CHAPTER 8

TWO VIGNETTES REGARDING BOARDS IN COOPERATIVES VERSUS CORPORATIONS

Irrelevance and Incentives

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Abstract. This article addresses two observations regarding the board of directors in agricultural cooperatives. First, it is sometimes stated that cooperatives seem to behave like ordinary enterprises. Second, it is argued that cooperatives may have advantages compared to corporations with publicly exchanged shares. These observations are analyzed from complete as well as incomplete contracting theory.

1. INTRODUCTION

A widespread and important governance structure in many agricultural markets is the cooperative. For example, the European Union has 132,000 cooperatives with 83.5 million members and 2.3 million employees in 2001 (Commission of the European Communities, 2001), the United States of America has 47,000 cooperatives with 100 million members in 2001 (USDA, 2002), and China has 94,771 cooperatives with 1,193 million members in 2002 (Hu, 2005). In the EU, cooperative firms are responsible for over 60% of the harvest, handling and marketing of agricultural products, with a turnover of approximately 210,000 million euros (Galdeano, *et al.*, 2005).

This article will address a number of features regarding the governance of the board of directors in agricultural cooperatives. Governance concerns the organization of transactions, whereas a governance structure consists of a collection of rules structuring the transactions between the various stakeholders (Hendrikse, 2003). A cooperative is an example of a governance structure.[1] It is a horizontal arrangement between many independent farmers (horizontal relationship), often jointly owning an upstream input company or a downstream processor (vertical relationship). These

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producer-owned organizations are usually not stock-listed, and have distinguishing features (Commission of the European Communities, 2001, p. 12) like

> ... an orientation to provide benefits to members and satisfy their needs, democratic goal setting and decision-making methods, special rules for dealing with capital and profit, and general interest objectives (in some cases).

A standard way of delineating a governance structure is to distinguish decision and income rights. Decision rights in the form of authority and responsibility address the question, 'Who has authority or control?'. They matter because contracts are in general incomplete, due to the complexity of the transaction or the vagueness of language. The incompleteness of contracts is completed by allocating authority to somebody to decide in circumstances not covered by the contract. Decision rights concern all rights and rules regarding the deployment and use of assets (Hansmann, 1996). For example, a cooperative has to decide how much discretion is assigned to the board of directors regarding investments. Important themes regarding authority are its allocation ('make-or-buy' decision), formal versus real authority, relational contracts, access, decision control (ratification, monitoring), decision management (initiation, implementation), task design, conflict resolution, and enforcement mechanisms. Section 3 provides a rationale for the observation by various practitioners that cooperatives and stock-listed enterprises behave in a similar way.

The concept of income rights addresses the question, "How are benefits and costs allocated?" Income rights specify the rights to receive the benefits, and obligations to pay the costs, that are associated with the use of an asset, thereby creating the incentive system faced by decision makers. For example, a cooperative has to choose a compensation package for the CEO and the other members of the board of directors. Section 4 addresses differences in compensation packages of CEOs between firms with publicly exchanged stocks and cooperatives. Other important themes regarding income rights in cooperatives are payment schemes like member benefit programs, cost allocation schemes like pooling arrangements, and the effects of horizontal as well as vertical competition.

This article is organized as follows. Section 2 introduces various ways in which simple incomplete contracts can be extended. Section 3 provides a rationale for the claim that the choice of governance structure does not matter for the incentive to invest. Section 4 claims that cooperatives may have an advantage in the design of the compensation package of a CEO compared to a corporation because its stocks are not publicly exchanged. Finally, Section 5 summarizes and concludes.

2. BEYOND SIMPLE CONTRACTS

An important issue in organizing the enterprise is the allocation of control and authority. Standard incomplete contracting indicates that the ownership of assets should be allocated to the party whose relationship specific investments are most important (Grossman and Hart, 1986). This result is determined in a three-stage game.

The allocation of decision power in the first stage of the game identifies a governance structure with a distribution of bargaining power. A distribution of bargaining power is characterized by the slope of a line thru point $(-k_f,-k_p)$ in Figure 1,

where k_f (k_p) is the relationship specific investment of the farmer (processor). For example, a cooperative, i.e. a governance structure characterized by forward integration, is presented by the horizontal line thru point $(-k_f,-k_p)$, reflecting that the farmers have all power.[2] The farmers and the processor have about equal power in the governance structure characterized by the line with slope Y. Specific investment decisions by the farmer and the processor are determined in the second stage. A higher level of specific investment entails a worsening of bargaining positions (due to hold-up in the third stage of the game) regarding the division of the surplus V. Renegotiation decisions are determined in the final stage.

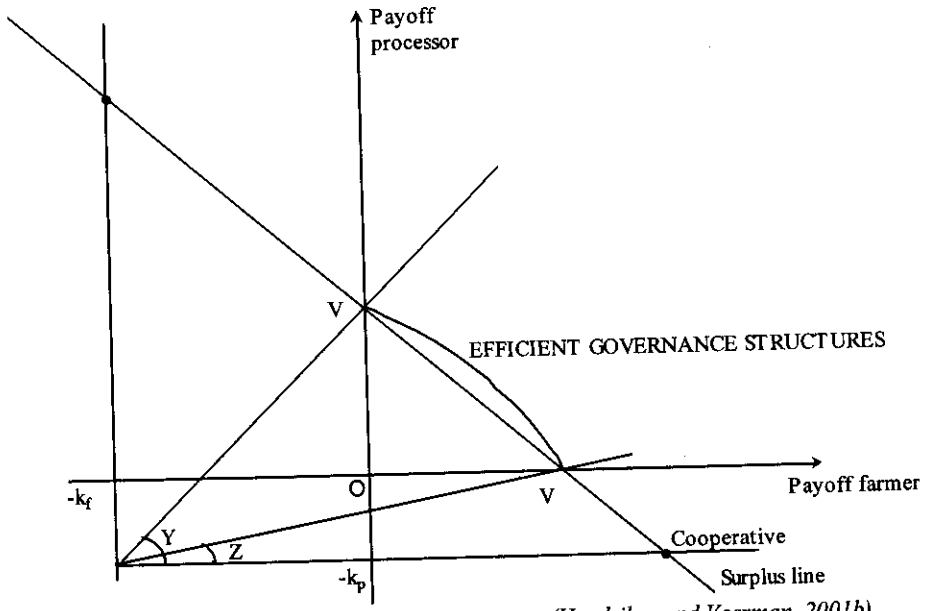

Figure 1. Two hold-up problems and governance (Hendrikse and Veerman, 2001b)

The above result of Grossman and Hart may be at odds with a basic feature of the firm. Crucial to the notion of the firm is the centralization of decision-making power, i.e. the employer, not the employee, is the owner of the firm. Similarly, the core of an agricultural cooperative is member control over the infrastructure at the downstream stage. In other words, formal ownership by the input suppliers over the downstream assets is the essential feature of a cooperative. However, bosses (and members as owners of downstream assets) are problematic from an efficiency perspective when the relationship specific investments of the employee (or the relationship specific investments at the downstream stage of production in a cooperative) are most important.

The developments in agricultural markets seem to increase the importance of specific assets at the downstream stage of production, i.e. k_p increases. This puts pressure on cooperatives in favor of market exchange. Wierenga (1997, p. 53) states that a

> ... drawback of co-operatives is that their locus of power (and perspective), even if they have integrated processing and distribution facilities, is close to primary production and far moved from the market. This does not make them very suitable for taking the guiding role in an AVAP (Agrifood Value-Added Partnership), the very purpose of which is to derive competitive advantage from adding those values that consumers want.

The implication seems to be to abandon the cooperative structure.

A way to deal with the problem of allocating formal decision rights to subordinates, and the pessimism regarding the efficiency of the cooperative in the previous citation, is to consider a richer class of incomplete contracts than the type of contracts considered by Grossman and Hart. Their conceptualization of the allocation of ownership can be viewed as a simple long-term contract. It is simple because it is non-contingent, i.e. it is not allowed to make the allocation of authority contingent on the circumstances or the results. Allowing contingent long-term contracts creates additional degrees of freedom to make value creating downstream activities blossom.

One way to extend simple contracts is to distinguish formal and informal or real authority (Aghion and Tirole, 1997, and Baker *et al.*, 1999). Formal authority resides at the top, whereas informal authority can be either centralized or decentralized. Control over the operational activities by a professional management may be efficient when it has superior knowledge. So the efficiency of a relationship may be enhanced by giving up some control, i.e. giving real authority away, even though the formal control stays at the top. Hendrikse (2005) applies this idea to cooperatives.

Another possibility is to consider various long-term contracts, informal as well as formal. Section 3 will focus on informal or relational contracts to address the irrelevance of governance structure for investment behavior. Richer incomplete contracts therefore create various additional degrees of freedom. This may result in restructuring the cooperative in order to make the traditional cooperative more responsive to market demand, rather than abandoning it.

A third possibility to create an additional degree of freedom is the introduction of a third party (Bolton and Scharfstein, 1998). The standard analysis of the relationship between members and the cooperative considers a two-party relationship: members (as a group) and the management of the cooperative. In the terminology of the standard principal-agent model, members are the principal and the Chief Executive Officer, or the professional management, is the agent. This characterization is relevant in many situations, but sometimes this relationship is more complicated. An example is the relationship between the members of a cooperative and the CEO. There are usually many small members, making it hard for them to design and choose an appropriate contract for the manager. The standard way to overcome the coordination and motivation problems between many members is to install a board of directors representing the members. Installing a board of directors entails the introduction of a third party in this relationship. Various implications are explored in Section 4.

3. IRRELEVANCE OF GOVERNANCE STRUCTURE

Governance structure, and therefore the board of directors, may not matter at all. This observation is sometimes formulated in scientific journals as well as in interviews with practitioners. For example, LeVay (1983, p. 5) states

> ... whatever the formal basis of association, co-operatives may behave no differently from other types of enterprises.

A more recent example is Nilsson (1999, p. 468) stating that

> ... traditional cooperatives may let some branches be run within firms that have resemblance to member-investor firms.

Similar observations are formulated CEOs of cooperatives. For example, CEO Jos van Campen of sugar cooperative Royal Cooperative Cosun in the Netherlands, as quoted by Griffioen (2004, p. 8), remarks that

> More important than the governance structure are really the way people deal with each other every day at the interface between enterprise and cooperative. This is what determines whether things run smoothly or not. This way of dealing with each other, giving each other some discretion regarding their field of expertise, making clear agreements, and having sufficiently many discussion meetings to deal with problems, is much more important than the governance structure.

Similarly, CEO Hans van der Velde of Visa International EU views a cooperative as an association of parties created in order to solve a problem. He states (Klep, 2004, p. 9)

> These [organizations or the allocation of decision authority] are secondary: they can always be rearranged, within every governance structure. It is much more essential that there is agreement about the problem that has to be solved. There is no discussion in Visa about whether they should be a cooperative or not. We just cooperate because it is a necessity.

These observations signal that cooperatives behave like ordinary enterprises. The main idea is that the informal structure determines to a large extent the way things really work. Frequent, informal interactions between the board and the CEO will result in similar choices across governance structures. The claim is therefore that governance structure does not matter much in the daily affairs of enterprises. A relational contracting perspective will be adopted to investigate this claim regarding the irrelevance of governance structure, and therefore the board of directors.

Informal agreements and unwritten codes of conduct (within and between enterprises) are widespread and important, due to the nature of knowledge. Knowledge, and its location, is important in enterprises. Teece (1998, p. 75) writes:

> The essence of the firm is its ability to create, transfer, assemble, integrate, and exploit knowledge assets. Knowledge assets underpin competences, and competences in turn underpin the firm's product and service offerings to the market.

The nature of knowledge has changed over the course of time. Knowledge used to be explicit, or at least codifiable and transmissible in a formal and systematic language, in the past, whereas it isn't nowadays (Drucker, 1998). Knowledge which is personal, implicit, or hard to codify and express in the formality of language is called tacit knowledge. It is costly to transfer to outside parties and usually resides with a limited number of individuals. A problem regarding the tacitness of knowledge is that formalization of major components of, agreements regarding, and understandings about the relationship become impossible due to the unverifiability of this knowledge by third parties.

A governance structure consists of formal and informal rules. The formal structure is roughly described by the organizational chart, and can be represented by the decision rights of an incomplete contract in the property rights approach (Grossman and Hart, 1986). Formal decision rights allocate the right to intervene selectively, i.e. the decision rights determine who decides in circumstances not covered in formal agreements. The models in the property rights approach are usually limited to the allocation of formal decision rights in a setting where the parties interact only once. A general feature of short-run interaction is the unattractive prisoner's dilemma outcome. Underinvestment is a prominent example.

Relationships in the real world usually last more than one period. This holds of course not only within enterprises, but also between parties in a market setting. Multi-period interactions between the same parties open the possibility to build a relationship and a reputation, which might overcome the problem of underinvestment. Informal agreements or contracts and unwritten codes will be called relational contracts. The role of relational or implicit contracts is to utilize the parties' detailed knowledge of their situation in an informal way in complex or new situations. The fundamental incentive problem in relational contracts is that each party may see opportunities to increase its current returns by behavior that hurts the other party but that cannot be effectively deterred through normal, court-enforced contracts. Meaningful relational contracts therefore have to be self-enforcing, i.e. each party has to face incentives such that abiding the informal agreement is attractive.

A feature of relational contracts is that the involved parties have to decide every period about the continuation of their good behavior. Meaningful or credible relational contracts are self-enforcing when the value of maintaining a reputation for good behavior outweighs the gain from reneging on the promise. Knowledge can therefore be brought to value in a relational contract by the concern to maintain a reputation for honoring informal agreements. Meaningful relational contracts, i.e. credible informal agreements, have to be designed in such a way that the reputation of each party is sufficiently important to maintain. This can be made more precise by modeling a relational contract as an (infinitely) repeated game. It enables us to be more specific about self-enforcement and reputation.

The main result in the theory of repeated games, i.e. the Folk theorem (Fudenberg & Maskin, 1986), specifies the circumstances for relational contracts to be self-enforcing. First, the future has to be sufficiently important. If the benefit of defection is larger than the costs, then it is predicted that the relational contract will fall apart. Second, the environment is not too volatile or uncertain. A volatile environment may make the short-run gain of defection more attractive than the adherence to the long-run implicit contract. Third, the observability of decisions is important for the stability of long-term relationships. Cheating on implicit agreements becomes more attractive when the observability of decisions decreases. This argues for frequent meetings of the board of directors in order to discover the professional management's eventual deceitful or incompetent behavior in an early stage. Fourth, the history of the relationship is important. A relationship is hard to restore once it is damaged.

Farmers like the processor to take (unobservable) actions that improve the (unverifiable) value of the good in the downstream production process, regardless of the

choice of governance structure. Relational contracts may be helpful in such a setting because the concern for ones reputation may induce the desirable behavior. When both parties agree on a certain course of action in an informal, self-enforcing way, then the formal aspect of the relationship does not affect the distribution of bargaining power. Every governance structure therefore induces the same distribution of bargaining power, i.e. the incentive to invest is identical in every governance structure (Baker, *et al.*, 2002). The important relational contracting result regarding the choice of governance structure is that the distribution of bargaining power is identical for all governance structures.

There is, according to this relational contracting perspective, no difference in investment behavior between various governance structures. This is depicted in Figure 2, where the upward sloping line represents the distribution of bargaining power in all possible governance structures. (The downward sloping line is again the surplus.) Notice the difference with Figure 1. Governance structure differences are captured by lines with different slopes in a setting with an emphasis on the allocation of formal decision rights (Figure 1), whereas every governance structure is characterized by the same slope in a relational contracting setting (Figure 2). For example, the governance structure cooperative is characterized by a flat line in Figure 1, i.e. the farmers have all power, whereas it is characterized by a line with a positive slope in Figure 2, representing the outcome of the frequent and informal exchange of information between the owners and the management.

Figure 2 illustrates the irrelevance of the choice of relational governance structure for the incentive to invest. However, it is incomplete because the location of the upward sloping line is not identified. Bargaining positions will distinguish different relational governance structures. They differ because the identity of the party making a promise differs between various relational governance structures. The farmers in a cooperative may promise the CEO at the processing stage of production a bonus, or to allocate capital in a certain direction. Other examples of promises are promotions, task allocations, and internal audit transfer payments. The identity of the party making a promise differs when the downstream processor is an independent contractor rather than an employee. A processor as independent contractor makes promises to farmers. For example, the processor may promise to always buy the produce of a certain group of farmers. Relational governance structures are therefore not distinguished by their distribution of bargaining power, but by their bargaining positions (Baker, *et al.*, 2002).

Promises, and therefore reputations, only mean something when they are self-enforcing because they are vulnerable to renegotiation. For example, the upstream farmers may not pay the bonus, or the downstream producer may buy his inputs somewhere else. The identity of the party tempting to renege is therefore determined by the specific relational governance structure. This is important because a key difference between a cooperative and market exchange is that the processor does not have an outside option available in a cooperative because the farmers own the downstream assets and products. The processor in a cooperative has to take the produce of the owners of his assets as inputs, whereas inputs can be bought somewhere else when he is an independent contractor. The input's value in its alternative use affects the reneging decision under independent contracting or relational

outsourcing, but not under a cooperative or relational employment. This has an effect on the choice of (inefficient) actions to improve one's bargaining position.

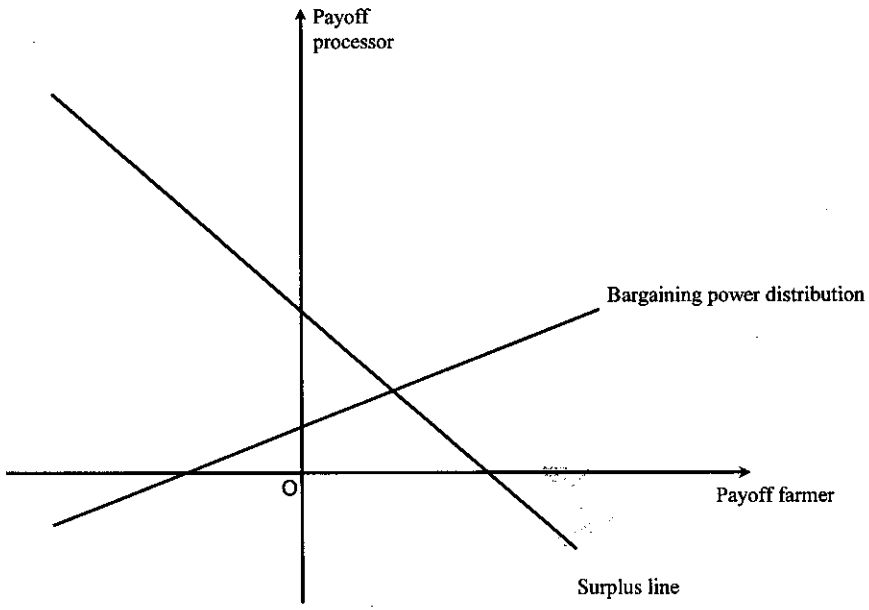

Figure 2. Incentive to invest is independent of relational governance structure

Figure 3 presents a situation where upstream ownership of the downstream assets, i.e. a cooperative, is advantageous to the farmers as well as the processor. Ownership of the downstream assets by the cooperative has the advantage of eliminating efficiency reducing activities of the processor, i.e. the surplus line shifts outward. The processor chooses surplus reducing activities in order to improve his bargaining position. To be specific, the activities (a) of the processor improve his bargaining position from 0 to P(a), but reduces the surplus from Q* to Q(a). The processor is an employee in a cooperative rather than an independent contractor because the worsening of his bargaining position is more than compensated for by the elimination of his efficiency reducing actions to improve his bargaining position.

4. CEO POWER

The lack of public exchange of the shares of cooperatives has advantages as well as disadvantages (Van Bekkum, 2004, p. 20). Advantages of a stock listing are the transferability of shares, reporting obligations, decisions are scrutinized by and published in the financial press, and the stock price is an easy measure to determine the quality of management. Disadvantages are a short-run focus, the imprecise relationship between the share price and the state of the enterprise, and a dominant focus on money.

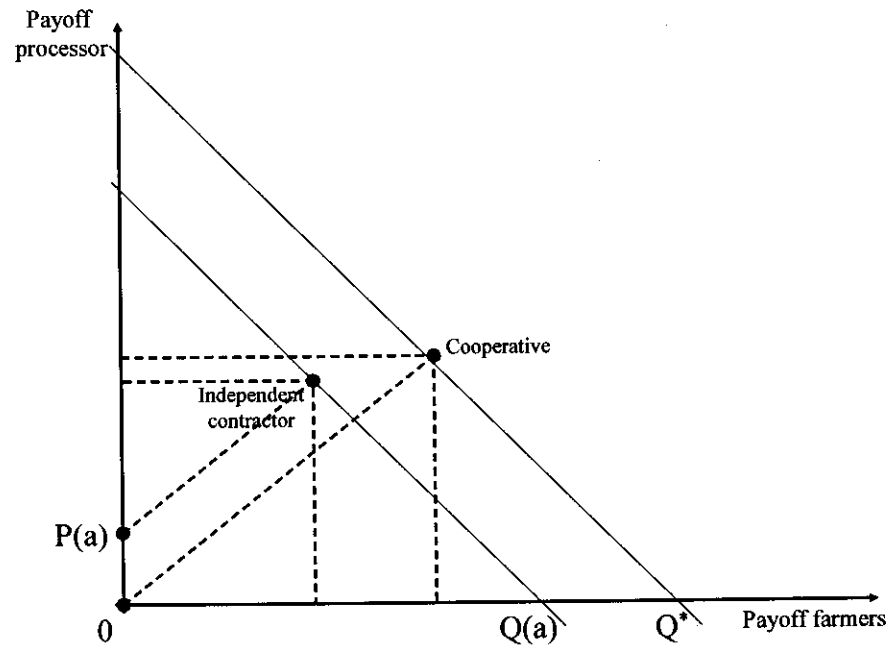

Figure 3. Relational governance structures and efficiency

It will be argued that cooperatives may have advantages compared to enterprises with publicly exchanged stocks in limiting the rent extraction tendencies in the design of the compensation package of the CEO by the CEO via the board of directors. An important aspect in this design is that there are three parties involved. LeVay (1983, p. 9) observes

> The main groupings within a co-operative are the rank and file membership, its board of directors and the management.

Figure 4 depicts the relevant players in the cooperative.

The introduction of the board of directors may not be unproblematic. Directors of the board are supposed to act in the interests of the owners, like formulating compensation packages for the CEO, in order to bring the money of the owners to value. However, from the perspective of the owners the compensation package for the CEO is often less than optimal. There are at least two reasons for this managerial power of the CEO. First, the CEO has superior information about product markets. Superior information regarding the output market may result in the choice of investment projects having a high personal value for the CEO. The lack of a stock market listing with publicly exchanged shares may prevent a situation in which bad choices become immediately visible.

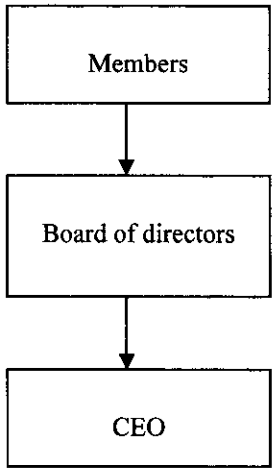

Figure 4. Members, board of directors, and CEO

Second, the CEO also probably has superior information about the compensation packages for his position. It is hard for directors to formulate an alternative payment scheme than the one proposed because they usually lack easy access to independent information and advice regarding compensation packages. Directors' limited time forces them to rely on information prepared by the human resources department of the company and compensation consultants, all having incentives to favor the CEO in the provision of information to the directors.

A number of aspects of the performance of the board of directors has been addressed, but this does not say much about the performance of the cooperative as a governance structure. A relevant question is the performance of the cooperative compared to alternative governance structures. Will the performance of the processor improve when it is governed by investors rather than members? Bebchuk and Fried (2003) address the impact of the distinction between shareholders and the board of directors in stock-listed enterprises. They argue that there is substantial scope for managerial power due to actual incentives of directors being geared towards the interests of the CEO rather than the interests of the owners.

First, board directors like to be reappointed. It entails not only an attractive salary, but also prestige and valuable business and social connections. CEOs are favored by directors of the board in the design of compensation packages because they almost always play an important role in the renomination process of directors to the board. The CEO may also have some discretion regarding the directors' compensation and perks, and a CEO may become a fellow board member in the future. Second, directors usually have only limited, or no, shares in the enterprise. Third, directors not only lack the expertise of developing an appropriate compensation package, but their concern for developing a reputation for haggling with the CEO over compensation may even discourage proposing alternatives. Finally, the

market for corporate control does not work sufficiently strong to assure optimal compensation packages.

The overall implication of the incentives facing the members of the board of directors is that executives may have considerable power over their own compensation arrangements. However, governance structure choice probably serves as an important moderating variable. Hendrikse and Veerman (2001a) have identified a number of differences between cooperatives and investor owned firms. First, each member will have a considerable share of his crop processed by a particular cooperative. This financial stake provides strong motivation for members to acquire substantial information in order to evaluate policy decisions. These incentives are further enhanced by the fact that member farm level assets may be totally dependent on the success of the cooperative (no market alternatives, highly specialized technology of the cooperative, etc.). This is important for the functioning of the board of directors because the majority of the board of directors in a cooperative consists of members, whereas the financial involvement of directors of the board in a stock listed enterprise is usually (very) limited. Board directors in cooperatives therefore have stronger incentives to perform their jobs well than directors in stock listed enterprises.

Second, shares of a cooperative are not traded on the stock market. Stockholders can easily get out of the enterprise by selling their stock in the market, whereas members in a cooperative cannot. Members therefore pay more attention to the way the cooperative is being run. The lack of the market for corporate control enhances the incentives for the board of directors in a cooperative even more. Third, a similar incentive is provided by the lack of a market for inputs. The absence of a market for inputs eliminates the possibility for a cooperative to compare its own performance with those of rivals. It therefore becomes more attractive to put forth effort in the internal control system in order to compensate for the absence of the yardstick of the market. Finally, the lack of a stock listing of a cooperative precludes a source of information for the design of the compensation package of the CEO. The stock price of a cooperative cannot be used in the remuneration scheme of the CEO because there is no stock price.

According to Bebchuk and Fried (2003), managerial power is limited by three variables: outrage costs, outsiders' perception of a CEO's compensation, and "camouflage". The extent of rent-extraction by the CEO depends on how much "outrage" a proposed compensation arrangement is expected to generate among relevant outsiders. Directors and managers will try to prevent embarrassment and reputational harm in the formulation and approval of compensation schemes. Managers have a substantial incentive to obscure and try to legitimize, i.e. camouflage, their extraction of rents in order to avoid or minimize the outrage that results from outsiders' recognition of rent extraction.[3]

Cooperatives may be advantageous in limiting managerial power compared to stock listed enterprises for two reasons. First, outrage costs are likely to be higher in cooperatives than in stock listed enterprises. The considerable financial involvement of the members in the cooperative and the regular member meetings may discipline the compensation package awarded to the CEO. Second, the lack of a stock listing is often considered a disadvantage of cooperatives because a stock price summarizes a

lot of varied information. However, a stock listing is not necessarily advantageous for the design of an executive compensation package. An example is a conventional option plan when the market or sector rises substantially. It does not benchmark and therefore fails to filter out industry and general market trends.

5. SUMMARY AND FURTHER RESEARCH

This article has addressed two observations regarding the board of directors in agricultural cooperatives. First, it is sometimes stated that cooperatives seem to behave like ordinary enterprises. A relational contracting perspective is put forward to model this claim. All governance structures turn out to entail the same bargaining power distribution in a relational contracting setting, because the parties informally establish the same outcome in every governance structure. Governance structure is therefore irrelevant from an investment incentive perspective. However, they differ in their bargaining positions. Second, it is argued that cooperatives may have advantages compared to firms with publicly traded shares in limiting the rent extraction tendencies in the design of the compensation package for the CEO. The lack of publicly traded shares of cooperatives may be advantageous for the board in cooperatives in bargaining with the professional management.

This article is to be positioned at the level of governance in the classification scheme of Williamson (2000).[4] A few aspects of the governance structure cooperative have been addressed, but much work remains to be done, even along the lines explored in this article. For example, the irrelevance of governance structure can be formulated from other perspectives. Suppose that the organization has adopted a certain, simple formal structure. It will be apparent that this structure will channel its activities in a certain direction, and will respond by adding, or structuring, the bylaws in ways to counter the undesirable effects of this direction. These theoretical exercises are various ways to formulate the claim made regarding the irrelevance of governance structure, but data will determine whether governance structure matters or not. Similarly, the three-tier approach in Section 4 can be extended in various ways. For example, a cooperative is often characterized as a society of members and an economic entity. The impact of the organization and representation of the society of members in a cooperative as compared to the organization and representation of shareholders in a corporation did not receive detailed attention, but it may have an effect on the behavior of the board of directors. Another aspect of the membership in cooperatives is that they are owners with a vested interest, taking the entire portfolio of farm activities into account when they exercise their ownership rights in a particular cooperative. Finally, the focus of attention in this article is on the board in cooperatives versus corporations. This asks for a sequel with the CEO at the center of the analysis. Cook (1994) is already an informative contribution.

NOTES

1 Other examples are investor-owned enterprises, worker-controlled firms, franchises, mutuals, joint ventures, networks, and public enterprises.

2 The vertical line thru point $(-k_f,-k_p)$ represents the governance structure backward integration, whereas the 45° line represents the governance structure market exchange.

3 An example is the use of compensation consultants for reasons of legitimization. Consultants may supply useful information and contribute expertise on the design of compensation packages, but they can also help in camouflaging rents because they have strong incentives to use their discretion to benefit the CEO. Evidence suggests that compensation consultants are often used to justify executive pay rather than to optimize it. For example, consultants argue that pay should be related to performance when things go well, whereas they focus on peer group pay when firms do poorly. Other examples of camouflage are gratuitous goodbye payments to departing executives, and stealth compensation practices like pension plans, deferred compensation, post-retirement perks, and consulting contracts.

4 Embeddedness, Institutional environment, Governance, and Resource allocation are distinguished. Research regarding the relationship between the Institutional environment and cooperatives is actual, given the transition in Eastern Europe and China. The relationship between Resource allocation and cooperatives has always received considerable attention due to the Common Agricultural Policy in Europe, and similar policies elsewhere.

5 A specific illustration is the architecture choice model of Sah and Stiglitz (1986). A hierarchy compensates for its large number of type I errors by choosing lower screening levels for its bureaus, whereas the polyarchy corrects for its large number of type II errors by increasing its screening levels.

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