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Governance Structures and the Value of the Firm: The Case of Great Lakes Cooperative and Green Plains Renewable Energy

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Introduction

"We have done a great deal of work, analysis, and even soul searching over this proposal before you. We stand here as your board and very confidently tell you that this is an extremely good and fair offer. We are confident that it is in the best interests of Great Lakes Cooperative's members, employees, communities, and customers to approve this proposal." Board President, Great Lakes Cooperative

In early 2007, Great Lakes Cooperative's (hereafter GLC) board of directors and CEO held meetings with its membership to lay out the terms of a merger agreement with—a sale to, rather—Green Plains Renewable Energy (hereafter GPRE). The agreement was the result of months of discussions between representatives from GLC, a farmer-owned grain and farm supply cooperative, and GPRE, an investor-owned ethanol producer. What would ultimately lead to the merger of the two companies began as discussions about grain origination for GPRE's ethanol plant.

The ethanol industry was in its infancy in Iowa during this time, but was changing rapidly. GLC's members encouraged the board and management to find a way to engage in this growth with the hopes of securing margins for their grain. GPRE had just announced it was building an ethanol plant in GLC's territory near Superior, Iowa, and GLC itself had months prior conducted feasibility studies of building an ethanol plant. GLC's goal was to be the grain origination for the plant. Origination contracts, joint ventures, and other coordination agreements were considered. It was after months of discussions that GPRE’s purchase offer was born.

In the early 2000s, many agribusinesses were consolidating to take advantage of scale economies through reduced fixed and operational costs, to attract and retain quality employees, and to continue to provide products that suited member needs. USDA (2000, 2002) data during this period indicate the national number of centralized agricultural cooperatives declined by approximately one per week. This pace followed the trend common among agribusinesses at the time. The decision-making mechanisms and distribution of financial benefits from these mergers depended upon how the firms were organized. This case illustrates the differences in these mechanisms between member-owned cooperatives and investor-owned firms.

Background

GLC was formed in 2001 and was the merger of two centralized agricultural cooperatives, Farmer's Cooperative Elevator Company of Everly (FC Everly) and Superior Cooperative Elevator Company (Superior). GLC offered traditional products to its members, including grain storage and marketing services, animal feed, and agronomy (bulk fertilizer sales, seed, and crop protectants) and petroleum (fuel, lubricants, etc.) products. The two antecedent cooperatives differed in the composition of sales, with the one having about 3 times the petroleum and feed sales of the other, and one having about 1.5 times the volume of agronomy product sales of the other. Both had similar grain sales volumes. The merger to form GLC provided shared grain storage facilities on major and short line railways.

GPRE began operations in August, 2007 in Shenandoah, Iowa. Shortly thereafter, it purchased the assets of Superior Energy in August, 2008, bringing GPRE into the operating territory of GLC. A third plant was purchased in Tennessee in 2008, two were purchased in central Nebraska in mid-2009, and several others have been purchased since. According to their website, GPRE in 2017 was the second largest ethanol producer in the world.

Conceptual Framework: Contrasting the Cooperative and Investor Business Models

Cooperatives

A cooperative is a special form of a corporation. Cooperatives like GLC operate under an open membership model where producers can join at any time for a nominal investment. The purchase price for common stock, which grants voting rights, in open cooperatives commonly varies between $25 and $1,000. Unlike in investor-owned firms, the profit distribution in a cooperative is not based on ownership (equity), but rather the amount of business (patronage) transacted with the cooperative during the year. This practice creates the situation where governance of the cooperative—control—is not tied to equity. As such, there is little pecuniary value in owning cooperative equity and no tradeable market for its value. For that reason, the cooperative creates an internal system to redeem previously issued equity at face value on a systematic basis, which creates a system of revolving equity. Because they do not—and cannot in most cases—acquire equity through direct investment, and because of the need to re-invest in infrastructure, in profitable years cooperatives distribute a portion of profits to members in cash and a portion in equity allocated to members. The equity allocated in one year is redeemed and paid to the member at a future date determined by the cooperative's board of directors. Thus, a member's ownership in their cooperative comes primarily from profits allocated to them in the form of equity, which happens through use, not passive investment. This equity does not appreciate and it has no liquidity since members must wait for the cooperative to redeem it at a later date.

In addition to revolving equity, cooperatives also have unallocated retained earnings. This unallocated equity is primarily created by retaining the profits from nonmember business. A cooperative may also decide to retain a portion of member profits as unallocated retained earnings to build a reserve of permanent equity that does not need to be revolved (paid out) at a later date. While similar from an accounting standpoint to retained earnings in an investor owned corporation, unallocated equity has unique implications in a cooperative. While the members collectively have a claim to the retained earnings, an inactive or retired member will eventually have their entire amount of allocated equity redeemed and thus have no remaining ownership in the cooperative. They therefore essentially leave behind their claim to the unallocated equity after they stop using the cooperative. This practice has been termed the "imperfect property rights" of cooperative equity. Unallocated equity (retained earnings) allows a cooperative to avoid writing down the value of the allocated equity if they experience a loss. However, excessive amounts of unallocated equity may create the incentive, particularly among members using the cooperative over short time horizons, to liquidate the cooperative to capture their share of the unallocated equity.

Allocated and unallocated equity, along with the nominal membership stock, make up a cooperative's equity; however, only the unallocated portion is permanent equity capital. Unlike firms whose stock is tradable and marketable, there is no transparent and market-based mechanism for understanding the value of a cooperative's equity. It is not a tradeable security and does not appreciate or depreciate except through annual profits, but not through changing economic conditions or market signals. In this way, the members' value of equity is often tied to the value they place on transacting with the cooperative and to its provision of goods, services, and competition in the marketplace that benefits its members.

Cooperatives have a distinct governance structure. The cooperative principles require that owners of the cooperative, and its users, belong to the same group. Hence, the interests of the users are closely reflected in how the firm is run. Most open membership cooperatives use a one-member, one-vote system; members exercise control over the cooperative democratically, not based on equity ownership. This situation is in contrast to investor-owned firms where control is in proportion to ownership. In an investor owned firm, minority owners often effectively have no control. Under the cooperative model, there are no minority interests since every member has an equal vote. The cooperative model also differs in that directors must be members of the cooperative and therefore an agricultural producer. While this difference brings the customer viewpoint into the boardroom, it limits the diversity and background of the board of directors. It also brings a dual sense of accountability. The directors are users of the firm's services, but they are also peers of the membership and perceive the consequences of their decisions as a reflection of stewardship.

Cooperative board members typically receive only nominal compensation. In contrast, on the boards in investor-owned corporations, board members can be recruited on the basis of specific expertise and often receive substantial compensation. That a cooperative board is limited to agricultural producers may place it at a disadvantage when the cooperative is considering expanding into other business sectors. The board delegates operations functions and oversight to the CEO, if there is one. The board monitors the operations of the cooperative through regular interactions with the CEO and requests for reports on corporate conditions.

Investor-owned Firms

An investor owned corporation, such as GPRE, is owned by shareholders who generally have no market transactions with the firm. The common stock of many corporations, such as GPRE, is publicly traded, which implies investors can buy and sell their shares at any time at the current market price. The profits in investor owned corporations are distributed in proportion to ownership, which can be done directly by paying dividends on each share of stock. Alternatively, the firm can reinvest the profits in the business, which usually causes the market price for the stock to increase. The equity in a publicly traded investor owned corporation is therefore liquid, (can be bought or sold at any time) and has the potential to appreciate. The value, or at least the market's collective view on the value of a publicly held investor owned corporation can be inferred at any time from the current stock price.

The governance structure of investor-owned firms reflects the interests of equity owners. Both publicly and privately held firms allocate voting on major questions proportionally based on equity ownership. When common stock is held by a minority of shareholders, voting control is effectively concentrated within this group. The members have incentives to clearly state their preferences over the firms' operations since they are the owners bearing the most ownership risk and will receive the greatest share of benefits accompanying financial success. Minority owners often effectively have no control. Directors in these firms are nominated by the general management of the firm or by incumbent directors. The background of these candidates is usually valuable to the firm in terms of the financial capital or entrepreneurial capacity the individual can provide. The candidates need not be stockholders and may even be employees of the firm. This method is intended to bring toughminded business judgement skills into the boardroom and can limit access to the customer perspective. Board accountability to outside groups, then, typically comes in form of director candidates with no direct relationship to the firm. As in the case of cooperative directors, most investor-owned firm directors focus their energies on monitoring and supervising the CEO, suggesting that directors of both types of organizations focus on reacting to internal, short-term problems.

The GPRE Offer to Purchase GLC

Iowa was in the midst of an ethanol production boom in the early 2000s. According to the U.S. Energy Information Administration (2017), Iowa produced 10.5 million barrels of fuel ethanol in 2001; by 2008, it produced 56.1 million barrels, an average year-over-year production capacity growth rate of 28 percent. Nationally, 707 million bushels of corn were used for ethanol production in the 2001-2002 marketing year, and 3.1 billion bushels were used in the 2007-2008 marketing year. Much of the increased corn production to supply ethanol happened in Iowa. The 2002 agricultural census indicates 1.9 billion bushels of corn were produced, increasing to 2.3 billion bushels in the 2007 census.

Ethanol producers participate in several, distinct, supply chains. Ethanol is derived from corn or other biomass as a feedstock, but the availability and carbohydrate-rich nature of corn make it the preferred feedstock. Corn is merchandised through country elevators or imported. Costly transportation of corn leads to only a handful of country elevators being present in any one corn producing area, but corn is otherwise available for import throughout the world. Records available from GLC at the time of the proposed merger indicate grain sales were approximately 70 percent of revenue. Once produced, ethanol is typically blended with gasoline and sold to consumers, making fuel blenders and refiners, a highly concentrated market, the primary customers of these firms. GLC was a retailer of petroleum products and was interested in installing E-85 pumps in its retail locations. Ethanol production generates distiller's grains as a byproduct. These are sold to beef and dairy cattle operations as a feed ration ingredient. Sales occur at lowest cost when dried and transported to nearby farmers, a market with low concentration. GLC had significant feed sales at the time of the merger.

The GLC board spent several months studying ways it could participate in the growing ethanol market and was conscious this would change the merchandising, and perhaps the originating opportunities available to the cooperative, not to mention its influence on attracting and retaining quality employees. The board had studied joint venture possibilities for ethanol production and the development of a new generation cooperative as authorized by the recently passed section (501a) to the Iowa Cooperative Associations statute. This statute allows non-producer members to contribute equity to the cooperative, receive—up to a maximum share—net income from the cooperative, and have limited voting rights.

The GLC board also spent time learning how it and its producer members should form governance structures in future relationships with other firms. By 2008, GLC had just exited an origination agreement with New Fashion Pork. Corn forms an ingredient in the feed rations of pigs. Large pork processors, such as Smithfield, had increased the fraction of corn purchased directly from farmers and cancelled contracts with grain merchandisers such as Archer Daniels Midland and CHS, the nation's largest farmer owned cooperative. The CEO of GLC reported to the membership that "we had … experienced the problems that can arise in … a contract if not constructed correctly or both parties are not on the same page," and that it would be difficult to write a grain origination contract with an "I'll trust you, you trust me" philosophy.

These efforts occurred in the context of, what the board chairman described, the cooperative "finally beginning to jell into what it always had the potential to be." GLC approached the merger discussions under the leadership of its second CEO since the merger and the fourth CEO many directors from the former Everly Cooperative had known in the past ten years. The board chairmanship had not changed since the Everly-Superior merger seven years prior.

In August, 2005, Superior Energy, another ethanol producer, announced it had acquired land for construction of ethanol production adjacent to GLC's Superior, Iowa facility. This facility required corn as an input, and representatives of Superior Energy, later purchased by GPRE, interacted with GLC over the next three years to discuss plans Superior Energy, and later GPRE, had to purchase corn from GLC. The board president of GLC at the time indicated representatives of GPRE initially claimed "they had little interest in working closely with" GLC. Over the course of multiple discussions between GLC's directors and management and representatives of GPRE, both groups learned about each other's scope of business in the grain origination, fuel marketing, and animal feed businesses. These discussions included introducing E-85 fuel pumps, that blend ethanol and gasoline, at GLC retail locations, making the cooperative one of the first to provide this type of fuel. GPRE and GLC representatives also discussed farmer-member incentives for planting corn varieties that enhanced ethanol yield during the refining process.

One evening during these discussions, two representatives of GPRE visited with the CEO of GLC and asked if he and the board would ever consider selling the cooperative. “The Superior facility?,” the CEO asked. “No. We mean the whole thing.” The CEO repeated the question to the board. The board requested an offer from GPRE and hired private consultants to consider several dimensions in order to evaluate the bid. These included an attorney, a grain appraiser, a real estate appraiser, and accountants to review the cash flow of the cooperative and how potential payouts of equity from a merger would compare to historical situations in which a cooperative had been merged into another type of firm.

GPRE offered GLC members $12.5 million in cash for their equity in the cooperative, equal to 101 percent of the cooperative’s equity. It also offered shares of GPRE stock, amounting to 7.1 percent of its company offering. For individual GLC members, this meant they would receive a combination of cash and GPRE stock after the merger. For example, a member with $200 in common stock and $9800 in preferred stock (obtained as deferred allocated patronage income), would receive under the agreement $10,100 in cash and approximately 400 shares of GPRE stock. GPRE would also assume the liabilities for the existing employee pension program. The total value of the bid was approximately $30 million. The balance of the cooperative’s investments in other cooperatives, redeemed only through equity retirements at a time selected by the boards of the respective cooperatives, would be put into an escrow account. Members would have a share in the proceeds of these investments, valued at $10.4 million, as the associated equity was redeemed by their respective cooperatives.

During member meetings leading up to the merger vote, boards and management of both companies laid out the common interests both companies share in fuel, feed, agronomy, and grain. They also made the case that "buying the same bushel of corn twice"—once by the co-op and then by the ethanol plant—ultimately eroded value to the producer. As members considered the offer, they noted the cooperative had made cash payments of patronage historically, and was currently retiring equity allocated to the members as retained net income from earnings 25 years prior.

Advantages and Disadvantages to Accepting the GPRE Offer

The differences between the cooperative and investor owned firm governance and capital structures highlight the advantages and disadvantages of GLC accepting the offer from GPRE. The ownership rights farmers have in cooperatives have value to the extent that enough capital—generated through retained profits—is put into the business to ensure it will continue to generate income. Farmers extract the benefits of ownership not through ownership alone, but also through patronizing the cooperative and through participating in the decision-making of the firm. Farmers are expected to regularly participate in the decision making of the cooperative so as to indicate what benefits they are willing to sustain through patronage.

GPRE owners have similar, income-related, interests. However uncertainty exists between grain and ethanol producers given the possibility that grain producers might renege upon a prior agreement to deliver grain feedstocks to an ethanol plant at an agreed upon price and delivery schedule due to unexpectedly higher spot prices. Furthermore, the Iowa region during the time period of this case can be characterized by a large number of potential grain producers and merchandisers with which to transact, making the consequences of any one merchandiser acting opportunistically against the ethanol firm significant.

Liquidating the cooperative would provide a financial return to GLC members. Under the conditions of the GPRE offer, members would get a cash payment roughly equal to their allocated equity. The present value of the allocated equity is obviously less than its face value since it will not be redeemed until a future date, and the average equity redemption time among Iowa's cooperatives at that time was approximately 15 years, suggesting that equity is redeemed approximately 15 years after the year in which it is allocated. The members would clearly gain the difference between the present value and face value of their revolving equity. The members also receive 400 shares of GPRE stock which they can either sell or hold. In the long run, receipt of GPRE stock provides incentives to grain producers to protect the financial wellbeing of the firm. More immediately, however, GPRE stock represents a payment in excess of the value of their allocated equity.

If only the allocated equity is considered, the GPRE offer is attractive. On the other hand, by liquidating the cooperative, the GLC members are also giving up a stream of future cash patronage and future equity redemption payments on equity issued in subsequent years. Research suggests that the present value of a cooperative's future patronage stream to members is often worth 3-5 times the value of the allocated equity. When future patronage is considered, the GLC members may be losing in accepting the GPRE offer. Of course in considering that future benefit stream, the GLC members would have to consider their projections for the cooperative's future profits and patronage. The presence of GPRE in the market place would have to be considered when projecting future patronage. Additionally, a member with a short time horizon of cooperative use, such as an older member, would value future patronage differently relative to a younger member.

The GPRE offer could also be compared from a portfolio perspective. A GLC member's investment in their cooperative is essentially an extension of their farm business. From a portfolio standpoint their investment in their farm operation and cooperative lacks diversification. When corn production becomes unprofitable, it is likely that firms that supply inputs to corn farmers and market their grain, also fair poorly. If the GLC members accepted the GPRE offer, they would have the opportunity to invest the proceeds in stocks in unrelated industries. If they choose to hold on to the GPRE stock that they obtain from the deal, that stock also diversifies their total investment. One would expect ethanol companies that use corn to fare well when corn prices are low and less well in times of high corn prices. Therefore, ethanol profits could be countercyclical with corn production profits.

GLC members would also want to consider whether the presence, or absence, of GLC might have implications for the producers' future grain marketing transactions. As a cooperative, GLC would consider grain pricing decisions under the joint objectives of how they impact the farm members and how they impact the cooperative. Even when they have market power, cooperatives have no incentive to purchase grain below market price since they will turn around and distribute the resulting profits to the same members that made the transaction. As an investor owned corporation, GPRE would have a single objective of maximizing the shareholders' return. If GPRE obtained a dominant footprint in the market such that they could lower the price paid for corn, one would clearly expect them to do so. In an extreme case, if GPRE found that they could source corn internationally at a cheaper price leaving the Iowa producers without a market, that again would be a simple decision guided by the objective of maximizing the investor returns. In short, in deciding whether to dissolve their cooperative the GLC members would need to consider whether the cooperative was playing or could play a role in the future in keeping the grain market competitive.

Questions for reflection

1. What are the board's roles and responsibilities in bringing an offer to dissolve the cooperative to a vote of the membership? Ultimately it will be a member decision but many members may infer that, since the board brought the decision to a vote, they conclude it is in the members' best interests. Since the board was elected by the members to protect the long term viability of the cooperative, are they violating their duty by facilitating a possible vote for dissolution?

2. How should the value of a cooperative be measured? Is it by the current equity value, its stream of future benefits, or by some other measure?

3. GLC, like many agricultural cooperatives operates on a one member-one vote system. This system means that a member who has a low lever or equity and a low portion of the cooperative's business has the same vote as the largest producer and the largest equity holder. Cooperatives can use an alternative voting system with votes in proportion to patronage. In this situation, do you think the average member is better or worse off under the one member-one vote system?

4. When local grain cooperatives were established in Iowa, grain markets were not well developed and the railroads exercised market power. Do cooperatives like GLC still have a roll in keeping markets competitive and should the board and membership consider that factor in this decision?

5. Individual cooperative members have specific ownership of their allocated equity because it is held in their name and their annual balances are communicated to them. They also have a collective interest in the unallocated retained earnings. The unallocated retained earnings amount in GLC is roughly 50% of total equity. That means that an offer of 100% of allocated equity is 50% of total equity. In what ways does a cooperative's decision to retain funds as allocated or unallocated equity affect member's decisions when they evaluate an offer to sell the cooperative?

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