The Emergence of Non-Traditional Cooperative Structures:

Public and Private Policy Issues

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Abstract: This paper examines new agricultural cooperative organizational models from an ownership rights perspective. We argue that new cooperative organizational models differ in the way ownership rights are assigned to the economic agents tied contractually to the firm – members, patrons, and investors. The paper proposes a typology of discrete organizational models, in which the traditional cooperative structure and the investor-oriented firm are characterized as polar forms. Five non-traditional models are described and analyzed with implications to both private and public policy.

Key Words: agricultural cooperatives, cooperative finance, ownership structure, property rights.

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Agricultural cooperatives have played an important economic role in market economies as indicated by their substantial levels of asset ownership, sales, and market share in North America and Western Europe. Historically, growth capital employed to attain these levels was sourced from either debt instruments or internally generated earnings. Success in generating internal capital was largely a function of the flexibility of control over payments to members in the form of patronage dividends, equity redemption, and most importantly for marketing cooperatives, payments to members for produce.

More recently, however, agricultural cooperatives have been facing survival challenges as a result of the agricultural industrialization process. Competitive strategies pursued by agricultural cooperatives in response to environmental and structural changes in the food system – including value-added processing, brand name development, and entry into international markets – require substantial capital investments. In order to acquire the necessary risk capital to implement these growth related strategies and remain competitive, agricultural cooperatives are adapting to agricultural industrialization by means of organizational innovations. These organizational innovations include but are not limited to: new generation cooperatives, base capital plans, subsidiaries with partial public ownership, preferred trust shares, equity seeking joint ventures, combined limited liability company-cooperative strategic alliances, and permanent capital equity plans. These new organizational and capital formation experiments have created considerable interest among producer leaders, cooperative management, finance institutions and organizational scholars. We assert that the basic issues in examining these new models can be reduced to an examination of ownership and control rights.

Chaddad and Cook analyze these emerging models by describing various organizational attributes including ownership structure, membership policy, voting rights, governance structures, residual claim rights, distribution of benefits and the strategy-structure interface. Building upon property rights and incomplete contracts theories of the firm, the authors adopt a broad definition of ownership rights that encompasses both residual claim and control rights. They argue that alternative cooperative models differ in the way ownership rights are defined and assigned to the economic agents tied contractually to the firm – in particular, members, patrons, and investors. Based on multiple examples, they propose a typology of discrete organizational models, in which the traditional cooperative structure and the investor-oriented firm (IOF) are characterized as polar forms.

This paper builds on Chaddad and Cook to discuss the implications of the observed departures from the traditional cooperative structure. In particular, we discuss the advantages and disadvantages of each model to cooperative stakeholders and raise issues to public policy towards agricultural cooperatives. In the next section, the proposed typology is introduced.

Ownership Rights in New Cooperative Models

Many economists would agree that the institution of ownership in the form of secure property rights is the most effective mechanism for providing economic agents with appropriate incentives to create, maintain, and improve assets. But what does "ownership" mean? The economic analysis of ownership has heretofore concentrated on two distinct concepts: residual returns (or claims) and residual rights of control.

Residual rights of control are defined as the rights to make any decision regarding the use of an asset that is not explicitly attenuated by law or assigned to other parties by contract.

Residual rights of control emerge from the impossibility of crafting, implementing and enforcing complete contracts, especially in the case of complex, dynamic transactions. Since all contracts are unavoidably incomplete, it is the residual right of control over an asset that defines who is the "owner" of that asset (Grossman and Hart). According to the incomplete contract theory of the firm, the assignment of control rights (and hence ownership) is dictated by *ex ante* investment incentives of contracting parties. The theory predicts that residual rights of control are assigned to agents making relationship specific investments whose quasi-rents are under risk from hold-up behavior.

Economists define residual claims as the rights to the net income generated by the firm – i.e., the amount left over after all promised payments to fixed claim holders (e.g., employees, debtors). Additionally, residual claimants are considered the residual risk bearers of the firm because net cash flows are uncertain and eventually negative. The "owners" of the firm are the residual claimants according to property rights scholars (Fama, Fama and Jensen).

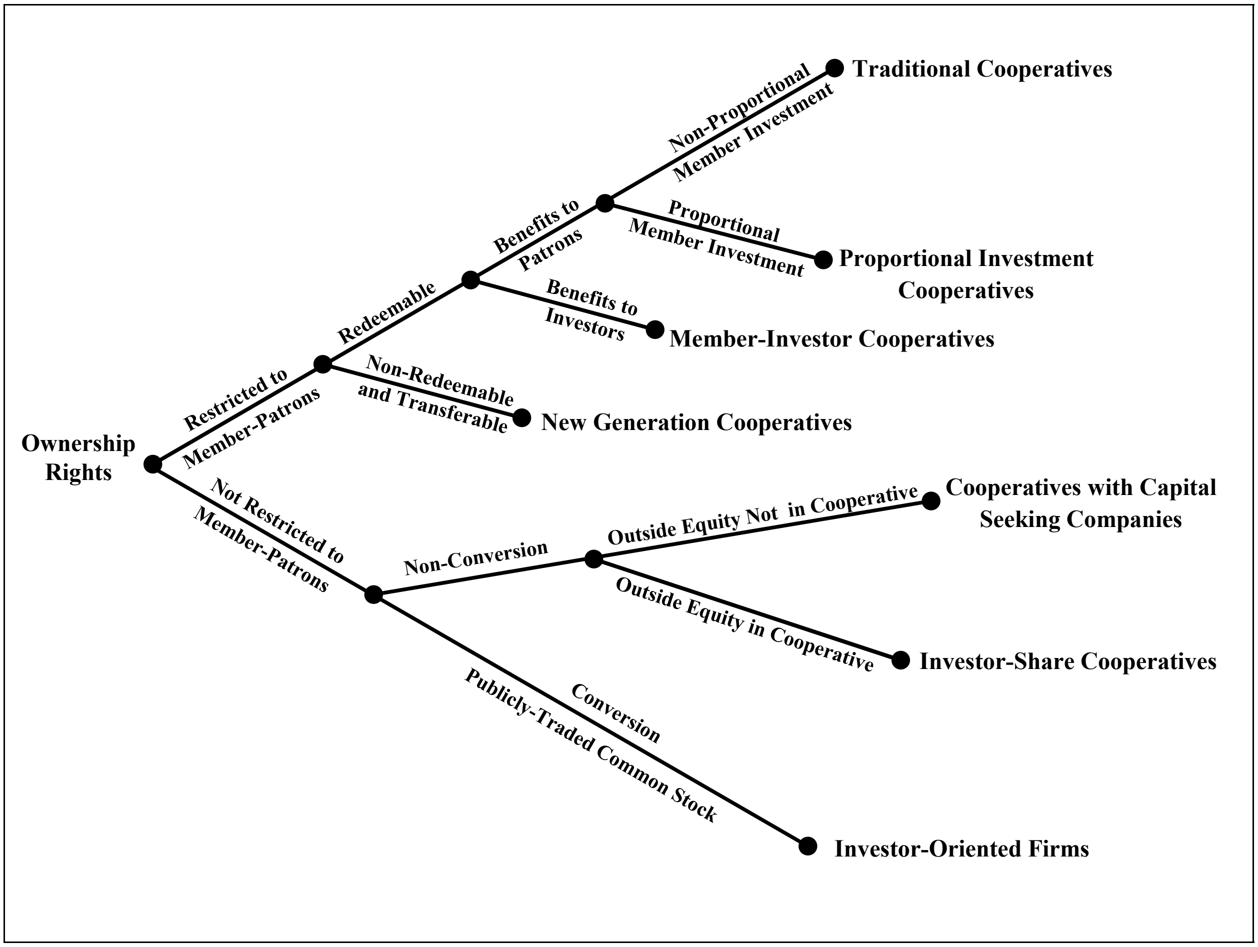
Table 1 summarizes ownership rights characteristics of alternative organizational forms, including open corporations, proprietorships, financial mutual companies, and traditional cooperatives. For instance, the open corporation is characterized by unrestricted residual claims that are non-redeemable but freely tradable among investors in secondary equity capital markets. The horizon of residual claims is unlimited because they are rights in net cash flows for the life of the organization. In addition, residual claimants are not required to play any other function in the firm. The unrestricted nature of common stock residual claims enables the efficient allocation of risk and the specialization of risk bearing and decision-making functions in open corporations. Contrasting to open corporations, non-corporate organizational forms usually add restrictions on residual claims that may affect asset investment and use as suggested in Table 1.

Table 1. Ownership rights structure of alternative organizational forms

	Open Corporation	Proprietorship	Financial Mutual	Traditional Cooperative
Assignment of residual returns	To investors	To proprietor	To customers	To member-patrons
Separation of ownership from other functions	Yes	No	No	No
Control Rights	Voting rights proportional to shareholdings	Proprietor possesses all control rights	Customers have no control rights	Non-proportional voting rights
Horizon of residual claims	Unlimited	As long as proprietor	As long as customer	As long as patron
Transferability of residual claims	Yes	No	No	No
Redeemability of residual claims	No	No	Yes, on customer demand	Yes, but Board's discretion

Drawing from the property rights theory of the firm, Chaddad and Cook propose a typology of discrete organizational arrangements (i.e., cooperative models) based upon a broad definition of ownership rights comprising both residual return and control rights. They argue that cooperative organizational models may be distinguished by the way ownership rights are defined and assigned to economic agents tied contractually to the firm (members, patrons, and investors). According to the proposed typology, the traditional cooperative and the investor-oriented firm (IOF) are polar organizational forms (Figure 1). The traditional cooperative structure is defined as having the following property rights attributes: ownership rights are restricted to member-patrons; residual return rights are non-transferable, non-appreciable and redeemable; and benefits are distributed to members in proportion to patronage. As a result of this "vaguely defined" property rights structure, traditional cooperatives are subject to investment and governance constraints (Vitaliano, Staatz, Cook).

Figure 1. Alternative cooperative models: an ownership rights perspective



In addition to these polar forms of organization, Figure 1 identifies five non-traditional cooperative models. In other words, organizational variation is observed in the ownership rights structure of cooperative firms. In doing so, the typology refines the property rights analysis of alternative organizational forms by identifying five cooperative models that introduce organizational innovations to the traditional cooperative structure. In the upward egressing branch of Figure 1, three non-traditional models with ownership rights restricted to member-patrons are described: proportional investment cooperative, member-investor cooperative, and new generation cooperative.

Proportional investment cooperative. In this model, ownership rights are restricted to members, non-transferable, non-appreciable and redeemable, but members are expected to invest in the cooperative in proportion to patronage. Proportional investment cooperatives adopt capital management policies to ensure proportionality of internally generated capital including separate capital pools and base capital plans. The base capital plan has been adopted by numerous well-known U.S. cooperatives, including Riceland, CoBank, Land O' Lakes, and Dairy Farmers of America.

Member-investor cooperative. This model differs from the traditional cooperative structure in that returns are distributed to members in proportion to shareholdings in addition to patronage. This is done either with dividend distribution in proportion to shares and/or appreciability of cooperative shares. The member-investor model has been implemented by means of participation units (Campina Melkunie), capital units (Walgett Special One Cooperative) and redeemable preference shares (Tatura Milk Industries Limited and Fonterra Cooperative Group).

New generation cooperative. The new generation cooperative model is another departure from the traditional cooperative structure as the restriction on residual claim transferability is relaxed. The rationale for equity share transferability is to provide liquidity and capital appreciation through secondary market valuation. The new generation cooperative model introduces ownership rights in the form of delivery rights that are tradable among a well-defined producer at risk member-patron group. Ownership rights are restricted to member-patrons, membership is defined, members are required to make up-front investment in delivery rights in proportion to patronage, and supply is controlled by means of marketing agreements.

Cooperatives that have exhausted these structural options are making a more complex decision – whether to acquire equity capital from non-member sources. In the downward egressing branch of Figure 1, ownership rights are not restricted to member-patrons. Consequently, the cooperative is able to acquire risk capital from non-member sources. The more radical model in this branch – conversion to IOF – is an exit strategy adopted by cooperatives that choose not to continue operating as a user owned and controlled organization (Schrader, Collins)[1]. Alternatively, cooperatives may acquire risk capital from outside investors without converting by means of two models: cooperatives with capital seeking entities and investor-share cooperatives.

<u>Cooperatives with capital seeking entities.</u> In this model, investors acquire ownership rights in a separate legal entity wholly or partly owned by the cooperative. In other words, outside investor capital is not directly introduced in the cooperative firm, but in trust companies (Diamond of California), strategic alliances (e.g., Dairy Farmers of America), or subsidiaries (the Irish Model, Crédit Agricole).

<u>Investor-share cooperative.</u> In this model, the cooperative acquires non-member equity capital without converting to an IOF. Contrasting to the previous model, the investor-share cooperative issues separate classes of equity shares assigned to different "owner" groups. As a result, outside investors receive ownership rights in the cooperative in addition to the traditional cooperative ownership rights held by member-patrons. Investor shares may bundle different ownership rights in terms of returns, risk bearing, control, redeemability, and transferability. Investor shares include preferred stock (CoBank, CHS Cooperatives), non-voting common stock (Saskatchewan Wheat Pool), and participation certificates (in France).

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[1] Instead of conversion, the most common exit strategy for U.S. agricultural cooperatives is through mergers and acquisitions. According to a USDA report, there have been 777 cooperative unification activities, including mergers and acquisitions, between 1989 and 1998 (Wadsworth).

Private Policy Implications

The typology described in this paper suggests that agricultural cooperatives are increasingly relaxing some of the structural constraints imposed by the traditional model. In particular, restrictions on traditional cooperative ownership rights are attenuated to provide members with incentives to invest or to acquire non-member capital. This in turn suggests that departures from the traditional model are motivated by the need to ameliorate perceived financial constraints.

Our analysis of the emergence of non-traditional cooperative models also suggests that the solution of perceived financial constraints entails some degree of organizational redesign rather than the extreme solution of conversion or demutualization. That is, ownership rights related to residual return and control rights of agents tied contractually to the firm are redefined and reassigned. However, when restrictions on traditional cooperative ownership rights are attenuated, new organization costs may surface such as principal-agent costs, collective decision making costs, and influence costs. More specifically, members may have to share profits and eventually control rights with outside investors who are not necessarily patrons of the cooperative and thus may have diverging interests. Conflicting goals between maximizing returns to investors and maximizing returns to member-patrons may occur as a result.

In other words, there are trade-offs involved in organizational redesign that cooperative leaders should be aware of. Table 2 presents some advantages and disadvantages associated with each non-traditional model. It is intended to facilitate a better informed strategic decision making process between cooperative managers, directors, and members in choosing among alternative cooperative ownership structures.

Table 2. Comparison of non-traditional cooperative models

Non-Traditional Model	Advantages	Disadvantages
Proportional Investment Cooperative	• Base capital tied to strategic capital requirements • Flexibility • Member ownership and control • Fairness • Systematic equity redemption	• Not suitable for cooperatives with high member turnover • May require substantial capital requirements by members • Not source of permanent equity capital • Dependence on internally generated capital
Member-Investor Cooperative	• Member ownership and control • Incentives to invest • Return on invested capital	• Interest divergence • Member-patrons vs. member-investors • Non-permanent equity capital • Arbitrary rules for share appreciability
New Generation Cooperative	• Incentives to invest • Performance measure • Incentive compensation to management • Permanent source of equity capital • Cash patronage refunds	• Barrier to new member entry • Illiquid secondary market for delivery rights • Members' risk bearing capacity
Capital Seeking Alliances	• Non-member equity capital • Flexibility • Focused, specialized management • Share in profits • Market access	• Control • Conflicts of interest • Transfer price
Irish Model	• Non-member, permanent equity capital • Access to equity markets • Unrestricted ownership rights • Market value of shares • Members have access to capital gains and dividend income	• Control • Divergence of interest • Transfer price • Equity market oversight • Need to perform • Transition to IOF
Investor Share Cooperative	• Non-member, permanent equity capital • Access to equity markets	• Control • Divergence of interest • Different classes of share

Public Policy Implications

Clearly, the emergence of non-traditional cooperative models takes the definition of the cooperative as a user owned and controlled organization to the limit. The ownership rights approach to analyzing boundaries of the firm and control – residual claim trade offs can also be used to inform public policy debates regarding the degree and role of producers not only as users but also investors in the global food chain. Most analysts agree that the uncertainties associated with globalization, food chain consolidation and vertical coordination, environmental constraints, genetic modification and food safety have created an environment in which the public interest must be clearly defined and communicated. A basic public policy issue is to what degree and what role should producers be allowed to participate in this new institutional environment. If the public objective is to facilitate the continuance of the countervailing power and rural development benefits produced by an institutional arrangement that in the past was beneficial to both the American food consumer and the producer then modifications to our current state and national legislation and regulation should be contemplated.

Through application of the framework presented in the private policy implications section of this paper public policy can be informed as to what general form organizational design characteristics might influence the incentive structure to encourage producer involvement in the food chain. These general areas include tax law, securities law, and cooperative incorporation law. Each can be informed by application of the property rights principles defined in previous sections of this paper. This framework would be particularly important in addressing the residual control-residual claim trade offs in analysis of the "income allocated based on patronage" cooperative principle. Informing the consequent issues of subordination of capital, limitations of patronage sourced income, tax credits and losses, and governance could lead to more efficiently designed organizational arrangements thus achieving public and private policy objectives.

Concluding Remarks

The rapid and fundamental structural changes occurring in the global agricultural and food system – commonly referred to as the industrialization of agriculture – exposes agricultural cooperatives to heightened domestic and international competition from other business forms. These changes also suggest that it is important to consider whether the organizational structures that have evolved in the past are likely to remain appropriate for the future. The success of agricultural cooperatives in responding to the challenges brought about by agricultural industrialization is likely to depend on their strategic choices and organizational structure. Yet it is important for cooperative leaders contemplating organizational change to bear in mind that "the decision of which organizational form to choose depends on the fundamental orientation of the producer-owners" (Royer, 1992, p. 96). It is thus crucial that adequate communication exists between cooperative leaders and members. This paper contributes to this dialogue by describing the ownership rights characteristics and outlining the advantages and disadvantages of each model.

References

Chaddad, F.R. and Cook, M.L. "Understanding New Cooperative Models: An Ownership-Control Rights Typology," forthcoming in the *Review of Agricultural Economics* (Fall 2003).

Collins, R.A. "The Conversion of Cooperatives to Publicly Held Corporations: A Financial Analysis of Limited Evidence." *Western J. Agr. Econ.* 16(1991): 326-30.

Cook, M.L. “The Future of U.S. Agricultural Cooperatives: A Neo-Institutional Approach.” *Amer. J. Agr. Econ.* 77(December 1995): 1153-59.

Fama, E.F. “Agency Problems and the Theory of the Firm.” *J. Pol. Econ.* 88(April 1980): 288-307.

Fama, E.F. and Jensen, M.C. “Separation of Ownership and Control.” *J. Law and Econ.* 26(1983): 301-25.

Grossman, S.J. and Hart, O.D. “The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration.” *J. Pol. Econ.* 94(August 1986): 691-719.

Royer, J.S. “Cooperative Principles and Equity Financing: A Critical Discussion.” *J. Agr. Coop.* 7(1992): 79-98.

Schrader, L.F. “Equity Capital and Restructuring of Cooperatives as Investor-Oriented Firms.” *J. Agr. Coop.* 4(1989): 41-53.

Staatz, J.M. “The Structural Characteristics of Farmer Cooperatives and Their Behavioral Consequences.” *Cooperative Theory: New Approaches*. J.S. Royer, ed., pp. 33-60. Washington, DC: USDA Agricultural Cooperative Services, 1987.

Vitaliano, P.W. “Cooperative Enterprise: An Alternative Conceptual Basis for Analyzing a Complex Institution.” *Amer. J. Agr. Econ.* 65(December 1983): 1078-83.

Wadsworth, J.J. *Cooperative Unification: Highlights from 1989 to Early 1999*. Washington, DC: USDA Rural Business Cooperative Services, Research Report 174, 1999.