	69.23	30.77	15.38	
Idaho	40.00	60.00	20.00				
Montana	42.86	21.43	28.57	35.71	21.43	21.43	
Utah	100.00	80.00					
Wyoming	100.00		33.33	33.33	33.33		
Pacific							
California, Arizona, New Mexico	71.43	74.29	2.86			5.71	
Hawaii	25.00	25.00					
Oregon	90.91	100.00	18.18			9.09	
Washington	73.68	68.42	31.58			15.79	

¹ Where there are blank responses, information not available.

² "Oldest first" and "percent to all" are a form of redemption by patron's age, these two responses should add to "all", except all respondents did not answer all questions.

Table 12—Reasons for no equity redemption by local cooperatives in 2008¹

Region/ State	Redeem equity in 2008	Reasons for not redeeming equity in 2008		
	No	Unable	Building equity	Little equity
<u>Northeast</u>			<i>Percent</i>	
Maine	62.50	37.50	37.50	
Massachusetts, New Jersey, New York	44.44	22.22		11.11
Pennsylvania	61.54	23.08	23.08	30.77
<u>Southeast</u>				
Alabama	40.00		20.00	20.00
Florida, Georgia	44.44	11.11	11.11	
Kentucky	25.00	25.00		
Maryland	100.00		66.67	33.33
North Carolina	66.67	33.33		
Tennessee	10.53	15.79	21.05	10.53
Virginia	55.56	22.22	44.44	
<u>Lake States</u>				
Michigan	21.43	7.14	7.14	14.29
Minnesota	13.16	2.63	9.21	5.26
Wisconsin	16.00	2.00	12.00	4.00
<u>Corn Belt</u>				
Iowa	10.34	3.45	10.34	13.79
Illinois	25.45	3.64	7.27	10.91
Indiana	9.09		9.09	
Missouri	20.00	3.33	13.33	10.00
Ohio	9.52		9.52	14.29
<u>South Central</u>				
Arkansas	16.67	8.33	25.00	8.33
Louisiana	66.67		50.00	16.67
Mississippi	66.67	22.22	11.11	22.22
Oklahoma	16.67		11.11	5.56
Texas	25.00		16.67	14.58
<u>Northern Plains</u>				
Kansas	13.04		10.87	6.52
Nebraska	13.33	3.33	16.67	3.33
North Dakota	20.37	5.56	11.11	11.11
South Dakota	40.74	7.41	29.63	14.81
<u>Mountain</u>				
Colorado	30.77		23.08	
Idaho	40.00		20.00	
Montana	42.86	7.14	28.57	
Utah				20.00
Wyoming				
<u>Pacific</u>				
California, Arizona, New Mexico	22.86	8.57	8.57	2.86
Hawaii	75.00		75.00	25.00
Oregon		9.09	18.18	9.09
Washington	15.79		10.53	

¹ Where there are blank responses, information not available.

Table 13—Local cooperative retained earnings percentage of total equity¹ by location, 2004 to 2008

Region/ State	2004	2005	2006	2007	2008
<u>Northeast</u>			<i>Percent</i>		
Maine	4.96	0.00	10.33	5.63	68.22
Massachusetts, New Jersey, New York	22.61	15.79	12.06	10.44	11.82
Pennsylvania	48.11	19.04	0.00	0.00	27.59
<u>Southeast</u>					
Alabama	3.34	53.11	5.41	5.92	7.52
Florida, Georgia	46.26	30.86	20.79	35.89	37.95
Kentucky	64.69	36.97	0.00	27.53	18.77
Maryland ² North Carolina ²					
Tennessee	33.49	34.66	36.95	31.47	33.61
Virginia	0.00	14.34	0.00	0.00	28.03
<u>Lake States</u>					
Michigan	21.22	17.08	16.29	16.48	23.06
Minnesota	19.72	19.55	19.38	19.34	22.44
Wisconsin	27.43	28.40	29.33	32.85	33.59
<u>Corn Belt</u>					
Iowa	44.19	43.51	44.67	45.15	48.39
Illinois	62.98	66.60	64.49	66.05	68.89
Indiana	53.76	62.56	63.88	64.15	64.83
Missouri	45.44	47.11	53.03	55.60	57.21
Ohio	42.55	52.21	53.71	44.48	49.87
<u>South Central</u>					
Arkansas	21.65	35.37	41.73	30.18	40.83
Louisiana	0.00	1.16	0.00	11.28	15.75
Mississippi	0.46	0.00	0.00	0.00	0.13
Oklahoma	45.73	46.00	45.04	49.46	45.01
Texas	19.03	2.82	8.82	14.18	12.95
<u>Northern Plains</u>					
Kansas	29.11	33.20	30.16	27.50	31.48
Nebraska	40.57	41.87	44.81	42.77	44.03
North Dakota	22.50	22.39	23.66	26.40	28.43
South Dakota	33.23	32.23	36.90	35.05	44.99
<u>Mountain</u>					
Colorado	61.11	60.64	61.11	62.76	65.28
Idaho	57.32	32.25	25.07	30.96	41.79
Montana	14.97	14.90	14.33	14.85	11.18
Utah	22.78	40.77	29.70	17.82	18.67
Wyoming ²					
<u>Pacific</u>					
California, Arizona, New Mexico	28.30	29.98	28.88	33.49	35.10
Hawaii ²					
Oregon	41.17	41.86	29.81	31.65	34.98
Washington	48.69	46.41	45.08	44.65	42.36

¹ Retained earnings percentage of total equity = retained earnings/total equity, median values for each State shown. Retained earnings for 2003 not available.

² Less than four observations.

Table 14—Local cooperative equity-to-assets ratio¹ by location, 2003 to 2008

Region/ State	2003	2004	2005	2006	2007	2008
<u>Northeast</u>						
Maine	30.78	31.39	19.10	29.48	13.79	27.51
Massachusetts, New Jersey, New York	38.31	41.42	42.22	38.83	35.93	43.93
Pennsylvania	54.76	42.67	40.95	42.63	38.23	42.09
<u>Southeast</u>						
Alabama	71.18	72.38	67.98	70.85	68.05	70.81
Florida, Georgia	45.03	50.98	56.96	47.94	50.26	38.35
Kentucky	79.28	75.65	67.09	57.36	45.91	59.04
Maryland ²						
North Carolina ²						
Tennessee	71.64	74.17	78.70	76.34	72.64	71.00
Virginia	71.40	72.39	56.44	56.01	34.04	21.65
<u>Lake States</u>						
Michigan	51.29	62.55	55.32	55.04	46.23	42.11
Minnesota	64.29	65.21	64.53	62.00	55.53	51.17
Wisconsin	68.58	68.50	68.15	67.66	71.52	57.75
<u>Corn Belt</u>						
Iowa	51.95	48.51	43.73	46.99	40.74	31.66
Illinois	55.29	46.41	48.52	44.28	35.41	26.01
Indiana	56.57	58.68	53.32	55.95	48.44	43.04
Missouri	59.64	60.96	60.41	61.02	56.99	51.85
Ohio	39.98	40.66	41.21	39.97	35.39	27.02
<u>South Central</u>						
Arkansas	70.37	62.49	59.76	65.46	65.84	62.66
Louisiana	62.14	67.91	62.61	69.85	59.19	68.12
Mississippi	92.67	66.30	87.94	87.44	86.01	80.10
Oklahoma	60.07	49.86	56.29	60.59	57.58	43.04
Texas	67.50	57.81	60.63	57.08	58.69	52.01
<u>Northern Plains</u>						
Kansas	45.27	45.31	42.53	40.58	37.14	37.75
Nebraska	44.62	50.76	47.70	42.12	36.36	37.63
North Dakota	59.63	63.08	57.15	59.17	56.54	48.26
South Dakota	61.11	56.13	53.74	52.62	44.96	42.73
<u>Mountain</u>						
Colorado	66.85	58.84	53.69	60.83	56.21	54.60
Idaho	61.81	41.56	42.70	35.98	63.16	41.25
Montana	72.51	88.09	71.42	79.77	64.24	76.53
Utah	74.81	71.06	52.78	60.11	65.44	47.54
Wyoming ²						
<u>Pacific</u>						
California, Arizona, New Mexico	60.95	45.31	52.70	45.21	53.84	47.53
Hawaii ²						
Oregon	48.15	45.87	43.21	44.01	47.11	40.28
Washington	63.06	54.04	53.62	54.85	56.15	60.14

¹ Equity-to-assets ratio = total equity/total assets, median values for each State shown.² Less than four observations.

Table 15—Local cooperative adjusted-equity-to-assets ratio¹ by location, 2003 to 2008

Region/ State	2003	2004	2005	2006	2007	2008
<u>Northeast</u>				<i>Percent</i>		
Maine	48.14	100.00	29.61	89.18	69.95	100.00
Massachusetts, New Jersey, New York	95.08	90.63	97.58	95.58	91.83	96.54
Pennsylvania	100.00	99.68	99.89	80.94	80.94	96.80
<u>Southeast</u>						
Alabama	94.30	100.00	99.82	100.00	100.00	100.00
Florida, Georgia	95.83	99.35	100.00	80.62	88.02	87.16
Kentucky	97.69	100.00	98.45	98.22	100.00	98.71
Maryland ² North Carolina ²						
Tennessee	97.93	96.39	100.00	100.00	100.00	100.00
Virginia	97.13	98.98	90.37	88.10	92.44	71.36
<u>Lake States</u>						
Michigan	86.62	91.58	94.82	88.84	93.79	92.87
Minnesota	97.70	94.25	94.33	96.20	91.75	93.81
Wisconsin	88.88	90.98	90.94	93.95	94.09	92.02
<u>Corn Belt</u>						
Iowa	82.89	82.74	77.84	79.73	80.02	76.64
Illinois	87.46	85.23	87.16	78.97	79.54	75.28
Indiana	94.08	93.30	93.18	94.93	94.31	91.52
Missouri	89.97	91.83	93.13	94.89	95.25	96.35
Ohio	77.51	75.00	82.14	83.23	79.09	72.38
<u>South Central</u>						
Arkansas	96.64	95.02	94.81	92.82	94.88	95.51
Louisiana	89.15	87.04	81.97	93.73	82.51	94.68
Mississippi	100.00	98.09	100.00	100.00	100.00	99.01
Oklahoma	83.55	87.31	87.56	88.98	87.58	90.08
Texas	96.23	87.49	90.58	89.37	89.56	90.37
<u>Northern Plains</u>						
Kansas	85.50	91.39	82.63	85.34	90.93	84.31
Nebraska	91.07	90.23	89.96	88.23	86.90	82.87
North Dakota	93.10	93.68	91.12	93.96	94.42	94.91
South Dakota	93.66	95.38	97.40	94.82	93.19	93.68
<u>Mountain</u>						
Colorado	85.96	92.94	88.38	94.10	87.85	89.68
Idaho	95.40	83.59	79.59	74.73	76.13	80.18
Montana	96.27	99.41	95.51	94.46	98.90	99.21
Utah	98.08	98.59	76.97	87.06	100.00	94.84
Wyoming ²						
<u>Pacific</u>						
California, Arizona, New Mexico	96.67	89.10	88.16	86.14	88.98	84.76
Hawaii ²						
Oregon	76.40	77.29	79.36	83.82	84.84	66.28
Washington	91.75	89.65	89.63	93.80	90.25	91.28

¹ Adjusted-equity-to-assets ratio = total equity/(total assets-current liabilities), median values for each State shown.

² Less than four observations.

13) increased over time in Minnesota, Wisconsin, Iowa, Illinois, Indiana, Missouri, Ohio, Kansas, Nebraska, North Dakota, Colorado, and California, Arizona, and New Mexico. The use of retained earnings appears to be declining in Montana, Oregon, and Washington, and about the same over the time period in Tennessee and Oklahoma.

The ratio of equity to total assets measures the use of equity to finance the cooperative and can be considered a measure of solvency or financial strength. Over the time series, it appears that less equity is being used to finance assets across just about all States, especially in 2008, when grain and oilseed and petroleum price increases caused the value of inventories to vastly increase (Table 14). States showing a marked decrease in the equity-to-assets ratio in the time series include Florida, Georgia, Kentucky, Michigan, Minnesota, Wisconsin, Iowa, Illinois, Indiana, Missouri, Ohio, Oklahoma, Texas, Kansas, Nebraska, and California, Arizona, and New Mexico. No change is noted in Tennessee, while Montana's ratio varied but went up in 2008.

Another measure of solvency of financial strength is shown by the adjusted equity ratio, where total equity is divided by total assets minus current liabilities. When current liabilities are subtracted from assets, the remainder is long-term debt and total equity, so the ratio shows the use of long-term debt and equity to finance the cooperative. A higher ratio indicates higher solvency or a greater use of equity to finance operations. A Median value of 100 indicates no use of long-term debt. The adjusted equity ratio indicated about an equal number of States that increased and decreased their use of long-term debt (Table 15). Minnesota, Iowa,

Illinois, Indiana, Ohio, Texas, Idaho, California, Arizona, and New Mexico, and Oregon increased their use of long-term debt, while Tennessee, Michigan, Wisconsin, Missouri, Oklahoma, Colorado, and Montana decreased their use of long-term debt. Kansas, North Dakota, South Dakota, and Washington used about the same amount of long-term debt over the time series.

Future Plans and Actions

The final survey question asked if there were changes being considered in current equity redemption plans, what plans were being considered, and whether other actions were being undertaken. No changes were noted by 343 respondents. Changes in redemption plans or actions undertaken are presented in Table 16. Twenty-two local cooperatives are considering a new redemption plan, with a revolving plan and a base capital plan both considered by seven cooperatives. For actions considered, seven cooperatives are planning to lower the age of redemption for their patron's age plan. Two cooperatives had offered to redeem older equities at a discount to speed up their redemption plan. Members could accept speeded up payment at a discount or wait for their equities to be retired in their normal time for full value.

Table 16—Changes in redemption plans or actions considered by local cooperatives

Frequency of response	Changes
	<i><u>Redemption plans considered</u></i>
7	Revolving plan
7	Base capital plan
4	Patron's age
4	Percent of all equities
	<i><u>Actions considered or undertaken</u></i>
7	Lowering the age on the patron's age plan
2	Discounting older equity values and redeeming them
1	Increasing the percentage of cash patronage
1	Starting a non-qualified allocated reserve

Summary

A primary objective of this study was to document equity redemption practices of cooperatives and compare this information with practices used in a 1991 study. More than half of the respondents to the 2008 study also participated in the 1991 study, allowing a strong basis for comparison. It was found in both studies that most cooperatives redeemed their allocated equity in the survey years, with larger cooperatives more likely to do so. Small cooperatives that did not redeem equity in 2008 most often stated that they were financially unable to do so.

When comparing the two studies, the revolving fund is now the most often used equity redemption plan, at 49 percent in 2008, while the patrons' estates plan was, in 1991, at 71 percent. Most cooperatives use a combination of equity redemption plans, although 94 respondent local cooperatives in 2008, and 81 in 1991, only used the revolving fund. A major change occurred in the use of patrons' estates redemption: it fell from 82 cooperatives only using this plan in 1991 to 32 in 2008. The use of corporate ownership of family farms may be a major reason for the decline in the use of patrons' estates redemption plans.

Cooperatives redeem equity when they have net income and funds are available. Some local cooperatives, especially grain and oilseed and farm supply cooperatives, have allocated equities that are 17 or 18 years old. Even with older equities, though, it is important for cooperatives to redeem allocated equities when funds are available and not stress their balance sheets or solvency in doing so.

Service and livestock, poultry, and wool local cooperatives both have a revolvment period of 7 years or less. Cotton and cotton gins; other marketing; and fruit, vegetable, and nut cooperatives also have a shorter revolvment period of 11 years or less.

Most (74 percent) of the respondents were grain and oilseed or farm supply cooperatives. Since most grain and oilseed cooperatives sell some farm supplies and many farm supply cooperatives market some grain, their operations are very similar. Grain and oilseed and farm supply cooperatives have a higher proportion of retained earnings to total equity than other types of cooperatives. Generally, retained earnings (unallocated equity) are generated by net income from nonmember business, so those cooperatives must have more nonmember business.

The benefits of using retained earnings are two-fold: retained earnings do not have to be revolved to

members, and losses can be written off from retained earnings without lowering member equity accounts. The downside of using more retained earnings is that members can gradually lose their sense of control and ownership of the cooperative, and as retained earnings accumulate, they may want to take cash out by selling the cooperative.

Equity financing has generally been decreasing, with many cooperatives using more debt. Leverage financing allows the cooperative to expand the business or its services and offer members higher rates of return when profitable. However, leverage can decrease solvency if there are unforeseen expenses or an overall contraction of the economy or farming sector.

With the recent overall crisis in the U.S. economy, most experts are recommending a stronger balance sheet, which means more equity financing. Cooperatives most often accumulate equity capital through net income allocated to members as patronage refunds. To strengthen their balance sheets with more equity financing in uncertain economic times, cooperatives may need to lengthen their equity redemption plans.

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Appendix Table 1—All respondents by State to the 1991 and 2008 surveys

Region/ State	1991	2008
	<i>Number</i>	
<u>Northeast</u>		
Maine, Connecticut, Vermont	7	8
Massachusetts, New Jersey, New York	29	18
Pennsylvania	19	12
<u>Southeast</u>		
Alabama	17	6
Florida, Georgia	21	10
Kentucky	29	4
Maryland, Delaware	13	4
North Carolina	10	3
Tennessee	33	20
Virginia, West Virginia	52	9
<u>Lake States</u>		
Michigan	31	16
Minnesota	217	82
Wisconsin	111	52
<u>Corn Belt</u>		
Iowa	158	58
Illinois	93	57
Indiana	41	12
Missouri	30	31
Ohio	48	22
<u>South Central</u>		
Arkansas	24	12
Louisiana	17	6
Mississippi	25	9
Oklahoma	48	19
Texas	116	50
<u>Northern Plains</u>		
Kansas	106	46
Nebraska	92	31
North Dakota	102	54
South Dakota	67	27
<u>Mountain</u>		
Colorado	29	13
Idaho	13	6
Montana	23	14
Utah	10	6
Wyoming	4	3
<u>Pacific</u>		
California, Arizona, New Mexico	105	36
Hawaii	4	4
Oregon	29	11
Washington	45	21
Total	1,818	792

Appendix Table 2—Equity redemption methods of local cooperatives reporting in 2008 and 1991

Year and cooperative asset size	N	Redeem equity		Redemption methods				Base capital plan	
		Yes	Revolving fund	Patrons' estates	Patron's age ¹		Percent of all equities		
					all	oldest first			% to all
		<i>Number</i>							
2008		<i>Percent</i>							
< \$1 million	29	51.72	24.14	17.24	6.90	0.00	0.00	17.24	0.00
\$1 mill. to \$2.49 mill.	43	58.14	34.88	39.53	20.93	13.95	2.33	2.33	2.33
\$2.5 mill. to \$4.99 mill.	52	76.92	44.23	38.46	32.69	15.38	5.77	17.31	1.92
\$5 mill. to \$9.99 mill.	71	76.06	52.11	32.39	26.76	14.08	1.41	11.27	4.23
\$10 mill. to \$19.99 mill.	83	84.34	50.60	51.81	33.73	20.48	2.41	12.05	2.41
\$20 mill. to \$49.99 mill.	74	91.89	51.35	62.16	32.43	21.62	4.05	17.57	2.70
≥\$50 million	87	87.36	20.69	62.07	33.33	20.69	8.05	11.49	10.34
All	439	79.27	49.20	47.38	29.16	17.08	3.87	12.76	4.10
1991									
< \$1 million	54	87.04	24.07	59.26	5.56	n.a.	n.a.	n.a.	0.00
\$1 mill. to \$2.49 mill.	121	99.17	54.55	72.73	33.06	n.a.	n.a.	n.a.	0.00
\$2.5 mill. to \$4.99 mill.	94	98.94	54.26	73.40	23.40	n.a.	n.a.	n.a.	0.00
\$5 mill. to \$9.99 mill.	95	98.95	52.63	78.95	32.63	n.a.	n.a.	n.a.	2.11
\$10 mill. to \$19.99 mill.	37	100.00	64.86	78.38	35.14	n.a.	n.a.	n.a.	2.70
\$20 mill. to \$49.99 mill.	14	100.00	50.00	64.29	42.86	n.a.	n.a.	n.a.	0.00
≥\$50 million	24	100.00	75.00	41.67	8.33	n.a.	n.a.	n.a.	20.83
All	439	97.72	52.16	71.07	26.65	n.a.	n.a.	n.a.	1.82

N=Number of respondents

¹ "Oldest first" and "percent to all" are a form of redemption by patron's age, these two responses should add to "all", except all respondents did not answer all questions. "Patron's age", "oldest first" and "percent to all", and "percent of all equities" were not collected in the 1991 so are listed as n.a., not available

Appendix Table 3—Reasons for not redeeming equity in survey year, local cooperatives responding in 2008 and 1991¹

Total asset size	Unable	Building equity	Little equity
		<i>Percent</i>	
2008			
< \$1 million	27.59	10.34	17.24
\$1 mill. to \$2.49 mill.	30.23	16.28	6.98
\$2.5 mill. to \$4.99 mill.	17.31	9.62	3.85
\$5 mill. to \$9.99 mill.	14.08	1.41	2.82
\$10 mill. to \$19.99 mill.	15.66	8.43	2.41
\$20 mill. to \$49.99 mill.	2.70	9.46	1.35
≥\$50 million	3.45	5.75	1.15
All	13.21	7.97	3.64
1991			
< \$1 million	9.26	16.67	14.81
\$1 mill. to \$2.49 mill.	9.92	0.83	24.79
\$2.5 mill. to \$4.99 mill.	9.57	1.06	23.40
\$5 mill. to \$9.99 mill.	15.79	1.05	31.58
\$10 mill. to \$19.99 mill.	16.22		24.32
\$20 mill. to \$49.99 mill.	21.43		28.57
≥\$50 million	16.67		29.17
All	12.30	2.73	25.06

¹ Where there are blank responses, information not available.

Appendix Table 4—Equity redemption by type for cooperatives responding in 2008 and 1991

Year and cooperative asset size	N	Redeem equity Yes	Redemption methods				Percent of all equities	Base capital plan	
			Revolving fund	Patrons' estates	Patron's age				
					all	oldest first			% to all
<i>Number</i>									
<u>Cotton and cotton gin</u>									
All, 2008	24	75.00	62.50	16.67	4.17	0.00	0.00	8.33	12.50
All, 1991	24	95.83	87.50	12.50	0.00	n.a.	n.a.	n.a.	4.17
<u>Dairy</u>									
All, 2008	26	80.77	57.69	46.15	26.92	0.00	19.23	19.23	26.92
All, 1991	26	96.15	76.92	57.69	15.38	n.a.	n.a.	n.a.	7.69
<u>Farm supply</u>									
All, 2008	191	76.96	43.46	49.74	37.70	3.14	20.94	16.75	2.09
All, 1991	191	99.48	47.12	82.20	31.94	n.a.	n.a.	n.a.	0.52
<u>Fruit, vegetable, and nut</u>									
All, 2008	28	75.00	75.00	3.57	0.00	0.00	0.00	3.57	14.29
All, 1991	28	100.00	75.00	7.14	0.00	n.a.	n.a.	n.a.	17.86
<u>Grain and oilseed</u>									
All, 2008	150	86.67	48.00	63.33	32.00	7.33	20.67	14.00	1.33
All, 1991	150	98.67	46.00	86.00	34.00	n.a.	n.a.	n.a.	0.00
<u>Livestock, poultry, and wool</u>									
All, 2008	10	40.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00
All, 1991	10	60.00	30.00	10.00	0.00	n.a.	n.a.	n.a.	0.00
<u>Other marketing</u>									
All, 2008	11	72.73	54.55	18.18	0.00	0.00	0.00	9.09	9.09
All, 1991	11	100.00	54.55	36.36	0.00	n.a.	n.a.	n.a.	0.00
<u>Service</u>									
All, 2008	20	85.00	65.00	10.00	10.00	0.00	0.00	15.00	5.00
All, 1991	20	95.00	70.00	30.00	15.00	n.a.	n.a.	n.a.	5.00

n.a. = not available.

Appendix Table 5—Farm supply cooperative equity redemption by asset size for cooperatives responding in 2008 and 1991

Year and cooperative asset size	N	Redeem equity		Redemption methods				Percent of all equities	Base capital plan
		Yes	Patrons' estates	Revolving fund	Patrons' oldest first	all			
						Patrons' oldest first	% to all		
<i>Percent</i>									
2008									
		<i>Number</i>							
< \$1 million	10	70.00	50.00	20.00	10.00	17.86	3.57	40.00	0.00
\$1 mill. to \$2.49 mill.	28	60.71	42.86	28.57	28.57	24.14	10.34	3.57	3.57
\$2.5 mill. to \$4.99 mill.	29	72.41	44.83	37.93	51.72	19.51	2.44	13.79	17.07
\$5 mill. to \$9.99 mill.	41	73.17	41.46	39.02	41.46	24.24	3.03	9.09	4.88
\$10 mill. to \$19.99 mill.	33	78.79	51.52	45.45	42.42	17.86		21.43	3.03
\$20 mill. to \$49.99 mill.	28	92.86	64.29	60.71	28.57	43.75		18.75	16.67
≥ \$50 million	16	87.50	75.00	66.67	56.25			66.67	
Regionals	6	100.00	16.67	43.46	37.70	20.94	3.14	16.75	2.09
All	191	76.96	49.74						
1991									
< \$1 million	29	96.55	82.76	27.59	10.34	n.a.	n.a.	n.a.	n.a.
\$1 mill. to \$2.49 mill.	70	100.00	78.57	45.71	42.86	n.a.	n.a.	n.a.	n.a.
\$2.5 mill. to \$4.99 mill.	38	100.00	89.47	47.37	31.58	n.a.	n.a.	n.a.	n.a.
\$5 mill. to \$9.99 mill.	38	100.00	89.47	52.63	28.95	n.a.	n.a.	n.a.	2.63
\$10 mill. to \$19.99 mill.	10	100.00	80.00	80.00	50.00	n.a.	n.a.	n.a.	n.a.
\$20 mill. to \$49.99 mill.	0								
≥ \$50 million	0								
Regionals	6	100.00	33.33	66.67		n.a.	n.a.	n.a.	n.a.
All	191	99.48	82.20	47.12	31.94	n.a.	n.a.	n.a.	0.52

n.a. = not available.

Appendix Table 6—Grain and oilseed cooperative equity redemption by asset size for cooperatives responding in 2008 and 1991

Year and cooperative asset size	N	Redeem equity		Redemption methods					Base capital plan	
		Yes	No	Revolving fund	Patrons' estates	Patron's age		Percent of all equities		
						all	oldest first			% to all
2008										
		<i>Number</i>								
< \$1 million	1	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
\$1 mill. to \$2.49 mill.	7	71.43		42.86	57.14	14.29	14.29			
\$2.5 mill. to \$4.99 mill.	7	85.71		14.29	57.14				14.29	
\$5 mill. to \$9.99 mill.	15	66.67		40.00	26.67	13.33			6.67	
\$10 mill. to \$19.99 mill.	37	86.49		51.35	64.86	32.43		2.70	16.22	
\$20 mill. to \$49.99 mill.	40	92.50		42.50	70.00	37.50		7.50	17.50	2.50
≥ \$50 million	42	95.24		2.38	73.81	42.86		16.67	14.29	2.38
Regionals	1	0.00		0.00	0.00	0.00		0.00	0.00	0.00
All	150	86.67		48.00	63.33	32.00		7.33	14.00	1.33
1991										
< \$1 million	3	100.00		33.33	100.00			n.a.	n.a.	
\$1 mill. to \$2.49 mill.	34	97.06		50.00	82.35	26.47		n.a.	n.a.	
\$2.5 mill. to \$4.99 mill.	37	97.30		43.24	89.19	27.03		n.a.	n.a.	
\$5 mill. to \$9.99 mill.	42	100.00		45.24	88.10	42.86		n.a.	n.a.	
\$10 mill. to \$19.99 mill.	23	100.00		56.52	78.26	30.43		n.a.	n.a.	
\$20 mill. to \$49.99 mill.	9	100.00		22.22	100.00	66.67		n.a.	n.a.	
≥ \$50 million	1	100.00		100.00	100.00	100.00		n.a.	n.a.	
Regionals	1	100.00						n.a.	n.a.	
All	150	98.67		46.00	86.00	34.00		n.a.	n.a.	0.00

n.a. = not available.

Appendix Table 7—Equity redemption and types by asset size, 2008¹

Cooperative asset size	N	Redeem equity		Redemption methods				Percent of all equities	Base capital plan
		Yes	Revolving fund	Patrons' estates	Patron's age ²		Percent of all		
					all	oldest first			
<i>Number</i>									
Local cooperatives									
< \$1 million	85	37.65	18.82	11.76	3.53			9.41	1.18
\$1 mill. to \$2.49 mill.	87	57.47	35.63	28.74	13.79	8.05	1.15	2.30	2.30
\$2.5 mill. to \$4.99 mill.	101	71.29	43.56	34.65	24.75	9.90	2.97	12.87	1.98
\$5 mill. to \$9.99 mill.	128	72.66	46.88	36.72	26.56	14.84	3.91	10.16	3.91
\$10 mill. to \$19.99 mill.	135	82.96	48.15	51.11	39.26	22.22	5.19	14.07	3.70
\$20 mill. to \$49.99 mill.	119	86.55	49.58	63.87	35.29	20.17	5.88	15.13	1.68
≥\$50 million	110	85.45	58.18	60.00	35.29	21.82	6.36	10.00	9.09
All	765	72.68	44.31	42.88	26.93	14.90	3.92	10.98	3.53
Regional cooperatives									
< \$2.5 million	5	60.00	20.00					20.00	
\$2.5 mill. to \$9.99 mill.	3	66.67	33.33					33.33	
\$10 mill. to \$19.99 mill.	5	80.00	80.00	20.00	20.00	20.00		20.00	20.00
\$20 mill. to \$49.99 mill.	3	100.00	100.00						33.33
≥\$50 million	11	90.91	54.51	27.27	18.18	9.09		54.55	27.27
All	27	81.48	55.56	14.81	11.11	7.41	0.00	33.33	18.52

N=Number of respondents

¹ Where there are blank responses, information not available.² "Oldest first" and "percent to all" are a form of redemption by patron's age, these two responses should add to "all", except all respondents did not answer all questions.

Appendix Table 8—Equity redemption by type of cooperative and asset size, 2008¹

Cooperative asset size	N	Redeem equity Yes	Redemption methods					Percent of all equities	Base capital plan
			Revolving fund	Patrons' estates	Patron's age ²		Patron's oldest first		
					all	% to all			
<i>Percent</i>									
<i>Number</i>									
Cotton and cotton gin									
< \$1 million	2	50.00				50.00			
\$1 mill. to \$2.49 mill.	8	75.00	37.50					12.50	
\$2.5 mill. to \$4.99 mill.	8	62.50	50.00	12.50				25.00	25.00
\$5 mill. to \$9.99 mill.	6	83.33	100.00	16.67					
\$10 mill. to \$19.99 mill.	2	100.00	100.00						
\$20 mill. to \$49.99 mill.	1	0.00							
≥ \$50 million	4	75.00	75.00	50.00					25.00
Regionals	3	66.67	66.67						33.33
All	34	70.59	61.76	11.76		2.94	0.00	5.88	14.71
Dairy									
< \$1 million	12	58.33	8.33	8.33		8.33		8.33	8.33
\$1 mill. to \$2.49 mill.	8	75.00	50.00	37.50		12.50		12.50	
\$2.5 mill. to \$4.99 mill.	6	50.00	50.00	16.67		16.67		33.33	
\$5 mill. to \$9.99 mill.	6	50.00	50.00	16.67					
\$10 mill. to \$19.99 mill.	2	100.00	50.00	50.00		50.00			50.00
\$20 mill. to \$49.99 mill.	1	0.00							
≥ \$50 million	10	100.00	40.00	80.00		100.00			60.00
Regionals	3	100.00	66.67	66.67		100.00		100.00	33.33
All	48	70.83	39.58	35.42		18.75	12.50	14.58	18.75

¹ Where there are blank responses, information not available.

² "Oldest first" and "percent to all" are a form of redemption by patron's age, these two responses should add to "all", except all respondents did not answer all questions.

Appendix table 9—Average cash patronage and average net worth to assets by cooperative type and size, 2008

Cooperative asset size	Equity redemption in 2008			No equity redemption in 2008		
	N ¹	Cash patronage paid	Net worth/ assets	N ¹	Cash patronage paid	Net worth/ assets
	<i>Number</i>	<i>Percent</i>		<i>Number</i>	<i>Percent</i>	
Cotton and cotton gin						
< \$1 million	1	29.99	96.16	1	100.00	55.70
\$1 mill. to \$2.49 mill.	6	76.63	57.77	2		54.14
\$2.5 mill. to \$4.99 mill.	5	77.21	54.80	3	49.88	59.16
\$5 mill. to \$9.99 mill.	5	75.81	55.22	1	77.88	40.35
\$10 mill. to \$19.99 mill.	2	41.18	45.72	0		
\$20 mill. to \$49.99 mill.	0			1	77.24	27.57
≥ \$50 million	3	56.70	21.09	0		
Regionals	2	62.50	54.92	1		34.12
All	24	68.01	28.08	9	67.46	37.11
Dairy						
< \$1 million	7	100.00	57.40	5	60.00	20.22
\$1 mill. to \$2.49 mill.	6	56.68	26.42	2		63.91
\$2.5 mill. to \$4.99 mill.	3	27.39	63.95	3	20.00	32.85
\$5 mill. to \$9.99 mill.	3	40.67	26.70	3	100.00	10.13
\$10 mill. to \$19.99 mill.	2	23.91	58.20	0		
\$20 mill. to \$49.99 mill.	0			1		
≥ \$50 million	10	37.48	30.02	0		
Regionals	3	47.13	21.80	0		
All	34	44.30	25.55	14	55.00	36.31

¹ Values not shown if N is less than 3, information is not available, or if disclosure would reveal individual operations.

Appendix Table 10—Equity redemption by type of cooperative and asset size, 2008¹

Cooperative asset size	N ¹	Redeem equity	Redemption methods				Base capital plan	
		Yes	Revolving fund	Patrons' estates	all	Patron's age ² oldest first		% to all
<i>Number</i>								
Farm supply								
< \$1 million	21	52.38	19.05	33.33	4.76			23.81
\$1 mill. to \$2.49 mill.	45	55.56	33.33	31.11	20.00	11.11	2.22	2.22
\$2.5 mill. to \$4.99 mill.	56	71.43	39.29	41.07	37.50	14.29	5.36	12.50
\$5 mill. to \$9.99 mill.	74	75.68	40.54	41.89	37.84	20.27	4.05	12.16
\$10 mill. to \$19.99 mill.	60	81.67	43.33	58.33	51.67	26.67	5.00	11.67
\$20 mill. to \$49.99 mill.	45	93.33	55.56	68.89	40.00	22.22		15.56
≥ \$50 million	26	84.62	57.69	69.23	40.00	12.50		11.54
Regionals	8	100.00	62.50	25.00	22.22	12.50		50.00
All	335	75.52	42.39	48.06	37.01	19.70	2.99	12.84
Fruit, vegetable, and nut								
< \$1 million	15	40.00	46.67					
\$1 mill. to \$2.49 mill.	4	50.00	75.00	25.00				25.00
\$2.5 mill. to \$4.99 mill.	5	40.00	40.00					
\$5 mill. to \$9.99 mill.	4	75.00	100.00					
\$10 mill. to \$19.99 mill.	8	100.00	62.50					12.50
\$20 mill. to \$49.99 mill.	4	75.00	75.00					25.00
≥ \$50 million	7	57.14	85.71					14.29
Regionals	3	100.00	100.00					
All	50	62.00	66.00	2.00	0.00	0.00	0.00	4.00

¹ Where there are blank responses, information not available.

² "Oldest first" and "percent to all" are a form of redemption by patron's age, these two responses should add to "all", except all respondents did not answer all questions.

Appendix table 11—Average cash patronage and average net worth to assets by cooperative type and size, 2008

Cooperative asset size	Equity redemption in 2008			No equity redemption in 2008		
	N ¹	Cash patronage paid	Net worth/ assets	N ¹	Cash patronage paid	Net worth/ assets
	<i>Number</i>	<i>Percent</i>		<i>Number</i>	<i>Percent</i>	
Farm supply						
< \$1 million	11	44.27	79.92	9	25.00	77.36
\$1 mill. to \$2.49 mill.	25	43.87	69.56	18	41.25	65.01
\$2.5 mill. to \$4.99 mill.	40	39.97	61.94	11	43.37	53.32
\$5 mill. to \$9.99 mill.	56	40.96	58.76	11	56.63	46.24
\$10 mill. to \$19.99 mill.	49	35.78	50.08	8	30.07	40.12
\$20 mill. to \$49.99 mill.	42	40.03	43.26	3	70.00	30.83
≥ \$50 million	22	38.11	31.99	4	33.81	29.19
Regionals	8	48.57	36.18			
All	253	39.91	39.21	64	41.55	37.32
Fruit, vegetable, and nut						
< \$1 million	6	60.00	58.24	7	100.00	77.83
\$1 mill. to \$2.49 mill.	2		59.29	1		49.65
\$2.5 mill. to \$4.99 mill.	2	29.05	58.38	3		
\$5 mill. to \$9.99 mill.	3	70.89	46.06	0		
\$10 mill. to \$19.99 mill.	8	72.22	39.45	0		
\$20 mill. to \$49.99 mill.	3	43.25	37.98	0		
≥ \$50 million	4	58.60	33.97	3	87.46	34.25
Regionals	3	20.67	36.30	0		
All	31	54.11	34.83	14	72.47	33.99

¹ Values not shown if N is less than 3, information is not available, or if disclosure would reveal individual operations.

Appendix Table 12—Equity redemption by type of cooperative and asset size, 2008

Cooperative asset size	N ¹	Redeem equity		Redemption methods				Base capital plan		
		Yes		Revolving fund	Patrons' estates	all	Patron's age ² oldest first		% to all	Percent of all equities
Grain and oilseed										
< \$1 million	5	20.00		20.00	20.00					
\$1 mill. to \$2.49 mill.	18	61.11		33.33	38.89	11.11	5.56			
\$2.5 mill. to \$4.99 mill.	18	83.33		38.89	50.00	11.11	5.56		11.11	
\$5 mill. to \$9.99 mill.	33	66.67		39.39	39.39	18.18	12.12	6.06	12.12	
\$10 mill. to \$19.99 mill.	57	80.70		47.37	56.14	35.09	22.81	7.02	19.30	1.75
\$20 mill. to \$49.99 mill.	60	88.33		41.67	73.33	36.67	20.00	11.67	13.33	1.67
≥ \$50 million	49	93.88		61.22	71.43	36.67			14.29	2.04
Regionals										
All	241	80.50		45.23	58.51	29.46	17.43	8.30	13.28	1.24
Livestock, poultry, and wool										
< \$1 million	12	8.33		8.33						
\$1 mill. to \$2.49 mill.	0									
\$2.5 mill. to \$4.99 mill.	1	100.00		100.00						
\$5 mill. to \$9.99 mill.	1	100.00		100.00	100.00					
\$10 mill. to \$19.99 mill.	2	100.00		100.00						
\$20 mill. to \$49.99 mill.	0									
≥ \$50 million	1									
Regionals	0									
All	18	27.78		27.78	5.56	0.00	0.00	0.00	0.00	0.00

¹ Where there are blank responses, information not available.

² "Oldest first" and "percent to all" are a form of redemption by patron's age, these two responses should add to "all", except all respondents did not answer all questions

Appendix table 13—Average cash patronage and average net worth to assets by cooperative type and size, 2008

Cooperative asset size	Equity redemption in 2008			No equity redemption in 2008		
	N ¹	Cash patronage paid	Net worth/ assets	N ¹	Cash patronage paid	Net worth/ assets
	<i>Number</i>	<i>Percent</i>		<i>Number</i>	<i>Percent</i>	
Grain and oilseed						
< \$1 million	1		67.96	4		71.93
\$1 mill. to \$2.49 mill.	11	51.37	62.02	6	59.78	56.69
\$2.5 mill. to \$4.99 mill.	15	45.36	46.57	3	30.00	49.06
\$5 mill. to \$9.99 mill.	22	43.76	39.23	10	49.99	31.46
\$10 mill. to \$19.99 mill.	46	39.26	34.20	7	42.46	22.05
\$20 mill. to \$49.99 mill.	53	40.06	26.70	6	33.33	24.99
≥ \$50 million	46	38.90	21.65	3	60.00	18.62
Regionals						
All	194	40.19	24.00	40	46.16	26.39
Livestock, poultry, and wool						
< \$1 million	1			11		100.00
\$1 mill. to \$2.49 mill.	0			0		
\$2.5 mill. to \$4.99 mill.	1	52.03	35.84	0		
\$5 mill. to \$9.99 mill.	1		23.29	0		
\$10 mill. to \$19.99 mill.	0			1		11.48
\$20 mill. to \$49.99 mill.	2	49.67	30.18	0		
≥ \$50 million	0			1		22.64
Regionals	0			0		
All	5	50.85	29.73	13	0.00	21.31

¹ Values not shown if N is less than 3, information is not available, or if disclosure would reveal individual operations.

Appendix Table 14—Equity redemption by type of cooperative and asset size, 2008

Cooperative asset size	N ¹	Redeem equity		Redemption methods				Base capital plan	
		Yes	Percent	Revolving fund	Patrons' estates	Patron's age ²			Percent of all equities
						all	% to all		
<i>Number</i>									
Other marketing									
< \$1 million	7	14.29							
\$1 mill. to \$2.49 mill.	3								
\$2.5 mill. to \$4.99 mill.	4	100.00	25.00	75.00	25.00				
\$5 mill. to \$9.99 mill.	4	75.00		75.00					
\$10 mill. to \$19.99 mill.	3	100.00	33.33	66.67	33.33			33.33	
\$20 mill. to \$49.99 mill.	6	50.00	16.67	33.33	16.67	16.67		33.33	
≥ \$50 million	11	63.64	27.27	45.45	9.09			9.09	
Regionals	2	100.00		50.00				50.00	
All	40	57.50	15.00	40.00	10.00	5.00	0.00	7.50	
Service									
< \$1 million	11	36.36	9.09	18.18				18.18	
\$1 mill. to \$2.49 mill.	1								
\$2.5 mill. to \$4.99 mill.	3	66.67		66.67					
\$5 mill. to \$9.99 mill.	0								
\$10 mill. to \$19.99 mill.	2	100.00		100.00					
\$20 mill. to \$49.99 mill.	0								
≥ \$50 million	2	100.00		50.00					
Regionals	7	57.14	3.85	28.57				28.57	
All	26	53.85	3.85	34.62	0.00	0.00	0.00	15.38	

¹ Where there are blank responses, information not available.

² "Oldest first" and "percent to all" are a form of redemption by patron's age, these two responses should add to "all", except all respondents did not answer all questions.

Appendix table 15—Average cash patronage and average net worth to assets by cooperative type and size, 2008

Cooperative asset size	Equity redemption in 2008			No equity redemption in 2008		
	N ¹	Cash patronage paid	Net worth/ assets	N ¹	Cash patronage paid	Net worth/ assets
	<i>Number</i>	<i>Percent</i>		<i>Number</i>	<i>Percent</i>	
Other marketing						
< \$1 million	1		96.92	5		20.71
\$1 mill. to \$2.49 mill.	0			3	100.00	22.83
\$2.5 mill. to \$4.99 mill.	4	35.16	64.79	0		
\$5 mill. to \$9.99 mill.	3	46.67	43.99	1	100.00	19.65
\$10 mill. to \$19.99 mill.	3	42.50	57.57	0		
\$20 mill. to \$49.99 mill.	3	30.00	60.51	3	36.55	60.31
≥ \$50 million	7	71.19	38.98	4	25.76	42.37
Regionals	2	30.00	18.50	0		
All	23	39.63	38.75	16	72.46	43.50
Service						
< \$1 million	4	68.90	91.55	6		60.61
\$1 mill. to \$2.49 mill.	0			1	100.00	94.49
\$2.5 mill. to \$4.99 mill.	2	75.00	71.51	0		
\$5 mill. to \$9.99 mill.	0			0		
\$10 mill. to \$19.99 mill.	2	60.66	43.08	0		
\$20 mill. to \$49.99 mill.	0		0			
≥ \$50 million	2	38.29	80.13	0		
Regionals	4	27.64	82.89	2	100.00	38.07
All	14	48.22	75.23	9	100.00	53.45

¹ Values not shown if N is less than 3, information is not available, or if disclosure would reveal individual operations.

U.S. Department of Agriculture

Rural Business–Cooperative Service

Stop 3250

Washington, D.C. 20250-3250

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The cooperative segment of RBS (1) helps farmers and other rural residents develop cooperatives to obtain supplies and services at lower cost and to get better prices for products they sell; (2) advises rural residents on developing existing resources through cooperative action to enhance rural living; (3) helps cooperatives improve services and operating efficiency; (4) informs members, directors, employees, and the public on how cooperatives work and benefit their members and their communities; and (5) encourages international cooperative programs. RBS also publishes research and educational materials and issues *Rural Cooperatives* magazine.

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