THEME OVERVIEW: CRITICAL ISSUES FOR AGRICULTURAL COOPERATIVES

Phil Kenkel and John Park
JEL Classifications: L10, L23, L16, Q13
Keywords: Cooperative, Finance, Strategy

Cooperatives are user owned businesses that are an important part of the U.S. economy and particularly prevalent in the agricultural sector. In 2009, cooperative businesses in the United States controlled over $3 trillion in assets, generated nearly $654 billion in revenue, employed over 2 million people and distributed nearly $79 billion in income to user/owners. Agricultural marketing cooperatives generate nearly $130 billion in revenue and over 200,000 jobs (Deller et al. 2009). Cooperatives operate under a business model that generates unique challenges in financial management, governance, strategy and communication. These unique challenges and the prevalence of cooperatives in U.S. agriculture have encouraged research and education efforts by agricultural economists since the early 1900’s. Cooperatives were included as a part of the mission of the Cooperative Extension Service in 1926 and the USDA has maintained research and statistical staff focusing on cooperatives for over 50 years. A National Institute of Food and Agriculture (NIFA; formerly CSREES) Regional Research and Extension Committee for cooperatives has been active since 1993, making it one of the longest running such committees in the United States. Cooperatives, as an industry, are among the most generous supporters of departments of agricultural economics with more than $20 million invested in scholarships, faculty, and other endowments in at least 14 different departments. In addition, more than $150,000 of scholarships are awarded annually by cooperatives to undergraduate students in the United States and another $100,000 for graduate student research.

A review of academic archiving services yields thousands of citations with “cooperative” listed as a key word. Some of these studies have discussed the economic models that can be applied to a cooperative. Agricultural cooperatives have been analyzed as a form of vertical integration as; a unique form of firm; as a set of implicit and explicit contracts between farmer members, managers and employee; and as a coalition. Other studies have considered the cooperative’s role and impact in the market place. Firm level research has analyzed the structure and performance of the cooperative firm—including financial structure, taxation, marketing activities, strategy, and membership involvement.

The interest of agricultural economists in agricultural cooperatives is understandable and appropriate. The cooperative business model creates unique challenges and economic questions which agricultural economists are positioned to address. In addition, since agricultural cooperatives are owned by and designed to benefit producers, cooperative related research has the potential to benefit a large number of farmers. Almost 715,000 farmers are members of agricultural marketing cooperatives (Deller et al., 2009).

There have also been a number of efforts to identify challenges, critical issues and success factors for agricultural cooperatives. This Choices theme reports on the most recent effort. The objective of this series of articles is to summarize current challenges and needs within the cooperative community. The insights were gained from a panel of cooperative leaders (Table 1) and USDA and academic experts. Similar panels have been organized in every decade since the 1970s and have helped the academic community develop research and outreach programs. The panel met August 4, 2011 in Washington, D.C. and was organized by the Council on Food, Agriculture, and Resource Economics (C-FARE). The CHS Foundation sponsored the event. A diverse spectrum of business areas including raisins, oranges, grain, farm supply, dairy, bio-energy, farm credit and local foods were represented. The challenges and issues for cooperatives were identified through a two-stage modified Delphi survey process and a face-to-face focus panel discussion. A Delphi survey is a multi-stage expert survey in which the opinions and information from the first stage are used to refine the second and subsequent stages. In this case, the first stage was an open-ended survey in which the panel identified and described challenges and critical issues. In the second stage, the panel members rated the importance of the major issues identified in the first stage. Twenty-five cooperative leaders received the survey, 18 responded to the first stage and 19 responded to the second stage. The degree of response, particularly by members of the cooperative business industry—including CEOs of major cooperatives, suggests there
is an important constituency that values research on agricultural cooperatives and is interested in engaging with the agricultural and applied economics profession.

In this article, we introduce the topics identified as challenges and issues currently affecting the success of cooperatives. Subsequent articles in this theme explore the relationship between these challenges and issues, the current nature of the agricultural economy, and the interaction of these conditions with achievement of farmer-owner objectives, subject to the constraints of the cooperative business model.

Table 1
Cooperative Organizations Represented on the Expert Panel

- Ag First Farm Credit Bank
- CHS
- CoBank
- Farm Credit Services
- Federation of Southern Cooperatives
- Land O Lakes
- Michigan Milk Producers
- Mid-America Cooperative Council
- National Cooperative Business Association
- National Council of Farmer Cooperatives
- Oklahoma Food Cooperative
- Southern States Cooperative
- Sunbird
- Sun-Maid
- West Central Cooperative

External Issues

The panel reported that a variety of issues external to cooperative firm are impacting them (Figure 1). Volatility of commodity and input markets was perceived as the most important issue. The panel indicated that recent market

External Issues Affecting Agricultural Cooperatives

Public policy, global competition, industry competition and market concentration were all perceived as extremely important or very important issues. Interestingly, specific environmental regulations and issues including green house gas emissions and genetically modified organisms were not ranked as highly important. Consumer preferences were rated as “extremely important” by nearly a third of the panel.

Internal Challenges and Issues

The panel identified a number of challenges and issues which are inherently important to cooperatives, and must be dealt with in the context of the external environment in which they operate.
**Strategy Issues**

These outside forces impacted the collective perception of the strategic issues facing cooperatives (Figure 2). McKee, Boland, and Hogeland summarize the findings and research needs in strategy in another article. Almost 90% of the cooperative leaders viewed the need for effective strategic planning as an extremely or very important issue. Aside from planning, human resource issues dominated the strategy area. The succession of management and key personnel, attracting and maintaining high quality personnel, and aligning the incentives of managers and employees with member interest all received high importance ratings. A third of the respondents viewed gaining efficiency and maintaining viability in their market segments as an extremely important issue, while 12% gave extreme importance to the cooperative’s ability to make effective, timely decisions. The ability of the cooperative to pursue alliances with investor owned firms or with other cooperatives was also considered important.

**Figure 2: Strategy issues Affecting Agricultural Cooperatives**

Respondents identified several financial issues of current importance to the success of cooperatives. The Barton, Boland, Chaddad, and Eversull article summarizes the challenges and research suggestions in the finance area. The panel indicated that acquiring and maintaining adequate equity was the most critical challenge. This issue is related to the features of the cooperative business model since cooperatives often create equity out of the profit stream and simultaneously manage systems to return—redeem—that equity to members. It is therefore not surprising that maintaining sufficient and consistent profitability and risk management were also considered key issues.

**Finance and Equity**

Respondents identified several financial issues of current importance to the success of cooperatives. The Barton, Boland, Chaddad, and Eversull article summarizes the challenges and research suggestions in the finance area. The panel indicated that acquiring and maintaining adequate equity was the most critical challenge. This issue is related to the features of the cooperative business model since cooperatives often create equity out of the profit stream and simultaneously manage systems to return—redeem—that equity to members. It is therefore not surprising that maintaining sufficient and consistent profitability and risk management were also considered key issues.
The panel identified two other financial challenges related to acquisition of equity. The use of outside, nonmember equity was considered important. The majority of the panel also considered the recent trend of creating unallocated equity—retaining earnings—instead of issuing stock to individual members as an extremely or very important issue. The complexity of these challenges is further evidenced by the fact that the panel considered the financial competency of both managers and directors an extremely important issue.

**Governance Challenges**

The fact that agricultural cooperatives are governed by producer-members is both a key strength and a key challenge for cooperatives. Huet and Reynolds summarize the issues and need for future research in this area. The key governance challenge (Figure 4) is that of identifying and recruiting directors with the essential mix of skills. Member involvement in a cooperative—another key issue—often relates to their access to board members or interest in running for the board. Other governance issues identified by the panel were related to the effectiveness and performance of the board of directors. The addition of outside, non-member directors has been a recent development in agricultural cooperatives, and according to the panel, is an important issue facing modern cooperatives.

**Communicating Value**

The panel identified a number of issues relating to communications (Figure 5).

Bond and Bhuyan summarize these issues and discuss research needs. All businesses, including cooperatives are formed to create and deliver value to their customers and owners. The cooperative member is both user and customer and this creates tension in generating and allocating economic benefits. This also creates unique challenges in communicating the value of the cooperative to both its members and to the general public. Communicating the value of the cooperative to its member owners was the most critical communication challenge identified. Cooperatives create value through the prices they provide members, access to the market place, unique services provided, countering market power, and of course, the financial return created at the cooperative level. Communicating this complex value package, particularly to large producer-members, was identified as a key issue.
Related to this issue is the challenge of educating members so they understand and participate in decisions on retaining funds, managing equity, distributing profits and rationalizing business operations. Reaching young producers and young potential employees is also an important issue as is improving the public understanding of the cooperative business model. The panel noted that cooperatives have struggled to develop a simple unified message that describes the value of the cooperative business model across all sectors of cooperatives.

**New Cooperative Development**

Newly organized agricultural cooperatives experience challenges distinct from those facing established firms. Henehan, Schultz and Hardesty summarize these new cooperative development issues and research needs. Cooperative membership—and therefore ownership—is dynamic and is limited to the current users of the business. Thus, founding members of a cooperative may have a very different perception of the firm’s value in comparison with future generations. Surprisingly, the panel indicated that many issues facing new cooperatives are similar to those described as facing established cooperatives (Figure 6). Acquiring significant equity, and identifying and attracting knowledgeable leadership, are viewed as key impediments to the development of successful cooperatives. Other key issues facing new cooperatives include developing partnerships within the supply chain, and accurately forecasting demand and business feasibility. The panel commented that managers and board members of new cooperatives need linkages with their counterparts in established, successful firms.
Challenges and Opportunities

One of the most significant results from the discussion of the panel of cooperative experts is their willingness to participate. All of the cooperative leaders who were contacted were enthusiastic about the project. The industry panel participants, who included CEOs of major cooperatives, invested the time to respond to the two-stage survey and to travel to Washington D.C. to participate in the focus group discussion. Agricultural economists should take note that there is an important industry constituency that values the research conducted by land grant universities and is interested in engaging with the profession. Such public-private partnerships are critical for land grant universities and the partnerships with cooperatives are a crucial part of many departments of agricultural economics.

While many of the critical challenges and issues identified by the panel are not unique to agricultural cooperatives, most had unique implications. The cooperative business model has different structures for equity creation, profit distribution and governance relative to investor-owned firms. The economic relationship between a cooperative and its members and users is different from that of an investor owned firm. This leads to challenges and opportunities for cooperative leaders and research questions for agricultural economists. The following articles in this theme provide a summary and discussion of these issues. The various authors, among the leading cooperative scholars in the United States, discuss issues relating to strategy, finance, governance, communication and new cooperative development. The common theme of these articles provides insights into how the unique business structure of agricultural cooperatives influences their relationship with producer members and their competitive environment.

For More Information


Phil Kenkel (phil.kenkel@okstate.edu) is Professor and Bill Fitzwater Cooperative Chair, Department of Agricultural Economics, Oklahoma State University, Stillwater, Oklahoma. John Park (jlpark@tamu.edu) is a Professor and Extension Economist and holds is the Roy B. Davis Professor of Agricultural Cooperation, Texas A &M University, College Station, Texas

The views expressed are those of the authors and do not necessarily reflect the positions of the Federal Reserve Bank of Kansas City, the Federal Reserve System, or Purdue University.

© 1999-2011 Choices. All rights reserved. Articles may be reproduced or electronically distributed as long as attribution to Choices and the Agricultural & Applied Economics Association is maintained.
The farmdoc project distributes Choices in partnership with the Agricultural and Applied Economics Association.

click here to visit choicesmagazine.org >>
CURRENT ISSUES IN STRATEGY FOR AGRICULTURAL COOPERATIVES

Michael Boland, Julie Hogeland, and Greg McKee
JEL Classifications: L10, L23, L16, Q13
Keywords: Agricultural, Agribusiness, Cooperatives, Management, Strategy

Business strategy is defined as a set of consistent choices made by a firm’s top management, within a given time horizon, supporting their collective understanding of how they intend to achieve the firms’ selected outcomes within a competitive environment. The scope and sequence of these choices is determined in a process of strategy development, implementation, and assessment. Strategy is delegated by the cooperative board of directors to the chief executive or general manager, but the board must be involved in the process. Strategy is an important topic in director and management leadership development programs. Agricultural cooperatives are the vertical extension of the farm business and a strategy must encompass this aspect. Strategy alignment on patrons’ interest is critical in ensuring the success of the cooperative. This article summarizes the results from a survey of cooperative leaders to better understand current issues in strategy development for agricultural cooperatives.

Strategic Issues Underlying the Cooperative Business Model

The expert panel of cooperative leaders identified a number of strategic issues as critical to the continued success of cooperatives. Important external concerns related to strategy identified by the panel included globalization and market volatility. Four important issues included strategic planning, human resource management, efficiency and market viability. While these issues are not unique to cooperatives, the cooperative business model creates unique challenges in evaluating, developing and implementing these strategies. These four issues were further refined during the August 4 2011, Washington, DC conference described in Kenkel and Park into three issues: the process of developing a strategic vision among cooperative members, traditional approaches to assessing the competitive environment, and the unique human resource needs of cooperative firms. These three issues are defined below in light of the globalization and market volatility external concerns related to strategy.

The Dynamics of Developing a Shared Strategic Vision

Prior to developing a strategic plan, members of cooperatives must organize themselves based on a central business proposition. However, the origins of the cooperative, the physical constraints of product marketing, member attitudes toward changes in the competitive environment, and changes in member attitudes toward the central business proposition uniquely constrain the strategic planning process in cooperatives.

Cooperatives are typically established around a simple business proposition involving a homogenous set of member users. For example, California’s micro-climates have defined production boundaries for many tree nut, tree fruit, vegetable, fruit, and other specialty crop cooperatives while Midwestern cooperatives were established to store and market commodity grains. A common outlook and shared demographics often cements member solidarity in a cooperative’s early years. Cooperative grain, farm supply, and dairy cooperatives reinforced their commitment to community development by being the largest local employer. Such cooperatives provide economies of scale, market access, or better prices and services. This rationale for cooperation became the basis for many locally-owned Midwestern creameries, farm supply, grain and livestock marketing cooperatives.

As a cooperative goes through its life cycle, there may develop growing differences or heterogeneity among members. This has an impact on the vision of the cooperative. Mature cooperatives may experience an identity crisis demanding a new definition of what the cooperative shall do or be. Heterogeneity may be revealed through marked discrepancies in member equity contributions relative to cooperative use. Differences in average production costs
among members can lead to different expectations for prices in marketing cooperatives. The cooperative may offer an array of incentives distinguishing among member needs and preferences. The challenges of participating in an increasingly capital intensive and industrialized food chain have made capital acquisition a priority among cooperatives.

A strategic vision that fosters shared beliefs and values within the cooperative can also be an effective response to member heterogeneity. Contemporary examples might be a commitment to sustainable practices or being a low-cost provider. A cooperative member’s role as both customer and owner creates challenges as the cooperative responds to changing business environments. When the member’s products are perishable or storage costly, cooperatives may be faced with deciding which members’ products get sold first. Likewise, cooperatives may define their mission as marketing only member output. This can hamper the cooperative’s ability to compete as a reliable year-around supplier or to meet changing consumer preferences. As an example, consumer preferences for mixed fruit drinks create challenges for a cooperative owned by cranberry growers.

Globalization confronts cooperatives with new challenges relating to competition, risk management and market demands. Globalization may subject the cooperative to new competitors in Chile or China. Cooperatives can insulate members from such competition by fostering product differentiation and provide market access which may be the difference between surviving or not. The increasing influence of global supply and demand factors on U.S. fertilizer price and supply has made global issues a major risk factor for farm supply cooperatives. On the other hand, global alliances representing crop varieties or packaging different from domestic markets have allowed fruit and nut cooperatives to be nimble, reliable suppliers without competing with members’ production.

Understand the Competitive Industry Set in which the Co-op Operates

Once a central business proposition is adopted, a vital, initial step for strategy development is assessing the market conditions and associated industry in which the cooperative firm operates. Such industry analyses are critical for educating boards and managers, who then bear primary responsibility for strategy development. The importance of this step was borne out in The National Food and Agribusiness Management Education Commission report (Boland and Akridge, 2004) which found that industry analysis was an important tool of a capstone agribusiness management undergraduate course and essential in a graduate course, suggesting that current industry professionals regard this skill as indispensable upon entering the cooperative business workforce. For instance, boards of directors may become complacent when a long-term executive has understood the competitive position of the co-op and led the organization over time. The development of the next generation of leaders is critical for success in the future because strategy implementation occurs through people.

During the process of implementation or soon after realizing its outcome, cooperative business executives will want to evaluate the results of their strategy. Previous studies have attempted to establish a standard for evaluation by comparing the performance of cooperatives relative to other cooperatives. Such studies are useful for broad knowledge, but a better understanding of strategic outcomes can be had by comparing the co-op with other firms in the industry in which it operates. For example, a dried fruit firm should be compared against other dried fruit firms rather than against a cooperative operating in the tree nut or fresh tree fruit sectors. Similarly, an agricultural co-op that markets its member’s grain and provides agronomy, energy, feed, and other inputs should be compared against similar firms within its geographic market.

A strategy assessment process that considers the complete competitive environment for their firm is important when developing decision cases, because it allows cooperative business executives to understand how the co-op positions itself against other firms over time. Strategy formation typically occurs over time as firms realize their position, such as being a low cost or large market share versus a branded food manufacturer. Many cooperatives were formed within the last one hundred years and strategy has evolved over time based on industry conditions.

Tools for successful strategy evaluation can be provided through director and manager leadership development education. Many directors do not have a background in economics. They may understand one of the five forces underlying competition based on their role as a supplier, but may lack full knowledge on the other forces. Thus, concepts related to barriers to entry and exit, knowledge of the supply chain and how buyers respond, as well as how consumers and ingredient buyers regard substitutes, is important. These cannot be taught in a day, but require an in depth understanding built upon education and knowledge.

Human Resource Needs and the Cooperative Firm
Nearly 70% of the expert panel indicated that attracting and maintaining quality human resources was an extremely important issue for agricultural cooperatives. Other human resource issues such as the succession of management and key personnel, and aligning the incentives of managers and employees with member interest also received high ratings of importance. Human capital at the chief executive and director level is essential for strategy development. For instance, the planning function in cooperatives is unique when compared with other business models. In an investor-owned firm, strategic planning is typically the role of the management team. In cooperatives, the board represents the membership and is accountable to it for explanations of corporate actions.

Hence, directors play a role in assessing the competitive environment of the cooperative, setting the objectives for the firm to pursue, and setting overall guidelines for using resources to implement a series of steps for achieving those objectives. Furthermore, the plan may be related to the economic rationale for creating the cooperative. Succession planning for the board of directors is more difficult in a cooperative because directors are elected from the producer membership. Term limits and low or nonexisting remuneration for directors often leads to continual turn over in the board.

The succession of the chief executive officer is another critical issue for agricultural cooperatives. The panel reported mixed or negative experiences in hiring managers who did not have experience with the cooperative business form. Cooperative managers operate under a different set of objectives, work with a board of directors consisting of producer-members and have a closer, more constant communication with their customer-owners. This creates challenges for chief executives with a background in investor-owned firms and places more emphasis on development of internal talent.

An agricultural cooperative’s employees are critical for its success, since they may be the primary means by which the member interacts with the firm. As a result, the knowledge, skills and commitment of the employees to the member-stated objectives of the cooperative contribute value to the firm. Cooperative managers must emphasize principles of training and personnel development in order to successfully implement their strategy.

Obtaining and developing qualified human resources is a challenge for cooperatives. Two thirds of the survey respondents indicated this was an “extremely important” issue, the strongest possible affirmative category of response; and 28% indicated this was “very important” in the Delphi method, described in the introduction article in this theme by Kenkel and Park, used for this research. Discussions with some of these executives indicate the strength of the response is, at least in part, related to the difficulty of attracting employees to rural areas.

Survey respondents indicated developing employee capacity was also an important issue. Approximately 89% of respondents indicated this was an “extremely important” or “very important” issue. Respondents were asked about their attitudes toward managerial succession planning. Of 51 respondents to the question “If your organization would prefer an outside CEO candidate, please indicate your preference for the following: candidate from a cooperative business organization,” 73% indicated they preferred this type of candidate as opposed to being neutral or not preferring this type of candidate. Hence, members of the cooperative business community view the attributes of successful cooperative business management as being unique relative to conventional corporations or the government sector.

In addition to the unique challenges of attracting and developing human resources with knowledge of the cooperative business form, agricultural cooperatives encounter traditional challenges with employees as well. Margin structure and profit level impact compensation levels, while access to debt capital affects the efficiency with which employees use financial assets. As boards of directors invest in the development of their chief executive, it may be more likely that financial resources will be used to their most efficient application.

Closing Comments

Strategy remains an important topic for directors and managers. Clearly, cooperatives should recognize the unique nature of patrons and the vertical extension of the farming operation in strategy formation and implementation. The development of a common vision that reflects patron interests is a critical issue. A better understanding of the competitive environment for all firms in an industry is needed in order to assist managers and directors in evaluating strategy. Strategy implementation is carried out by individuals and the survey results indicate that additional talent is needed. Education on this topic is critical for director and manager leadership development.

For More Information


Michael Boland (boland@umn.edu) is E. Fred Koller Professor and director of The Food Industry Center, Department of Applied Economics, University of Minnesota, Saint Paul, Minnesota. Julie Hogeland (Julie.Hogeland@wdc.usda.gov) is an Economist at the U.S. Department of Agriculture Rural Development, Business and Cooperative Programs, Washington, D.C. Greg McKee (Gregory.McKee@ndsu.edu) is Assistant Professor of Agricultural Economics in the Department of Agribusiness and Applied Economics at North Dakota State University and director of the Quentin Burdick Center for Cooperatives, Fargo, North Dakota.

The views expressed are those of the authors and do not necessarily reflect the positions of the Federal Reserve Bank of Kansas City, the Federal Reserve System, or Purdue University.

© 1999-2011 Choices. All rights reserved. Articles may be reproduced or electronically distributed as long as attribution to Choices and the Agricultural & Applied Economics Association is maintained.
CURRENT CHALLENGES IN FINANCING AGRICULTURAL COOPERATIVES

David Barton, Michael Boland, Fabio Chaddad, and Eldon Eversull
JEL Classifications: L10, L23, L16, Q13
Keywords: Agricultural, Cooperatives, Finance

A review of JSTOR, an online system for archiving academic journals, reveals 1,921 unique citations—articles, proceedings papers, book reviews—for the word “cooperatives” in the American Journal of Agricultural Economics and Review of Agricultural Economics. Of these 1,921 citations, 620 are in the area of finance, more than any other category. This body of research suggests that cooperative finance is a critical challenge for agricultural cooperatives’ survival and growth. Our engagement with industry cooperative leaders also suggests that the income distribution decision and the equity management decision, including equity investment and redemption, and the balance sheet management decision continue to be on their priority list. This article summarizes the results from a survey of cooperative leaders to better understand current challenges in financing agricultural cooperatives.

Elements of Cooperative Finance

A cooperative is a business operated primarily to provide benefits to members through marketing transactions, including input buying and output selling, and through a distribution of patronage earnings from these transactions; in return, members have a responsibility to provide equity capital—ownership—and exercise member control—governance. Members are quick to seek out the benefits of the cooperative business model but often reluctant to accept the corresponding responsibilities of ownership and control. Three functions underlie broad cooperative principles today. These are benefits, control, and ownership. Benefits include both market access at fair prices and other terms of trade and a claim on the income from these marketing transactions, usually distributed to patrons as patronage refunds proportional to use or patronage. Control is exercised through voting by members on governance issues including bylaw approvals, business mergers and dissolutions and election of directors. Voting power may be one-member, one-vote, sometimes championed as democratic control, or proportional to patronage and/or equity.

Ownership is obtained by the investment of equity capital by patrons either through cash purchase or through the retention of income from operations. Income may be retained in allocated form as per unit retains or retained patronage refunds, or in unallocated form as retained earnings. The cooperative business model is unique because it is user- or patron-oriented instead of investor-oriented.

In general, there are four unique and separate roles of users: customers, patrons, owners and members. Those who engage in buy or sell marketing transactions with the co-op are customers. Patrons are customers who are granted a claim on the patronage income proportional to use, as a patron and customer. The claim is not based on ownership unless ownership is managed to be proportional to patronage. This is the core difference between patron-oriented and investor-oriented business models. Patrons also own the cooperative. They have ownership rights derived from providing equity capital. Patrons who qualify as voting members are granted control through their voting power. In a pure cooperative with no nonmember or non-patronage business a customer or user is also a patron, owner and member. Many cooperatives prefer to use the term member instead of patron to convey the primary role.
The selection and implementation of an effective financial strategy is critical to the long-term success of any business, especially a cooperative business. Some of this is attributable to the uniqueness of the cooperative business model and its relationship to standard business finance. The uniqueness of the cooperative business model results from its focus on the role of the patron and the relationship of this role to the other roles of owner, member and customer. Cooperatives; fraternals—Knights of Columbus, Thrivent, Modern Woodmen of America, Ancient Order of Hibernians, and so on; mutual societies—State Farm, New York Life, American Family, and so on; and financial services firms—Nationwide, Vanguard, for example—share this uniqueness compared to investor-oriented types of businesses such as proprietorships, partnerships and corporations.

Financial Keys to Success of Cooperatives

Cooperatives must be competitive like any business. The cooperative business model is unique but it is still a business that is subject to the principles of business finance, business management and economics. It must be managed as a business that can compete in a capitalistic and highly competitive market economy. The primary economic justification for organizing and operating a cooperative is to correct and prevent market failures that are present or could be present. Other related justifications include providing missing services, reducing costs of service, and being price and service competitive in the marketplace—known as the “competitive yardstick” role. Some cooperatives also attempt to increase the value of patrons’ incomes by bargaining for higher prices or better terms of trade rather than accept “market prices.”

Irrespective of its purpose and role, a cooperative should strive to be as profitable as possible and then distribute those profits to its patrons. A cooperative should implement the core principle of the cooperative business model, service or operation at cost, by being competitive in the marketplace, making as much profit as possible, and then distributing profits and residual cash to patron-owners. Distribution should be done in a way that maximizes the long-run benefits to the group, keeping in mind that the group has heterogeneous interests at any one time due to their unique place in their business and personal life cycle. This distribution of patronage refunds or patronage income implements the service at cost principle of cooperatives. The payment of patronage refunds for a “non-pooling cooperative”, or net margins for a “pooling cooperative”, is the primary way cooperatives implement the service at cost principle. Patron-owners get what is left over through a combination of cash patronage payments, cash equity redemption payments and cash payments of net marketing proceeds.

Cooperatives should use balance sheet management when making income distribution and equity redemption payments. A cooperative must position and protect the business for short-run and long-run sustainability by adhering to a balance sheet management philosophy that manages both liquidity and solvency. Adequate risk capital must be provided by establishing and following liquidity and solvency guidelines as an element in the overall business strategy. Then the cooperative should pay out in cash to patron-owners any residual cash as cash patronage refunds or equivalent, and allocated equity as equity redemptions for cash not needed to meet the guidelines. Owners always get what is left over in any business, as residual claimants, and patron-owners of cooperatives are no different.
The evaluation and choice of alternative strategies must be done within an integrated and comprehensive finance, strategy and risk management framework. For an agricultural cooperative, that framework should include both the patron-producer perspective and the cooperative business perspective. In other words, a cooperative can be viewed as an extension of the patron’s business, such as a farm, or as an independent firm that attempts to prosper in a market economy. Both perspectives are important.

**Critical Challenges**

Based on the survey results cited above, there are three particularly critical financing challenges facing cooperatives. They command much attention from cooperative boards of directors and the members.

**Financing Asset Growth for Members**

The most mentioned critical challenge identified by the survey respondents was the need to acquire and maintain adequate equity capital to help finance growth and provide increased working capital. Production agriculture is experiencing a boom, especially in the crop production sector. This has resulted in the need for agricultural cooperatives and similar agribusiness to add assets to service the needs of production agriculture. In addition, prices of farm inputs and outputs have become more volatile, increasing the price risk to producers and agricultural cooperatives. Increases in crop yields, coupled with the ability of seed genetics to grow crops in geographic regions where they had not been grown before, and advances in irrigation technology have created a need for new grain and agronomic assets.

**Maintaining Sufficient and Consistent Profitability**

The second most mentioned challenge was the need to be profitable in order to finance much-needed assets and maintain a strong balance sheet. This finding is consistent with research showing that cooperative investment is tightly linked to its ability to generate cash flow through operations. Since most equity capital is obtained from earnings, this implies maintaining and improving profitability is also critical. Another challenge related to profitability cited by many respondents was the increased need for equity capital to improve liquidity and solvency so that the cooperative could offer risk management tools to producers, such as locking in a net margin per acre, by executing a grain selling decision in conjunction with agronomy and energy purchase decisions.

**Managing Business Risk While Maintaining Ownership**

The third most mentioned challenge was balancing or managing the trade-off between adhering to the ideal principle of proportionality of equity investment with the urgent need to provide more equity risk capital. Members want the cooperative to invest in assets that increase profitability and reduce business risk, requiring more equity investment to finance the assets and strengthen the balance sheet, but at the same time do not want the cooperative to slow down the rate at which equity is redeemed to the members as a way to increase equity investment. In other words, members want the benefits of the cooperative but don’t want to accept the corresponding ownership responsibility. This puts even more pressure on boards of directors and managers to assure that the cooperative is profitable, to create more equity investment, and to use higher leverage to finance assets.

A recent USDA study on equity management by Eversull (2010) reported that 21 cooperatives were using a base capital plan linking equity capital to current users of the cooperative. That is the best plan in traditional “open” cooperatives for maintaining proportionality of equity capital investment with use by current patrons of the cooperative. It is also the most complex equity management system and is more difficult to communicate to members. It is clearly evident that many crop farmers are very profitable as found in state farm management association records and in the dramatic increases in land prices. Thus, it may be easier for cooperatives to improve profitability by increasing net margins to pay for the much-needed improvements in assets, if cost efficiencies and competition permit.
Balance sheet management that selects liquidity and solvency targets and only redeems excess equity as the residual distribution of cash is considered the best way to manage aggregate patron equity investment and manage balance sheet risk. Equity management that selects equity redemption methods which maintain equity investment of individual patrons as close to proportional to use is considered the best way to manage individual patron ownership. The revolving fund and base capital redemption methods are the preferred methods.

Need for Education about Cooperative Finance

It is evident that education of leaders and members about cooperative finance is critical if leaders and members are to understand why a cooperative must be profitable and why cooperative finance practices must be aligned with the cooperative’s business model. These are tenets of effective income distribution and balance sheet management. If members view the cooperative as the vertical extension of their farming enterprises, then the ultimate objective is to maximize after-tax discounted cash flow back to the producer-member. A list of key topics for further research and education was identified by the industry leaders.

Concluding Comments

Alignment of a financial business strategy on cooperative principles and the cooperative’s business model, including equity management, are critical issues for the success of an agricultural cooperative. Financing and managing the asset growth needed to meet member needs, and keeping equity proportional to usage are two critical issues for financing agricultural cooperatives. Cooperative finance has been an important topic for agricultural economists and continues to be an important topic today as evidenced by the comments from these cooperative leaders. Land grant university economists have long conducted extension education programs for managers and directors of cooperatives. Such programs remain relevant today, especially those addressing cooperative finance.

For More Information


David Barton (dbarton@k-state.edu) is Professor of Agricultural Economics and Director Emeritus of the Arthur Capper Cooperative Center, Department of Agricultural Economics, Kansas State University, Manhattan, Kansas. Michael Boland (boland@umn.edu) is Koller Professor and Director of The Food Industry Center, Department of Applied Economics, University of Minnesota, Saint Paul, Minnesota. Fabio Chaddad (chaddadf@missouri.edu) is Assistant Professor of Agricultural And Applied Economics, University of Missouri, Columbia, Missouri and Insper Business School, Sao Paulo, Brazil. Eldon Eversull (eldon.eversull@wdc.usda.gov) is Acting Director of the Statistics Staff at the U.S. Department of Agriculture Rural Development, Business and Cooperative Programs, Washington D.C.
A LIFE-CYCLE PERSPECTIVE ON GOVERNING COOPERATIVE ENTERPRISES IN AGRICULTURE

Brent Hueth and Anne Reynolds
JEL Classifications: Q12, Q13, Q14
Keywords: Cooperatives, Governance, Life Cycle, Competition, Finance

If there is one organizational attribute that differentiates cooperatives from other organizations, it is the way they are governed. By construction, cooperatives put the economic interests of a particular class of patron in front all other stakeholders, and look to patron owners for risk capital and leadership on elected governing boards. More commonly, the interests of investors, working partners, or sole proprietors are primary, and patron interests are protected through competition in the marketplace. Membership on governing boards, if they exist, is heavily influenced, if not chosen directly, by management.

These differences create challenges and opportunities for effective governance in cooperatives. On the one hand, patron board members have good information, and strong economic motive, to perform the monitoring role normally ascribed to governing boards. Electing board members from among patrons can also help maintain strong patron relationships. On the other hand, patrons may lack the business expertise that is needed to advise management regarding strategy. Similarly, patrons who contribute capital might show greater purchase loyalty to their cooperative, but relying on retained earnings as the sole source of risk capital can limit firm growth. Effective cooperative leaders manage these trade-offs to a net advantage.

More fundamentally, however, are the unique consequences for governance that arise from the root cause of cooperative enterprise, and from the special life-cycle issues that emerge as a result. These consequences become more important as cooperatives mature and grow, particularly in market settings where they are one option among many for patronage.

Why Cooperatives?

There are a handful of industrial sectors where cooperatives account for a significant fraction of economic activity. In each of these sectors, there is a unique story to tell about how markets failed to satisfy patron needs.

Arguably, the story for the agricultural sector is about market power (Taylor, 1953). Spatial and temporal features of farming severely limit opportunities to achieve region-wide scale economies. Despite significant consolidation in farming over time, relatively small, autonomous, and typically familial, production units still supply the vast majority of primary farm-level output. In contrast, relatively large agribusiness firms supply the majority of inputs that farmers use, and control the processing, marketing, and distribution of farm output to final consumers.

The market power that farmers face as individuals provides strong motivation for collective action. Acting together, farmers can improve market performance in the aggregate, and generate redistribution of economic surplus from input-supply and intermediation sectors to the farm sector. Many of the cooperatives that exist today in agricultural markets were created decades ago to achieve exactly these outcomes.

This history is important for governance because the pro-competitive effect of cooperative enterprise, while apparent to the initial generation of cooperators, is mostly invisible to the current generation. The short-run effect of successful cooperative formation is transformative, providing balance and opportunity in the marketplace to a formerly disadvantaged group. In the long run, however, competitors respond to generate new market dynamics. As time
passes, established cooperatives can be taken for granted and viewed as indistinguishable from their competitors in the eyes of patrons.

And yet, where would the market be without a cooperative presence? If there is any reason for using the unique governance and financial structure of a cooperative business, it is to move the market in favor of patrons. As a consequence, it is impossible to understand and communicate cooperative value without recognizing how cooperatives affect outcomes in the marketplace.

**Communicating Cooperative Value to Members**

Assuming that cooperatives exist in the agricultural sector to level the economic playing field for farmers, let’s think for a moment about how to value a cooperative business. In doing so, it will become clear why it is so difficult to communicate value to members.

For a publicly traded company, its stock price reflects the expected discounted value of future cash flows—dividends and capital gains—to stockholders. At any given moment, equilibrium stock price reflects investor beliefs about what these cash flows will be in the future, which implicitly provides a well-informed estimate of firm value to investor owners. There is no stock price for a cooperative business, but in principle it is still possible to estimate firm value for patron owners in terms of expected discounted future cash flows.

In practice, however, if we look just at the expected discounted value of cash flows provided to patrons directly through prices and earnings—or savings—distributions, we will miss most of the value provided by a cooperative, which instead accrues indirectly through a shift in market equilibrium.

Consider the following example. A group of farmers currently purchases all of their fertilizer from ABC Farm Supply, Inc. ABC faces limited competition in the area so it charges a high price. To be concrete, let's say there are 100 farmers, and ABC currently charges $1/unit for its fertilizer. Now imagine that half the farmers in the area form a fertilizer-purchasing cooperative. They estimate that, by hiring a manager who will purchase for them on a wholesale basis—but with direct delivery to individual farms so there is no need for investment in plant and equipment—they will acquire fertilizer at $0.90/unit, $0.10 cheaper than they are currently paying. If they could recruit more farmer members into their group, they could perhaps earn even greater savings. Let's assume the cooperative forms with 50 members and that each farmer member can now acquire fertilizer at $0.90/unit. Assume moreover that ABC matches this price to keep its remaining patrons.

Now imagine trying to value the cooperative business that these farmers have formed. What is the cooperative worth? The cooperative firm itself has nothing to show on its financial statements. It has no assets or liabilities. It generates cash flow to pay for managerial service, but otherwise passes earnings on to members in the form of a lower price for fertilizer. Moreover, because ABC matches the cooperative price, patron members do not experience a savings relative to the market price for fertilizer. For this cooperative, financial statements significantly under report value.

Clearly the cooperative has created value, but where, and how does management measure it? The cooperative established a new market equilibrium that serves all patron interests. To measure cooperative value fully, management must estimate cost savings relative to market equilibrium without the cooperative. Taking this value into account, the firm generates an earnings increase of $0.10 for 50 members in perpetuity. Using a discount rate of 10%, this amounts to a present discounted value of $50. But that's not all the value the cooperative creates. There are also the cost savings that nonmembers receive as a result of improved competition. This savings generates an additional $50 in aggregate value for nonmembers, resulting in a total firm value of $100. Will patron owners of this cooperative understand that their cooperative is worth $50—and that it generates a further market-wide benefit of $50? Perhaps they would if market competition was this simple, but of course it is not. In the messy day-to-day challenges of managing cooperatives and competing in real-world agricultural markets, it is easy to lose sight of the unique impacts that cooperatives generate for members and other market participants.

As a consequence, making sure that patron owners do understand the worth of their cooperative is central to effective cooperative governance. Unfortunately, there is no easy way to estimate and communicate this value. To the extent that competitors of a cooperative match the cooperative price, as in the example above, there will be no savings that can be demonstrated, relative to competitors. This is a common predicament for cooperative managers. To the extent that a cooperative generates value that does not show up on its financial statements, the onus is on management and the board to communicate this indirect value to members. Without doing so, a cooperative risks
becoming just another business to its patron owners, but straddled with the managerial handicaps associated with operating on a cooperative basis.

**Implications for Board Governance**

The special value created by cooperatives points to a unique role for cooperative directors as ambassadors to patrons and the public at large. In addition to the standard roles of directors in noncooperative firms—monitoring and advising management—cooperative directors must also communicate unique impacts effectively.

Traditionally, the democratic governance process of cooperative enterprise is interpreted as a representational mechanism. Elected members whose responsibility is to protect local interests in firm-level strategic decisions represent regional interests on the board. However, this view clashes with the fiduciary responsibility each board member has to protect cooperative interests at the corporate level. It is easy to think of examples where preserving regional interests comes into direct conflict with corporate survival. From the perspective of managing a business, accommodating regional interests seemingly is a handicap that limits strategic flexibility.

However, there is a countervailing benefit: democratic governance with regional representation by patrons provides a unique capacity to seek maximal market share while offering a credible claim for protecting patron interests at the corporate level. If the patron population is represented on the board with full authority to direct corporate policy, members can be assured that any market power exercised by the cooperative is to their favor. Further, in instances where the market power exercised by a cooperative is not immediately apparent, patron board members can offer a credible insider view of industry competition. By explaining to members how their cooperative nudges the market in favor of patron economic interests, they can further establish patron loyalty.

Of course, there will always be limits to how far a given cooperative can push its market boundaries. Inevitably, expanding regional and sectoral coverage leads to more diversity among patron owners. To achieve maximal scale efficiency and market impact, cooperative leaders must recognize and justify differential treatment of patron owners based on their relative contributions to the firm. Attracting new members from a different region, for example, may require offering prices that are superior to those provided to existing members. When some existing members object that doing so is not fair, as inevitably they will, it is the responsibility of leadership to explain why fair can often mean unequal, and how current membership will benefit from adding new membership. Similarly, when closing a local supply or receiving facility increases aggregate scale efficiency, those who benefit directly might consider compensating former users of those assets for their loss. An effective board will not let local interests interfere with strategic initiatives that generate net gains—it will use local representatives to help identify mutually acceptable terms of trade among patron owners.

From this perspective, rather than view governance as a bottom-up representational process, perhaps it is useful to think of it as an effective organizational strategy to build and sustain patron loyalty. Under this view, cooperative leaders should take care to recruit board members who will be effective ambassadors, and then take the time to develop a corporate strategy collectively. If each board member contributes to that strategy, and feels ownership of it, collectively the board can be a powerful advocate for the cooperative among patrons.

Recruiting effective board members is a practical challenge for cooperative managers and directors. Elections for board seats often are not competitive (Reynolds, 2004). The panel of cooperative experts cited by others in this special theme identified recruiting new directors as the most important governance issue facing cooperatives. The additional data reported in Bond and Bhuyan in their article in this theme suggests that the problem is most acute among younger patrons.

Participating on a board requires significant time, and exposes members to financial and legal risk. Viewing board participation as an economic choice, there must be some compensation for these costs to attract new members. In public-stock companies, board members are normally salaried with benefits and performance-based pay. Further, there are substantial nonmonetary benefits that accrue from the opportunity to strengthen and expand productive social networks. Farmer cooperatives typically do not pay salaries to directors, and the potential networking benefits from participating arguably are more limited.

Individual farmers do have an economic interest in participating on the board as patron owners, but collectively they face a free-riding problem. One potential solution is greater pay. While seemingly an obvious solution, there are likely less obvious, but nevertheless good, reasons why most cooperatives do not choose to pay their directors significant salaries. Complementary with pay is investing significantly in recruitment, and providing public recognition for board
contributions. A formal director nomination and recruiting committee is one kind of investment. Some highly functioning boards also commit CEO and director time to farm visits of prospective board members. These visits can be used as opportunities to explain the unique impact of cooperative generally, and the special commitment required of individual members to on-going cooperative success.

Concluding Comments

Cooperatives play an important, and arguably undervalued, role in agricultural markets. To the extent that market maturity masks their procompetitive effect, cooperative managers and directors lack quantitative evidence to document firm value to patrons and policy makers. Governing cooperatives in this context suggests a need to focus on recruiting and training directors who can credibly communicate unique cooperative value to patrons, and who understand the need to negotiate toward a value maximizing strategy. As researchers are able to better document and quantify the unique impact and importance of cooperatives, the organizations’ leaders will have more tools at their disposal to explain value to their peers.

For More Information


Brent Hueth (hueth@wisc.edu) is Associate Professor, Agricultural and Applied Economics, University of Wisconsin-Madison and Director, University of Wisconsin Center for Cooperatives, Madison, Wisconsin. Anne Reynolds (atreynold@wisc.edu) is Assistant Director, University of Wisconsin Center for Cooperatives in Madison, Wisconsin. The Agricultural Food Research Initiative of the National Institute of Food and Agriculture, USDA, Grant 0212613 supported this project.

The views expressed are those of the authors and do not necessarily reflect the positions of the Federal Reserve Bank of Kansas City, the Federal Reserve System, or Purdue University.

© 1999-2011 Choices. All rights reserved. Articles may be reproduced or electronically distributed as long as attribution to Choices and the Agricultural & Applied Economics Association is maintained.
NEW COOPERATIVE DEVELOPMENT ISSUES

Brian M. Henehan, Dr. Shermain Hardesty, Madeline Shultz, and Dr. John Wells
JEL Classifications: P13, L22, L43
Keywords: Cooperatives, New Cooperatives, Developing Cooperatives

This article briefly reviews the increased interest in new cooperative development, factors for successful cooperative development, and strategies to improve the performance of new and emerging cooperatives. The article highlights issues identified by a panel of cooperative leaders, USDA specialists and academic experts.

Cooperatives Offer Economic Alternatives

As an economic downturn affects many aspects of the economy and government operations, there is increased interest in exploring the potential of alternative economic enterprises or service delivery systems. Increased incidences of market failures are occurring as the required conditions for successful markets are being tested. Markets function best with: limited barriers to entry, an adequate number of well-informed buyers and sellers, and no excessive market power by any buyer or seller.

A number of conditions for a perfect market are being challenged in today’s world of giant global companies, too big to fail firms, and unbalanced access to market knowledge or information. Remedies to market failure can include: the removal of barriers to entry, price levels that encourage more competition, increased government oversight, or group action such as forming cooperatives to market or purchase products or services. Mutual, self-help strategies become more attractive in an era of downsizing government and shrinking public support for delivering a range of services, particularly for certain demographic groups or geographic areas where markets tend to fail more often, including: low-income populations, rural locations with sparse populations, poor physical infrastructure, or areas with limited access to market information.

In today’s world of uncertainty and distrust, democratic decision-making and ownership brings control. Expert panel member, John Dunn who is Vice President for Cooperative Development with the National Cooperative Business Association (NCBA) sees greater interest in creating cooperatives during times of economic stress. NCBA is receiving requests from all kinds of organizations, such as churches wanting better electric rates and school districts considering joint purchasing, where people are becoming aware of the value of cooperatives.

Group action could prove beneficial to small to mid-sized enterprises (SMEs). SMEs are often the sources of economic growth and job creation. Purchasing, marketing or shared services cooperatives might allow SMEs to achieve greater economies of size, adopt new technologies, gain market intelligence, or expand the scope of operations otherwise not attainable by a single enterprise.

Increase Social Justice

The challenge for many cooperative developers described by expert panel member and long time cooperative developer, John Zippert who is Program Director of the Federation of Southern States, is to bring together social and economic justice. Zippert works with low income people and spends substantial time educating them about owning a business. Cooperatives operate for the benefit of their members, who still must recognize the competitiveness and risks of the business. New cooperatives such as the South Plaquemines United Fisheries Co-op grew out of the hurricane Katrina disaster. Now, several local fishery cooperatives are considering a regional marketing system that will facilitate direct shipment of seafood to distant consumers. Since the multi-cultural group of fishermen may be even more independent than farmers, Zippert commented that providing the member education required to develop a...
sound cooperative has been very challenging, as well as exciting. Zippert says disasters push people to want something different than they had; his team provides technical expertise and helps bring potential members together by challenging the status quo relationships.

**Mixed Image of Cooperatives**

Recent high-profile cooperative failures and bankruptcies have conveyed a negative image of cooperatives in some prospective members' minds. In some economies transitioning from centralized planning, the term cooperative can be translated or stereotyped as a communist, top-down enterprise run by a government. For the purpose of our discussion, we are using the U.S. style cooperative enterprise model that is market-driven, owned and governed by members and is designed to create value for members. The success of U.S. style cooperatives relies on their ability to compete and survive within a given market as well as being driven by serving member interests.

**Examples of New U.S. Cooperative Development**

A number of new agricultural cooperatives have been recently formed in the United States for a variety of purposes. One of the driving forces has been the dissolution of some federal or state marketing orders. Within a few years after the termination of the marketing orders, some producers found that they were competing among themselves and driving down prices. In order to obtain the potential protections provided by the Capper-Volstead Act which authorizes and gives certain antitrust exemptions to cooperatives, they opted to form information sharing cooperatives. Such relatively new cooperatives include the United Potato Growers Association of America, Central California Lettuce Producers Co-op, California Citrus Growers Association and Associated Fruit Producers. The cooperative structure enables members to share information about production plans, sales volumes, prices, and other market intelligence and/or to formulate price strategies; this collaboration increases the growers' market power and dissuades underbidding.

Some marketing orders have focused on improving product quality. After producers failed to reauthorize the state marketing order for the California Tomato Commission, a small group of producers created the California Tomato Farmers (CTF) in March, 2007 to develop and enforce voluntary food safety standards. CTF represents nine grower-shippers who produce 80% of California's fresh market tomato crop. The industry was damaged significantly in 2008 by a salmonella outbreak that sickened 1,400 people nationwide, although there was no evidence linking the California industry to the outbreak. CTF now posts its members' food safety audit information online for retail and foodservice buyers to view and assure themselves regarding the food safety integrity of the members' tomatoes.

The Oklahoma Food Cooperative created an innovative structure for cooperatives by including both producers and consumers as members. Expert panel member and Board President, Chelsey Simpson sees the cooperative's role as connecting farmers and consumers. The cooperative's 100 farmer-members set their own prices and nearly 4,000 consumer members make their food selections on-line, then pick up the products at designated times and locations. The Oklahoma Food Cooperative has inspired the formation of 18 similarly organized cooperatives; currently, it is investigating how to bring these daughter organizations together into one cooperative.

**Importance of a Support Network**

The stakeholder expert panel identified the importance of a support network for successful cooperative development. A number of resources, both inside and outside the United States play an important role in new cooperative development around the world. On the domestic side, the USDA has played an important role in new rural cooperative development for many years. The USDA Rural Development Cooperative Services Program promotes the understanding and use of the cooperative form of business as a viable organizational option for marketing and distributing agricultural products.

In federal fiscal year 2010, the $8.3M program partially funded 38 cooperative development centers in 28 states for the primary purpose of improving the economic condition of rural areas through the development of new cooperatives and improved operations of existing cooperatives. This group of centers has formed a network named Cooperation Works! The effectiveness and efficiency of the program could be improved with a 50-state strategy and multi-year center funding. Other USDA Rural Development grant programs that enhance cooperative development include the Small, Socially Disadvantaged Producer Grant program and the Value-added Agriculture Producer Grant program.

CooperationWorks! (CW, 2011) is a national organization of cooperative development centers and practitioners that span the breadth of the United States. Using innovative strategies and proven business practices, CW Centers
provide expertise across all aspects of co-op enterprise development, including feasibility analysis, business plan development, business launch and on-going training for CW staff.

A community of practice, comprised of university faculty, extension staff and supporters was formed to focus on education and research on cooperatives to create new online educational content on cooperatives for the eXtension internet resources (eXtension, ongoing)

A number of land grant universities across the United States have developed educational materials to support new cooperative development including the Cooperative Enterprise Program (2011) in the Charles H. Dyson School of Applied Economics and Management at Cornell University.

There are also a number of international cooperative development resources. The U.S. Overseas Cooperative Development Council (OCDC, 2011) is comprised of eight member organizations that have engaged in a number of applied research activities focused on expanding the knowledge and use of the cooperative business model to foster development in countries throughout the world. The International Cooperative Alliance (ICA, 2011) is a member organization composed of cooperatives around the world. The European Commission has established a legal framework to encourage the formation of cooperatives in member countries, the Statute for a European Cooperative Society (SCE, 2011).

**Factors Critical to Success**

There are a number of critical external and internal factors for successful cooperative development. Public entities can play a critical role in the formative stages of new cooperatives. In the United States., the federal government played an important role in the development of the cooperative Farm Credit System as well as rural electric cooperatives. Current federal funding helps to support the rural cooperative development centers that comprise the Cooperation Works! network. Publically funded seed grants or initial technical assistance may be helpful. However, to maintain the independence and viability of start-up cooperatives, public funding should be replaced by member investment and control as soon as feasible to insure a focus on creating value for members.

Internal factors critical to success can include insuring: adequate management, member investment and commitment, pricing and output management, as well as a high level of economic feasibility to compete in the target market (Sexton and Iskow, 1988)

**Attract Talented Managers and Board Directors to New Cooperatives**

During the expert panel discussion Chelsey Simpson, the Board President of the previously discussed Oklahoma Food Cooperative, indicated that the cooperative has a difficult time getting people to run for the board. Many of the farms are run by women and half of the board members are women. In the beginning, the cooperative had a lot of people giving their spare time and all the information to run the cooperatives was in the heads of five or six volunteers. As they transitioned to paying some employees, volunteers who had worked for years without pay became resentful and distrusting of leadership. Efforts to change the structure over the past two years have been difficult as some early members are unclear about the role of the board and management.

**Developing Partnerships Among Cooperatives and Along the Supply Chain**

In the discussion following the panel input, the issue of increased collaboration among cooperatives arose. Many consumer cooperatives have adopted the International Cooperative Alliance’s sixth principle, “Cooperation among cooperatives” Consumer grocery cooperatives often support producer cooperatives by purchasing from them to strengthen the cooperative food supply chain. Additionally, numerous grocery cooperatives have purchased preferred stock issued by the well-known dairy producer cooperative, Organic Valley, and encouraged their consumer members to do so also A producer cooperative, Country Natural Beef, has been working closely with ranchers in other states, to form marketing cooperatives that would share its principles and have the same highly participatory structure.

Some established agricultural cooperatives are utilizing more alliances and LLCs for machinery sharing and cooperative-to-cooperative collaboration. Start-up cooperatives could benefit from interacting with the more experienced cooperatives. Cooperatives operating in overlapping membership areas like rural utility cooperatives are supporting new business and cooperative development in their service areas. Experienced or retired cooperative
managers or directors could be a source of valuable knowledge for new cooperatives on governance, financing and operational, and areas of cooperative performance. Innovative information and knowledge sharing could prove beneficial to both entities.

Strategies to Improve New and Emerging Cooperatives

In many ways, new and emerging cooperative businesses face similar challenges to any start-up business: obtaining talented management, securing adequate financing and competing in a selected market. However, a number of distinctive organizational features and group dynamics can create characteristic challenges for newly developed cooperatives. Group decision-making can make for slower decision making. There can be a lack of advisors familiar with the cooperative formation and organization. There can be a lack of start-up capital as members are the primary providers of equity capital. Some lenders may not be familiar with this type of equity structure. Internal conflicts may arise as members, who may be raw products suppliers, attempt to determine prices and set terms of trade for marketing their individual farm output resulting in uncompetitive results.

Closing Comments

Forming a cooperative enterprise can be an effective approach in to addressing market failures and improving the socioeconomic well-being of members. A supportive legislative and regulatory environment can enable more successful new cooperative development. A well qualified team of organizational, legal and accounting advisors can be beneficial to successful cooperative development. At the end of the day, well led, effectively managed, and adequately financed cooperatives with committed members have the best chance of growing into viable businesses that are able to create the expected benefits for members.

Just as any business, a cooperative must compete effectively in a given market to succeed. Cooperatives can help stimulate economic development and better position smaller scale producers, consumers, or SMEs in today’s challenging markets that demand greater scale and scope than an individual player may be able to muster.

For More Information


Brian M. Henehan (bmh5@cornell.edu) is a Senior Extension Associate and Director of the Cooperative Enterprise Program in the Charles H. Dyson School of Applied Economics and Management at Cornell University, Ithaca, New
Madeline Schultz (Schultz@iastate.edu) is a Program Coordinator for Iowa State University Extension in Ames, Iowa and coordinator for the Community of Practice on Cooperatives for eXtension. Dr. Shermain Hardesty (sherman@primal.ucdavis.edu) is an Extension Economist in the Department of Agricultural & Resource Economics at the University of California in Davis, California. Dr. John Wells (john.wells@wdc.usda.gov) is the Director of Cooperative Development with USDA, Rural Development in Washington, D.C. Content for this article was generated from an expert panel meeting sponsored by the Council on Food, Agricultural and Resource Economics held on August 4, 2011 in Washington, D.C.

The views expressed are those of the authors and do not necessarily reflect the positions of the Federal Reserve Bank of Kansas City, the Federal Reserve System, or Purdue University.

© 1999-2011 Choices. All rights reserved. Articles may be reproduced or electronically distributed as long as attribution to Choices and the Agricultural & Applied Economics Association is maintained.

The farmdoc project distributes Choices in partnership with the Agricultural and Applied Economics Association.

[click here to visit choicesmagazine.org]
INDUSTRY LEADERS’ PERSPECTIVES ON COMMUNICATING THE COOPERATIVE VALUE PACKAGE

Jennifer Keeling Bond and Sanjib Bhuyan
JEL Classifications: Q13, P13
Keywords: Communication, Cooperatives, Value Package

Author and lawyer James C. Humes once remarked “the art of communication is the language of leadership.” Having also worked as a speechwriter for five presidents, Humes is in a unique position to comment on the value of communication in assisting leaders to guide, motivate, and inspire others. Cooperative leaders are challenged to use their verbal and writing abilities to maintain and enhance their organizations’ relevance among various audiences including members, other managers, external stakeholders, and potentially skeptical members of the public. In a fast-paced and information-rich business environment, creating impactful communications, controlling messages, and influencing change is a time-consuming and ongoing process.

This article examines how cooperatives are meeting the challenge of communicating the “cooperative value package”, the direct and indirect benefits associated with the business form, using evidence from a national survey facilitated by the National Cooperative Business Association of cooperative leaders. Additional insights were gleaned from a meeting of industry experts and researchers at an August 4th Council on Food, Agricultural, and Resource Economics (C-FARE) meeting held in Washington, D.C. Prevalent issues and research opportunities are also highlighted.

Communication with Internal Stakeholders

Methods of cooperative communication are nearly as diverse as the organizations themselves. Most cooperatives responding to our survey embrace a mix of traditional communication methods including face-to-face meetings, printed newsletters and phone calls alongside more modern methods that may include emails, texting, websites, and electronic newsletters.

Evidence of the growing importance of online tools is found in the ranking of websites as the most frequently cited method of member communication, followed closely by email contact. The relatively low cost, speed, and flexibility of these online methods likely contribute to their popularity. At the C-FARE panel, National Council of Farmer Cooperatives (NCFC) President, Chuck Conner confirmed that there are benefits and costs associated with using online tools stating “modern technology has expedited both the interaction and reaction of constituents.”

In spite of the many benefits that digital communication methods can provide, leaders are cautioned to use the technology in concert with more traditional and personal methods. During the C-FARE panel, Kam Quarles, Director of Legislative Affairs for Sunkist states “(the co-op) uses a variety of communication methods” and “person to person interaction is very important.” Members may be inundated with emails, electronic newsletters, and texts, thus the impact of an additional electronic communication may be diminished. Further, a personal communication from a co-op director, manager, or leader may foster a greater sense of connection to the cooperative through the strengthening of interpersonal relations. That in turn may increase a cooperative’s value in the hearts and minds of its members and other stakeholders.
Cooperative leaders were asked to comment on both the effectiveness of various traditional and modern methods of member communication in their ability to convey information and the current frequency, depth, and mix of communications tools utilized by their organizations. Some of the most frequently used tools are among those thought to be the most effective; about 78% of survey respondents indicate that their co-op’s website was at least somewhat effective or effective at conveying information followed by newsletters (77%) and email (75%). Interestingly, one of the least frequently used communication tools, member meetings, is ranked among the top four most effective methods, providing confirmation of the value of personal interactions as a member education tool. Texting is found to be both the least frequently used and least effective means of conveying information to members. Unlike the current young generation who are at home with texting, cooperative members are relatively older and are probably not accustomed to texting.

When asked about their satisfaction with the frequency of member communication provided by their cooperative, about 60% of cooperative leaders indicate they are at least “satisfied” with the current level. Further probing reveals that leaders who are unsatisfied with the current frequency of communication most often desire to increase the number of member interactions and to do so via increased use of electronic media. One respondent stated “we scaled back on our printed newsletter from 6X to 4X/per year and are considering an electronic newsletter that comes out more frequently.” The same respondent cautions “not every member is ready or will want an electronic newsletter.”

Relatively more leaders are content with the current mix and depth of member communications with 66% and 67%, respectively, indicating that they are “satisfied” to “extremely satisfied” with the status quo which typically involves a combination of newsletters, meetings, websites, and personal communications Several respondents hint at the challenges in creating balanced communications programs with one stating “there is a delicate balance between providing too much information and too frequent communications.” Another respondent finds “we have multiple audiences and need to refine our communications to each.” An additional leader writes “we need to find better methods of reaching out and communicating with younger demographics.” Younger farmers, members or otherwise,
are more used to using electronic media and therefore, designing electronic media geared toward this group will be useful.

Respondents were questioned further on the customization of cooperative communications for specific internal audiences. While most recognize heterogeneity is present in the membership, only about half indicate that their cooperative tailors the communication mix, message, or other features. Most frequently, leaders note that the use of social media—such as Facebook and Twitter—is intended to appeal to younger members. Others leaders reference young farmer/young cooperator programs that are intended to provide organizational background information that long-term members are less likely to find valuable.

While there appears to be recognition that demographics may impact media preferences, no leaders reference the customization of cooperative messages to accommodate psychographic differences that may include variance in membership objectives, cooperative needs, and macroeconomic concerns. Psychographic differences may correlate with demographic ones; however, unlike physical features, differences in needs, desires, and concerns may be difficult to observe superficially and require further inquiry to identify. In this regard, Bhuyan (2007) shows that understanding members’ attitude toward their cooperative management is key to member behavior, such as loyalty, which impacts cooperative performance.

A number of respondents indicate that older members tend to be more engaged in their organization and more likely to have positions of leadership in the co-op. This is a similar finding to that of Klein, Richards, and Walburger (1997) who state “older farmers tend to patronize all types of co-operative more often than younger farmers.” However, differences in the level of cooperative participation are less likely to be a function purely of age and rather more a function of what value cooperative membership brings to the individual. Further, Staatz (1989) shows that member age may be a proxy for the problem of vaguely defined property rights as experienced by the member. Therefore, providing a better value proposition to all its members, regardless of their age, may be a better strategy to satisfying member needs.

If the cooperative leadership does not understand the distinct objectives, needs, and concerns of members, they will be challenged to develop communications that are effective in convincing targeted audiences of the value of cooperative membership and the need for their engagement. In particular, if new generations of farmers in general and cooperative members in particular are not brought into the fold and educated about the value of cooperative membership, this business form risks a gradual but sure decline. According to panelist Chuck Conner, “anticipating member and constituent needs and responding appropriately is one of the biggest challenges facing leaders.” Thus it is critically important to determine how cooperatives can communicate the value of affiliation using appeals and means that resonate and are aptly delivered.

Communication with External Stakeholders

In addition to member-focused communications, cooperatives may actively engage in public relations (PR) efforts that target external stakeholders, public entities, and nonmembers. Cultivating relationships with external audiences assists cooperatives to better serve their members by bringing cooperative issues to light while also communicating the value of the business form. Fully two-thirds of our survey respondents indicate that their organizations partake in such activities. Described methods of connecting with these groups vary, as does the emphasis placed on engaging nonmembers. For some cooperatives, the efforts appear to be largely passive and limited to activities such as open access to the co-op website, a Facebook/social media presence, or a blog. Other organizations that are represented in the survey sample are quite active in their PR campaigns which may include event sponsorships, writing newspaper articles, appearing on TV, and hosting community workshops. Some cooperatives also partake in lobbying efforts at the state and national levels with several larger cooperatives, like Sunkist, employing full-time, D.C.-based legislative affairs specialists.

When questioned about the effectiveness of the methods employed to educate external stakeholders on the value of the co-op business form and the concerns of members, more than a dozen respondents wrote that their current communications mix is lacking in some manner. Echoing the sentiment of several other leaders, one respondent describes their activities as “pretty inadequate at present.” Despite limitations in the scope of tools used by individual cooperatives, leaders are encouraged to continue to be proactive, as opposed to reactive, in their efforts to engage policymakers and other stakeholders. Even small advocacy activities will still assist cooperative leaders to represent and better serve memberships that are concerned about detrimental changes in public policy and macro-environmental factors such as globalization, food safety and traceability, environmental regulations and more.
On topics of common cooperative interest such as Dodd-Frank and food safety, organizations may find that their impact on policy is greater when resources are pooled and a common message and lobbying effort is employed. According to C-FARE panel member, Barry Kriebel, “cooperatives need to have a cohesive message when discussing their value at the highest levels of government.” Current efforts are seen as fragmented and consequently less effective by the expert panel.

Our survey asked cooperative leaders to describe the appeals they use when communicating the value of cooperatives to external audiences. More than fifty responses were provided and while no two are identical, several themes emerge. Specifically, smaller cooperatives tend to emphasize their sense of community and contribution to the local economy; other cooperatives mention their ability to generate cost-savings for their members. A few focus on the “cooperative difference,” that is, they explain that their appeals emphasize democratic control, the International Cooperative Alliance’s seven co-op principles (IAC, 2011), and the role their organization plays in strengthening the community.

Respondents were also asked to comment on the relative responsiveness of external audiences to these appeals. Leaders of cooperatives that participate in local food systems frequently indicate that non-members, potential members, and others appear to be increasingly receptive to co-op PR efforts. However, that observation is not universally shared among leaders of credit unions and rural electrical cooperatives, and one manager states “generally, the public is more skeptical, fewer people understand the cooperative difference in electricity.”

On topics of common cooperative interest such as Dodd-Frank and food safety, organizations may find that their impact on policy is greater when resources are pooled and a common message and lobbying effort is employed. According to C-FARE panel member, Barry Kriebel, “cooperatives need to have a cohesive message when discussing their value at the highest levels of government.” Current efforts are seen as fragmented and consequently less effective by the expert panel.

Our survey asked cooperative leaders to describe the appeals they use when communicating the value of cooperatives to external audiences. More than fifty responses were provided and while no two are identical, several themes emerge. Specifically, smaller cooperatives tend to emphasize their sense of community and contribution to the local economy; other cooperatives mention their ability to generate cost-savings for their members. A few focus on the “cooperative difference,” that is, they explain that their appeals emphasize democratic control, the International Cooperative Alliance’s seven co-op principles (IAC, 2011), and the role their organization plays in strengthening the community.

Respondents were also asked to comment on the relative responsiveness of external audiences to these appeals. Leaders of cooperatives that participate in local food systems frequently indicate that non-members, potential members, and others appear to be increasingly receptive to co-op PR efforts. However, that observation is not universally shared among leaders of credit unions and rural electrical cooperatives, and one manager states “generally, the public is more skeptical, fewer people understand the cooperative difference in electricity.”

### Table 2

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>Not Applicable</th>
<th>Very Unconcerned</th>
<th>Somewhat Unconcerned</th>
<th>Neither Unconcerned or Concerned</th>
<th>Concerned</th>
<th>Very Concerned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Safety</td>
<td>22.6</td>
<td>3.2</td>
<td>0</td>
<td>3.2</td>
<td>29</td>
<td>41.9</td>
</tr>
<tr>
<td>Local Food Movement</td>
<td>19.7</td>
<td>4.9</td>
<td>3.3</td>
<td>13.1</td>
<td>23</td>
<td>31.6</td>
</tr>
<tr>
<td>Environmental Regulations</td>
<td>8.1</td>
<td>3.2</td>
<td>6.5</td>
<td>6.5</td>
<td>40.3</td>
<td>35.5</td>
</tr>
<tr>
<td>Globalization</td>
<td>9.8</td>
<td>6.6</td>
<td>4.9</td>
<td>21.3</td>
<td>32.8</td>
<td>24.6</td>
</tr>
<tr>
<td>Information Technology</td>
<td>1.6</td>
<td>3.2</td>
<td>19.4</td>
<td>32.3</td>
<td>25.8</td>
<td>17.7</td>
</tr>
<tr>
<td>Traceability</td>
<td>19.4</td>
<td>4.8</td>
<td>8.1</td>
<td>22.6</td>
<td>30.6</td>
<td>14.5</td>
</tr>
<tr>
<td>E-Commerce</td>
<td>15.9</td>
<td>6.3</td>
<td>17.3</td>
<td>33.3</td>
<td>12.7</td>
<td>14.3</td>
</tr>
<tr>
<td>IRS Exemptions</td>
<td>12.5</td>
<td>19.6</td>
<td>5.4</td>
<td>23.2</td>
<td>25</td>
<td>14.3</td>
</tr>
<tr>
<td>State Co-Op Regulations/Policy (e.g., Wyoming Law)</td>
<td>14.5</td>
<td>25.5</td>
<td>5.5</td>
<td>32.7</td>
<td>10.9</td>
<td>10.9</td>
</tr>
<tr>
<td>Capper-Volstead Act</td>
<td>27.3</td>
<td>23.6</td>
<td>3.6</td>
<td>25.5</td>
<td>18.2</td>
<td>1.8</td>
</tr>
<tr>
<td>Sherman Anti-Trust Law</td>
<td>21.8</td>
<td>29.1</td>
<td>7.3</td>
<td>27.3</td>
<td>12.7</td>
<td>1.8</td>
</tr>
</tbody>
</table>
managers observe that the impact of PR efforts appears to ebb and flow, in part, based on public perceptions of the economy and corporations, “I believe co-op organizations are building public support and interest in the face of the global and financial crisis.” Another leader notes “people seem more interested (in co-op’s) right now due to the state of the world…I wish we could better capitalize on it.” With the United Nations International Year of Cooperative upon us in 2012, now may be a great time to catalyze interest in the business form which will require concerted efforts by cooperative leaders and practitioners, academics, and policy makers.

Cooperative leaders reflected upon their own effectiveness, as well as that of members, boards, and other managers, in their role as advocates for the cooperative business form and the continuation of public policy benefiting cooperatives. Few (<10%) respondents feel these cooperative insiders are effective or very effective advocates, leaving room to assume that most organizations could benefit from improvements to their PR efforts. Others reference national cooperative organizations such as NCBA and NCFC as vehicles for increasing the impact of individual efforts. One leader states “participation in more regional and national co-op advocacy groups would improve our own effectiveness” while another credits NCBA with “giving co-op’s a much louder voice in public policy issues.” To assist organizations in coordinating advocacy efforts outside of national organizations, a board of director member suggests the creation of a “national lobby kit” and “national lobby day” that encourages co-op’s to “coalesce around two or three common issues and work together on them.” Several leaders also mention a need for more self-education prior to increasing advocacy activities; one respondent writes, “We need to be better educated about the cooperative business form and public policy in order to be more effective.”

Approaches for Communicating Cooperative Values

In addition to improving advocacy efforts, perhaps enhanced levels of education can lead to increased participation, engagement, and an appreciation of the value of cooperatives. Co-op leaders were asked to share what education methods their co-op employs and what improvements could be made. Many leaders indicate that their regular member communications serve as the primary means of providing cooperative education. Some link cooperative articles on their websites; others host workshops and team up with organizations to provide board training, financial education, and cooperative 101 courses.

The breadth and depth of member education varies significantly across the sample. However, many note the need for more and better resources. At the panel, USDA-Rural Development Program Leader, Jim Wadsworth, underscored the importance of providing educational resources and states, “to increase appreciation of their co-op’s members need to be given a comprehensive understanding of the cooperative model and why it is different.” To assist with the development of educational materials and programs, there are a number of sources of high-quality information available electronically from Cooperation Works!, eXtension, USDA-Rural Development, and more. While co-op information is widely available from online, though possibly underutilized sources, one leader cautions against overwhelming members with new educational material stating, “we need to remember that everyone is bombarded with information about worthwhile causes these days; we need to be thoughtful about how and what we communicate.” Through education, leaders create an opportunity for members to further connect with their co-op; overzealous and/or poorly-executed efforts may produce the opposite outcome.

Beyond providing education, leaders may use other methods to enhance the value of their cooperatives to members. One charitable manager describes providing a monetary reward for participating in quarterly survey questions and creating a “big bash party” atmosphere at the annual meeting. A less-generous manager penalizes members for not attending annual meetings or not completing member surveys. Other creative concepts include a monthly “tea with the board,” member-only promotions and contests, and recurring member spotlight features in the co-op newsletter. Many respondents also stress the value of face-to-face meetings and personal communications with members. During the C-FARE panel, John Dunn, VP for Cooperative Development at the NCBA, emphasized the importance of these interactions and states “nothing is more important than person-to-person member communication.”

While personal communications may be viewed highly in terms of the ability to engage and educate members, it can also be time-intensive and impractical to implement on a broad scale, especially for very large or geographically dispersed cooperatives. For some members, participation may be enhanced through low-cost means—in terms of dollars and time—such as using dynamic website-based (or Web 2.0) activities. At the C-FARE panel morning session, Cornell University Senior Extension Associate Brian Henehan, suggested that “member involvement may be improved through the use of online voting.” Members that cannot travel to board or annual meetings, but want to provide feedback on important decisions, may appreciate this simple, time-saving feature as well as other opportunities to interact “virtually” though webinars, online meetings, and hosted web-based Q&A sessions.
Osterberg and Nilsson (2009) found that members’ perception of participating in the democratic control of cooperatives outweighs all other factors in explaining both the members’ cooperative involvement and confidence in their boards. To influence the perception of member participation in governance, they suggest that boards establish information systems—potentially online—that provide an opportunity for members to express their opinions and for the board to communicate the implications of decisions and how they are in the best interest of the membership. This additional communication task compels Osterberg and Nilsson to further advise the “need for better training of the directors.”

Closing Comments

Osterberg and Nilsson’s study of member trust and commitment to agricultural cooperatives both highlights the need for leadership education in communication-related areas and emphasizes the increasing complexity of today’s cooperative environment and the critical role that communication plays in fostering member loyalty. The ability of cooperative leaders and advocates to engage members and external audiences depends, in part, on effectively communicating the value of membership and this unique business form. Crafting communications that successfully enhance member participation and public support will depend on the ability of leaders to understand their own organizations, the needs and values of their audiences, and their ability to translate this information into targeted and effective messages.

Cooperative leaders continue to be challenged to provide well-planned and informative exchanges without overwhelming the target audience, to personalize communications to all stakeholders while providing means for members to interact online, and to create cohesive pro-cooperative messages for external audiences while also customizing messages for internal audiences and select stakeholder groups. In light of these challenges and the noted importance of communication in ensuring organizational success, it is not surprising to find that surveys of CEOs and senior executives in all industries routinely rank “good communication skills” as the most important skill a manager must possess (Barrett, 2006). Cooperative research has often focused on the technical aspects of management: finance, governance, and strategy; perhaps it is now time promote the communication of cooperative values to the top of education and research agendas.

For More Information


Jennifer Keeling Bond (jennifer.bond@colostate.edu) is Assistant Professor, Department of Agricultural and Resource Economics, Colorado State University, Fort Collins, Colorado. Sanjib Bhuyan (bhuyan@aesop.rutgers.edu) is Associate Professor, Department of Agricultural, Food, and Resource Economics, Rutgers University, New Brunswick, New Jersey.

The views expressed are those of the authors and do not necessarily reflect the positions of the Federal Reserve Bank of Kansas City, the Federal Reserve System, or Purdue University.

© 1999-2011 Choices. All rights reserved. Articles may be reproduced or electronically distributed as long as attribution to Choices and the Agricultural & Applied Economics Association is maintained.
The farmdoc project distributes Choices in partnership with the Agricultural and Applied Economics Association.

click here to visit choicesmagazine.org >>