

The Impact of Unallocated Equity on Agricultural Cooperatives

Invited Paper Prepared for

Farm Credit Council Coordinating Committee

Revised 11-19-2014

Phil Kenkel
Regents Professor and
Bill Fitzwater Cooperative Chair
Oklahoma State University
Phil.kenkel@okstate.edu

The Impact of Unallocated Equity on Agricultural Cooperatives

Introduction

The term “unallocated equity” is unique to the cooperative firm. From an accounting standpoint, unallocated equity is similar or perhaps synonymous, with the standard equity category of retained earnings. Due to the nature of equity and profit distribution, unallocated equity raises unique issues for cooperatives. In recent years unallocated equity has become a larger share of total equity for many traditional open membership agricultural cooperatives. For some cooperatives, the change in equity structure has been quite extreme. This equity change has led to a discussion of the reasons for the increase, the impacts of unallocated equity on the cooperative and on the members return from the cooperative, and whether higher levels of unallocated equity increases the risks of liquidation of the cooperative. At a more fundamental level, the shift to unallocated equity raises questions as to whether this financial structure is consistent with the basic cooperative principles. This paper explores these issues and brings insights from a national survey of cooperative participants.

Background on Cooperative Finance

A cooperative is unique in that it distributes profits to its users in proportion to the volume of business conducted with the firm. This distribution is referred to as a patronage refund or patronage distribution and is a fundamental cooperative principle. This structure is in contrast to that of investor-owned firms where profits are distributed in proportion to ownership. This profit distribution structure creates a number of unique features of the cooperative firm. One of these unique features is the method by which cooperatives acquire equity capital.

While there are minor variations in structure, the traditional open membership is used by over 2,000 agricultural supply and grain marketing cooperatives across the U.S. as well as most dairy and cotton cooperatives (Cook and Chaddad, 2006). These cooperatives are often described as open membership cooperatives because producers can join at any time. In order to become a voting member and receive patronage from the cooperative, a producer has to purchase a membership share which is often a fairly trivial investment of \$50-\$100. Traditional open membership cooperatives create or accumulate the majority of their equity by retaining profits.

In the traditional open membership cooperative most of the equity is created by retaining profits. This is accomplished in three ways: (1) Retaining a portion of patronage refunds and issuing equity shares to members instead of cash patronage, (2) Retaining profits from member business, paying corporate taxes on the profits and retaining the after-tax portion as unallocated reserves (retaining earnings) and (3) Retaining profits from nonmember business, paying corporate taxes on the profits and retaining the after tax portion as unallocated reserves (Chaddad and Cook, 2006). Profit distribution and retention decisions are at the discretion of the board of directors and impact the cooperative's balance sheet and cash flow as well as the members realized return from the cooperative.

The equity shares which are issued in the first of profit retention strategies described above are generally referred to as "revolving equity." This equity is not tradeable but is instead redeemed by the cooperative at its original book value at some later period in time. Cooperatives use a number of different systems for redeeming equity including systems based on the year the stock was issued, the age of the patron, a percentage pool and other criteria. The average agricultural cooperative revolves equity on an 18 year basis (Cook and Chaddad, 2006). Because the equity is redeemed at book value, the payment that the member receives reflects the profit

distribution from a previous year and is not impacted by the growth of the firm or the current value of the firm. Because unallocated equity does not revolve, the member never receives the profits which were retained as unallocated equity unless the cooperative is dissolved or sold. Cook and Iliopoulos (2000) discuss these issues in the context of what they describe as ill-defined property rights in U.S. cooperatives.

There are alternative cooperatives structures with different equity systems. These include the closed cooperative structure, often referred to as “New Generation Cooperatives” and non-stock cooperatives that accumulate capital through a system of per-unit retains (Cook and Chaddad, 2006). The issues we discuss with regard to unallocated equity are not as prevalent in those cooperative structures.

The Growth of Unallocated Equity

The ratio of unallocated equity to total equity has clearly increased over time. From 1954 to 1976 the ratio of unallocated equity to total equity increased from 12% to 15%. (Griffin, 1980). Royer (1992) reported that 21% of cooperative equity was in the form on unallocated equity in 1987. Reynolds (2013) reported that the ratio for the median U.S. farmer cooperative increased from 30% in 2003, to 41% in 2011. The median level of allocated equity is more representative because some cooperatives distribute all profits to cash patronage and allocated equity and have zero unallocated equity (Reynolds, 2013). Unfortunately the median levels of unallocated equity are not available in published statistics. Current levels of unallocated equity vary across types of cooperatives and by the size of cooperative. The most recent USDA Cooperative Statistics (2012) indicate that the average level of unallocated equity is a little over

3% of total equity for dairy cooperatives and almost 63% for the largest size category of grain marketing and farm supply cooperatives (Figure 1).

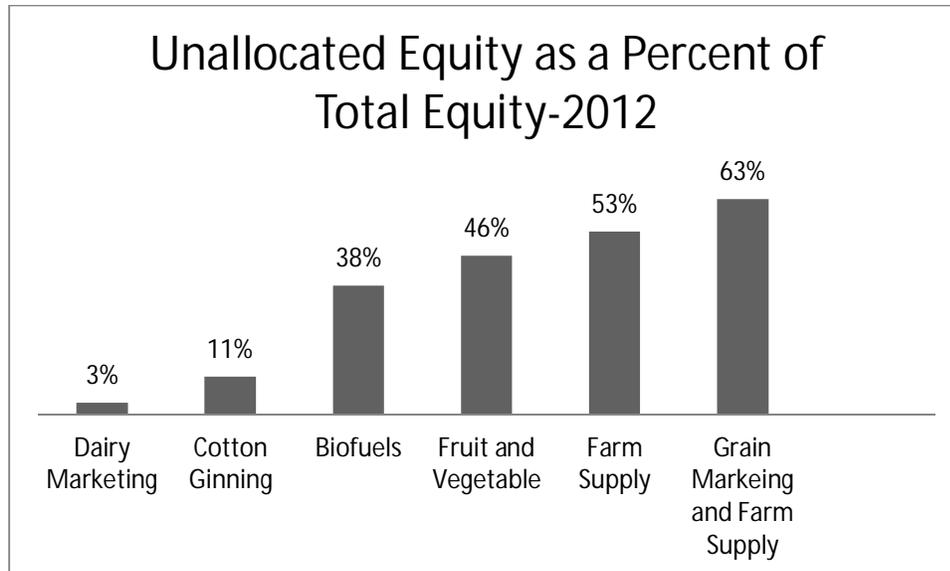


Figure 1: Ratio of Unallocated to Total Equity for Various Types of Agricultural Cooperatives

The ratio also tends to increase with the size of the cooperative (Figure 2). The prevalence of dairy cooperatives (which have very low levels of unallocated equity) in the highest size category, somewhat distorts the picture. Boland (2012) examined cooperatives in CoBank's database for the 1996 to 2010 period subdivided by profitability. He found a similar trend with respect to profitability with the highest profitability quartile having a ratio of unallocated to total equity more than twice that of the lowest quartile. Since larger cooperatives tend to be more profitable, the relationships may be related.

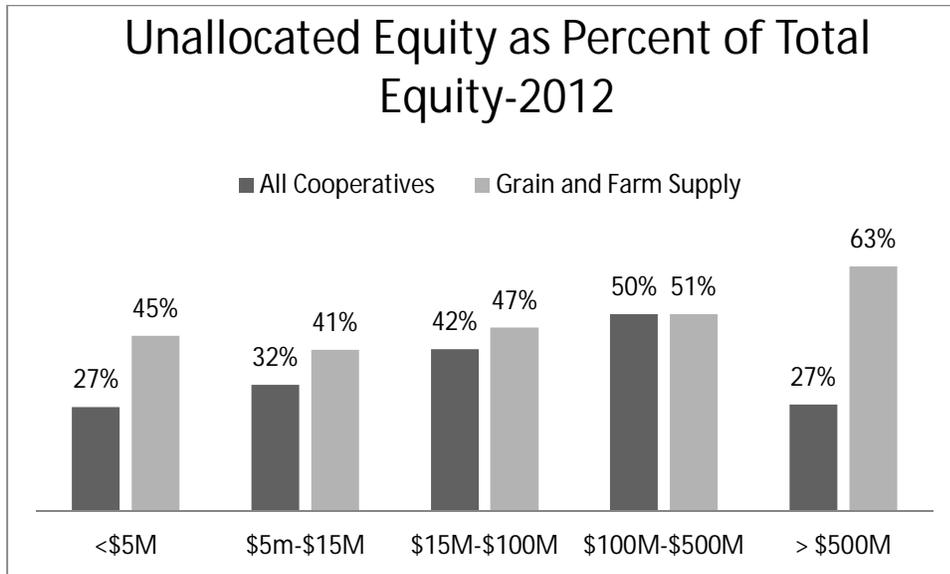


Figure 2: Ratio of Unallocated Equity to Total Equity by Size of Cooperative

Most of the change in the ratio of unallocated equity to total equity for US agricultural cooperatives has occurred over the last 5 years. The increase is particularly dramatic for grain marketing and supply cooperatives, which are the dominant category of cooperatives over much of the central US. The level of unallocated equity in large grain and farm supply cooperatives has almost doubled during the 2008 to 2012 period (Figure 3). An explanation for the increase in this important category of cooperatives is provided later in this paper.

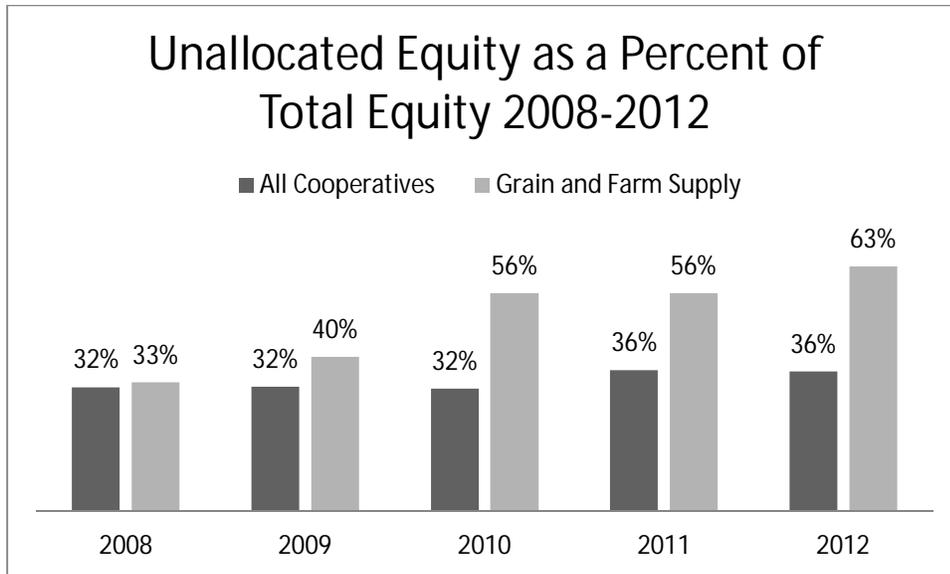


Figure 3: Changes in Ratio of Unallocated Equity to Total Equity

The Rationale for Unallocated Equity

Unallocated equity serves several important functions. Anytime a firm experiences a loss some equity account on the balance sheet must be reduced. The revolving stock on the cooperative balance sheet is maintained at book value with the expectation that it will eventually be redeemed. In the absence of any unallocated equity, the book value of the allocated equity would have to be adjusted when the cooperative experienced a loss. This requires notifying all of the patrons of the stock value write down which may also have tax effects at the farm level. Cooperative leaders typically want to avoid stock write-downs both due to the recordkeeping issues and the negative perception on the value of holding cooperative equity. Unallocated equity provides a cushion that can be reduced in the event of an operating loss and therefore avoiding a stock write down. Based on this criterion, auditors and other consultants often recommend that cooperatives maintain sufficient unallocated equity to cover an operating loss

that would be reasonably expected in the normal cycle of business. This level would obviously be firm specific but is likely in the range of 15-20% of total equity.

Another rationale, or at least an explanation, for unallocated reserves is nonmember business. Under Sub-Chapter T of the IRS tax code a cooperative can deduct patronage distributions (both cash and equity) from their taxable income. Except for cooperatives qualifying for section 521 tax status, non-patronage income cannot be distributed to patrons as part of a deductible patronage dividend and therefore is included in cooperative taxable income. Patrons who receive distributions of non-patronage income generally must include these distributions in their taxable income as well. Thus, many cooperatives find it sensible to retain non-patronage income remaining after income tax as unallocated equity

Cooperative tax code and federal and state cooperative statutes limit nonmember business to less than 50% of total business. The level of nonmember business varies drastically across cooperatives. In the case of grain and farm supply cooperatives (where the ratio of unallocated to total equity has been increasing) nonmember business is often 5-10% of total business volume and is unlikely to be driving high levels of unallocated equity.

Unallocated Equity as Permanent Capital

Another function of unallocated equity is as permanent equity in the capital structure. Traditional U.S. farmer cooperatives have relied on revolving equity for a major part of member investment. As the name implies, revolving capital is eventually paid back to the members so it is not regarded as permanent capital. There are various definitions, but permanent capital is generally considered equity which is not redeemed to members. Unallocated equity is the most common category of permanent capital. Direct investment capital, i.e. the share of stock

purchased as a condition of membership is generally classified as permanent capital even though it is usually redeemed when a member ceases farming or dies. Direct investment is not a significant category of equity in traditional open membership cooperatives. Cooperatives can also create permanent capital by selling dividend-bearing preferred stock to members and to the public. Historically, that strategy has only been pursued by a few regional cooperatives.

Chaddad and Cook (2006) observe that redeeming capital to members is a continuing challenge for cooperative management. They conclude that the need for permanent capital has led to a trend of increasing the percentage of unallocated equity. Dahlgren (2007) makes a similar argument focusing on the cash flows and ultimately earnings that a cooperative firm has to make to redeem equity. He maintains that this gives a cooperative a higher financial burden relative to a non-cooperative firm. Dahlgren (2007) proposes increased permanent equity as a means of reducing the cash flow burden of equity redemption. Bradley (1972) advocated replacing revolving funds with permanent unallocated equity. His argument was that investor owned corporations accumulate retained earnings without an obligation to redeem them which gives them an advantage over cooperatives. Ryan (1981) argued that lenders preferred unallocated equity because there was no implied redemption and that a cooperative with a high ratio of unallocated equity could acquire more leverage relative to one relying on allocated equity.

Increased volatility of agricultural commodity and input markets has contributed to arguments for increasing equity in general, and permanent equity in particular. During the 2008 commodity boom, grain and farm supply cooperatives had to greatly increase their seasonal lines of credit in order to finance grain purchases, input inventories and margin calls. In many cases seasonal loan requirements doubled relative to previous years. Cooperative lenders (primarily

CoBank) responded to the financing needs but also encouraged cooperatives to increase their equity capitalization levels. Many lenders also pushed for more permanent capital, perceiving it as a logical solution to a continuing need for higher equity levels.

A counterpoint could be made that all equity in a cooperative can be as permanent as necessary. Boland and Barton (2013) describe a system of balance sheet management which they characterize as “a commonly accepted principle of cooperative finance.” The premise of this structure is that Boards of Directors are fiduciaries first to the cooperative and are responsible for maintaining its financial stability. The cooperative’s Board of Directors makes the decisions on revolving equity and retaining funds from current profits. Under the concept of balance sheet management, they should use that discretion to adjust the timing of equity redemption subject to the liquidity and leverage targets for the cooperative. Higher levels of permanent capital reduce this need for discipline on the part of the Board of Directors in managing the cooperative balance sheet. However, the Board of Directors can also maintain the desired financial structure with a disciplined approach to profit retention and equity redemption. The challenge of applying this discipline should not be trivialized since members expecting equity redemption can be both dissatisfied and vocal.

Regardless of whether increased permanent capital is necessary for managing the cooperative balance sheet, cooperative leaders can decide that they prefer that equity structure. A shift toward more permanent capital does appear to be occurring. Figure 4 illustrates the equity/asset ratio for large grain marketing and farm supply cooperatives versus the ratio of unallocated to total equity. The portion of unallocated equity increased dramatically while the ratio of equity to assets grew only moderately. A similar trend is evident examining the data of all U.S. agricultural cooperatives but it is much more moderate. In general, it doesn’t appear that

agricultural cooperatives are increasing unallocated equity as a strategy to increase total equity. They appear to be substituting unallocated equity for allocated equity in their capital structures.

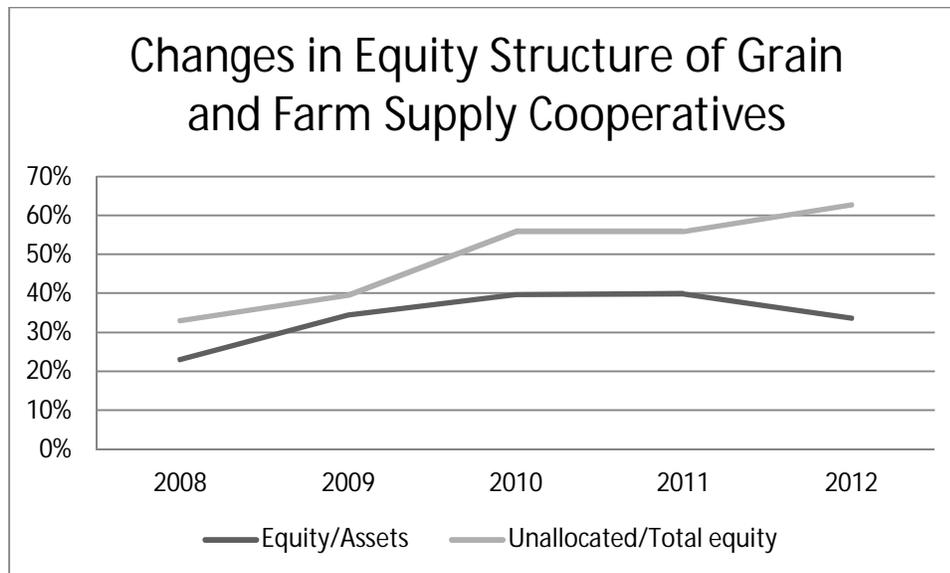


Figure 4: Changes in Equity Structure of Grain and Farm Supply Cooperatives

Impact on Cash Patronage and Equity Redemption

Proponents for shifting profit retention from allocated to unallocated equity often maintain that the shift can reduce the equity revolving period and/or improve cash patronage. Those statements are not incorrect but they fail to tell the entire story. In the cooperative financial model profit distribution, equity management and capital structure are interrelated. However these alternative uses for cooperative's cash flow are also a zero sum game. If the rationale for retaining funds as unallocated equity is, as Cook and Chaddad (2006) or Dahlgren (2007) suggest, improving the cooperative's cash flows, then cash flows to the members must decrease. Other factors equal, if the cooperative wants to retain more cash it cannot distribute a larger dollar amount of cash patronage.

Retaining funds as unallocated equity can increase the after tax portion of cash patronage. If, as has historically been the case, the cooperative retains funds by issuing qualified allocated patronage, the member must include the allocated equity in their current year's taxable income. Their effective cash patronage is therefore decreased by the tax obligations on both the cash and stock patronage. If the cooperative shifts from retaining funds as qualified allocated equity to unallocated equity the member current tax burden is decreased. That provides a greater after tax cash flow in the year of distribution. The cost of that higher current year cash flow is giving up the eventual cash flows from equity redemption. Because profits retained as unallocated equity remain in the cooperative's taxable income, that strategy increases the cooperative's taxes. In order to be cash flow neutral the amount of cash patronage must be reduced. The member is receiving less total cash, but with lower tax obligations and giving up future equity redemption payments. Cooperative members with short time horizons might prefer the higher after tax cash flow in the current year.

The possibility of a shorter equity revolving period must also be carefully examined. By issuing a smaller amount of equity the cooperative may be able to redeem it over a shorter cycle. However the equity redemption budget, i.e. the total amount of redemption cash going to members, cannot increase without decreasing either the cooperative's cash flow or the cash patronage. The member's net present value from future equity redemption payments is unlikely to be increased by directing a greater portion of profits to unallocated reserves. Present value arguments aside, a shorter equity redemption period would tend to keep ownership more proportional to use. Most members would also likely prefer a smaller equity amount redeemed over shorter period even if it was equivalent from a present value perspective to receiving a

larger redemption over a longer time frame. There is always the risk that the cooperative will not be in operation or not be profitable in the year when a future redemption is forecast.

Kenkel, Boland and Barton (2014) used a simulation approach with data from a case study cooperative to analyze alternative profit distribution strategies. They concluded that retaining funds as unallocated equity decreased the internal rate of return to the member relative to strategies involving qualified allocated equity and nonqualified allocated equity. The cash patronage was adjusted to be tax neutral to the cooperative for all three scenarios. Their simulation did not consider changes to the equity redemption period.

The Role of the Domestic Production Activities Deduction

A major factor behind the growth of unallocated equity has been the Domestic Production Activity Deduction (DPAD), also commonly referred to as the Section 199 Deduction. The tax deduction was introduced into U.S. tax law as part of the American Jobs Creation Act of 2004. In addition to traditional manufacturing activities, the DPAD applies to producers who manufacture, produce, grow or extract agricultural or horticultural products. Cooperatives that market agricultural or horticultural products for their patrons could elect to show the deduction at the cooperative level. A number of private letter rulings were issued by the IRS beginning in 2008 that clarified how an agricultural marketing cooperative could classify its payments to members for their commodities as per unit retains paid in money (PURPIM). The cooperative could exclude the PURPIM payments from its calculation of income for the DPAD. This substantially increased the potential DPAD available to cooperatives. (Kenkel, Boland and Barton, 2014)

The DPAD was originally limited to the lower of the qualified production activities income (QPAI) or 3% of its taxable income or 50% of the production W-2 wages paid during the year. The deduction increased to 6% of taxable income in 2006 and 9% in 2010. The DPAD provided cooperatives with tax deductions that could be used to offset the tax liability which would otherwise result from retaining funds as unallocated reserves. (It should be noted that the tax advantages of the DPAD can also be captured by issuing nonqualified allocated equity, Kenkel, Boland and Barton, 2014.) Large grain and farm supply cooperatives in the Midwest were some of the first cooperative firms to understand and take advantage of the DPAD through unallocated equity.

The growth of unallocated equity in these large grain and farm supply cooperatives is illustrated in Figure 5. Most of the growth in unallocated equity started in 2008, a time period corresponding with the DPAD clarifying private letter rulings. A widely referenced report by Iowa State University's Center of Agricultural Law and Taxation which described the implications of the DPAD for cooperatives was first published in February 12, 2009. The impact of the DPAD increased in 2010 when the deduction increased. That time frame is also consistent with the continued growth in unallocated equity. It appears obvious that the creation of the DPAD impacted the structure by which marketing cooperatives retained profits. What is open to speculation is whether the DPAD was a catalyst for a well planned alternative financial structure or whether the pursuit of tax savings led to unintended changes in the equity structure.

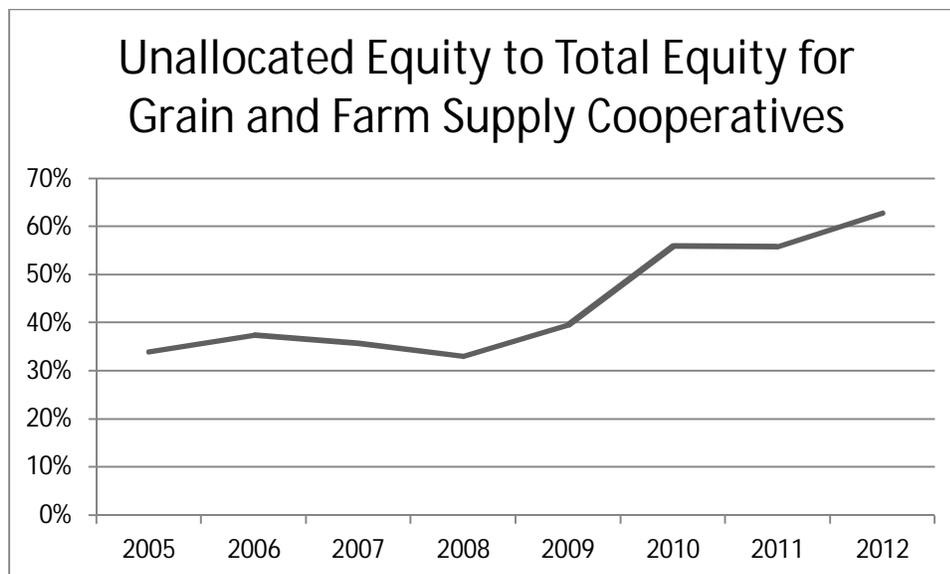


Figure 5: Change in Ratio of Unallocated Equity to Total Equity for Large Grain and Farm Supply Cooperatives

The Risk of Unallocated equity

The risk of higher levels of unallocated equity in providing members with an incentive to liquidate the cooperative has long been recognized. Schrader (1989) noted that cooperative members can capture the full value of their share of the business only if the cooperative is dissolved and the business is sold. He went on to state that the presence of unallocated equity increases the divergence between the members return from continued participation in the cooperative and public market (liquidation) value. This effect is due to the fact that unallocated equity does not revolve and the profits represented in that equity are never realized by the individual member. This structure, which is described by Cook and Iliopoulos (2000) as ill-defined property rights, creates the incentive for the members to liquidate the cooperative to gain claim to the unallocated equity.

The temptation for liquidation can be illustrated using actual levels of unallocated equity. As mentioned, unallocated equity accounted for 12% of the equity in U.S. agricultural

cooperatives in 1954. If an outside firm believed that these cooperatives were worth the book value of their total equity it would offer the members 113.6% of their stock values to purchase the cooperatives. Currently, unallocated equity accounts for 63% of total equity for large grain and farm supply cooperatives. An outside firm offering those members book value for a typical cooperative would tender an offer of 270% of the value of the allocated equity. Higher levels of unallocated equity clearly increase the temptation to liquidate the cooperative. It is much more difficult to determine if it is actually a major factor in cooperative liquidations.

Royer (1992) also acknowledged the possibility that the existence of substantial unallocated equity could provide the current members with an incentive to dissolve the cooperative for personal gain. However, he questioned the practical implications of that threat because the members would have to weigh their operational interest from continued access to the cooperative against the value of the unallocated equity. He also pointed out that there could be bylaw provisions or requirements in state statutes requiring that the assets of a dissolving cooperative must be distributed among both current and former members on a patronage basis. Cook and Chaddad (2006) made the opposite conclusion stating that “bylaws typically indicated that allocated equities are the last criterion for residual claims on the net worth of a cooperative.” However they noted that, based on Subchapter T of Internal Revenue Code, the value in excess of allocated equities might have to be distributed on the basis of patronage history.

Whether driven by bylaw provisions or Subchapter T it is possible that some of the value of the unallocated equity could be distributed to former members who, because their equity has been redeemed, are not holding allocated equity. This would reduce the current members’ gain from liquidation. This point is valid only to the extent that the “look back period” used to consider former patronage is longer than the equity revolving period. Given the long revolving

period in many cooperatives, it seems unlikely that there would be reliable patronage records to distribute proceeds to former patrons not holding allocated equity.

Liquidation of cooperatives or conversions into investor owned corporate forms is commonly referred to as demutualization (Birchall, 2001). Studies of demutualization have generally focused on mutual savings and loan association, mutual insurance companies and other user owned firms in the financial services sector. Chaddad and Cook (2004) examined demutualization in U.S. mutual savings and loan associations and mutual insurance companies. The authors identified a number of factors contributing to demutualization including disruptive market changes, perceived capital constraints, and weak governance systems. The authors conceded that there is a lack of empirical evidence on the linkage between unallocated equity and demutualization. However they did observe that conversion provides members access to unallocated equity and that members with limited time horizons might favor conversion for that reason. They stated that minimizing the use of unallocated equity and increasing the portion of earnings allocated to individual member accounts could reduce the risk of demutualization.

A number of authors including Schrader (1989) Collins (1991) Wadsworth (1998) Mooney and Gray (2002, and others have examined restructuring of agricultural cooperatives. The most dominant forms of restructuring involving mergers, alliances and joint ventures among cooperatives, followed by acquisitions of investor owned firms by cooperatives or joint ventures between cooperatives and investor owned firms (Mooney and Gray, 2002). Outcome involving the liquidation of a cooperative or acquisition of the cooperative by and investor owned firm represented only 8% of total identified cases of restructuring.

Other authors including Boland and McKee (2009) Hardesty (2009), Barton and Boland, (2009), Hailu and Goddard (2009) and other have examined conversions of agricultural cooperatives to publically traded firms. In many cases these conversions involved cooperatives operating in value-added sectors. Most of the conversions were driven by the members desire to capture the market value of the firm and/or the firm's need for greater access to the capital. In some cases (example Diamond Walnut Growers or Calavo) the cooperative's brand was its chief asset and the desire to capture the full value from that asset drove the conversion (Hogeland, 2006).

Several general observations emerge from the diverse literature on demutualization. Demutualization efforts seldom originate with the membership but instead come from the management or board or from an unsolicited offer from an outside firm (Nadeau and Nilsestuen, 2004). The level of unallocated equity does not appear to be the primary cause of demutualization but access to the value of unallocated equity is frequently mentioned as a contributing or supporting factor. When demutualization does occur cooperative members often receive substantially more than the value of their allocated equity.

Is Unallocated Equity Consistent with Cooperative Principles

Royer (1992) examined the equity practices of agricultural cooperatives and their relationship with cooperative principles. He noted several issues relating to unallocated equity which were also articulated by Murray (1983). The growth of unallocated equity appears to be in conflict with the cooperative principle of "user-owner." In a cooperative dominated by unallocated capital, the members can become complacent about the cooperatives activities and condition because they perceive that they have little financial stake in the firm. Another issue is

that, over time, the increase in funds controlled by the Board of directors can reduce the importance and thus the authority of the users in relation to the authorities of the cooperative.

Gray and Duffey (1996) made similar observations:

“Cooperatives are often financed by a sizeable amount of unallocated equity capital, and hence, the members have weaker incentives to involve themselves in the governance of the cooperatives. They are rather inclined to seek free-riding behavior, as well as to avoid investing in the cooperative. Such behavior by members may be disastrous for the cooperative, which means that the management in such cases tends not to listen to the members”.

Royer (1992) concluded that most cooperatives probably had sufficient allocated equity to provide members with a perceived financial stake in the cooperative. He did not define what level of allocated equity was necessary to maintain that perception.

Royer (1992) went on to state that the greatest conflict with high accumulation of unallocated earnings was with the principle of service at cost, also termed the “user-benefits” principle. The issue, which was also highlighted by Schrader (1989), is that if margins from patron business are retained as unallocated equity then the patrons are not being served at cost. Royer concluded that *“the retention of unallocated earnings from patronage income is inconsistent with the principle of return earnings on a patronage basis.”* In fairness, it should be acknowledged that Royer also discussed the presence of non-member profits. He noted that if those profits were distributed to members instead of retained as unallocated equity that could have the opposite effect of providing members with services below costs. Practical

considerations and tax implications often prevent a cooperative from operating in exact harmony with cooperative principles.

Attitudes toward Unallocated Reserves

Ultimately, many of the issues pertaining to unallocated equity involve member perceptions. Like any business form, the cooperative business model can evolve to new structures if those structures better meet the preferences of the stakeholders. If a structure encourages members to patronize the cooperative, participate in governance and provide financing then it is desirable. U.S. credit unions have relied almost exclusively on retained earnings for equity capital (Cook and Chaddad, 2006) and that structure appears to meet the preferences of their members. Over time, European cooperatives have also relied more on unallocated equity. More recently, larger European cooperatives have begun to favor allocated equities, often structured with marketing rights, securitized, appreciable and/or tradable features as well as allocated interest-bearing certificates with fixed maturity dates (Cook and Chaddad, 2006). Cooperatives in all sectors continue to explore new structures that meet the needs of their members and allow the firm to compete effectively.

Cooperative researchers have long been interested in identifying the factors that influence the commitment of members to their cooperative organization. Fulton and Adamowicz (1993) found that farmers who placed a greater importance on sharing in the profits through patronage refunds were more likely to patronize the Alberta Wheat Pool. Their survey did not differentiate between cash patronage and patronage distributed in the form of allocated revolving equity. Österberg and Nilsson (2009) found that the members' perceived ability to influence the democratic control of the cooperative outweighed all other factors in explaining their

involvement in the cooperative and their confidence in the board of directors. Bhuyan (2007) found that members who considered themselves a part owner of the cooperative were more likely to be satisfied with the cooperative management.

These results were highlighted because they suggest areas of member perceptions which might enlighten the discussion of unallocated equity. It would be useful to know what value members place on their allocated revolving equity. If they place a high value on allocated equity then the shift from retaining funds as allocated equity would reduce their perceived patronage refund which could decrease participation. The value that members place on allocated revolving equity would also impact the degree to which that equity impacted their sense of being a part owner of the firm, another factor linked to satisfaction. It would also be useful to understand whether ownership of allocated equity influenced the degree to which members were involved in the governance of the cooperative. If so, that involvement in democratic control would be expected to be related to satisfaction and continued patronage. Finally, it would be very useful to understand how likely it is that cooperative members would liquidate their cooperative to access the value of unallocated equity.

In order to address these important questions a national survey of cooperative CEOs, board members and cooperative members was conducted in August 2014. The effort involved a short (6 question) web-based survey. The Iowa Institute for Cooperatives, the Kansas Cooperative Council, the Oklahoma Agricultural Cooperative Council, the Mid-American Cooperative Council, the North Dakota Coordinating Council for Cooperatives, the Northeast Cooperative Council, the Texas Agricultural Cooperative Council and the Wisconsin Center for Cooperatives all helped publicize the effort. All of the organizations were asked to forward or reproduce an email asking the recipient to take a few minutes to complete the short web-based

survey. Because many of the email contacts involved the cooperative CEO, the survey email also asked the recipient to forward the email to a member of the their Board of Directors and to a member of the cooperative not currently serving on the board, such as a member serving on the board nominating committee.

The survey effort yielded 198 responses. Board members represented 53% of the respondents while 33% were CEOs, 8% were members not serving on the board and 2% were staff members (Figure 6). While capturing a good representation of CEOs and board members, responses from members were disappointing. Responses from several of the responding CEOs stated that they were reluctant to share the survey with a member of the cooperative because of the question asking how likely it would be for members to liquidate the cooperative. Since cooperative board members are also of course members and patrons of the cooperative, their perspectives may be reasonably representative of the membership.

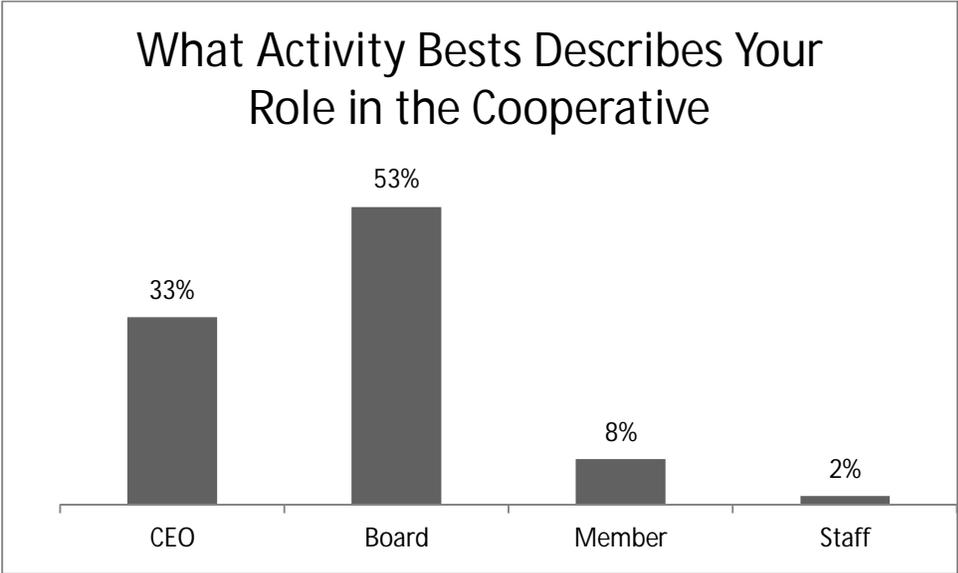


Figure 6: Profile of Survey Respondents

The vast majority of the respondents were from cooperatives involved in marketing agricultural commodities, providing agricultural inputs and providing services to agricultural producers (Figure 7). Roughly half of the respondents indicated that their cooperative provided credit and/or energy. However all of the respondents that selected those categories also indicated that their cooperative was involved in agricultural inputs and/or commodity marketing. Almost three fourths of the respondents indicated that their cooperative had retail sales to non-farmers, but again, all of those respondents also selected input supply and/or commodity marketing. Taken as a whole, the survey respondents appeared to represent diversified farm supply and commodity marketing cooperatives which represent a large segment of U.S. agricultural cooperatives.

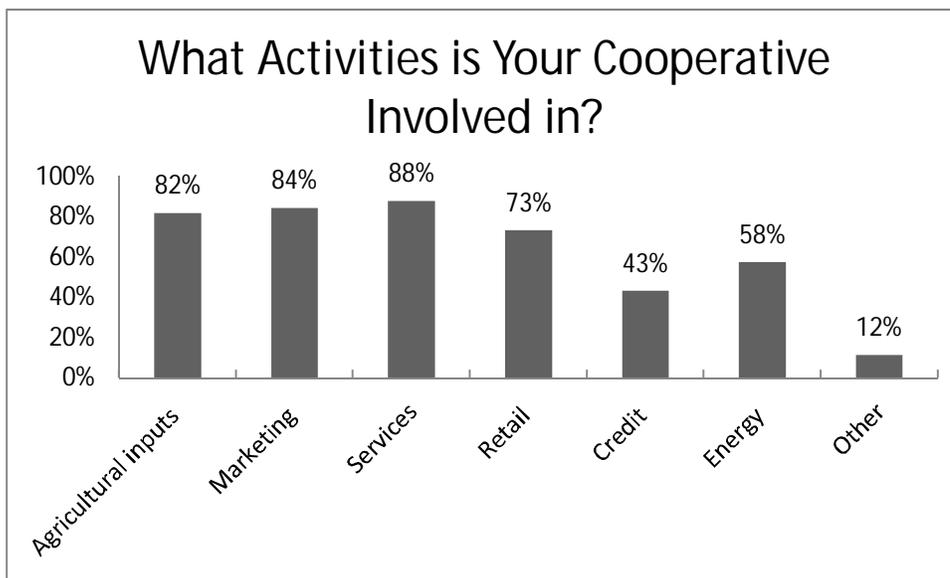


Figure 7: Business Activities of Cooperatives Represented by Survey Respondents

The third question on the survey elicited information on the level of unallocated equity in relationship to total equity (Figure 8). Twenty seven percent of the respondents indicated that 50% or more of their cooperative's equity was in the form of unallocated equity while 54% had

less than 50%. Almost 14% of the respondents reported that they did not know the amount of unallocated equity in their cooperative's structure. Of the 32 respondents that did not know the amount of unallocated equity, 3 were CEOs, 22 were board members, 4 were members and 3 were staff members. Because of the small number of responses it is impossible to speculate whether the lack of knowledge of unallocated equity among members is typical.

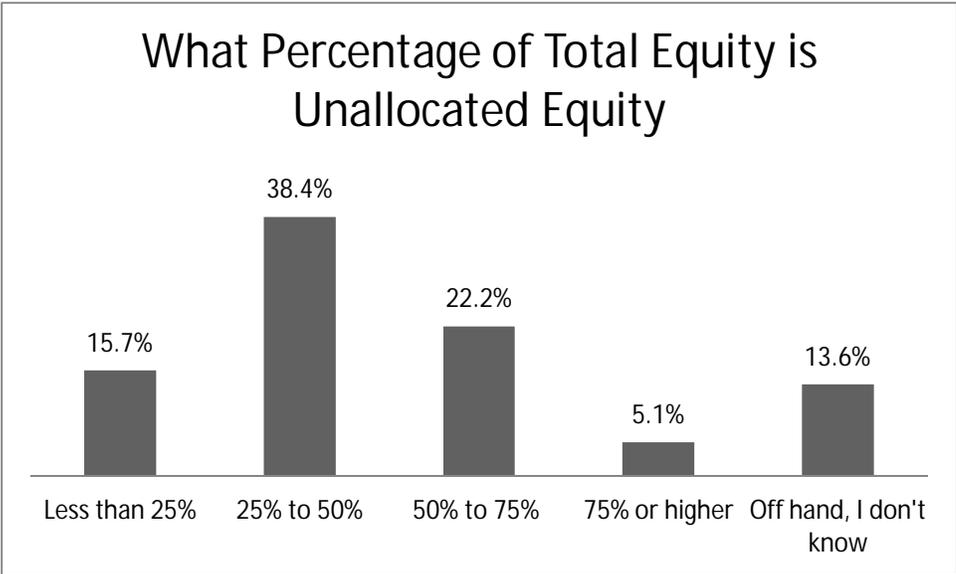


Figure 8: Reported Ratio of Unallocated Equity to Total Equity

The fourth question asked the respondent how much value they thought members placed on allocated equity (Figure 9). Forty nine percent of the respondents reported that members placed a moderate or higher value on allocated equity while 51% reported no value or a low value. The responses appeared similar across CEO's, board members and members (Table 1). Board members were slightly more likely to report that members placed a high or extremely high value on allocated equity.

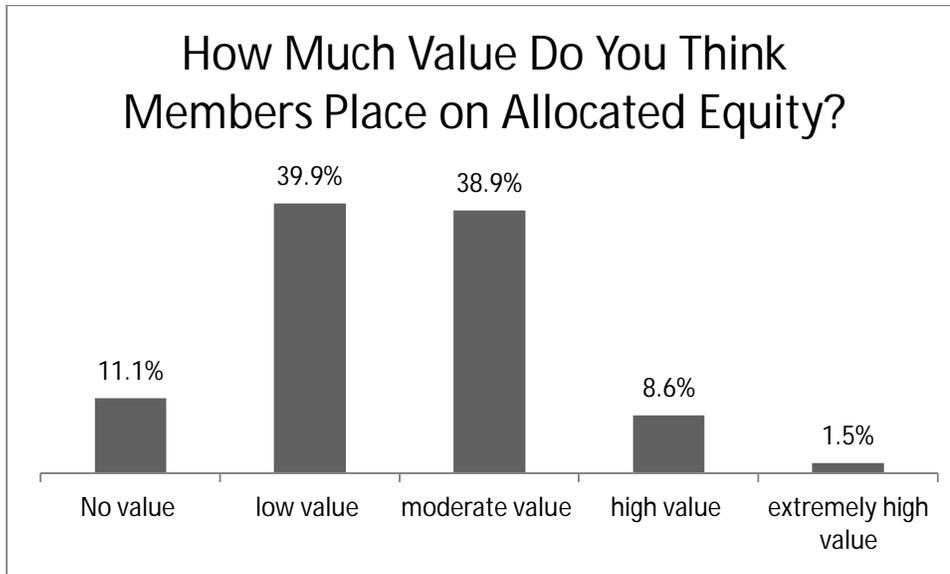


Figure 9: Perceived Value of Unallocated Equity

Table 1: Value Member Place on Allocated Equity

	No value	Low	Moderate	High	Extremely High
CEO	12.12%	37.88%	43.94%	6.06%	0.00%
Board	10.48%	38.10%	38.10%	11.43%	1.90%
Member	12.50%	50.00%	31.25%	6.25%	0.00%
Staff	0.00%	66.67%	33.33%	0.00%	0.00%

The fifth question asked to what extent the members level of allocated equity influenced their decision to be involved in governance in the cooperative (Figure 10). Sixty two percent of the respondents reported that it had a moderate or higher effect on involvement in governance while only 11% reported that it had very little influence. This is an interesting result since previous research suggests that involvement in governance is an important predictor of continued patronage and confidence in the board of directors. The responses were again fairly similar across the different roles in the cooperative (Table 2)

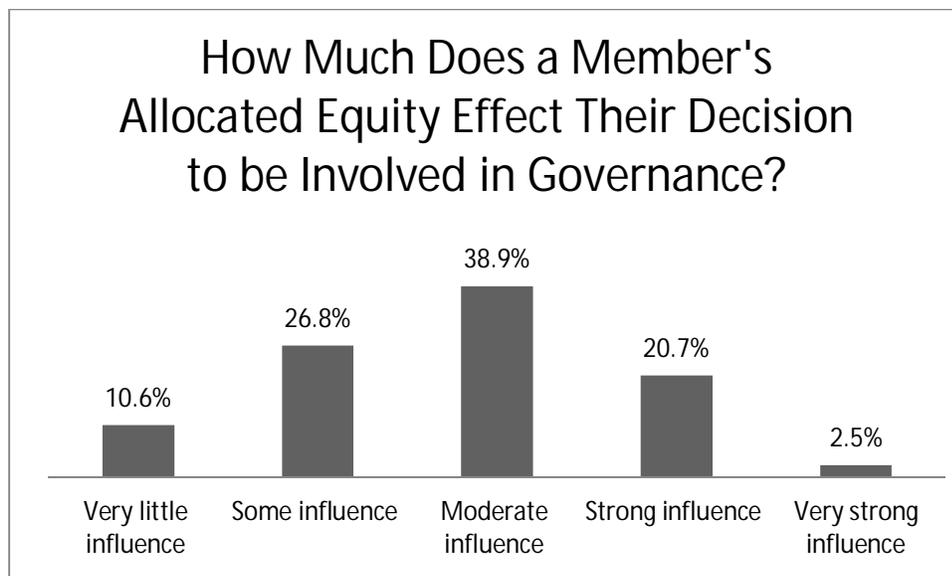


Figure 10: Impact of Allocated Equity on Involvement in Governance

Table 2: Impact of Allocated Equity on Involvement in Governance

	Very little	Some	Moderate	Strong	Very Strong
CEO	13.64%	24.24%	43.94%	18.18%	0.00%
Board	8.57%	26.67%	40.00%	20.00%	3.81%
Member	6.25%	25.00%	31.25%	31.25%	6.25%
Staff	33.33%	0.00%	33.33%	33.33%	0.00%

The last question described a hypothetical situation where the members of the cooperative received an offer from an outside (non-cooperative) firm to purchase the cooperative at price where the members would receive double the face value of their allocated equity. The question asked the respondent how likely they thought it would be for the members to sell the cooperative (Figure 11). Over half of the respondents (54%) reported that there was a 50% or better chance that the members would sell the cooperative in response to the described offer. Fifteen percent indicated that it was very unlikely while 7% indicated it was very likely. The

responses were similar across roles (Table 3) although more CEOs indicated that it would be unlikely while more board members selected the “roughly 50-50 chance” category.

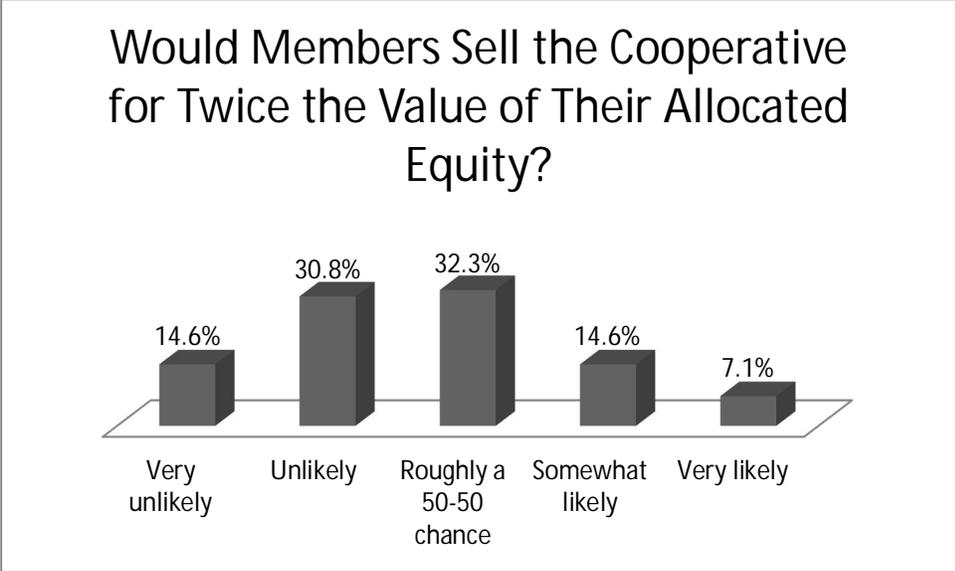


Figure 11: Likelihood of Members Selling the Cooperative if Offered Twice the Value of Their Allocated Equity

Table 3: How Likely Would Members Sell the Cooperative for 200% of Allocated Equity Value

	Very unlikely	Unlikely	50-50	Likely	Very Likely
CEO	13.64%	40.91%	27.27%	13.64%	4.55%
Board	16.19%	25.71%	35.24%	15.24%	6.67%
Member	12.50%	25.00%	37.50%	12.50%	12.50%
Staff	0.00%	0.00%	33.33%	33.33%	33.33%

Figure 12 summarizes the same responses for the subset of respondents who indicated that their cooperative had 50% or more unallocated equity. For these respondents, the question was not entirely hypothetical because an offer for the cooperative at book value would exceed twice the value of the unallocated equity. Almost 48% of this subset of respondents indicated that there was a 50% or better chance that their members would sell the cooperative at a price that would in their case be a book value or less. If the shift to higher unallocated equity was an

intentional strategy, it appears that the leaders of those cooperatives are willing to accept a fairly high risk of demutualization. Alternative explanations would be that they find it unlikely that an outside firm would make an offer for their cooperative or that they think could influence members with an educational effort if the need arose.

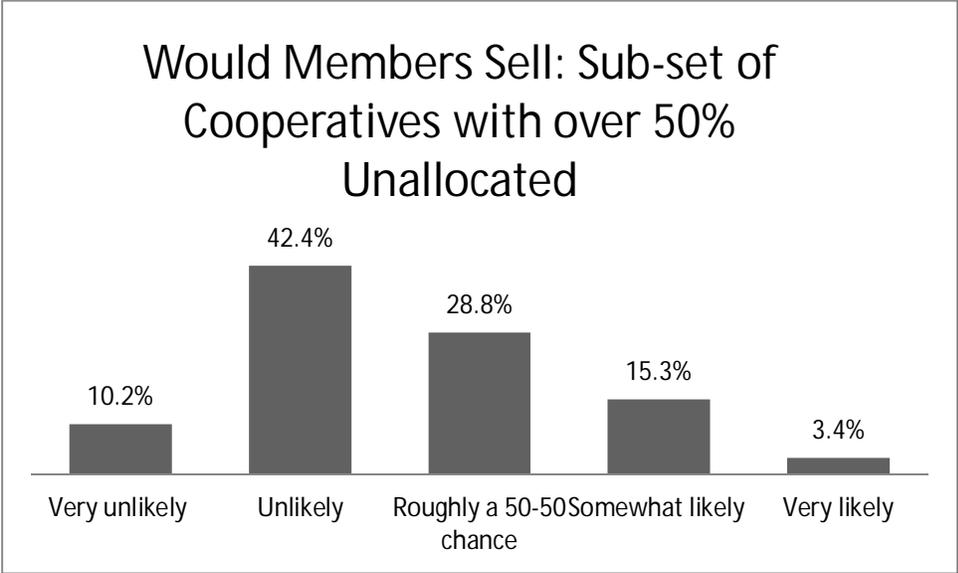


Figure 12: Likelihood of Accepting an Offer to Buy the Cooperative at Twice the Value of Allocated Equity: Subset of Cooperatives with Over 50% unallocated equity

Continuing the comparison Figure 13 summarizes the survey responses subdivided by the level of unallocated equity. The comparison was made by collapsing the very low and low categories into a low value or low influence category with the other three categories combined into a moderate and higher category. For the last question, the responses of “roughly 50-50 chance”, “likely” and “very likely” were combined into a single category of “likely to sell”.

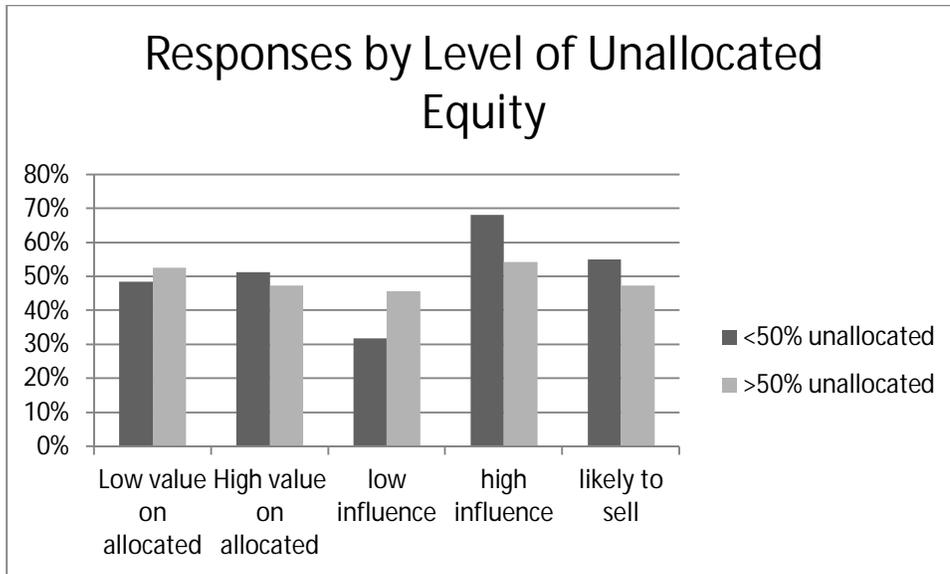


Figure 13: Responses Summarized for Low Unallocated and High Unallocated Equity Cooperatives

The respondents from the higher unallocated equity cooperatives were slightly less likely to report that their members placed a high value on allocated equity or that the level of allocated equity had a high influence on the members' involvement in governance. They were also slightly less likely to perceive that their members would sell the cooperative at 200% its allocated equity value. That provides some support for the assumption that the shift towards unallocated equity was an intentional shift which considered member preferences. However, it was surprising that there were not greater differences in the survey responses. Forty seven percent of the high unallocated respondents perceived that members placed a moderate to high value on allocated equity, 54% thought that allocated equity had a moderate to high impact on participation and 48% thought that there was a 50% or greater chance that their members would sell the cooperatives in response to a book value offer. The high unallocated cooperatives appear willing to reduce a part of the value package that is at least moderately valued by members and to accept a significant risk of demutualization.

Summary

The portion of total equity which is held as unallocated equity has been increasing for many years. Tax deductions offered by the DPAD appears to have encouraged many marketing cooperatives to retain profits in the form of unallocated equity rather than distributing allocated equity patronage.

Unallocated equity can serve as a buffer against future operating losses which eliminates the need to charge those losses against the allocated equity accounts of patrons. Unallocated equity is considered permanent equity and higher levels of permanent capital simplifies the process of managing the cooperative balance sheet to meet liquidity and solvency goals. However balance sheet management can be achieved with revolving equity provided that the board uses discretion in profit distribution and equity management.

Shifting profit retention from allocated to unallocated equity can have impacts on cash patronage, the taxable income for both the cooperative and the member and the equity revolving period. Retaining profits as unallocated equity increases taxes at the cooperative level and decreases member taxes in the current year. Unallocated equity is never redeemed which eliminates a future return to the member. The decrease in the redemption obligation may allow the cooperative to redeem the remaining allocated equity more quickly. Analyzing those effects on the cooperative members would require specific case studies and/or simulations. It appears likely that the members financial return as measured by the net present value of current and future cash flows is reduced by retaining profits as unallocated equity. However, the after tax portion of current year cash patronage is likely enhanced by a shift toward unallocated retention.

Other types of cooperatives, such as credit unions, operate successfully under structures relying on unallocated equity. Ultimately the question of the best profit retention structure revolves around whether cooperative members value their allocated revolving equity. If members value allocated equity then retaining profits in that form would increase a member's perception of patronage refund, their sense of ownership and their incentive to be involved in governance. All of those factors have been shown to be positively related to member satisfaction and continued patronage. Results from a national survey were split with roughly half of the respondents indicating that cooperative members place a moderate or higher value on allocated equity, and that it has a moderate or higher impact on their decision to be involved in governance.

The other critical issue involving higher levels of unallocated equity is whether it increases the risk of demutualization. Fifty four percent of all respondents reported that there was at least a 50-50 chance that their members would sell the cooperative if presented an offer of 200% of allocated equity. Forty eight percent of the respondents from high unallocated equity cooperatives (where the offer is equal to or less than their book value) reported that a 50% or better chance of dissolution. If the shift toward more unallocated equity has been intentional, it appears that cooperative leaders perceive outside offers unlikely or that they are willing to accept a fairly high risk of demutualization.

Concluding Thoughts

This paper has highlighted an important trend in the profit retention and capital structure of U.S. cooperatives. Our survey was one of the first efforts to understand the value that cooperative members place on revolving allocated equity and how their ownership of allocated equity influences their involvement in the cooperative. The results were intriguing and highlight

the need for further research. While our results were similar across board members and the small sample of member respondents, a larger sample of member responses would be beneficial.

Investigating the level at which members might liquidate a cooperative is very sensitive, which makes it difficult to get assistance from cooperative CEOs and board members in soliciting responses from cooperative members.

In the coming decade, an unprecedented intergenerational transfer of farm management and farmland ownership will occur. In tandem with this transition, there will be a transition in the active membership in agricultural cooperatives. Younger producers may have different perspectives on the cooperative value package. It will be essential for cooperatives to educate these younger members on the cooperative's alternatives in profit distribution and equity creation. It will be equally important for cooperatives to understand the importance that those producers place on access to the cooperative infrastructure, patronage and equity. Cooperatives should focus on financial structures that meet those needs while allowing the firm to compete effectively.

References

- Barton, David and Michael Boland (2009) "FC Stone Conversion to a Public Corporation" *Journal of Cooperatives*, Volume 23 116-129
- Bhuyan, S. (2007), The "People" Factor in Cooperatives: An Analysis of Members' Attitudes and Behavior. *Canadian Journal of Agricultural Economics*, 55: 275–298.
- Birchall, J. (2001) ed. "The New Mutualism in Public Policy", Routledge, London
- Boland, Michael "Cooperative Finance and Equity Management" CHS Center for Cooperative Growth
http://www.chscenterforcooperativegrowth.com/images/PDF/Boland_WhitePaper.pdf accessed 9-25-2014
- Boland, Michael and David Barton 2012 "Overview of Research on Cooperative Finance" *Journal of Cooperatives*, Volume 27, 1-14.
- Boland, Michael and Gregory J. McKee "The Restructuring of Dakota Growers Pasta Company" *Journal of Cooperatives*, Volume 23 2009 Page 141-151
- Bradley, Frank L. "A New Look at Cooperative Financing." *Cooperative Accountant*. Fall 1972. pp. 2-7 and 31.
- Bhuyan, Sanjib (2007) "The People Factor in Cooperatives: An Analysis of Members' Attitudes and Behavior" *Canadian Journal of Agricultural Economics* 55 275-298.
- Chaddad, Fabio R. and Michael Cook, (2004) "The Economics of Organization Structure Changes: A U.S. Perspective on Demutualization, *Annals of Public and Cooperative Economics*, 75:4 p 575-94.
- Collins. Robert A. (1991) "The Conversion of Cooperatives to Publicly Held Corporations: A Financial Analysis of Limited Evidence" *Western Journal of Agricultural Economics*. 16(2) 326-330.
- Cook, Michael L. and Fabio R, Chaddad, (2006) *Capital Acquisition in North American and European Cooperatives*" Filene Research Institute.
- Cook and Iliopoulos (2000) with M.L. Cook. In C. Menard (Ed.), *Institutions, Contracts, and Organizations: Perspectives from New Institutional Economics*, pp. 335-348. London, UK: Edward Elgar Publishing.
- Dahlgren, Joel L. (2007) "A Question of Value Proposition and Capital Structure: The Cooperative Accountant

Dahlgren, Joel J. and Ronald D. McFall “Law of Coopeatives Conversions and Restructuring of Cooperatives” Agricultural Marketing Resource Center,
http://www.agmrc.org/media/cms/Conversions_and_Restructings_9AF4C8BD177C3.pdf
accessed 9-25-2014

Fulton, Joan R. and Wiktor L. Adamowicz “Factors That Influence the Commitment of Members to Their Cooperative Organization” *Journal of Cooperatives*, `1993 39-53.

Griffin, et al., *The Changing Financial Structure of Farmer Cooperatives*, U.S Department of Agriculture, Agricultural Cooperative Service, FCRR 17, March 1980.

Gray, T.W., and P. Duffey (1996). “Listen and Learn: Understanding Member Complaints can help Build Commitment”. *Rural Cooperatives*, May–June:8–10.

Hailu, Getu and_ Ellen Goddard, (2009) “Sustainable Growth and Capital Constraints:The Demutualization of Lilydale Co-operative Ltd.” *Journal of Cooperatives*, Volume 23 116-129

Hardesty, S. D. (2005). *The Bottom Line on the Conversion of Diamond Walnut Growers” Update: Agricultural and Resource Economics*, Vol. 8 No. 6. pp. 1-4+11

Hardesty, S. D. (2009) “The Conversion of Diamond Walnut Growers” *Journal of Cooperatives*, Volume 23 116-129

Hogeland, A. J. (2006a). *Co-op Conversions Extent of commitment to co-op values key factor in decisions to convert” Rural Cooperatives*, May/June. pp. 17-20.

Kenkel, Phil, Michael Boland and David Barton “Understanding Nonqualified Distributions” *Cooperative Accountant*, Summer 2014,

Mooney, Patrick and Thomas W. Gray 2002“Cooperative Conversion and Restructuring in Theory and Practice” *USDA Rural Business Cooperative Service, RBS Research Report 185*

Murray, Gordon. (1983) “Management Strategies for Corporate Control in British Agricultural Cooperatives: Part 2.” *Agricultural Administration* 14 : 81-94.

Nadeau, E.G. and Nilsestuen, R. (2004). *Strengthening Cooperative Business Structures: Lessons Learned from Demutualization and Cooperative Conversions. Cooperative Business Journal*, pp. 1-2

Österberg, P. and Nilsson, J. (2009), *Members' perception of their participation in the governance of cooperatives: the key to trust and commitment in agricultural cooperatives. Agribusiness*, 25: 181–197.

Reynolds, Bruce (2013) “Indivisible Reserves” “*Rural Cooperatives*” Volume 80, No. 3, May June 2013, 12-15.

Royer, Jeffery S. "Cooperative Principles and Equity Financing: A Critical Discussion" *Journal of Agricultural Cooperation*, 79 (1992)

Ryan, Robert J., Jr. "Building Equity for the 80s." *Cooperative Accountant*, Spring 1981, pp. 29-32.

Wadsworth, James J. (1998) "Cooperative Restructuring, 1989-1998" Rural Business-Cooperative Service, Service Report 57, Washington D.C.

Schrader, Lee F. "Equity Capital and Restructuring of Cooperatives as Investor-Oriented Firms." *Journal of Agricultural Cooperation* 4(1989a):41-53.

USDA "Cooperative Statistics 2012" USDA Rural Business Cooperative Programs Service Report 72, 2012