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Highlights

Management of equity capital is the most important financial activity in a cooperative. Successful management of equity requires a responsive and objective capitalization program. A base capital plan, because it is a complete equity management tool, meets that requirement.

A base capital plan fills this need because it (1) enables the cooperative to "recapitalize" itself on a periodic basis; (2) maintains member investment (financing) in proportion to use; and (3) keeps ownership and control in the hands of current users.

Establishing a base capital plan requires careful study and analysis, but the effort is rewarded with a responsive, equitable capitalization program. Good financial planning is the key to the successful operation of the plan because each year the cooperative establishes a required level of equity to meet the capital needs of the coming year's operation. Members are then notified of their required level of investment for the new fiscal period and the method to be used for collecting it.

Although base capital plans are used primarily by marketing cooperatives, they can be readily adapted to supply and service cooperatives. In evaluating the use of a base capital plan, each cooperative should carefully weigh how it will benefit its members through a better capitalized business.

This publication informs cooperative boards of directors, management, and employees about the benefits of the base capital method of capitalization and provides guidelines for implementing and operating such a plan.

Base Capital Financing of Cooperatives

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Today's agribusiness economy is changing rapidly. Production agriculture has become very capital-intensive. Producers must determine how the limited amount of capital available for their agricultural enterprise will be divided among competing needs.

It is not easy for a member to measure and compare the return on capital invested in a cooperative. Boards of directors and management face a difficult challenge in obtaining and keeping enough equity capital in the cooperative to adequately capitalize it.

In this capital-competitive environment, member-investment programs must be flexible and equitable for two reasons: (1) they must permit a cooperative to meet rapidly changing capital requirements in a timely and equitable way; and (2) they must allow the equity capital of inactive or retired members to be redeemed in a more timely fashion. This keeps ownership, control, and financing of the cooperative in the hands of current users. The features, operation, and performance of base capital plans meets these objectives.

Background

The idea of base capital equity financing was introduced by the Farmer Cooperative Service [now part of USDA's Rural Business and Cooperative Development Service (RBCDS)] in the late 1950s [1].¹ It was requested by a group of cooperatives with extended revolving fund periods and substantial inequities in the amount of member investment.

The resulting program was initially called the "Adjustable Revolving Fund Capital Plan" and provided for annual adjustments to bring equity investment in line with patronage, or use of the cooperative.

¹ Numbers in brackets refer to publications cited in the references section.

Some of the first cooperatives to adopt the base capital plan concept were centralized fruit and vegetable marketing associations on the West Coast and in Florida in the early 1960s [2].

In the more than 30 years since the base capital plan concept was introduced, it has, unfortunately, received only limited acceptance and use. A 1974 survey conducted by the Farmer Cooperative Service showed 2 percent of marketing and supply cooperatives surveyed were using a base capital plan [3]. More recently, USDA's Rural Business and Cooperative Development Service (RBCDS), using 1991 data, found that less than 1 percent of all types of cooperatives were using base capital programs. The percentage among marketing and supply cooperatives was comparable to the 2-percent level found in the 1974 study [4].

Considering the many advantages the program offers, the limited use is disappointing. One of the objectives of this report is to encourage boards of directors and management to seriously consider the value of a base capital program as an effective tool for managing their cooperative's capital needs.

What Is a Base Capital Plan?

Many cooperative equity capital programs have two parts that operate completely separate from each other. The first part is the accumulating of equity, or ownership capital. The most common method used is to retain a portion of the net income of the business as allocated patronage refunds.

Another method is the per-unit capital retain in which part of the proceeds due patrons from the cooperative's sale of their commodity is retained as allocated equity. These funds are withheld based on either the physical number of units handled or a percentage of the dollar value of the product involved.

Direct investment by members is a third way cooperatives accumulate equity. This method is normally used for collecting membership fees or as an assessment for a special capital need.

Net income derived from nonpatronage business is another source. On a tax-paid basis, it is retained by cooperatives as a source of equity capital in an unallocated capital reserve.

The second part of a cooperative's capital program is the equity redemption phase in which part of the retained allocated equity capital is

repaid to patrons. This is done through regular redemption programs such as a revolving fund, a percent-of-all-equity program, a base capital program, and/or through special programs.

With special programs, equity is paid as the result of an event that happens to a patron-death, retirement from farming, attaining a certain age, or a combination of these special programs. Equity redemption can also consist of a combination of regular and special payment programs.

Too often, however, a cooperative's method for acquiring and redeeming equity capital is not directly related to its current capital needs. Usually, the amount of new equity capital available results from the organization's profitability or is a function of the amount of product handled (when per-unit capital retains are used). Likewise, any redemption is made only to dispose of leftover equity not needed for current capital requirements.

This residual approach to equity redemption does not involve much financial management or planning. It also reduces a cooperative's ability to adjust its equity levels when faced with unforeseen capital demands. This problem is caused by operating losses, low volume of product which reduces capital retains, or demands arising from large capital expenditures.

A base capital program, however, links equity accumulation directly to equity redemption. By doing so, it serves as a tool for handling all aspects of the equity management function.

Base capital plans have many different names such as adjustable capital, adjusted balances, permanent capital, or modified revolving fund. Regardless of the name, the principal feature is the same. The plan establishes a target amount of required equity that is periodically and systematically adjusted to meet the current capital needs of the cooperative. In addition to meeting equity requirements, the goal is to keep the patron's equity contribution closely in line with use of the cooperative. In this way, ownership is kept in the hands of current users in an equitable manner and the fundamental cooperative operating principles of member-financed and member-controlled are fulfilled.

For example, if a member's use of the cooperative represents 2 percent of total patronage, then the member's equity investment should be equal to 2 percent of the cooperative's total allocated equity capital.

Base capital plans are used primarily by marketing cooperatives such as those in fruit and vegetables, dairy, and grain. Some supply and service cooperatives also use these plans successfully [4].

Advantages and Disadvantages

Base capital plans have their advantages and disadvantages, just like other capital programs. A board of directors should weigh carefully all aspects when considering the suitability of a base capital plan for their cooperative.

Advantages

- Links a member's investment directly to use and provides a mechanism for maintaining that relationship.
- Keeps ownership and control in the hands of current users and in proportion to use.
- Permits the cooperative to systematically adjust capital requirements up or down to meet changing needs. More capital can be obtained by increasing the required amount of investment, or equity can be redeemed if capital levels are met.
- Encourages members to view their investment in a base capital plan as a true investment compared with equity accumulated under other programs that may or may not be redeemed in a timely fashion.
- Requires the board and management to develop an annual budget and financial plan. Even though smaller cooperatives may lack the expertise or resources to prepare a detailed financial plan, some planning is necessary to determine capital needs and set investment levels for the coming year.
- Provides the board and management with a tool to manage the cooperative's capital.
- Allows a member, who is phasing out farming operations or withdrawing from membership, to have equity returned over a reasonable period of time if the flow of funds into the cooperative from current users permits.
- May enhance member loyalty because of the plan's equitable treatment and predictability.

Disadvantages

- Initial capital investment requirements can place a financial burden on new members. This may act as a barrier to membership, but programs can be designed to help new members achieve required investment levels on an installment basis over a multiple-year period. This could cause the further disadvantage of slowing the redemption of equity of over-invested members.

- The plan does not work well if there is a constant and large membership turnover. This situation puts a strain on remaining members to provide the additional capital needed that is no longer being supplied by exiting members.
- A plan is difficult to manage if their are widely fluctuating capital flows.
- A base capital plan is more difficult to understand than traditional capital programs such as the revolving fund method. This should not be considered an obstacle to adopting such a plan, because these difficulties can be overcome with effective, ongoing education and communication programs.

Capital Program Considerations

The board of directors, before deciding to adopt a base capital plan or any other type of capital program, should address a number of considerations about the financial needs, capabilities, and objectives of its cooperative [5].

- What is the **appropriate** level of **equity** capital for the organization?
 - What is the **required** level of **working** capital?
 - What are the future needs for expanding the business through new investments or acquisitions?
 - How much risk capital is needed to cushion against losses during poor operating periods?
- How flexible is the cooperative's equity structure in responding to increased or decreased capital needs?
 - How quickly can additional capital be obtained to take advantage of acquisition opportunities or meet internal expansion needs?
 - Is there an equitable method of returning excess capital to the owners on a timely basis?
- Does the capital program seek to keep ownership in the hands of current users? Can ownership interests of former members be transferred to current members? Examples are where one member is permitted to purchase the equity credits of another who is quitting farming, or having a provision for transferring equities from one membership generation to another.

- Does the capital program promote a forward-looking, business-like relationship with the membership?
- How equitable is the capital program? Is there a way to keep investment proportional to use?
- Is the capital program practical and cost-effective to administer?
- Is the program easily explained and understood by the membership and employees?

A capital program's objectives should address all of these questions—capital adequacy, flexibility, proportionality, equitability, practicality, and ease of understanding. These questions should be asked whether a capital program is being evaluated, developed, modified, or administered.

How a Base Capital Plan Operates

A base capital plan operates on a simple principle, to keep the patron's equity investment proportional to use of the cooperative. The plan also serves as an equity management and financial planning tool.

Implementing and operating a base capital plan is more systematic than typical equity accumulation and redemption activity (revolving fund, special programs, etc.). The result is a better-capitalized cooperative that has more control over its financial future. It can adjust capital requirements in a planned and equitable manner to meet changing needs.

Accumulation Methods

When the board has decided what capitalization objectives it wants to achieve, it is necessary to determine how they will be incorporated into a capital program. This involves determining how equity will be accumulated and redeemed to achieve these objectives.

First, select the method of accumulating equity capital. There are three different ways:

- (1.) direct investment by members;
- (2.) retention of net income; and/or
- (3.) deductions made in the form of per-unit capital retains.

Direct Investment Direct investment is normally used to collect an initial, nominal membership fee. Sometimes, however, to become a

member of a cooperative, a large initial direct investment may be required. This can occur where large fixed asset expenditures will be or have been made for facilities used to carry out value-added processing. Occasionally, special assessments for direct investments may be made to fund a specific capital project or to shore up a weakened equity position.

Retention of Net Income Retention of net income, in the form of retained patronage refunds, is the most frequently used method to accumulate capital. Nearly 70 percent of cooperatives whose equity is subject to redemption accumulate equity capital using this method [4]. A distinction is made for cooperatives whose equity is subject to redemption, because the 1991 study showed that the equity of 14 percent of all agricultural cooperatives is not subject to redemption [4]. These cooperatives are generally low- or no-equity organizations that pay out all net income in cash, or have small amounts of net income from large membership bases that make allocation impractical.

While net income retention is the most popular way to accumulate equity, it is not always the most reliable. Fluctuations in earnings can produce more or less capital than the organization's financial plan requires.

Per-Unit Capital Retains A per-unit capital retain is generally considered the most reliable of the three methods. It is used primarily by cooperatives that market fruit and vegetables and dairy products. It may be used by itself or combined with retained net income.

Per-unit capital retains are deducted from sales proceeds due members. They can be calculated on a physical-unit basis, such as so many dollars per ton, or as a percentage of the dollar value of the product. Per-unit retains are a more stable source of capital than retention of income, because the amount retained can be adjusted up or down to offset changes in volume or dollar value of the product.

Redemption Methods

Capital retained from members by any of the above methods is normally repaid to members at some future date through the equity redemption process. A review of the common methods used is presented to serve as a comparison with the equity redemption features of a base capital plan.

Most common is the revolving fund. The oldest year's equities are paid first (first-in, first-out). In 1991, 44 percent of cooperatives whose equity was subject to redemption used the revolving fund method [4]. A small number of cooperatives use the percent-of-all-equities program in which a percentage of all equity outstanding, regardless of the year issued, is redeemed. The third redemption method is the base capital plan.

In addition to regular programs, many cooperatives use special equity redemption programs. Special redemption programs redeem equity based on an event that happens to a member. These programs may be used by themselves or combined with one or more regular programs. Special programs, however, are rarely combined with a base capital plan.

All capital accumulation and redemption programs have strengths and weaknesses. They need to be evaluated and weighed against the capital program objectives already established by the board. The advantages and disadvantages of the revolving fund and percent-of-all-equities methods summarized in table 1 provide a comparison with the base capital plan.

Constructing a Base Capital Program

Implementing and operating a base capital program requires sensible financial planning by the cooperative's management team. This is one of the program's strongest selling points as a financial management tool. Before the plan can be implemented, however, the board must decide on the structure under which it will operate.

Establishing a Base Period

One of the first decisions to be made is setting the length of the base period the cooperative will use to calculate each member's share of total patronage. The patronage base period will vary with the type of cooperative and the volatility of changes in its capital needs. Base periods reported by cooperatives in the 1991 equity redemption study ranged from 1 to 10 years. The average was 7 years. Dairy cooperatives had the shortest average period at 4 years and grain marketing and cotton cooperatives the longest at 8 years. Caution should be used in interpreting this data, however, because of the small number of cooperatives using base capital programs [4].

Table I-Advantages and disadvantages of equity redemption programs¹

Type of Plan	Advantages	Disadvantages
Revolving Fund	Easily understood and administered	Easily manipulated
	Proportional when revolving period short	Disparities occur when earnings vary or revolving period is extended
	No direct cash investment	Unrealistic member expectations revolving cycle will be maintained
Percent-of-all-equities	Easily understood and administered	Proportionality takes longer to achieve
	Attractive to new members	Contributions unresponsive to changes in patronage
	Well-suited to cooperatives relying on retained patronage refunds	Plan must be combined with special programs for inactive members to receive equity in a timely basis

¹ Source: Equity Redemption: Cobia, David W., et al. Issues and Alternatives for Farmer Cooperatives. ACS RR 23, USDA, Washington, DC, October, 1982.

Short base periods (1 year) permit adjustment of capital levels in response to rapid changes in patronage levels. It is also easier to calculate proportional patronage levels for 1-year versus multi-year periods.

Base periods longer than 5 years may not be responsive enough to patronage-level changes and could hinder the cooperative's ability to adjust members' equity levels rapidly to meet changing circumstances. On the other hand, a longer base period may help smooth out wide fluctuations in patronage levels and provide a more representative picture of long-term average use of the cooperative.

This would be the case with an annual or seasonal commodity such as tomatoes, where year-to-year acreage and yield may change significantly. The smoothing effect of a longer base period could also benefit situations involving permanent crop plantings where weather-related factors can impact year-to-year yields.

Each cooperative must decide on the length of base period best suited to the products it handles, the nature of production cycles, and the type of business it operates. Base periods should be as short as possible. This makes the program more responsive to changes in patronage levels and keeps ownership in the hands of current users. It also provides some flexibility if the base period must be extended to meet unforeseen capital requirements.

Setting a Measurement Unit

A measurement unit is usually chosen at the same time a base period is being selected. This unit serves as a common denominator for measuring each member's proportionate use of the cooperative over the established base period. In a fruit and vegetable processing operation this might be a ton of raw product delivered. For fresh-marketed products, the measurement unit could be the packed carton sold. In service or supply cooperatives, the unit could be the physical item being purchased or the type or amount of service being provided.

A physical measurement unit, such as the examples mentioned earlier, may not always protect against the fluctuating capital requirements that can arise with changes in product volume. Lower product volume may result in higher prices and require more capital to support inventories. To compensate, some cooperatives use product value as the measurement unit. In this way, the average value of the product over the base period becomes the method for measuring proportional use of the cooperative.

Determining Investment Levels

Once the base period and measurement unit have been set, the cooperative has the tools to calculate the member's current level of investment. This calculation determines the relationship between each member's investment and use of the cooperative. It will show the variation between each member's current investment level and the proportional investment required under a base capital program.

Table 2, for instance, uses a 5-year base patronage measurement period. Member A's \$10,000 current investment represents 10 percent of total allocated equity. Member A's patronage over the 5-year base period, however, averaged 15 percent. Use of the cooperative increased faster than the rate of equity investment. On a proportional-use basis, Member A is \$5,000 under-invested and needs to contribute that amount to reach the required investment level of \$15,000.

Member C, on the other hand, is over-invested by \$15,000 because patronage during the 5-year base period averaged only 20 percent of the cooperative's total, while the level of investment stands at 35 percent. This may occur because of reduced patronage or indicate the member has stopped doing business with the cooperative. Regardless of the reason, to achieve proportionality, the member would be due an equity redemption of \$15,000.

In this hypothetical situation (table 2), three of the members are underinvested and two are overinvested. If all adjustments are made to achieve proportionality, the under-invested members' required contributions would provide the funds to repay the over-invested amounts. There would be no change in total allocated equity.

In reality, the adjustments would probably be made over some prescribed time period, instead of all at once. This spreads out the contribution burden for under-invested members and helps younger or newer members who may be substantially underinvested and have limited capital resources to invest.

If the difference in investment levels between members is large, it may be difficult to make a member's investment proportional to use. One of the first implementation steps, therefore, is to determine the difference between investment levels and patronage. If the disparity is too great, interim steps may be needed to achieve closer investment equality before final implementation can occur. Otherwise, the base capital plan may never function as intended.

Table P-Example of current equity investment level compared with base period usage of cooperative, 5-year patronage base period

Member	Allocated equity investment level		Average 5-year base period patronage	Amount over (+) or under (-) invested	
	Total dollars	Percent of total	Percent of total patronage	Percent	Dollars
A	10,000	10	15	- 5	- 5,000
B	30,000	30	25	+5	+ 5,000
C	35,000	35	20	+15	+ 15,000
D	20,000	20	30	- 10	- 10,000
E	5,000	5	10	- 5	- 5,000
Total	100,000	100	100	0	0

Interim capital accumulation steps can take the form of a higher level of capital retention from members who are significantly undercapitalized (for example, a per-unit capital retain of \$20 per ton compared with \$10 per ton for fully invested members). Another method would be to require the under-invested member to make an additional direct investment in the cooperative. The funds for this investment may come from the member's own capital resources or from proceeds of a loan obtained for that purpose. Such borrowing may occur to provide the substantial amount of initial investment required to capitalize the organization and start-up of value-added cooperatives. The objective, in any case, is for members to quickly reach proportionality. Once proportionality is achieved, a base capital program is designed to permanently maintain that relationship.

Another interim accumulation method is an advance capital requirement, explained in detail on page 17.

Implementing a Base Capital Plan

When the base period and measurement unit have been set and the proportionality of members' current investment has been determined, the initial framework for a base capital program is in place. The cooperative now has the basic tools to develop the remaining elements of a program.

Modifying Corporate Documents

At the same time tools are being selected for operating the plan, the cooperative should review its articles of incorporation, bylaws, and any marketing or membership agreements to determine how they should be amended to fit the new capital plan. Appendix A contains bylaw excerpts from cooperatives with base capital plans for use as a guide. The cooperative's attorney should draft the specific language to modify existing documents to accommodate the new base capital plan. These changes will be approved by the board of directors and in some cases by the membership.

Determining Equity Capital Needs

One of the most critical components of a base capital program is the establishment of the equity capital needs of the cooperative. The management team (the board of directors and manager) sets this amount each year based on its short- and long- term financial plans. A typical planning cycle would begin in the second half of the current operating year. Some indication of operating results for the year should be known, and preliminary capital requirements for the coming year can be identified.

The cooperative should estimate capital uses for the coming year, such as planned fixed asset expenditures, long-term debt servicing needs, and any equity redemption required under the base capital plan.

Next, an estimate of capital sources should be made. These would include patronage and nonpatronage earnings to be retained, per-unit capital retains to be collected, and new long-term debt to be obtained. Combining the sources and uses of capital provides an estimate of equity capital required for the coming year.

Establishing Investment Levels

Using the estimate of equity capital needed for the coming year, the cooperative can calculate each member's required investment level to achieve proportionality. This calculation will show that certain members

are underinvested, others are overinvested, and some are fully invested. A statement should be prepared showing each member's current year-investment and the proportionate amount of capital needed to meet the required level of investment for the new fiscal period. For the under-invested member, the statement should show how any required additional investment is to be collected (direct investment, retained patronage refunds, and/or per-unit capital retains) and the timeframe for satisfying the obligation. The over-invested member should be advised of the plan for refunding all or part of the over-invested amount.

Table 3 shows extended hypothetical information from table 2. For instance, in table 3, Member A's investment at the end of the current year was \$10,000, but the required investment level to support capital needs in the coming year will be \$18,000 (**15** percent of the \$120,000 required equity level determined by the board). Member A needs to satisfy the \$8,000 shortfall. This could be accomplished through a per-unit capital retain, retained patronage refund, direct investment or assessment, or a combination of these methods.

Member C, the only member of the cooperative overinvested in relation to required equity needs for the coming year, would be due an \$11,000 redemption. The board determines the method and timing of that redemption.

As shown in table 3, the cooperative collects \$31,000 from under-invested members. After redeeming the \$11,000 to Member C, the cooperative would have the \$20,000 in additional equity needed for the new fiscal year.

Operating a Base Capital Plan

A base capital plan's operating procedures determine how the plan works on a day-to-day basis. Many options exist and choosing the right combination for a specific cooperative will require study and analysis. In most cases, financial projections should be made to estimate the impact, on both the cooperative and its members, of different combinations. The following are some factors to consider in designing the operating elements of a typical base capital program.

Patronage Refunds vs. Per-unit Retains

As discussed earlier, cooperatives can use three methods for accumulating equity capital: direct investment, retained patronage refunds, and per-unit capital retains. For base capital plans, either retained patronage refunds or per-unit capital retains or some combination of both are used. Direct investment is normally used only for the initial investment or advance capital requirements of a new member, but can be used to fund special projects such as for investing in value-added processing capability.

Per-unit capital retains are preferred for accumulating capital for base capital plans because they are a more stable source of equity capital than retained patronage refunds. Even more stability is realized if the per-unit capital retain is established as a percentage of the value of the

Table 3—Example of required equity investment level vs. existing investment level, 5-year patronage base period

Member	Share of required equity (5-year base period) ¹	Current Fiscal Year allocated equity level	Next Fiscal Year allocated equity level ²	Amount over (+) or under (-) invested	Amount retained or added	Equity redeemed	Ending equity
	Percent	Dollars					
A	15	10,000	18,000	-8,000	8,000	0	18,000
B	25	30,000	30,000	0	0	0	30,000
C	20	35,000	24,000	+11,000	0	11,000	24,000
D	30	20,000	36,000	-16,000	16,000	0	36,000
E	10	5,000	12,000	-7,000	7,000	0	12,000
Total	100	100,000	120,000	-20,000	31,000	11,000	120,000

¹ Share of required allocated equity capital based on average use or patronage over the past 5 years.

² The board of directors has determined that a total of \$120,000 in equity capital is needed for the next fiscal period to adequately capitalize operations.

commodity instead of a fixed amount per physical unit. By establishing the per-unit capital retain as a percentage of the product's value, the retain amount increases when product value goes up. The cooperative obtains more capital to support the larger investment required to carry the higher valued product.

Some cooperatives use a combination of retained patronage refunds and per-unit capital retains. This provides more capital and permits a member to reach a fully invested position sooner. Once a member reaches that level, some cooperatives stop withholding per-unit capital retains and/or pay a higher percentage in cash patronage refunds than is paid to under-invested members.

Cash Patronage Levels A variable cash patronage payment program is designed to accomplish two objectives. It helps an under-invested member reach a fully invested position more rapidly by paying a smaller cash patronage percentage and retaining more equity in the cooperative. Secondly, it keeps fully or over-invested members from accumulating a larger than required investment in the cooperative.

The use of a variable cash patronage payment program within a base capital plan can be shown with an example. Keep in mind that the payment combinations must be set at levels that will satisfy the cooperative's capital needs.

Target Investment Level: 10 percent of average annual patronage over past 5 years. (Example: Average annual patronage = \$200,000 x 10 percent = \$20,000.)

<u>Investment Level Range</u> (As a percent of patronage)	<u>Cash Patronage</u> <u>Percentage Paid</u>
Less than 5 percent	20 percent
5 – 7.5 percent	25 percent
7.5 – 10 percent	30 percent
10 – 12 percent	50 percent
More than 12 percent	100 percent

In addition to a larger cash-patronage payment, over-invested members could receive a redemption for all or part of the over-invested amount. This would help bring their investment level closer to the targeted level more rapidly.

The variable cash patronage payment program can be employed, even when a base capital plan is not used, to help keep investment levels more proportional to use. Such a tool can be viewed as a “partial base capital plan.”

Advance Capital Requirements

Under a base capital plan, the objective is to keep each member's investment proportional to use of the cooperative. At any given time, however, most members will be either over- or under-invested. The goal, therefore, should be to have each member's investment track close to a fully invested position. If an investment position gets too far out of balance, over-invested members are penalized by carrying too much of the equity investment load. They are subsidizing the capital investment obligation of significantly under-invested members. To deal with this potential problem, a base capital plan should contain an advance capital provision. Whatever form it takes, this requirement is meant to keep each member's investment position from getting too far out of balance.

An advance capital requirement for a new member benefits the cooperative and can take several forms. One approach is to require a new member to invest a specified minimum amount of equity capital as a condition of membership. For example, a cooperative's target level of investment for each member might be allocated equity equal to 10 percent of the dollar value of the member's estimated annual patronage. The advance capital requirement for a new member could be set at 5 percent, or half the amount required to be fully invested. This would provide the cooperative with an initial amount of equity capital to support the new member's patronage.

This initial investment may be collected in a lump sum as a condition of membership, or paid in installments over several years. The method used will depend on the existing capital level of the cooperative, the relative demands the new member's patronage places on capital, and the ability of the new member to make the contribution.

A higher retain level is another type of advance capital required that can be used with new members, perhaps in addition to the initial advance capital contribution. One method used would have a per-unit capital retain deducted that is higher than for the fully invested member. Or, the new member can receive a lower percentage of the cash patronage allocation if the retained patronage refund method is used to accumulate capital.

Regardless of the method used, advance capital permits the new member's investment to reach a fully invested position more rapidly. It also provides the funds, depending on other capital requirements, for the cooperative to stay more current in retiring equity to over-invested members.

Advance capital can also be applied to an existing member whose investment level falls below an established minimum level set by the board of directors. This situation occurs when a member's use of the cooperative increases rapidly and regular capital contributions are not sufficient to maintain the investment in proportion to use.

Advance capital requirements should be administered fairly. For example, the initial investment level can be set so high that it acts as a barrier to gaining new members. However, the initial investment requirement should provide sufficient capital to support at least part of the new member's patronage. This keeps the new member's patronage from being materially subsidized by other patrons' investments.

Under certain circumstances, the cooperative may consider obtaining part of the required initial investment by "loaning" the money to the member in the form of a capital note. This note would be repayable, with interest, from retained patronage income or per-unit capital retains that are offset against the capital notes and become part of the member's equity investment in the cooperative. However, capital notes as a substitute for actual cash investment should only be used as a last resort for capitalizing or recapitalizing a cooperative. This is because the "loaned" capital doesn't actually strengthen the cooperative's equity position until the capital note is repaid. Also, members' commitment will be diluted if their own funds are not invested in the cooperative.

Equity Redemption Considerations

Returning capital to over-invested members on a timely basis is one of the key factors in successfully operating a base capital plan. However, capital constraints may limit a cooperative's ability to fulfill this obligation. For instance, a fast-growing operation with increasing capital needs may have difficulty obtaining sufficient capital from under-invested members to simultaneously meet growth needs and satisfy redemption obligations to over-invested members.

This situation can be addressed in several ways. One method is to extend the base period, which is similar to lengthening a revolving cycle.

A longer base period is not very desirable. It reduces the cooperative's ability to adjust members' required investment levels because of changes in patronage levels.

A better approach is to redeem equity to over-invested members using one of several formulas. Amounts can be prorated among the most over-invested members. Another method is to prorate the payout to all over-invested members in proportion to the amount each is over-invested, either on an unweighted or weighted basis. The weighted calculation would provide higher proportional payments to the most over-invested members. This reduces any disparity more quickly.

Other delayed or deferred payment options can be used if insufficient capital exists to repay all over-invested members. Some cooperatives have used interest-bearing promissory notes issued with due dates several years later, in lieu of actual cash redemptions. The member's lender may view the note as a more secure form of collateral than the actual equity itself because it has a specific repayment date.

Special Program Payments In adopting or administering a base capital plan, the cooperative must decide how to address the issue of special program payments (estates, retirements, etc.). If a cooperative has a fairly short base or adjustment period (5 years or less), the pressure to redeem equity under special circumstances is lessened. When a member ceases doing business with the cooperative under special circumstances such as retiring from farming or death, equity paid under a plan with a short base period provides for a timely return of equities.

Several issues must be addressed if the cooperative has a longer base period, or still wishes to redeem under special circumstances even though its base period is short. First, establish a priority under which equity will be redeemed. A few cooperatives with base capital plans choose to pay estates immediately, regardless of the base-period criteria. These payments are made before any regular base capital adjustments [2]. A cooperative should have current information on its estate payment exposure to ensure this procedure will not unnecessarily weaken the equity capital position. Members retiring from farming are usually paid their equity over the base period instead of in a lump sum as with estates [2].

Membership **Terminations** Another redemption event occurs when members take their business elsewhere (some cooperatives call them "quitters"). Although similar to a retirement, it raises philosophical

questions that cooperatives should address. Normally, if a member stops using the cooperative, the equity is repaid over the length of the base period. In recent years, however, some cooperative boards and memberships have questioned the right of terminating members to have capital returned on the same basis as continuing members. In this situation, continuing members would have to replace the capital being paid to quitting members to keep the cooperative's equity at required levels.

Several cooperatives have addressed the issue by lengthening the base period for departing members. This extends the period of time over which "quitters" are repaid their capital. This practice raises some equal-treatment questions, but no known formal legal complaints have been brought against cooperatives taking this approach.

Equity Transfers

One way for under-invested members to become fully invested is to purchase the equity interests of over-invested members or those retiring from farming or quitting the cooperative. Generally, these equity interests are purchased at book value. The transfer normally requires approval of the board of directors. The cooperative often helps document the transfer, but doesn't negotiate terms and conditions.

A member's investment may also carry the right to deliver a specified amount of product to a marketing cooperative or purchase a specific quantity or type of goods from a supply cooperative. Because of these delivery rights, the value at which the equities are traded may be more or less than the book value of the investment. The parties involved, not the cooperative, reach a price agreement, but then the board must approve the transfers.

Equity transfers with delivery rights attached, which sell above or below the par value of the selling member's investment, do not affect the total equity capital of the cooperative. Any gain or loss accrues to the member selling the equities.

Combination Plans

In the 1991 equity redemption study, 24 percent of cooperatives with base capital plans also used a revolving fund program to manage a part of their equity capital [4]. Most said they operated with both programs to keep two equity sources separate, such as capital obtained from per-unit capital retains vs. that coming from retained patronage refunds.

Per-unit capital retains were most often used with base capital programs, while retained patronage refunds were usually associated with revolving fund programs.

For cooperatives with both plans, the average base capital plan adjustment period was 5 years compared with a revolving fund period of 11 years [4]. It was unclear from the 1991 study why there was such a wide disparity between the length of the two redemption cycles.

In other instances, a base capital plan and revolving fund program were being used concurrently while the cooperative switched from one capital plan to the other. In a few situations, dual programs were temporarily used to accommodate merger partners with different programs.

A Challenge to Cooperatives

Operating a base capital plan as the primary equity management program should make sense to many cooperatives. Unfortunately, only a few have used it during the more than 30 years since the concept was introduced. In the interim, numerous presentations, articles, and publications have praised the merits of these programs as the most equitable and prudent capital management program for many cooperatives.

From interviews and written comments received by USDA's Cooperative Services Program during the late 1980s and early 1990s, most respondents confirmed the base capital plan's superiority as an equity accumulation and management tool. If this is the case, why aren't base capital plans in wider use?

A major obstacle to base capital plans has always been the perception that they are too complex to administer and difficult to understand. While these plans are somewhat more complicated to operate, that is far outweighed by their superiority as an equity management tool.

The challenge to boards of directors and managers is to thoroughly and honestly evaluate the appropriateness of a base capital plan for their cooperatives. The alleged complexity and difficulty of understanding can be overcome readily with adequate education and communication.

First, board members and management should learn and understand the concepts and operating characteristics of base capital plans. This will prepare them to be advocates for the new program if it proves

to be an appropriate alternative to the cooperative's current method of capitalization. Anything less is a breach of the board's fiduciary responsibility to the member-owners.

Next, conduct a detailed study of how a base capital plan operates and the financing and capitalization benefits it could provide. This study should consider both the cooperative's and the members' perspective. Several sources can provide assistance in carrying out this assignment. The cooperative's accounting firm can play an important role, as well as its attorney, for drafting bylaw changes, etc. There are also private consultants and university extension personnel who specialize in cooperative financial matters.

Publications from USDA's RBCDS-Cooperative Services describe the base capital method of capitalization. Cooperative Services also provides technical assistance to cooperatives in exploring the considerations and factors involved in developing a base capital plan.

The benefits of such a plan are worth the time and resources it takes to perform a comprehensive investigation.

References

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3. Brown, Phillip F. and David Volkin. Equity Redemption Practices of Agricultural Cooperatives. FCS RR 41, USDA, Washington, DC, April, 1977.
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Appendix A: Examples of Bylaw Provisions for a Base Capital Plan

These examples of bylaw provisions relating to base capital plans are provided for reference only. Before adopting any specific provisions, a cooperative should consult with its attorney to ensure the changes are compatible with state statutes and all corporate documents such as articles of incorporation, other bylaw provisions, and membership or marketing agreements.

EXAMPLE 1

Section ___. BASE CAPITAL. The Board of Directors shall determine annually the base capital requirements of the Cooperative and shall further determine annually an equitable allocation of such requirements among members of the Cooperative and other patrons, such allocation to be computed on the basis of the average volume of product furnished by each member during any number of prior fiscal years of association, not exceeding ten (10), as conclusively determined by the Board of Directors to be most representative. Each member shall maintain a capital account, in the form herein described, in accordance with such allocations.

The Board of Directors shall follow such reasonable standards in setting such allocations seeking, in as practicable a manner as possible, to have members' capital accounts bear a percentage or pro-rata relationship to their overall patronage of the Cooperative.

The Cooperative, at the discretion of its Board of Directors, shall be entitled to continue as outstanding, and not pay off, any Capital Equity Credits necessary to satisfy base capital requirements for any member or members, notwithstanding that similar credits of the same year or years are refunded or paid off; provided, however, that outstanding Capital Equity Credits which have been retained to satisfy base capital requirements shall have priority, except in dissolution, and shall be paid off and redeemed, when no longer required to satisfy a member's base capital requirement, prior to the paying off and redeeming more recently issued credits.

Once the member has met his/her base capital as herein above determined by the Board of Directors, no further per-unit capital retains and/or patronage dividends shall be withheld until the Board of Directors has determined that the member's Capital Equity Credits are not equal to his/her reestablished base capital requirement.

Section ___. BASE CAPITAL REQUIREMENT. Each year the Board of Directors shall establish the "base capital required by the

Cooperative." The base capital and per-unit capital retained for each fiscal year beginning April, ____ shall be established by the Board of Directors prior to the following May 1.

EXAMPLE 2

Section ___. CAPITAL EQUITY CREDITS. The Board of Directors shall annually establish the amount of capital deemed adequate to finance the Association's business as well as to redeem such capital as is no longer necessary to meet base capital requirements (as hereinafter set forth) or which is held by persons or organizations who are not current members of this Association. The Association shall establish and maintain a capital account for each member.

A record of all holders of capital equity credits shall be kept and maintained by the Association. Such credits shall be transferable only to the Association or to an eligible member of the Association on the books of the Association in the manner established by the Board of Directors and no transfer thereof shall be binding upon the Association unless so transferred. Capital equity credits can be transferred from one member to another member provided the transfer is reported in writing to the Board of Directors.

A member may also transfer and/or use capital equity credits he owns in one form of business organization to another type of organization so long as the transfer is from a member of the Association to another member of the Association and the transfer is reported in writing to the Board of Directors. No interest shall be paid on capital equity credits. All debts of the Association, both secured and unsecured, shall be entitled to priority over all outstanding capital equity credits.

Section ___. CAPITAL FROM MEMBERS. All capital of the Association allocated to a member regardless of the form or type of capital (qualified or nonqualified) will be a part of such member's base capital.

All business transacted by the Association with or for members shall be transacted on a cost basis as determined by the Association's certified public accountants, and the Board of Directors may determine an amount to be retained from net margins arising from all such business transacted by the Association with or for members. All such net margins shall be allocated to members on a patronage basis at the end of each fiscal year and shall be paid to such members in cash; by credit to the capi-

tal accounts of each member; or in such other form as may be determined by the Board of Directors; or partly in cash and partly in credit or other form, within 8 1/2 months following the close of the fiscal year (or within such other time as may be permitted by the Internal Revenue Code). Such patronage dividends may be paid on either a qualified or nonqualified basis as determined by the Board of Directors.

Section ___. BASE CAPITAL. The Board of Directors shall determine annually the base capital requirements of the Association and shall further determine annually an equitable allocation of such requirements among member-stockholders of the Association and other patrons, such allocation to be computed on the basis of the average volume of product furnished by each member-stockholder during any number of prior fiscal years of Association, not exceeding ten (10), as conclusively determined by the Board of Directors to be most representative. Each member-stockholder shall maintain capital accounts, in the form hereinafter described, in accordance with such allocations. The Board of Directors shall follow such reasonable standards in setting such allocations (and may set such standards by type of service rendered by Association for member-stockholders), seeking in as practicable a manner as possible to have member-stockholders' capital accounts bear a percentage or pro rata relationship to their over-all patronage of the Association.

The Association, at the discretion of its Board of Directors, shall be entitled to continue as outstanding and not pay off any capital equity credits necessary to satisfy base capital requirements for any member or members, notwithstanding that similar credits of the same year or years are refunded or paid off; provided, however, that outstanding capital equity credits which have been retained to satisfy base capital requirements shall have priority, except in dissolution, and shall be paid off and redeemed, when no longer required to satisfy a member's base capital requirement, prior to paying off and redeeming more recently issued credits.

Section ___. BASE CAPITAL REQUIREMENTS. Each year the Board of Directors with the assistance of the Association's certified public accountants shall establish the "base capital required by the Association." The base capital for each fiscal year ended August 31 shall be established on or before December 1 of the following fiscal year, and prior to the allocation and distribution of the patronage dividend and per-unit capital retains for such prior fiscal year.

EXAMPLE 3

The Board of Directors shall annually establish the amount of capital deemed adequate to finance the Cooperative's business as well as to redeem such capital as is no longer necessary to meet base capital requirements or which is held by persons or organizations who are not current members of this Cooperative.

The Cooperative shall establish and maintain a Producer Investment Equity account for each member. Each member shall receive an annual notice from the Cooperative summarizing the status of his Producer Investment Equity account.

A record of all holders of Producer Investment Equity Credits shall be kept and maintained by the Cooperative. Such credits shall be transferable only to the Cooperative or to a member of the Cooperative on the books of the Cooperative in the manner established by the Board of Directors, and no transfer thereof shall be binding upon the Cooperative unless so transferred.

No interest shall be paid on Producer Investment Equity Credits. All debts of the Cooperative, both secured and unsecured, shall be entitled to priority over all outstanding Producer Investment Equity Credits.