

ADVANCING THE THEORY OF THE COOPERATIVE ORGANIZATION: THE COOPERATIVE AS A TRUE HYBRID

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ABSTRACT: *What is a cooperative? Is it a form of vertical integration, an independent organization or an intermediate form of governance between the market and the hierarchy? This paper contributes to the economic theory of the cooperative organization by examining it from a comparative economic perspective. Departing from Williamson's one-dimensional continuum of governance structures, the paper adopts the view that governance structures exhibit multiple dimensions and true hybrids are market-like on some of these dimensions while hierarchy-like on others. I show that the cooperative blends market-like attributes with hierarchy-like mechanisms and thus should be viewed as a true hybrid rather than as an intermediate form. The paper concludes with a discussion about the usefulness of this approach and potential avenues for future research.*

Keywords: hybrids, cooperatives, governance, transaction costs.

Progresos en la teoría de la organización cooperativa. La cooperativa como una verdadera fórmula híbrida

¿Qué es una cooperativa? ¿Es una forma de integración vertical, una organización independiente o una forma intermedia de gobernanza entre el mercado y la jerarquía? Este artículo contribuye a la teoría económica de la organización cooperativa estudiando ésta desde una perspectiva económica comparativa. A partir del continuum unidimensional de las estructuras de gobierno de Williamson, el artículo adopta la idea de que las estructuras de gobierno presentan múltiples dimensiones y que, para determinadas de ellas, los verdaderos híbridos son similares al mercado y, además, a la jerarquía. El autor muestra que la cooperativa mezcla atributos del mercado y los mecanismos de la jerarquía y debería, consiguientemente, ser considerada como una verdadera forma híbrida, antes que como una fórmula intermedia. El artículo concluye con una discusión sobre la utilidad de este enfoque y las vías potenciales para la investigación futura.

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Weiterentwicklung der Theorie der genossenschaftlichen Organisation: Die Genossenschaft als echte Hybridform

Was ist eine Genossenschaft? Ist sie eine Form vertikaler Integration, eine unabhängige Organisation oder eine zwischen Markt und Hierarchie angesiedelte Zwischenform von Governance? Dieser Artikel ist ein Beitrag zur ökonomischen Theorie der genossenschaftlichen Organisation, wobei die genossenschaftliche Organisation aus einer komparativen ökonomischen Perspektive untersucht wird. Abweichend von Williamsons eindimensionalem Kontinuum von Governance-Strukturen wird in diesem Beitrag die Ansicht vertreten, dass Governance-Strukturen multiple Dimensionen aufweisen und dass echte Hybridformen hinsichtlich einiger dieser Dimensionen marktähnlich sind, hinsichtlich anderer dagegen hierarchieähnlich. Es wird gezeigt, dass die Genossenschaft marktähnliche Attribute mit hierarchieähnlichen Mechanismen verbindet und deshalb eher als eine echte Hybridform statt als eine Zwischenform angesehen werden sollte. Der Beitrag schließt mit einer Erörterung der Nützlichkeit dieses Ansatzes und potenzieller Zugänge für künftige Forschung.

Progrès dans la théorie de l'organisation coopérative: La coopérative comme une véritable forme hybride

Qu'est ce qu'une coopérative? Est-ce une forme d'intégration verticale, une organisation indépendante ou une forme intermédiaire de gouvernance entre le marché et l'Etat? Cet article contribue à la théorie économique de l'organisation coopérative en étudiant celle-ci dans une perspective économique comparative. A partir du continuum uni-dimensionnel des structures de gouvernance de Williamson, l'article adopte l'idée que les structures de gouvernance présentent de multiples dimensions et que, pour certaines dimensions, les vrais hybrides sont similaires au marché et pour d'autres, au secteur public. L'auteur montre que la coopérative mêle des attributs du marché et des mécanismes du secteur public et donc devrait être considérée comme une vraie forme hybride plutôt que comme une forme intermédiaire. L'article conclut avec une discussion sur l'utilité de cette approche et des pistes potentielles pour la recherche future.

1 Introduction

In the opening paragraph of his oft-cited paper on comparative economic organization, Williamson (1991: 269) argues that 'although microeconomic organization is formidably complex and has long resisted systematic analysis, that has been changing as new modes of analysis have become available, . . . , and as the limits of earlier modes of analysis have become evident. Information economics, game theory, agency theory, and population ecology have all made significant advances.' A similar argument may be posited regarding the recent evolution of the theory of cooperative organization. Building on a solid foundation of neoclassical and industrial organization research, information economics, game theory, agency theory, property rights theory, and transaction cost economics have made great contributions to our understanding of cooperatives (Cook et al. 2003, Staatz 1989).

In spite of these theoretical developments a debate still persists regarding the economic nature of the cooperative organization. Until the early 1960s much of the theoretical debate focused on whether cooperatives represented a form of vertical integration by farmers, that is, an extension of the member firms (Emelianoff 1942, Phillips 1953), or whether cooperatives could legitimately be analyzed as organizations having scope for decision making independent of their member firms (Enke 1945, Savage 1954, Helmberger and Hoos 1962). Subsequent theoretical work has modeled cooperatives based on coalition (Staatz 1983, Sexton 1986, Zusman 1992), nexus of contracts (Shaffer 1987, Staatz 1987), and property rights perspectives (Vitaliano 1983, Cook 1995, Hendrikse and Veerman 2001). There is, however, no consensus yet as to how to define a cooperative in the continuum of generic forms of economic organization. Is the cooperative an extension of the farm (e.g., Phillips 1953), a vertical integration of a horizontal association of producers (e.g., Sexton 1984), a firm (e.g., Helmberger and Hoos 1962, Feng and Hendrikse 2007), an intermediate form between markets and hierarchies (e.g., Bonus 1986, Schaffer 1987, Iliopoulos 2003, Ménard 2004) or an independent governance mechanism (Valentinov and Fritzsche 2007)?

The objective of this paper is to contribute to this debate from a comparative economic organization perspective. According to this perspective, organizational forms – markets, hierarchies, and hybrids – are examined in relation to feasible alternatives, never separately or in relation to some theory-driven optimal solution.¹ The choice among feasible organizational forms is driven by the logic of transaction cost minimization (Coase 1937).² Organizations that are not cost efficient tend to disappear over time as competitive markets weed out ill-designed organizations (Alchian 1950, Fama and Jensen 1983). ‘First-order economizing’ – i.e., effective adaptation and elimination of waste – is therefore critical to the problem of economic organization (Williamson 1991).

Following recent theoretical developments in organization economics, I approach each generic form of organization as a ‘syndrome’ (Williamson 1991) or ‘system’ (Holmstrom and Milgrom 1994) of attributes. That is, organizations are distinguished by different coordinating, control and incentive mechanisms (or instruments) – i.e., the attributes of governance structures. Based on a review of the literature I identify the main instruments of governance and define each of them in a continuum from market-like to hierarchy-like. Subsequently I show that each discrete form of organization exhibits a particular mix of these coordination and control mechanisms in various degrees. More specifically, I demonstrate that cooperatives are ‘true hybrids’³ in that they blend market-like mechanisms (e.g., separated ownership and high powered incentives) with hierarchy-like instruments (e.g., administrative controls, authority and common staff in a central structure) and also display some unique attributes such as democratic governance. The paper concludes with a discussion of the usefulness of

1 As eloquently expressed by Goldberg (1976: 46), the fundamental question of economic organization is ‘What imperfect institutions should govern particular sets of transactions?’

2 In fact, firms should minimize the sum of transaction and production costs (see, for example, Williamson, 1985: 92–95).

3 Differently from a true hybrid organization, an intermediate form is between a market and a hierarchy in all of the dimensions that distinguish these two polar forms. This is the original concept of ‘the hybrid mode’ offered by Williamson (1991: 281) that has inspired Ménard (2004, 2007) to examine the cooperative organization as a hybrid.

studying cooperatives as a hybrid system of attributes illustrated by a set of research questions and queries.

2 Conceptualizing alternative governance structures

The transaction cost theory of the firm introduced by Coase (1937) has become a standard framework for the study of organizations. The Coasian framework helps explain not only the existence of the firm, but also its size, scope, and internal organization (Milgrom and Roberts 1992, Brickley et al. 2009). Coase (1937) introduced the notion that firms and markets are alternative institutional arrangements to govern transactions. In particular, he posited that the firm supersedes the market when the transaction costs of internal organization are relatively lower than in the market. In this sense, firm boundaries not only depend on technology, but also on organizational considerations; that is, on the costs and benefits of various organizational alternatives.

Since Coase's pioneering work, the make-or-buy decision has become one of the most studied topics in the modern theory of the firm (Klein 2008). Building on Coase's original insight, the transaction cost approach emphasizes that vertical coordination can be an efficient means of protecting relationship-specific investments or mitigating other potential conflicts in the context of incomplete contracting (Klein et al. 1978, Williamson 1979, Grossman and Hart 1986). The Coasian perspective has also spurred many developments in the theory of the firm focusing on its internal coordination and motivation challenges. For example, agency cost and property rights theorists have advanced models featuring agency relationships and incentive problems in organizations (Alchian and Demsetz 1972, Jensen and Meckling 1976).

However, the models put forward by organization economists have primarily focused on just one of the attributes that distinguish markets from hierarchies. For example, Coase (1937) and Simon (1951) focus on the *authority* relationship between the asset owner and employees; Williamson (1985) and Hart and Moore (1990) emphasize lateral and vertical *ownership* of assets by the firm; while the principal-agent literature features *monitoring and compensation* systems to align the interests of agents and principals (Holmstrom 1982, Prendergast 1999, Sappington 1991).

More recent versions of these theories have started to realize the multidimensional nature of governance. Williamson (1991: 271) suggests that 'each viable form of governance – market, hybrid, and hierarchy – is defined by a *syndrome of attributes* that bear a supporting relation to one another.' Williamson (1991) concedes that transaction cost economics has focused on the study of polar forms (i.e., markets and hierarchies), at the expense of hybrids, and also has neglected the abstract description of governance structures. The relative costs and competencies of alternative modes of governance have received less attention than the attributes of the transaction. He advances the hypothesis that each generic form of governance is supported by a different form of contract law; and that there are crucial differences between markets, hybrids and hierarchies in how they adapt to changing circumstances and in the use of incentive and administrative control instruments.

Holmstrom and Milgrom (1994: 972) also hypothesize that markets ('outside procurement') and hierarchies ('inside procurement') are 'two alternative *systems* for

managing incentives for the wide array of tasks for which a single worker may be responsible.’ They further posit that ‘firms use a variety of incentive *instruments* in such systems’ and that ‘all the instruments are endogenous variables in the problem of structuring incentives.’ In other words, the purpose served by the incentive systems of alternative forms of governance is to minimize agency costs between principals and agents. Their system of attributes approach to the study of economic organization includes authority, asset ownership, incentives, and job design as the key mechanisms of governance. They observe that ‘the fact that employment and contracting are multifaceted relationships, each characterized by its own distinct set of attributes, ranks as one of the most significant regularities to be explained by a theory of the firm’ (p. 988).

2.1 Attributes of governance structures

Conceptualizing organizational forms as ‘syndromes’ or ‘systems’ of attributes begs the question ‘what are the main attributes?’ In other words, what are the instruments that should be considered in analyzing alternative modes of governance? What are the organizational design decision variables that an organizational scholar should consider? In reviewing various theoretical approaches in the literature on inter-firm organizational arrangements, Grandori and Soda (1995) identify and systematize a wide range of coordination and control mechanisms that are employed to sustain cooperation between firms. Their systematization of contributions from economics, sociology, social psychology and organization theory includes the following mechanisms: (1) communication, decision and negotiation mechanisms; (2) social coordination and control; (3) integration and linking-pin roles and units; (4) common staff; (5) hierarchy and authority relations; (6) planning and control systems; (7) incentive systems; (8) partner selection systems; (9) information systems; and (10) public support and infrastructure. Their literature review suggests these ten mechanisms are used in inter-firm arrangements in various combinations and degrees. In addition, the substance of an inter-firm relation, in terms of the mix of mechanisms employed by partners, can vary substantially in degree of formalization. The extent to which an inter-firm relationship is controlled and safeguarded by a formal contract is another important dimension of governance. Contractual arrangements may be used to regulate the horizontal association of cooperating firms and/or the vertical exchange between parties.

A more recent review of the literature on hybrid forms is offered by Ménard (2004). His central proposition is that hybrid organizations form a ‘specific class’ of governance structures combining contractual agreements and administrative entities or ‘authorities’ with the purpose of coordinating partners’ efforts to generate rents from mutual dependence while controlling for the risks of opportunism. The role of contracts in hybrid arrangements is crucial in coordinating partners and sharing quasi rents. Contracts achieve these purposes by (1) selecting partners; (2) determining the duration of the relationship; (3) specifying quantity and quality requirements; (4) laying out procedures for regulating renegotiations when ex post adaptation is required; and (5) specifying rules for distributing the expected gains from joint actions. Because contracts are unavoidably incomplete, the stability and continuity of hybrid arrangements require ‘specific mechanisms designed for coordinating activities, organizing transactions, and solving disputes.’

2.2 Private governments

According to Ménard (2004: 366), a core element in the architecture of hybrid organizations is the presence of private governments (or authorities) that ‘pair the autonomy of partners with the transfer of subclasses of decisions to a distinct entity in charge of coordinating their action.’ These authorities vary in degree of formalization and centralization of decision making, ranging from trust to formal government. Cooperatives are unique in this governance attribute in that they blend informal mechanisms based on trust and reputation in repeated transactions (which build the *esprit de corps* described in Bonus, 1986) with formal governance mechanisms (such as a Board of Directors elected by members following the democratic principle of one member, one vote). These governance attributes are necessary to minimize agency costs with managers but they also serve to mitigate collective decision making costs among members (Hansmann 1996). In this attribute, cooperatives are better understood as an ‘independent governance mechanism’ distinct from markets and hierarchies (Valentinov and Fritzsche 2007: 143). However, not all cooperatives can be described as having equal property rights as I shall discuss below and is already well established in the literature (Chaddad and Cook 2004, Holland and King 2004).

This study builds on the foundations of Williamson (1991) and Holmstrom and Milgrom (1994) and complements their conceptualization of governance modes as systems of attributes with an additional set of attributes that were identified in the systematizations offered by Grandori and Soda (1995) and Ménard (2004). An enlarged and yet selective set of attributes to characterize distinct modes of governance is found in table 1. This set of attributes is used to describe markets, hierarchies and cooperatives in the next section.

Table 1– Markets, hierarchies and cooperatives as systems of attributes

Mechanisms / Instruments	MARKET	Bargaining Association	Processing Cooperative	New Generation Cooperative	HIERARCHY
1. Ownership(property rights)	Separated	Separated (–) Level of member investment (+)			Joint (Unified)
2. Authority (formal)	0	0	++	++	++
3. Incentive intensity	++	++	++	++	0
4. Administrative Controls	0	0	++	++	++
• Planning		0	++	++	++
• Information		+			
• Integration		0			
• Monitoring		0			
5. Common staff (central structure)	0	+	++	++	++
6. Partner selection	0	0	0	++	++
7. Adaptation A	++	++	++	+	0
8. Adaptation C	0	+	+	++	++
9. Contract law	++	++	+	+	0
Degree of Formalization					
• Association (horizontal)	0	++	++	++	++
• Exchange (vertical)	0	0	0 / +	++	++
Degree of Centralization	0	+	+ / ++	++	++

Note: ++ = strong; + = semi-strong; 0 = weak. This table builds on and extends table 1 in Williamson (1991: 281).

3 The organizational architecture of markets, hierarchies and hybrids

3.1 The market

Consider the transaction of a farmer supplying a commodity to a downstream processor. In a pure market transaction, ownership is separated in the sense that the farmer owns – i.e., has residual claim and control rights over – farm assets and the processor owns processing assets. There is no authority relationship between the two parties and no central structure, common staff or administrative controls are deployed to govern the transaction. The price system provides ‘high powered’ incentives for both parties to be efficient and adapt to changing market conditions. In a market with a large number of transactors, partner identity is not relevant and thus partner selection mechanisms are not needed. In such a ‘thick’ market there is no mutual dependency relation between exchange partners. Consequently, switching costs are negligible if the processor wants to buy raw material from another farmer or if the farmer wants to supply a rival processor.

Market transactions are supported by classical contract law, where ‘more formal terms supersede less formal should disputes arise’ (Williamson, 1991: 271). This ‘inelastic’ contracting regime coupled with third party enforcement mechanisms is well suited when continuity is not relevant to exchange partners. Adaptation to disturbances occurs in a decentralized and autonomous fashion as exchange partners react and reposition to changing relative prices and other market signals. In Williamsonian jargon, adaptation A prevails. This is the world of extreme decentralization that has fascinated neoclassical economists since Adam Smith coined the term ‘invisible hand.’

3.2 Hierarchy

As a result of market failures and transaction costs, a hierarchy might supersede the market. For example, the farmer might decide to vertically integrate downstream and acquire the processing assets.⁴ Joint or unified ownership results as now one party (in our example, the farmer) has residual claim and control rights over both farm and processing assets. The owner has complete authority over decisions regarding farm and processing asset use. The ‘visible hand’ of the manager or central planner emerges. The interdependence (or mutual dependence) between upstream (i.e., farm) and downstream (i.e., processing) assets suggests that partner identity matters thus creating the need for partner selection mechanisms.

As the firm grows in scale and scope, common staff and administrative controls are needed to coordinate activities inside the firm. Administrative control mechanisms include planning, information sharing, integration, monitoring, and performance evaluation systems. That is, coordinated adaptation (adaptation C) substitutes for autonomous adaptation (adaptation A) to unanticipated disturbances. But as authority and centralized decision making supersede the price system as coordinating devices, incentives

4 Alternatively, the processor can also vertically integrate upstream and acquire farm assets. For the purposes of this discussion, the direction of vertical integration is not a relevant issue. For details, see Hart (1995).

inside the vertically integrated firm become low powered and bureaucratic costs emerge. The implicit contract law of internal organization is known as ‘forbearance’ as courts following the business judgment rule refuse to hear disputes between internal divisions. In other words, hierarchy is its own court of ultimate appeal (Williamson 1991: 274).

3.3 Hybrids and intermediate forms

In the transaction cost perspective, markets and hierarchies are polar modes of governance in a one-dimensional continuum, while ‘the hybrid mode displays intermediate values in all four features.’ In particular, the hybrid form is characterized by ‘semi-strong incentives, an intermediate degree of administrative apparatus, displays semi-strong adaptations of both kinds, and works out of semi-legalistic contract law regime’ (Williamson 1991: 281). Building on this view, Ménard (2004) distills a large and amorphous literature on hybrid arrangements including networks, supply chains, franchise agreements, partnerships and cooperatives. He identifies three common features or ‘regularities’ of such ‘strange forms’: pooling, contracting and competing. He argues that *‘there is indeed a great diversity of agreements among legally autonomous entities doing business together, mutually adjusting with little help from the price system, and sharing or exchanging technologies, capital, products, and services, but without a unified ownership. These characteristics are likely the minimum required to encapsulate the variety of hybrids’* (Ménard 2004: 348). Additionally, Ménard (2004) classifies this variety of hybrid arrangements in four generic configurations – trust, relational network, leadership and formal government – which are defined as intermediate governance modes between markets and hierarchies. In a subsequent paper, Ménard (2007) conceptualizes cooperatives as hybrids and also locates four generic cooperative structures as intermediate modes along the market-hierarchy continuum.⁵

But are all hybrid structures really intermediate forms that adopt intermediate values in all governance dimensions? In a recent article, Makadok and Coff (2009) take issue with this view. They observe that hierarchies increasingly use market-like instruments such as high-powered incentives, transfer pricing schemes, and decentralized decision making. Also, some market transactions adopt hierarchy-like attributes including authority, administrative controls, and incentive systems less tied to short term performance. This suggests that true hybrid forms are market-like in some dimensions and hierarchy-like in others. Makadok and Coff (2009) proffer a taxonomy of hybrid governance forms based on three dimensions of governance – authority, ownership, and incentives. Building on the ‘systems of attributes’ approach of Holmstrom and Milgrom (1994), they also develop a formal theory predicting when a given hybrid form will be efficient in a multitask principal-agent setting.

Following Makadok and Coff (2009), I also conceptualize the cooperative as a hybrid blending market-like attributes with hierarchy-like mechanisms. In what follows I show that cooperatives may be usefully regarded as a true hybrid form exhibiting a particular mix of coordination and control mechanisms in various degrees. In other words, cooperatives have architectures of their own which are distinct from markets and hierarchies.

⁵ To be fair, Ménard is not the first economist to conceptualize cooperatives as an intermediate form. For earlier views, see Bonus (1986) and Schaffer (1987).

4 Cooperatives as true hybrids

4.1 Bargaining association

Consider again our simple farmer-processor transaction. Because of scale economies and wealth constraints, it is often not efficient or feasible for a single farmer to vertically integrate downstream. Overcoming initial free ridership and collective decision making costs, a group of farmers organize an association to collectively bargain for better terms of trade with the processor.⁶ Initially, no assets are acquired downstream and ownership rights are separated. Each farmer has decision control and residual claim rights over his/her farm assets and the processor owns and controls processing assets. No authority relationship exists between exchange parties. In addition, no or minimal administrative controls are established in a central structure and entry into the association is open to all interested farmers.

Differently from a pure market transaction, farmers are required to sign a 'marketing agreement' every year committing their production volume to the association. This agreement is a formalization of the horizontal or associational relationship between farmers. The bargaining association can thus be thought of as a coalition in that independent asset owners (i.e., the farmers) agree to restrict or control their actions – in this case, they commit to market their production to the processor under the terms of trade bargained by the association – to realize higher returns than they would had they otherwise decided to market independently (Alchian 1984: 37).

The bargaining association might be formalized as a separate legal entity, with incorporation statutes and bylaws, but it does not necessarily need to own assets. Equity capital required from members is thus low or close to zero. One representative of the farmers is selected or an agent-manager is hired to bargain with the processor but the association does not take ownership of the commodity being traded. The agent-manager is supervised by a Board of Directors elected by members following the democratic principle of one member, one vote. Since farmer-members do not invest significant amounts of equity capital and governance follows democratic principles, this cooperative hybrid might be defined as having equal property rights (Valentinov and Fritzsche 2007).

Farmers might also share information about expected crop size and quality with the central office to facilitate bargaining efforts. Information sharing and collective bargaining are weak forms of coordinated adaptation. Each farmer delivers the commodity directly to the processor and receives a uniform, bargained price that might be higher than the market price primarily due to a volume premium. Farmers still compete with each other and are therefore subject to the high powered incentives of the market. Autonomous adaptation, supported by classical contracting, continues to be present in strong form.

In sum, the bargaining association is a cooperative hybrid that combines dimensions that are market-like (e.g., separated ownership, no authority relationships, strong incentive intensity, and autonomous adaptation) with hierarchy-like features (e.g., information sharing mechanisms, coordinated adaptation, formal horizontal

6 This is the 'Sapiro I' cooperative defined in Cook (1995).

agreements, and common staff). In the governance dimension, this cooperative is unique as it follows the democracy principle and features equal property rights among members.

4.2 Processing (or marketing) cooperative

Because of some defensive or offensive economic motivation (Sexton and Iskow 1988, Hendrikse and Bijman 2002, Cook and Plunkett 2006), the farmers decide to vertically integrate downstream to bypass the proprietary processor or add value to their farm commodity. In a processing (or marketing) cooperative, the farmer-members pool resources and risk capital to invest in downstream processing assets.⁷ The farm commodity is therefore stored, sorted, processed, and/or marketed by the cooperative. Farm assets are owned independently by the individual farmers but the cooperative processing plant is jointly owned by the farmer-members. Note that this arrangement is not pure vertical integration (or hierarchy) because farm assets and processing assets are not under a single entity with unified ownership. Put differently, ‘the members remain economically independent: they do not merge their activities into one large firm’ (Bonus 1986: 312). Rather, the processing cooperative can be viewed as a joint venture (or equity-based alliance) arrangement in the ownership dimension of governance (Peterson et al. 2001).⁸ As farmer-members remain independent they are still subject to the high powered incentives of the market.

Both the mechanism used by the cooperative to acquire risk capital from members and the amount of risk capital invested by members may vary across processing cooperatives. In general, traditional cooperatives rely on low amounts of upfront member-contributed equity capital and therefore depend on passive or quasi-passive internally generated capital. Internally generated capital may be retained in allocated accounts or in unallocated retained earnings. Non-traditional cooperatives introduce more active or investor-driven capital acquisition instruments (Chaddad and Cook 2004). Additional features of most traditional processing cooperatives include the open membership policy since the adoption of partner (or member) selection mechanisms is not common practice; and the democratic principle in governance and control. But since equity capital contributions vary among members, this cooperative cannot be defined as having equal property rights.

Because the farmers now jointly own the processing assets, they have formal authority or residual control rights over how they are deployed. Formal control rights are exercised by members following democratic principles. *De facto* authority or effective control depends on organizational design variables such as membership size and heterogeneity, corporate governance practices, and member commitment but they are generally muted by agency and collective decision making costs (Hansmann 1996). Ultimately the degree of authority and member control in a cooperative is an empirical issue and may vary widely across cooperatives.

7 This is Cook’s (1995) Sapiro II cooperative.

8 The bargaining association discussed in the previous section would be considered a non-equity alliance.

In general, the farmer-members of a processing cooperative hire an agent (i.e., the general manager) to run the business, who in turn employs staff in a central structure (just like a hierarchy). In addition, administrative mechanisms – including planning, information, integration and monitoring systems – are employed to coordinate activities in the central office but also to coordinate interdependencies among members and between members and the cooperative. The complex interdependencies present in most cooperatives – including pooled, sequential, and reciprocal interdependencies – suggest the need for a combination of several types of coordination mechanisms (Thompson 1967, Lazzarini et al. 2001). Perhaps more importantly, administrative controls are needed to mitigate opportunistic behavior by members and agents in the central office.

This hybrid cooperative structure combines autonomous with coordinated adaptation. Autonomous adaptation occurs primarily at the farm level as independent farmers react to price and other market signals using local, specific knowledge. Coordinated adaptation is present both at the processing level and between the processing level and the farm level as result of interdependencies that originate from resource pooling and joint investment decisions in specific assets. According to Ménard (2004), the level of centralization and the extent to which coordination mechanisms are used depend on the specificity of mutual investments and the consequent interdependencies.

Similarly to the bargaining association, a separate legal entity is established by the farmer-owners of the processing cooperative. They formalize their associational agreement with the cooperative incorporation statutes and bylaws. In addition to a formal horizontal agreement, the processing cooperative might introduce a formal contract to regulate vertical interdependencies with the members. Again, the degree of formalization and the substance of this vertical agreement vary widely across cooperatives.

Since specific investments of farmer-members lead to mutual dependence, the relationship requires continuity. The rigidity and inflexibility of classical contract law is ill-suited to this situation as it hinders adaptation to unforeseen contingencies. Consequently, partners in this hybrid arrangement adopt a more ‘elastic’ neoclassical contracting regime. Neoclassical contracts offer adaptive mechanisms to effect realignment and restore efficiency when unanticipated disturbances occur. The neoclassical contract in a hybrid arrangement works as a framework, i.e. ‘an occasional guide in cases of doubt, and a norm of ultimate appeal when the relations cease in fact to work’ (Williamson 1991: 272).

In sum, the processing cooperative is a hybrid arrangement with some market-like attributes (high powered incentives, no partner selection mechanisms, and autonomous adaptation), some hierarchy-like mechanisms (formal authority, administrative controls, and common staff in a central office) and intermediate levels in some governance dimensions such as ownership, contract law, and coordinated adaptation. As is common practice among the majority of cooperative organizations, the processing cooperative follows the democracy principle in decision making and governance of major strategic decisions. The workability of this hybrid structure depends on the use of specific instruments that reconcile legal autonomy, interdependence and equal control rights of cooperative members.

4.3 New generation cooperative

According to Cook (1995: 1158), several marketing and processing cooperatives have shifted to a new generation cooperative structure that ‘tempers the disincentives of the five property rights constraints’ of traditional cooperatives. In addition, numerous new value-added, rent-seeking, farmer-owned ventures have been formed since the 1980s (Cook and Iliopoulos 1999, Holland and King 2004). The new generation cooperative model introduces ownership rights in the form of delivery right assets that are tradable among a well-defined member-patron group. The defining organizational characteristics of this ‘non-traditional’ model include: (1) ownership rights are restricted to member-patrons; (2) membership is defined; (3) members are required to make substantial up-front investment in delivery rights in proportion to patronage; (4) and supply is controlled by means of uniform and legally binding marketing agreements.

Similarly to the traditional processing cooperative described above, ownership rights are separated but farmer-members have considerably more capital at risk in this cooperative hybrid. That is, the level of member investment in the cooperative joint venture is higher than in the previous model. However, this model falls short of the pure vertical integration mode with unified ownership. Notwithstanding the fact that new generation cooperatives are ‘partly coops and partly IOFs’ in the residual claim dimension (Borgen 2004: 392), they continue to adhere to the principle of democracy and equal property rights in governance. Also like the previous model, the new generation cooperative adopts administrative controls and common staff in a central structure. The members have formal authority over processing assets but have more incentives to monitor the agent because they have more capital at risk. In addition, transferability and appreciability of delivery rights provide an instrument to evaluate the performance of the management team. Incentive intensity at the farm level continues to be high powered as independent farmers compete with each other and attempt to cope with an increasingly volatile business environment.

In a new generation cooperative, membership is restricted to a well-defined farmer-investor group; that is, entry of new members is not free as partner selection mechanisms are introduced. The entry of a new member requires both the acquisition of delivery rights and approval by the cooperative board of directors. Additionally, a uniform contractual agreement is signed with members formalizing the exchange relationship between members and their cooperative processing plant. This contractual agreement transfers decision rights to the cooperative entity regarding quantity, quality, timing of delivery, pricing mechanisms, and penalties related to non-compliance, among other attributes of the exchange relationship. In other words, autonomous adaptation is weakened while coordinated adaptation is strengthened. As a result, more decisions are centralized.

Even though the new generation cooperative exhibits several attributes of the hierarchy mode of governance – formal authority, administrative controls, common staff, coordinated adaptation in strong form, and high degrees of formalization and centralization – it still retains some market-like attributes including separated ownership, high powered incentives, and an intermediate level of autonomous adaptation. It is also distinct from arms-length market transactions and hierarchical investor-owned firms as it follows the democracy principle in the governance of major strategic decisions.

5 Summary and queries for future research

This paper adopted a microanalytic approach to economic organization, which seeks to inform the comparative efficacy of alternative generic forms of governance – markets, hybrids and hierarchies. We are interested in a particular governance structure – the cooperative – and its efficiency relative to alternative forms of organization – in particular, the investor-oriented firm (IOF). But what kind of governance structure is a cooperative and how does it differ from an IOF? This is a critical theoretical question that needs to be adequately addressed so that we can compare and contrast the cooperative with alternative governance modes.

This paper shows that the cooperative blends market-like with hierarchy-like instruments and thus may be viewed as a ‘true hybrid’ mode. In addition, it adopts a unique governance attribute that cannot be placed in a market-hierarchy continuum such as democratic control. To accomplish this goal, the paper offers a conceptual framework (summarized in table 1) based on multiple instruments of governance structures. The conceptual framework is used to describe and compare three generic types of cooperatives exhibiting particular mixes of governance attributes. One obvious avenue for future research is to use the proposed framework to describe additional types of cooperative organizations – such as input supply cooperatives, consumer cooperatives, credit cooperatives, multipurpose cooperatives, etc. Also, the generic types described here should be confronted with empirical data.

Having described the *variability* in the mix of governance attributes used by different cooperative hybrids, a logical follow-up research query is ‘what are the determinants of these forms?’ For example, what factors might explain the higher degrees of formalization and centralization in the new generation cooperative compared to its more traditional cooperative counterparts? According to Williamson (1991) and also Holmstrom and Milgrom (1994), each viable form of governance is defined by a ‘syndrome’ or ‘systems’ of attributes exhibiting a complementary relation to one another. What is the logic behind different combinations of attributes? What purposes do they serve? Under what conditions a particular ‘syndrome of attributes’ will emerge and/or fit with organizational strategy and the business environment? Why do we observe different types of cooperatives (with different organizational architectures) co-existing simultaneously and often competing in the same industry? Related to these questions is the issue of the *dynamics* and *stability* of cooperative hybrids and the institutional and market forces that shape their structural characteristics.

Ultimately organizations that economize on transaction costs, adapt effectively to changing market conditions, and eliminate waste should survive and thrive. Notwithstanding the large empirical literature comparing the economic efficiency of cooperatives with IOFs (e.g., Porter and Scully 1987, Sexton and Iskow 1993), future empirical research on this issue would benefit from Williamson’s (1991) recommendation that first-order economizing should take precedence to second-order economizing (i.e., optimization at the margin). Or could it be the case that cooperatives trade-off technical and/or allocative efficiency with increased transactional performance?

Another potential research avenue relates to the role and effectiveness of informal coordinating and control mechanisms, including reputation (Bonus 1986), repeated relationships (Baker et al. 2002) and trust (Arrow 1974). As business relationships are

embedded in social interactions (Granovetter 2005), partners are likely to have greater confidence in the predictability of each other's actions and thus anticipate lower appropriation concerns when they form a hybrid arrangement. Trust and *esprit de corps* can also work as 'lubricants' reducing transaction costs and mitigating conflicts of interest in hybrids that involve considerable interdependence and task coordination between partners. As a result, trust should help to address both coordination-cost and appropriation concerns thereby reducing the need for hierarchical controls and possibly formal contractual arrangements. The contributions by Bonus (1986) on the cooperative as a social group with an *esprit de corps* and James and Sykuta (2005) on the relationship between property rights and level of trust in cooperatives illustrate the relevance of this topic.

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