

BASE CAPITAL PLAN

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March 1991

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Directors of a cooperative board have a key responsibility to ensure that their cooperative is properly financed. Agricultural cooperatives use diverse ways to raise their equity capital. No one system is necessarily better than another. Two systems are described. One system, the base capital plan is reviewed extensively. The base capital plan is focused on for two reasons; (1) it is not well understood; and (2) it may provide cooperatives with a realistic alternative to the problem of generating equity capital among members in a fair manner.

Equity Capital Requirements

There are several reasons why cooperatives need adequate equity financing. All businesses require capital to finance their assets, such as land, buildings, machinery and equipment, and inventories. In addition to these physical assets, many cooperatives frequently need to invest capital in marketing programs, such as new product development, product advertising and access to new distribution. They also need operating capital, since operation expenses are incurred before revenues can be collected. Business typically use a mixture of debt and equity financing. USDA's 1989 survey of the nations 100 largest farmer-owned cooperatives indicates that, on average, these cooperatives used \$.65 of debt to finance each \$1 they had invested in assets.

Lenders require that cooperatives, as well as other borrowers, provide some equity financing to supplement their debt capital. It is not uncommon for a lender to include a covenant in their loan agreement requiring the cooperative to maintain a specific level of member equity. Alternatively, the lender may place a ceiling on the cooperative's debt/equity ratio, that is, a limit on the number of dollars of debt per dollar of net worth of the firm.

Cooperative specialists generally agree that a cooperative should be financed by its users. Some specifically believe that cooperatives should adopt the "proportional principle"; this requires that equity be provided by patrons in proportion to their patronage.

Equity is risk capital; it provides a buffer if a cooperative suffers losses. A business can fail if it does not have adequate equity to face adversity. Such was the fate of many early cooperatives in the United States started by the Grange after the Civil War. These cooperatives faced volatile economic conditions and lacked adequate equity cushions during periods of depressed economic activity.

More recently, some Northeastern milk-marketing cooperatives were forced to raise substantial amounts of equity capital from their members. They had experienced several years of operating losses which impaired the members' equity levels. Their lenders would not renew or make new loans until the losses were at least partially offset by new equity.

The most important reason for ensuring that a cooperative has adequate equity financing is for maximizing the cooperative's performance. In order to survive and thrive in an increasingly competitive environment, cooperatives must engage in long range capital planning. Capital planning requires assessing long term needs for capital and evaluating the various sources of the required capital. This type of planning is essential when a cooperative is making major financial decisions, such as the acquisition of new processing equipment for a new product line and expansion into new markets. It is difficult for a cooperative to implement a long range capital plan when its equity capital fluctuates widely from year to year.

Cooperatives have several potential sources of equity capital. The most common sources of equity capital in a cooperative are retained patronage refunds and per unit capital retains. Members can also make direct capital investments in the cooperative by investing in preferred stock which pays a fixed return per year. Unallocated retained earnings are another possible equity source; they can be derived from various activities, including the sale of capital assets, sales of non-patronage products and trademark licensing programs.

Many cooperatives redeem members' equity only under special situations, such as the member's withdrawal or death. There are three basic structured plans used by cooperatives to redeem member's equity; (1) the revolving fund plan; (2) the base capital plan and (3) the percentage-of-all-equities plan. The revolving fund plan is the most commonly used. However, cooperatives with a revolving fund equity program can experience volatility in their equity levels because of fluctuations in commodity prices and throughput. The percentage-of-all-equities plan is used by only 2 percent of all cooperatives in the U. S.

A base capital equity program can provide a cooperative with a stable equity base. It also adheres to the principle of user financing. The components of a base capital plan are discussed below and examples are provided.

Five Steps to Implement a Base Capital Plan

In its simplest form, cooperatives determine the amount of a members equity obligation based on the targeted level of firm equity and the members use of the cooperative.

Base Capital Plan

The steps required to implement a base capital plan are as follows:

1. Estimate the total capital needs for the next fiscal year and determine how much should be equity and how much should be borrowed funds.
2. Establish the amount of equity to be derived from the base capital plan, unallocated retains and other sources of equity.
3. Determine the proportionate share of the base capital for each member. This is calculated based on the proportion of total business over a base period—usually the past 3 to 8 years.
4. Check to see the amount each member is over-invested or under-invested based on their current equity holdings.
5. Determine which is the best way to accrue additional capital from under-invested members and refund excesses to over-invested members.

In the example, the cooperative starts the fiscal year with \$7,850 of base capital and has determined that it will need an additional \$150 of equity in the coming year. To determine each individual's equity contribution, the board uses the pro rata share of patronage over the six year base period. That is, the members' percentage of the cooperative's total business determines the percentage of the members' base capital plan requirement (column 3 times new total equity in column 4). Column 5 then displays the over or under investment of each member.

Example of Six Year Base Capital Plan

Member	Begin Equity (1)	6 year Patronage (2)	% of Total (3)	Base Capital Plan Equity Requirement (4)	Over or Under Invested (5)
1*	150	0	0	0	+150
2	1,500	75,000	19	1,520	-20
3	1,200	60,000	15	1,200	0
4	2,500	100,000	25	2,000	+500
5	2,000	110,000	28	2,240	-240
6	<u>500</u>	<u>50,000</u>	<u>13</u>	<u>1,040</u>	<u>-540</u>
Total	7,850	395,000	100	8,000	-150

* Retired Member

As shown in the table, member number two has \$1,500 invested in the cooperative whereas this member's base capital plan requirement is \$1,520. By the same token, member number Four is over-invested by \$500. The cooperative must develop a plan to bring all members into bearing a proportionate share of the ownership in relation to use including member number one who is retired and who has conducted no business with the cooperative during the 6 year base period.

At the beginning of its next fiscal year, the cooperative determines that it still needs \$8,000 in equity capital. Member number two increased his/her usage of the cooperative during the previous fiscal year such that his/her six year patronage share rose to 25%. Conversely, member number six's patronage share decreased to 7%. The pro rata shares of all of the other members remained unchanged. Thus, member two's equity requirement increased to \$2,000 and member six's dropped to \$560.

The cooperative decides to increase its equity capital requirement by 25% to \$10,000 at the beginning of the third fiscal year. There are no changes in the pro rata patronage shares of the members. Since member number one's equity requirement was previously zero, it remains unchanged. The equity requirements of all of the other members increase by 25%.

Establishing Each Member's Equity Requirement

In order to establish the base capital equity requirement of each member, the cooperative must determine the length of base period and the unit of measure for its base capital plan.

The length of the base period can affect the success of the plan. A short base period of 2 to 3 years supports the goal of matching equity contribution to use of the cooperative but could result in greater volatility in the over-invested / under-invested balances. A longer base period such as 8 or 10 years will smooth out minor fluctuations but may require retirees and estates to wait a long time to recapture their investment.

Although the length of the base period will affect both how quickly members build up their proportionate shares of the equity and how quickly they receive equity redemptions, these movements are really a function of the cooperative's ability to generate net margins. Even if a 3 year moving average is used to calculate equity investment, the level of new investments may not increase sufficiently to pay off those having the highest redemption priority, unless the cooperative realizes sufficient net returns during those years.

Units of Measure

Cooperatives differ in the units that they use to determine equity participation. Many use a physical unit of the commodity delivered. For example, a fruit cooperative may use a packed box or tray while a grain cooperative would probably use a hundred weight, bushel or ton of grain.

To avoid equity shortfalls in years of high commodity prices it would be possible to use the dollar value of proceeds or sales as the unit of measure. For example, Tri-Valley Growers' directors have maintained the total equity contribution per member at 140 percent of established commercial value of an 8 year moving average.

North Pacific Grain Growers (now part of Harvest States) used a capital assessment of 8.57 cents per bushel on a five year moving average of the volume marketed by a local cooperative regardless of whether it passed through their cooperative owned facilities. The logic behind this policy was that if the local cooperative were to have access to their regional cooperative in bad as well as good times, the locals had to provide the necessary equity to the regional accordingly. Similarly, Tree Top assesses its members' base capital requirements based on the average of the highest three years deliveries out of the last six years.

One of the more unique basis for assessing equity comes from C F Industries of Long View, Illinois. C F Industries, a regional federated fertilizer manufacturing cooperative, uses an assets employed concept to determine equity requirements of member locals. A member cooperative's required investment in C F Industries is based on the proportion of assets employed to supply products to each member. This is determined by dividing the total book value of all assets associated with the production of a given product by the total volume of that product. Each member's share of assets employed is recalculated each year based on a five year moving average.

CoBank has recently introduced a base capital plan for its cooperative borrowers. The target investment level for individual cooperatives is set based on the bank's target equity level and the cooperative's average past five year loan volume as a proportion of the bank's total five year average loan volume. Bylaws of the bank set the target equity level in the range of 7 to 13 percent of risk adjusted assets although the actual range will likely be in the range of 9 to 11 percent.

Under-Invested Members

Although it is desirable to have members' base capital fund balances equal to their assessments, this may not be feasible. Most cooperatives

collect equity from under-invested members by assessing retains in a manner similar to revolving fund program retains. For a new member, the retain period is usually the same as the base capital plan's base period. There is no need to continue the retains after a member is fully funded. If an established member increases his/her deliveries or the cooperative raises its base capital equity fund balance, the cooperative will assess a retain on the established member. However, the amount is likely to be less than the retain if the cooperative had a revolving fund program.

The maximum retain rate assessed by Riceland Foods on its under-invested members is \$.143 per bushel. Tri-Valley's maximum retain rate on under-invested members is 17.5% of the member's crop market value. Ocean Spray's maximum retain rate is 15% of member proceeds. It is politically undesirable for a cooperative to set retain levels that are so high as to require statements to be sent to many members to collect the additional cash for equity assessments.

Over-Invested Members

The methods used to redeem over-invested members is limited only by the ingenuity of the drafter of the bylaws. The simplest method of redemption of over-invested members is to make a cash payment, assuming the cooperative is in an adequate cash position to do so. Since most cooperatives are not in a position to redeem large blocks of equities, some redeem on a sequential basis. For example, CoBank's plans to redeem over-invested borrowers at the rate of 20 percent per year which matches the five year moving average base period the bank has adopted.

A modification of the simple revolving fund redemption is the "most over-invested member approach". Under this method, at the end of the fiscal year the amount of cash available for redemption would be determined. Those members that are the most over-invested would have first claim for a portion of the redemption pool. This process would continue each year until all over-invested members had been taken care of.

Sunkist redeems the excess equity of its inactive members as soon as the excess occurs. Ocean Spray's retiring members are required to exchange all of the base capital equity into 4% participating second preferred stock. Active members must be at least 10% over-invested to be eligible for a refund. If eligible, they receive a flat percentage of the amount over-invested; the percentage is determined by the amount the cooperative has available for equity redemption. Farmers' Rice has been paying an 8% dividend to its over-invested members.

Equity Trading

Some cooperatives allow or even encourage the sale of equities between over-invested and under-invested members to accelerate the process of equalization. C F Industries requires under-invested members to purchase preferred stock from over-invested members subject to one of two constraints. The annual equalization investment of each under-invested member is limited to the greater of 20 percent of the member's under-investment and or 50 percent of the members cash patronage refund for the year. If a member's under-investment is less than 50 percent of the member's patronage refund, the entire under-investment must be eliminated. In such cases, the cooperatives' equity position does not change as a result of the transfer of equity between members.

Both Farmers' Rice Cooperative as well as Tri-Valley Growers encourage a secondary market for their equity among active members. In part, the market was created to eliminate the criticism that equity has little collateral value due to the 8 year revolvment of over-invested members. Because of the length of the revolvment, equities sell at a discount.

To prevent active members from selling off equities to the point of becoming under-invested, Tri-Valley changed its bylaws to require that all members maintain at least 50 percent of their equity requirement. Interest is charged at corporate borrowing rates on the deficit equity for members who are under-invested due to equity sales.

Members who need cash or withdraw from the cooperative often ask that their equity be redeemed early. A limited number of cooperatives will accommodate these desires by redeeming at a discount. The amount of the discount depends on the length of the revolvment cycle, the amount of equity to be redeemed each year and the interest rate.

CoBank has an early equity retirement program in the case of liquidation or dissolution. CoBank will redeem at the fair market value which is defined as the discounted present value based on the expected revolvment cycle. The interest rate is the same as the bank's lending rate.

Advantages and Disadvantages

A base capital plan provides a reliable base of equity capital to be used in capital budgeting and long term corporate planning. Lenders can view it more favorably than equity from a revolving fund program. One of the major advantages of a base capital plan is the linkage of investment to use of the cooperative rather than to returns or earnings retained from the membership.

A third advantage is that it enables management to alter equity requirements to meet the changing needs of the cooperative. Finally, a base capital plan provides a mechanism where under-invested members can be required to pay an interest fee to compensate over-invested members.

Disadvantages of the base capital plan stem from its complexity, making it difficult for the membership to understand. Secondly, cooperative boards find it difficult to increase equity requirements to meet increasing capital needs. They find it more troublesome than extending the revolvment period. Third, a base capital plan would certainly not work well in a cooperative with a high member turnover. Finally, a high initial capital requirement such as a 50 percent minimum equity share would make it difficult for a new member to join.

Changing over from a revolving fund plan or a percentage-of-all-outstanding equities plan to a base capital plan is relative simple. All that is necessary is to array all equity holders as was done in the text table above and calculate over-investment or under investment for each patron. With todays high speed computers this could be done in a few minutes time. The most important thing and the most time consuming task, is the education of the membership. This should be a campaign lasting several months involving several membership meetings and training sessions for field staff.

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