



Syddansk Universitet

Are large and complex agricultural cooperatives losing their social capital?

Nilsson, Hans Jerker; Svendsen, Gunnar Lind Haase; Svendsen, Gert Tinggaard

Published in:
Agribusiness

DOI:
[10.1002/agr.21285](https://doi.org/10.1002/agr.21285)

Publication date:
2012

Document version
Peer reviewed version

Document license
Unspecified

Citation for published version (APA):
Nilsson, H. J., Svendsen, G. L. H., & Svendsen, G. T. (2012). Are large and complex agricultural cooperatives losing their social capital? *Agribusiness*, 28(2), 187-204. DOI: 10.1002/agr.21285

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal ?

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

27-Jul-18

Are modern agricultural cooperatives losing their cooperativeness?

Lack of social capital as an explanation to the demise of large and complex cooperatives

Jerker Nilsson¹, Gunnar L.H. Svendsen² and Gert Tinggaard Svendsen³

1. Introduction.....	2
2. Social capital.....	2
2.1. The trust dimension.....	2
2.2. Solution to collective action problems.....	3
2.3. Reputational effects.....	4
3. Social capital in cooperatives.....	4
3.1. What is a cooperative, and why have cooperatives been established?.....	4
3.2. Multiplier effect, local embeddedness and formal institutions.....	5
3.3. The importance of social capital in coops compared to IOFs.....	6
3.4. The mechanisms behind the decline of social capital in cooperatives.....	6
4. Shrinking social capital in cooperatives.....	8
4.1. Literature review.....	8
4.2. Social capital in the decision-making process.....	10
4.3. Vaguely defined property rights in traditional cooperatives.....	11
4.4. Model of the co-operative demises.....	12
5. Conclusion.....	15
References.....	15
Tables and Figures.....	20

Abstract

During the last twenty years many traditionally organized agricultural cooperatives have faced problems that have forced them to abandon their business form. Why is it so? Theoretical explanations have been put forward, comprising a variety of economic and sociological theories. The present study suggests that the social capital paradigm may add significant explanatory power when analyzing this development. Our claim is that the problems are due to the members having less and less trust in the cooperatives and in each other. The cooperatives' decision-makers have no instruments for estimating how much social capital is lost when they pursue strategies of vertical and horizontal integration, and therefore they do not consider this loss in their calculations. Thus the problems caused by the cooperatives' vaguely defined property rights are becoming increasingly serious. This reasoning is summarized into a number of models, which are influenced by the consumer choice model.

Key words

Social capital, cooperatives, business form, financial capital.

¹ Department of Economics, Swedish University of Agricultural Sciences, P.O. Box 7013, SE-750 07 Uppsala, Sweden, and Department of Work Science, Business Economics and Environmental Psychology, Swedish University of Agricultural Sciences, P.O. Box 53, SE-230 53 Alnarp, Sweden.
Phone: +46 18 67 17 68; E-mail: Jerker.Nilsson@ekon.slu.se

² Danish Center for Rural Research, University of Southern Denmark, Niels Bohrs Vej 9, DK-6700 Esbjerg, Denmark.
Phone: +45 65 5042 27; E-mail: glhs@sam.sdu.dk

³ Department of Political Science, Aarhus University, Building 1331, Bartholins Allé 7, DK-8000 Aarhus C, Denmark.
Phone: +45 89 42 13 04; E mail: gts@ps.au.dk

1. Introduction

During the last two decades many traditionally organized agricultural cooperatives in the western economies have undergone profound changes (Fulton and Hueth, 2009). Some have transformed into a non-traditional cooperative organizational model, for example by introducing individual ownership by the members (Nilsson and Ohlsson, 2007). Others have disappeared due to mergers or acquisitions (Chaddad and Cook, 2007; van der Krogt, Nilsson and Høst, 2007). A number of bankruptcies have taken place (Lang, 2006). Some cooperatives have sold a part of their business activities to investors, thus getting a hybrid type of cooperative (Corporate ..., 2000; van Bekkum and Bijman, 2006). Still others have converted into investor-owned firms (IOFs). What can explain these changes in business forms?

In their attempts to explain the problems of many agricultural cooperatives, researchers have used a wide specter of theories such as agency theory (Cook, 1995), property rights theory (Fulton, 1995), population ecology theory (Bager, 1996), transaction cost theory (Harte, 1997), corporate governance theory (Holmström, 1999), and cultural theory (Hogeland, 2006).

This study suggests social capital theory as a tool for explaining the demise of many agricultural cooperatives. It is posited that the cooperatives are gradually losing social capital, that is, network resources not visible to the eye but which nevertheless have visible, economic impact on these enterprises. We argue that drain of social capital is reflected in less engagement for mutual benefits, less cooperation as well as members' decreasing trust in their cooperatives, their leaders, as well as in each other.

This is not an entirely new story. When reviewing the literature, we find fragmented elements of social capital theory in several of the prior explanations. Hence the purpose of this study is to provide an overall and coherent social capital framework for understanding more fully why traditional cooperatives often suffer from problems in the present-day market environments.

The paper is structured as follows. Section 2 presents basic social capital theory. Section 3 deals with social capital in cooperatives and explains why social capital should be taken seriously into account by cooperative decision-makers, in line with more traditional forms of capital as financial and human capital. On the background of a literature review, Section 4 points at a gap in literature, namely the problem of social capital drain in cooperative firms formerly rich on social capital – a phenomenon that until now has been largely non-conceptualized (social relations regarded as a veritable *capital*) and therefore ignored by cooperative decision-makers. The problem is then illustrated in a number of models. Finally, Section 5 concludes.

2. Social capital

We will in the following focus on the trust, collective action and reputational effects as important dimensions of social capital in cooperatives.

2.1. The trust dimension

What is social capital? Putnam (2000:19) defines social capital as consisting of “social networks [among individuals] and the norms of reciprocity and trustworthiness that arise from

them. He further explains that “Just as a screwdriver (physical capital) or a college education (human capital) can increase productivity (both individual and collective), so too social contacts affect the productivity of individuals and groups”.

Trust is an indicator of social capital. If two persons, or a group of people, trust each other and in fact *can* trust each other, it will be easier for them to engage in productive collaboration as this will be characterized by low transaction costs. Thus, to trust is to accept vulnerability because you are never sure whether the other can be trusted, or whether the partner will abuse your trust. In this sense, vulnerability is the “price of trust” (Barbalet 2009: 369), implying potential economic, social and emotional costs.

However, it is important to note that supra-individual factors impact trust. In a rational choice perspective, risks of being hurt are conditional to peoples’ daily life experiences, including personal acquaintance as well as the risks of sanctions the cheater or free-rider is running, either in the form of social sanctions or more formal sanctioning from the state or the organization, at the meso and macro levels (e.g. the cooperative enterprise) (cf. Coleman 1988; Hardin 1993; Newton 2007; Rothstein 2009:200ff.).

2.2. Solution to collective action problems

It is however a simplification when Huck (1998:55) states that it is only when costs from sanctions exceed profits from cheating that “trustworthiness pays off” (Huck 1998:55). Thus findings on collective action within behavioral and evolutionary game theory shows that narrow self-interest is modified by social motivations and history (repeated games). Besides there is, in general, more willingness to cooperate in one-shot games where the trustor has very little, or no, information about the trustee than was previously assumed in first generation collective action theories (Ostrom & Ahn 2009: 19-20). Without leaving the rational actor model entirely, second generation collective action theories have therefore acknowledged the existence of “multiple types of individuals” with “intrinsic values” (not only the average rational actor) (op.cit.:21), and cooperative outcomes are influenced by individual personalities and interests, social networks, trust as well as formal and actually applied rules, including the possibility of social sanctioning (Ostrom & Ahn 2009).

These underlying norms of reciprocity and trust within a group or firm, and the concomitant rules to ensure them, have often been summarized as a *social* capital (Coleman 1988; Ostrom & Ahn 2009). This form of capital contributes to solve collective action problems, i.e. mediates the conflict between private and collective interests, including solving the free-rider problem. Besides, social capital strengthens the other forms of capital within the group (physical, financial, human) in a multiplier effect.⁴

That trust matters in cooperatives is evident due to the fact that members own the cooperative, invest money in it for the benefit of coming members (whom they do not know) and accept that the cooperative also has non-profit purposes. It is of course a truism to say that a cooperative relies on members’ *cooperative* skills and norms implying widespread trust within the organization. Nevertheless, this is evidently often forgotten in theory as well as in practical decision processes. As a consequence, valuable social capital that may have served as an important tool in solving collective action problems is lost.

⁴ , it has been argued that trust behavior is influenced by cultural norms (e.g. Uslaner, 2002), the way children are socialized (e.g. Dohmen et al., 2007) and religion (e.g. Inglehart and Baker 2000; Delhey and Newton, 2005).

2.3. Reputational effects

For a business firm to be able to conduct various activities there is a need for financial capital, but also for social capital (and human, physical, etc.). In this paper only financial and social capital are considered. To the extent that the firm enjoys social capital, the business partners are likely to comply with the agreements, trusting rather than spending time and energy on expensive control such as formal contracts, and thereby transaction costs are reduced. Social capital within the staff will mean that the work is better coordinated and that there will be fewer free-riders. Instead employees, further motivated by ownership and an institutional set-up that secures democratic governance, will work for mutual benefits instead of solely looking for their own narrow individual or (sub-)group interests. If the customers have trust in the firm, they are willing to pay a higher price and buy larger volumes. In case the capital market has a positive view of the firm, more investors are interested and they are willing to buy more stock and so at a higher price, and lend more money on terms that are better for the firm. A firm with a good reputation is likely to attract more qualified staff.

3. Social capital in cooperatives

3.1. What is a cooperative, and why have cooperatives been established?

The number of definitions of cooperatives is large (e.g. Phillips, 1953; Calvert, 1959; ILO, 1965; Münkner, 1974; Roy, 1981; Centner, 1988). Even though none of these definitions explicitly state the concept of social capital, they all comprise expressions, which indicate that cooperatives are based on the existence of social capital.

The most widespread definition of cooperatives is: “A cooperative is a user-owned and user-controlled business that distributes benefits on the basis of use” (Barton, 1989, p. 1). The three components of this definition indicate that cooperatives are linked to the concept of social capital. The aim of a cooperative is not to convey capital gains to any owners; it is to create benefits to a group of members. These benefits should not be distributed in proportion to the amount of ownership but in relation to the members’ patronage. Hence cooperatives are owned by the patrons for the sake of achieving some benefits. Furthermore cooperatives are democratically controlled. The ownership, the distribution of benefits and the control all indicate social relationships between the cooperative and the members as well as between the members. The members are persons of flesh and blood who run their own agricultural enterprises. They are not anonymous financiers.

Practically all cooperatives started in a small scale. There were a small number of founders, most often all living in the same village or another small geographical area. The founders were neighbors and colleagues, and sometimes also relatives. The task of establishing a jointly owned firm was a risky one as everybody thereby would be dependent upon each other. If one or a few of the members were shirking, the entire membership would suffer. Therefore trust within the membership was needed, i.e. the level of social capital necessarily had to be high to overcome social action dilemmas. The members were also willing to accept a high degree of social control.

The early members had to finance the newly established cooperative but they were normally not willing to invest a larger amount than was absolutely necessary. For this reason members, especially in the old days, accepted personal liability for the cooperatives’ debts, and this is why cooperatives have often had low leverage.

The cooperative was established in order to adjust a malfunctioning market mechanism, which is to say that the members through their cooperative could reduce the risk-taking in their farm enterprises. Hence, they were not willing to accept large risks within the cooperative enterprise, and so the financial investments were small. Furthermore, the members needed all the capital they could get for investments in their own farm operations. Cooperatives are generally considered to be risk averse (Hendrikse, 1998) just as the members are risk averse in relation to the cooperatives while their view on risks within their own farming operations are reasonably the same as other small businessmen.

3.2. Multiplier effect, local embeddedness and formal institutions

In order to run its business operations, a cooperative needs financial capital. It has to invest in plants, machinery, vehicles, product development, marketing and lots of other assets. The financial capital is, however, built up on the basis of social capital – a sort of ‘master capital’ which reinforces the other more tangible forms of capital (physical, financial, human). Seen from this perspective, the resource base of cooperatives is the social capital that the members have in the cooperatives. All the financial capital that a cooperative has originates in one way or another from the members, often as they have abstained from some patronage refunds, and they have done so voluntarily. The financial capital is hence a kind of conversion of social capital – or the result of a ‘multiplier effect’ – in the sense that members have been willing to supply the cooperative with financial capital. To the extent that the social capital is lacking, also the financial capital will suffer, as will human capital (lack of mutual trust leading to lack of interaction and communication). Even though many of today’s cooperatives are large and have a large amount of equity capital, the social capital basis still holds.

The social capital within cooperatives is also seen in the fact that cooperatives are operating within a specific region, namely the region where the members are farming. The sales market may be anywhere in the world, but there are always strong connections with the members as concerns the collection of agricultural products. A similar connectedness concerns choice of industry. A dairy cooperative, for example, works with the processing and marketing of milk or milk-related products, and the raw milk is collected from farmer-members within the cooperative’s operating area.

The governance of a cooperative is characterised by social capital as well. The directors are members, elected by the membership whereby each member has equal voting rights (one member, one vote), and the directors are members. Even the chairman is a farmer-member. As it comes to the professional leadership, the CEO and the rest of the management team are today recruited from the labor market, but historically (when the cooperatives were still small) one of the members often had the responsibility to take care of the business operations, or the son or another relative to one of the members could function in that position. Up till fairly recently it was considered desirable that the CEO should at least have a background in the agricultural sector.

In principle, today’s agricultural cooperative is still run by the members on the basis of their wish to get benefits from the cooperative. Again, social capital is the point of departure of the governance of cooperatives. Hence, we argue that maintenance and further accumulation of social capital is the most effective solution to solve collective action problems that threaten to kill such organizations. Not least, this is the case in large cooperative firms where regular face to face contact, personal knowledge and trust between farmer-members, and between farmer-members and leaders, tend to wither if – besides human, physical and financial capital – a social capital is not acknowledged, valued, maintained and further cultivated.

An important framework for accumulating social capital in cooperative firms are the formal institutions, i.e., the written down ‘rules of the game’. There are different sets of cooperative principles, such as the Rochdale principles, the Raiffeisen principles and the Schultze-Delitsch principles (Barton, 1989). No matter which set of principles is referred to these contain a clearly discernable element of ideology, even though these principles can also be argued to have an economic rationale (Nilsson, 1989). Likewise it is quite common that people refer to various sets of cooperative values (Craig, 1993; Hakelius, 1996). Both the principles and the values indicate that cooperatives are based on social capital. Many of the principles are socially attractive such as the principles of equal treatment and equal voting power.

3.3. The importance of social capital in coops compared to IOFs

To get a more clear picture of the particular importance of social capital in coops, one may compare with an investor-owned firm (IOF). Here the stockowners have invested money in order to get capital returns. Hence an IOF could work within any type of industry and in any region or country. For the stockholders it does not matter whether the firm works in one industry or another and in one country or another, as long as the capital returns are satisfactory. The stockholders of a large corporation with the stock listed at a stock exchange are anonymous to one other. There are no social connections, no personal acquaintance and, as often, no trust. Even at higher echelons of the organisational chart the relationships are “cold”. The board is elected by a general assembly but the voting is differentiated in relation to how much stock the stockowners have, i.e. financial capital logic. In many corporations there are a few stockowners with a dominating share of the stock. This group is in control of the firm but it has to consider the minority of stockholders to the extent that the minority may influence the value of the stock. The criterion for the election of directors and chairman and for the appointment of a CEO and other managers is the candidates’ ability to make the firm as profitable as possible.

The social connections are of course not neglected in IOFs but they are subordinate to the financial demands. There must be good social relations within the management team but this is so because thereby a better capital return could be attained – an atmosphere of conflicts would be disastrous. Hence, the social capital within IOFs is attained with the help of financial capital. The employees should be satisfied with their jobs, but that is obtained with the help of good salaries and a good social climate on the working place. The consumers should be as loyal as possible to the firm, which means that marketing communication is important.

3.4. The mechanisms behind the decline of social capital in cooperatives

The demise of many cooperative firms is related to dissatisfaction among the members (Nilsson, Kihlén and Norell, 2009). The cooperatives can no longer meet the members’ demands, and therefore the members increasingly abandon the cooperatives. Thereby the cooperatives get a lower volume to process and consequently they are facing low capacity utilization, which is costly. When members are leaving the cooperatives, their allocated capital is redeemed, whereby the cooperatives’ capital basis is weakened. As members get dissatisfied they also ignore taking part in the governance of the cooperatives, which is to say that the cooperative will to an even less extent work in the interests of the members. It can be seen that there are vicious circles, i.e. the more members who get dissatisfied the poorer conditions will the cooperatives offer the remaining members who then become more inclined

to leave the cooperatives (cf. so-called “bank runs”). When member dissatisfaction has reached a certain point, it is difficult to change the development.

A driving factor is that the intensity of competition has increased (Boehlje, Akridge and Downey, 1995). One reason behind this development is the increasing degree of industrialization in primary agriculture, following the introduction of new production technologies and new governance models. The owners and managers of the very large farms do not have the same sense of cooperative belongingness as farmers used to have, and the size of their farming operations imply that they do not have a strong need to reduce their transaction costs by the help of cooperative firms (Ollila, 1989). As the markets nowadays function better the relative advantage of cooperatives has decreased (Harte, 1997).

In order to maintain competitiveness on the increasingly competitive markets the cooperatives are integrating vertically (forwards) towards the more lucrative and less price sensitive consumer goods markets where there are greater possibilities for product differentiation and market segmentation. Likewise they integrate horizontally, mainly through mergers (Van der Krogt, Nilsson and Høst, 2007). Large size is positive for the attainment of lower average costs through economies of scale as well as economies of scope.

Especially the strategy of vertical integration is resource demanding, i.e. the cooperatives need more capital, and the capital must ultimately originate from the members. The farmer-members are, however, reluctant to supply more capital to the cooperatives (Chaddad, 2001; Richards and Manfredo, 2003). They have better investment opportunities in their own farming operation. Hence, the cooperatives tend to be undercapitalized.

Another characteristic of cooperatives is often said to be risk aversion (Staatz, 1987; Hendrikse, 1998). The members do not invest in their cooperatives to take high risks – on the contrary, they involve themselves in order to reduce the risk level in their farming operations. Nevertheless, the cooperatives are taking large risks when following strategies of vertical and horizontal integration, especially as their amount of equity capital is most often limited.

Moreover, in order to be competitive the cooperatives are trying to streamline their business operations. This implies that they must have more control of the inputs from the members. The members do, however, not want to be controlled. Hence, the members become more negative towards their cooperatives (Hogeland, 2006). When the cooperative movement started the members took this initiative in order to get a protection from the “evil” market forces and to remain as independent farm businessmen. Today, the relationship has often been reversed.

The trend towards horizontal integration (large-scale operations) tends to create memberships, which are very large and heterogeneous. Most extreme are the transnational cooperatives, having members in two or more countries (Nilsson and Madsen, 2007). As a consequence the members feel more and more alienated (Nilsson, Kihlén and Norell, 2009; Österberg and Nilsson, 2009). The management becomes increasingly autonomous, and the members have limited influence in the cooperatives’ decision making (Hind, 1997; Hind, 1999).

The development described above indicates that many present-day agricultural cooperatives do not operate in ways that this organizational type was built for a hundred years or more ago. They neglect the fact that the cooperatives business form is a social construction, which

humans have built up in order to get specific problems solved. They seem to believe that the cooperative business form can do all that investor-owned firms do.

There is a divergence between the attributes of cooperative business and the strategies that these firms pursue (Nilsson and Ohlsson, 2007; Nilsson and Ollila, 2009). The strategies of vertical and horizontal integration are a way to adapt to the developing market situation, but such market orientation is at odds with the member orientation, which is necessary for cooperatives. There would probably be other markets for the cooperatives to adapt to – markets which the members know and understand and which they are willing to raise capital for. These observations indicate that the failing cooperatives are characterized by an imbalanced relationship between the financial capital and the social capital.

4. Shrinking social capital in cooperatives

4.1. Literature review

Even though researchers base their explanations of cooperative problems on various other theoretical bases it is easy to identify social capital elements in their explanations. Hence, one may claim that the social capital paradigm is the common denominator for all the explanations, which are presented below.

Cook (1995) suggests a five-step life-cycle model for cooperatives, ranging from establishment to either exiting, restructuring (including choosing a hybrid model, and involving outside co-owners), or shifting (choosing an individualized cooperative model, implying tradable delivery rights). Before the final step is reached the cooperatives are plagued with problems, originating from so-called vaguely defined property rights (VDPR). One such problem is that the members do no longer want to finance the cooperatives; another one that the cooperatives make investments that are not in the interests of all farmers; furthermore, members do not monitor the cooperatives thereby handing over the power to the professional managers. These and other VDPR problems follow as the membership becomes so large and anonymous that the members have a tendency to be free riders, the cooperatives business activities expand beyond the horizons of the farmers, the ownership is to a large extent collective – all in all, the amount of social capital that the cooperative has in the minds of the members is shrinking.

Fulton (1995), with the use of property rights theory, suggests that the cooperatives have lost their former capacity of being the most crucial link in the value chains. Historically farmer cooperatives were superior as concerns the production of large and homogeneous volumes of high quality agricultural products. This was a consequence of the fact that farmers had trust in their cooperatives whereby they were willing to accept the superiority of the cooperative. Søgaaard (1994) supports this kind of reasoning. Today, however, investor-owned competitors have developed techniques for acquiring the same ends, whereby the power has shifted to other links in the value chain, predominantly the retailers and the firms owning the genetic material. The value of the farmers' trust in their cooperatives has been devaluated.

According to Bager (1996), cooperatives constitute one group in the population of formal organizations within an economy and an industry. In the infancy of cooperatives, the number of cooperatives was so large that they formed a tightly connected group, and hence there was “mimetic isomorphism”, such that the cooperatives tended to become similar to one another and dissimilar to other business firms. In those days there was a substantial amount of social

capital. Today, techno-economic and institutional changes have resulted in large-scale cooperatives, operating internationally. Thereby the cooperatives are subject to “noncongruent isomorphic pressures”, driving them to adapt to the practices of IOFs. The farmers have social networks not only with other farmers but also with non-farmers. The employees have investor-owned firms (IOFs) as their optional employers, and so have the managers and even the chief executive officers (CEOs). Most suppliers to the cooperatives are IOFs, and so are their customers. The financial institutions treat cooperatives as they treat IOFs. Hence there is not room for very much of social capital.

It is generally held that cooperatives are established when a group of economic actors perceive that they can reduce their transaction costs with the help of a jointly owned agent. A condition is that the group of actors has reasonably low costs for organizing this firm. These conditions are, however, not as strong today as they used to be (Harte, 1997). The farmers’ potential for transaction cost reduction is less due to the modern information technology as well as better transport technologies. Today’s farmers are much larger and much more specialized than previous generations, and thereby they are stronger when they are to act on the open markets. Farming has become a profession like all others, which is to say that farmers’ age-old self-identity has begun to vanish.

Hind states that “cooperatives become more corporate oriented as they develop through time” (1997:1081) and that “in the later stages of the life cycle, the aspirations of the managers, rather than those of the farmers, are realised” (1999: 536). This is an expression of less social capital.

Holmström (1999) is one of the many researchers who criticize cooperatives on the basis of corporate governance, including poor leadership, poor capital building capacity and poor investments. The core of his criticism is that there is no market for equity capital and hence cooperative decision-makers can not know whether the amount of capital is too large or too small or whether an investment is worth conducting.

Lang (2006) used dominant logic theory and principal-agent theory to investigate the reasons for the transition of Canada’s largest agricultural cooperative. She found that the cooperative was not able to change its existing business logic when the competitive pressure increased. She reports that “management took advantage of the board’s lack of experience as investments extended beyond the farm gate. The principal-agent problem in conjunction with an inaccurate revised dominant logic is the reasonable explanation for the Pool’s failure! (Lang, 2006: iii.). In other words, there was not enough social capital among the members nor the directors to monitor the management.

There has according to Hogeland (2006) been a cultural transition in the agricultural cooperatives. Towards the end of the 20th century the cooperatives became very large and their operations became increasingly complex. Hence there was a need for highly professional management. Producer commitment and control should be reconciled with efficiency and competitiveness, ultimately resulting in vertical integration. Hence, a dilemma arose: “Cooperatives are the institution that provides ‘the common man’, that is, the small farmer, equality in the marketplace. The critical issue was whether producer equality was maintained by keeping cooperatives small and participatory or commensurate in size, scale, and vision with the large businesses that threatened to overpower farmers in the marketplace” (Hogeland 2006: 71). As a result, producer commitment and influence gave way to nonfarm investments in a “cultural transformation that weakened the symbiotic relationship between farm and

cooperative” (Hogeland 2006: 77). The culture that is supportive for the traditionally organized cooperatives becomes successively threatened as the cooperatives expand. “Farmers wanted to use cooperatives to protect their economic independence, but cooperatives needed farmers to be economically dependent on them” (Hogeland, 2006: 67-68).

Fulton and Hueth (2009) claim that the problems of the cooperatives is due to poor management, but if so also the boards of directors must be blamed and ultimately the members, who have elected not good enough directors. There are also “common structural problems associated with cooperatives – such as lack of capital, property right problems and portfolio problems” (Fulton and Hueth, 2009: i).

The observations above are not new. Many decades ago Bakken and Schaars (1937: 533) stated that “Cooperative organizations are occasionally alluded to as self-liquidating corporations. Their success may cause their destruction”. A similar observation is made by LeVay (1986: 108–109.)

4.2. Social capital in the decision-making process

An explanation to the development may be that social capital hitherto has not been acknowledged as capital neither among researchers or the cooperative decision-makers. The ignorance of this intangible capital in economists’ analyses was first observed by Bourdieu (1986). In particular it is striking that cooperative enterprises – supposedly the social capital driven enterprises par excellence – have not taken the reduction of social capital into account as a probable and significant cost as the strategies towards vertical and horizontal integration have been pursued.

Prior researchers have only indirectly alluded to social capital as the “missing link” in understanding the economic performance of traditional cooperatives. They have not used the concept *capital* and, hence, not explicitly included it in the accounts. Although social capital is not easy to measure (the typical measure being the level of trust) it should have been included in the calculations. As Hogeland (2006) indicates without applying the term social capital, social networks based on norms of reciprocity and trust can be seen as *the* value-added asset of cooperatives, in comparison with competing types of enterprises (as e.g. IOFs). In such a perspective, social relations within a firm should not just be assessed as a more or less random configuration of human beings but as a concrete resource, the productivity of which depends on the organizational form. Indeed, cooperatives need social capital in order to be competitive. Therefore, the drain of formerly high stocks of social capital may be an explanation of the crisis that many traditional cooperatives have experienced recently.

Within a cooperative, there is a trade-off between financial capital needed for vertical and horizontal integration on the one hand, and its stock of social capital on the other. If a cooperative is not aware of its comparative advantage in terms of social capital, and therefore does not protect it, it risks losing this form of capital in the process of developing into a large-scale enterprise. Consequently, profits from economies of scale and scope may be outweighed by loss of social capital mirrored in less trust among members and between members and leaders, alienation and passivity among members, low involvement, less democratic governance, private good provision rather than collective good provision, widespread free-riding, low satisfaction and loss of solidarity. This is not to say that strategies of vertical and horizontal integration are ‘wrong’ for cooperative enterprises but it should be realized that these strategies have costs which may not always be visible to the eye (and to the accountant)

but which nevertheless have an impact on the cooperative's economic performance, because these decisions involve a drain of social capital.

Figure 1 illustrates the development towards weaker social capital in the relationships between the members as well as between the members and the cooperative firm should not have come as a surprise to the cooperatives' decision-makers, i.e. the board and the top management.

[Figure 1 here]

These decision-makers have made decisions, which have been wise and well deliberated at the time of the decision-making. There are, however, a few problems associated with such decision-making:

Time horizons. The decisions were made on the basis of calculation concerning costs and revenues, i.e. they concerned the financial consequences that could be foreseen in a reasonably long time perspective. The effects that the various decisions may have in a longer time perspective were probably not considered. This is especially so as all decision-makers have limited time horizons as well, i.e. they are elected or appointed for a few years only.

Delayed effects. The reduction of the social capital cannot be seen within next few years after the cooperatives' investment decisions are made. It may take several years until the members realize that the cooperative does no longer work in their best interests.

Incrementality. The negative effects that the cooperatives' decision-making may have on the level of social capital take place incrementally. As the change takes place in many small steps, the decision-makers have no possibility to link the two to each other. On the contrary, the decision-makers are more likely never to realize that strategies of horizontal and vertical integration have anything to do with shrinking social capital.

Measurability. It is impossible to measure and quantify the amount of social capital within a cooperative membership, at least for the decision-makers. What is impossible to discern does not exist in the minds of the decision-makers.

Populism. The decision-makers – especially the directors – want to be popular among the membership, and therefore they make decisions, which they can successfully explain to the members. It is easier to provide explanations about factual considerations rather than explaining diffuse social conditions.

4.3. Vaguely defined property rights in traditional cooperatives

Many of the researchers who explain the demise of traditional cooperatives argue that the fact that the property rights are not specified bare a large part of the blame. Cooperatives have so-called “cooperative property rights”, which imply that there is no market for the shares (Vitaliano, 1983).

In the early days of the cooperative movement the vaguely defined property rights did, however, not pose any problem. Those cooperatives – just as many of today's small cooperatives – had the same “cooperative property rights”. The conditions were quite different from those that characterize the present-day cooperatives with large and differentiated business operations and large and heterogeneous memberships.

Table 1 presents a comparison between cooperatives that are large and complex (extensive horizontal and vertical integration) and those which are small and simple (only member-related operations). It shows that the problems of vaguely defined property rights may be large in the former category but small in the latter. In the latter category there are good conditions for a large stock of social capital as the members to a great extent know each other, have an overview of the cooperatives business operations and have relationships with the leading decision-makers. The opposite holds true in the large and complex cooperatives.

[Table 1 here]

4.4. Model of the co-operative demises

Next step is to develop a model of the co-operative demises. The tool used for this analysis is a development of the consumer choice model, well-known in the neo-classical economic theory. Hence the graphical illustrations consist of indifference curves and budget constraint curves. The following presentation does, however, not concern consumers who are trying to allocate their budgets on consumption alternatives in an optimal way. We are dealing with cooperative and investor-owned firms that use budgets consisting of social and financial capital for performing various business activities in an optimal way, given that these activities require different sets of capital.

All activities to be performed need the use of different types of capital. Capital is here classified as financial capital and social capital – human capital, physical capital and others are left outside. The activity may be the establishment of a factory, the leadership of a firm, control of a management, investment in new products or new markets, etc. It is evident that these activities require financial capital, i.e. investments for the construction of buildings, purchase of machinery, employment of staff, conducting research, etc. At the same time social capital is necessary, otherwise the employees will not be motivated to work efficiently, the management group will not unite about decisions, collective action problems will arise, the buyers will not have enough trust in the firm to buy its products, investors do not dare to invest in the firm, etc. Hence, *both* types of capital are needed all the time, no matter what task is to be performed.

The two types of capital may, however, be deployed in various proportions. It is possible to exchange one for another, though not completely so – only to some but not specified extent. A firm may use little financial capital for advertising campaigns, relying more on the word-of-mouth communication among its circle of customers. A firm may employ a promising person at a relatively low salary, provided that this person is proud of working for a well-reputed firm. The CEO (Chief Executive Officer) may get relatively poor investment proposals accepted by the Board of Directors if she or he is highly esteemed by the directors. It may be possible to get customers to conduct certain kinds of services for free or the same services could be bought from the market.

Hence, the two types of capital may be transformed, or ‘converted’ (Bourdieu, 1986), from one to another. In other words, it is possible to ‘buy’ one type of capital by ‘paying’ with the other type of capital.

This reasoning is illustrated in Figure 2. The curves a and b stand for activities, which demand different amounts of total capital. Activity a requires a larger amount of capital while activity b requires less capital. On curve a, two situations are marked, saying that this activity can be

executed with either a large amount of social capital and less financial capital ($s_1;f_1$) or the other way around (s_2,f_2).

The curves approach the axes asymptotically but they do never cross any of the axes. This means that both types of capital are needed no matter which the activity is. It is seen that a firm will suffer from large costs if one of the capital types is very scarce. In order to balance a very small amount of social capital the firm has to use an extremely large amount of financial capital, and vice versa.

The proportion of the two types of capital, needed for a specific purpose, is contingent on the firm's costs for obtaining financial capital versus obtaining social capital. As the curves in Figure 2 are fairly curvilinear, the transformation is quite unequal, i.e. the actor must give away a large amount of financial capital in order to get a limited amount of social capital, and vice versa. If the curves were straighter, the two types of capital were valued more equally. The last option, i.e. if the curves had a convex shape instead of the concave shape as in Figure 2, would be impossible just as a completely straight line is. In both occasions, the curves would cross the axes.

The curves in Figure 3 express the amount of capital that a firm has available for conducting a specific activity, i.e. they are the budget restrictions for firms A and B. As there are limits as to how much capital the firm has, these curves are crossing the axes.

The capital that an actor has can be transformed from one capital type to another. It is possible to buy social capital by paying with financial capital and vice versa. Figure 3 shows two cases for actor A. When such transformations are made, there are costs associated with the transformation itself, i.e. transaction costs. These are, however, not included in this analysis.

Again the budget restriction curves may have different shapes, depending on which 'exchange rates' there are for the firms wishing to transform one type of capital into the other. These curves may in principle also be straight lines, which would mean that both types of capital were valued just as much when the firms are to make the transformations. If so, the firm would get one unit of social capital by paying with one unit of financial capital and vice versa (if the two capital types were to be measured in one way or another). This would, however, not be found in reality.

For example a social movement has plenty of social capital but little financial capital. This social movement needs financial capital in order to conduct activities for its members, but the sacrifices for getting this financial capital are large. Members may have to engage in charity, for example. Correspondingly a business firm, based on financial capital, needs social capital for motivating its staff to work efficiently, but it has to pay an amount of financial capital as salaries and fringe benefits to acquire this.

Figure 4 is an amalgamation of Figures 2 and 3. Hence, it shows the optimal solution when firms A and B are to perform activity a and b using their respective sets, or configurations, of social and financial capital. The figure shows the optimal use of the two forms of capital for both actors. Actor A, who has more total capital (or capital volume, cf. Bourdieu 1989), can perform activity a by deploying social and financial capital in proportions s_1 and f_1 . This combination is optimal. Why? Simply because with any other combination of social and financial capital firm A would *not* be able to conduct the activity a. Or, at least, firm A would have to use a much larger amount of resources for activity a.

The curves in Figures 2, 3 and 4 are mirrored, i.e. equal along both axes. This is an unlikely situation. Normally the curves are leaning towards one or the other of the two axes depending on the type of activity and the resource base that the actor has. Some activities require that more social capital is deployed, while others require more financial capital. This situation is shown in figure 5. Here the curves for needed capital are skewed.

In Figure 5 four curves are depicted, two of them for activities which can be formed with much social capital, denoted Act (social); and two which are best performed with financial capital, denoted Act (financial). This depends on the type of activity, i.e. what is to be performed with which outcome. If, for example, the activity is to convince a group of individuals to do something, one may use arguments (social capital) or pay them for doing this (financial capital), but the former option will probably require a smaller amount of total capital. This may be the curves Act (social). If, on the other hand, the task is to produce a physical good, financial capital might be more efficient than social capital, as is shown in the curves Act (financial).

Similarly, the curves in Figure 6 are skewed. This is so because the ability to raise capital of the two kinds depends on the type of firm. Two types of firms are considered. Cooperative firms are based on strong social relationships between the members and the members' trust in each other (horizontally, or 'bridging' social capital) and in the leadership (vertically, or 'linking' social capital). Hence, a co-operative has better access to social capital than an investor-owned firm. Investor-owned firms are likely to have owners who are anonymous to one another, i.e. there is no social glue. On the other hand the owners are owners because they invest financial capital.

Figure 7 combines figures 5 and 6. In this figure, only the two curves for activities, which require much financial capital, are included. This is so to demonstrate that cooperatives, with their (historic) prevalence of social capital, are hampered in such an environment. It appears from Figure 7 that in order to perform activity 1, the co-operatives' optimal solution is to deploy the amount of capital in Co-op₂, which results in the combination x_1 and y_1 . The investor-owned firm can perform the same activity with the use of the total capital amount contained in IOF₁, provided that capital is used in the proportions x_2 and y_2 . However, the investor-owned firm's total capital in IOF₁ is smaller than the cooperative's total capital Co-op₂, which gives the investor-owned firm a competitive advantage over the cooperative. If the investor-owned firm was able to use the same total amount of capital as the cooperative does, this investor-owned firm would be able to perform activity₂. The co-operative does not have any ability to handle activity₂.

In case the activity would have been of a kind that is well suited for social capital, the cooperative would have been better-off than the investor-owned firm. This model for potential cooperative demises is depicted in Figure 7, but it is easy to understand as in that case the curves would be the opposite.

A traditionally organized co-operative is – and especially was – a grass-root organization. Individuals gathered to pool the few resources they had, which is to say that they knew each other, had trust in one another and were determined to, and able to, work together – that is, the 'poor man's capital' so to speak. In this way social capital became the hard rock on which these co-operatives were built. The opposite holds true for the investor-owned firms. The investors have normally no social relations. People who are anonymous to one another invest

financial capital for the sake of getting capital returns. The social activities characterised cooperative enterprises in their inception and childhood. The members of those days invested in low-cost equipment for the very first stages of the processing chain. Economic activities are such where the entrepreneurs invest in order to get capital returns and hence they normally invest so as to differentiate themselves from the competitors, i.e. the amount of capital is normally larger.

5. Conclusion

Why have cooperatives changed business form in recent time? This study overall suggested that a coherent social capital theoretical framework may contribute to explain why many of the large and complex traditionally organized, agricultural cooperatives have failed during the last couple of decades. The strategies towards far-reaching vertical integration and horizontal integration have created a gorge between the members and their cooperatives, which until recently have been extremely rich on this particular form of capital. This has led to less mutual trust and less face-face interaction between ordinary members, as well as between members and leaders, implying less engagement among members, less pride of one's cooperative, less democratic governance, more difficulties in solving various collective action dilemmas (and, perhaps, more control as a consequence) and, ultimately, bad reputation among investors and consumers. Hence, for obvious reasons the withering of 'soft' values contained in a *social* capital has serious impact on these enterprises' economic performance.

This does, however, not mean that the cooperatives should not follow such strategies. The changing markets very often require value-added processing of the agricultural products. Without such expansion the cooperatives would probably not be competitive enough.

This is also to say that the decision-makers cannot be blamed for the development. They have done what was necessary to do at the time of the decision-making. The development is a consequence of the increasing large scale of agricultural enterprises, the intensified competition due to the process of globalization and technological advances.

Crucial for present and future decisions on business form is, however, that cooperative leaderships *are fully aware of any potential loss or gain in social capital* when changing the status quo of coops that historically have been exceptionally rich on this particular form of capital. As it is, cooperatives' decision-makers have no instruments for estimating how much social capital is lost when they pursue strategies of vertical and horizontal integration and therefore they do not consider this potential loss or gain in terms of social capital in their calculations. Thus, future research should try to establish adequate instruments for estimating the level of social capital within an organization such as a cooperative enterprise so that this value added is also taken into account in any cost-benefit analysis.

References

Bager, T. (1996). *Organisations in sectors. Explaining the dissemination of populations of formal organization in economic sectors – bridging rational choice and institutional approaches*. Esbjerg, Denmark: South Jutland University Press.

- Bakken, H.H and M.A Schaars (1937). *The Economics of Cooperative Marketing*. McGraw-Hill, NY and London.
- Barbalet, J. (2009). A characterization of trust, and its consequences. *Theoretical Sociology* 38: 367-382
- Barton, D. (1989). Principles. *Cooperatives in Agriculture*, ed.: David Cobia., Englewood Cliffs NJ: Prentice-Hall.
- Boehlje, M., J. Akridge and D. Downey (1995), Restructuring agribusiness for the 21st century. *Agribusiness* 11 (6): 493-500.
- Bourdieu, P. (1986). "The forms of capital", in J.G. Richardson (ed.) *Handbook of Theory and Research for the Sociology of Education*, New
- Bourdieu, P. (1989). *Distinction: A Social Critique of the Judgement of Taste*, London: Routledge.
- Calvert, H (1959). *The Law and Principles of Co-operation*, 5th ed. Calcutta: Thacker Spink & Co,
- Centner, T. (1988). The Role of Cooperatives in Agriculture: Historic Remnant or Viable Membership Organization? *Journal of Agricultural Cooperation* 3: 94–106.
- Chaddad, F.R. (2001) Financial constraints in U.S. agricultural cooperatives – Theory and panel data econometric evidence. Unpublished PhD Thesis, University of Missouri – Columbia.
- Chaddad, F.R., and Cook. M.L. (2007). Conversions and other forms of exit in U.S. agricultural cooperatives. In Karantininis, K., and Nilsson, J. (Eds), *Vertical Markets and Cooperative Hierarchies. The Role of Cooperative in the Agri-Food Industry*. Dordrecht, Netherlands: Springer, 61–72.
- Coleman, J.S. (1988), 'Social capital in the creation of human capital', *American Journal of Sociology*, **94**, 95–121.
- Cook, M.L. (1995). The future of U.S. agricultural cooperatives. *American Journal of Agricultural Research* 77, 1153–1159.
- Corporate Governance and Management Control in Cooperatives* (2000). Helsinki: Pellervo Confederation of Finnish Cooperatives.
- Craig, J.G., 1993, *The nature of co-operation*. Montréal: Black Rose Books.
- Delhey, Jan and Kenneth Newton (2005), 'Predicting Cross-National Levels of Social Trust: Global Pattern or Nordic Exceptionalism?', *European Sociological Review*, **21**: 311-327.
- Dohmen, Thomas, Armin Falk, David Huffman and Uwe Sunde (2008), 'The intergenerational transmission of risk and trust attitudes', *IZA Working Paper 2380*, Institute for the Study of Labour, Bonn.
- Fulton, M. (1995). The future of cooperatives in Canada: A property rights approach. *American Journal of Agricultural Economics* 77, 1144–1152.
- Fulton, M. and B. Hueth (2009), Cooperative Conversions, Failures and Restructurations, *Journal of Cooperatives*, 23, i-xi.
- Hakelius, K. (1996). *Cooperative Values. Farmers' Cooperatives in the Minds of the Farmers*. Dissertation 23, Uppsala: Swedish University of Agricultural Sciences, Department of Economics.

- Harte, L.N. (1997), Creeping privatisation of the Irish co-operatives: A transaction cost explanation., *Strategies and structures in the agro-food industries* (eds J. Nilsson and G. van Dijk), 31-53. van Gorcum, Assen.
- Hendrikse, G.W.J. (1998). Screening, competition and the choice of the cooperative as an organisational form. *Journal of Agricultural Economics* 49, 202-217.
- Hendrikse, G.W.J. (1998). Screening, competition and the choice of the cooperative as an organisational form. *Journal of Agricultural Economics*, 49, 202-217.
- Hind, A.M. (1997) The changing values of the cooperative and its business focus. *American Journal of Agricultural Economics* 79, 1077–1082.
- Hind, A.M. (1999). Co-operative life cycle and goals. *Journal of Agricultural Economics* 50 (3), 536–548.
- Hogeland, J.A. (2006). The economic culture of U.S. agricultural cooperatives. *Culture & Agriculture* 28 (2), 67–79.
- Holmström, B. (1999). The future of cooperatives: A corporate perspective. *Finnish Journal of Business Economics* 48 (4), 404–417.
- Huck, S. (1998). Trust, treason, and trials: an example of how the evolution of preferences can be driven by legal institutions. *The Journal of Law, Economics and Organization* 14(1): 44-60.
- ILO Recommendation 127 of June 1966.
- Inglehart, R. and W.E. Baker (2000). Modernization, cultural change, and the persistence of traditional values. *American Sociological Review* 65(1) 19-51
- Krogt, D. van der, J. Nilsson and V. Høst, ()The impact of cooperatives' risk aversion and equity capital constraints on their inter-firm consolidation and collaboration strategies – with an empirical study of the European dairy industry. *Agribusiness*, 23 (4): 452-472.
- Kyriakopoulos, K. (2000). *The market orientation of cooperative organizations. learning strategies and structures for integrating firm and members*. Assen, Netherlands: van Gorcum.
- Lang, K.A. (2006). Cognition, agency theory and organizational failure: A Saskatchewan Wheat Pool case study. MSc thesis, Saskatoon: University of Saskatchewan.
- LeVay, C. (1986). *The Micro Economic Theory of Agricultural Cooperation*. The University College of Wales, Aberystwyth 1986. (Unpublished PhD thesis)
- Münkner, H.-H. (1974). *Co-operative Principles and Co-operative Law*. Institute of Co-operation in Developing Countries, University of Marburg, Marburg/Lahn.
- Newton, Kenneth (2007), 'Social and political trust', in Russell J. Dalton and Hans-Dieter Klingemann (eds.), *The Oxford Handbook of Political Behavior*, pp. 342-361.
- Nilsson, J. (2001). Farmer cooperatives: Organizational models and their business environment. In Birchall, J. (Ed), *The New Mutualism in Public Policy*. London, U.K.: Routledge, 132–154.
- Nilsson, J. and O.Ø. Madsen (2007) Issues in cross-border mergers between agricultural co-operatives, *Journal of Co-operative Studies*, 40(3): 27-38.
- Nilsson, J. and P. Ollila (2009) Strategies and Structures in the European Dairy Co-operative Industry” *Journal of Co-operative Studies*, 42:2, pp. 14-23.

- Nilsson, J., (1998) The emergence of new organizational models for agricultural cooperatives. *Swedish Journal of Agricultural Research* 28, 39–47.
- Nilsson, J., A. Kihlén and L. Norell (2009), Are Traditional Cooperatives an Endangered Species? About Shrinking Satisfaction, Involvement and Trust. *International Food and Agribusiness Management Review*, 12 (4): 103-123.
- Nilsson, J., and Ohlsson, C. (2007). The New Zealand dairy cooperatives' adaptation to changing market conditions. *Journal of Rural Cooperation* 35 (1), 43–70.
- Ollila, P. (1989), Coordination of supply and demand in the dairy marketing system – With special emphasis on the potential role of farmer cooperatives as coordinating institutions. *Journal of Agricultural Science in Finland*, 61:137–321.
- Österberg, P. and J. Nilsson (2009), Members' Perception of their Participation in the Governance of Cooperatives: The Key to Trust and Commitment in Agricultural Cooperatives. *Agribusiness. An International Journal* 25 (2): 181-197.
- Phillips, R. (1953). Economic Nature of the Cooperative Association. *Journal of Farm Economics* 35: 74–87.
- Putnam, R.D. (2000), *Bowling Alone. The Collapse and Revival of American Community*, New York, London, Toronto, Singapore: Simon & Schuster.
- Richards, T.J. and Manfredi, M.R (2003). Cooperative mergers and acquisitions: The role of capital constraints. *Journal of Agricultural and Resource Economics* 28, 152-168.
- Rothstein, B. (2002). Sweden: Social capital in the social democratic state. In: R.D. Putnam (ed.) *Democracies in Flux: The Evolution of Social Capital in Contemporary Society*. Oxford University Press: Oxford.
- Rousseau, D.M, Sitken, S.B., Burt, R.S. and Camerer, C. (1998). Not so different after all: A cross-discipline view of trust. *Academy of Management Review* 23 (1), 393–404.
- Roy, P.E. (1981). *Cooperatives: Development, Principles, and Management*. Danville, IL: Interstate Printers and Publishers.
- Søgaard, V. (1994) *Farmers, cooperatives, new food products*. MAPP project 5, Handelshøjskolen i Århus, Århus.
- Staatz, J.M. (1987). The structural characteristics of farmer cooperatives and their behavioral consequences. In Royer, J.S. (Ed.), *Cooperative theory: New approaches*. ACS Service Report 18, USDA, Washington DC, 33-60.
- Svendsen, G.L.H. and G.T. Svendsen (2004) *The Creation and Destruction of Social Capital: Entrepreneurship, Cooperative Movements and Institutions*. Edward Elgar, Cheltenham, UK, Northampton, USA
- Uslaner, Eric M. (2002), *The Moral Foundations of Trust*, Cambridge: Cambridge University Press.
- Van Bekkum, O.-F. (2001). *Cooperative models and farm policy reform. Exploring patterns in structure-strategy matches of dairy cooperatives in protected vs. liberalized markets*. Assen, Netherlands: van Gorcum.
- Van Bekkum, O.F., and Bijman, J.. (2006). “Innovations in cooperative ownership: Converted and hybrid listed cooperatives”. Paper presented in 7th International Conference of Management in AgriFood Chains and Networks, Ede, Netherlands, May 31–June 1.

Van der Krogt, D., Nilsson, J., and Høst, V. (2007). The impact of cooperatives' risk aversion and equity capital constraints on their inter-firm consolidation and collaboration strategies – with an empirical study of the European dairy industry. *Agribusiness. An International Journal* 23 (4), 452–472.

Vitaliano, P. (1983), Cooperative enterprise: An alternative conceptual basis for analyzing a complex institution. *American Journal of Agricultural Economics*, 65, 1078–1083.

Tables and Figures

Table 1: The problems of vaguely defined property rights in cooperatives with varying degrees of vertical and horizontal integration

Traditional cooperative with far-reaching vertical and horizontal integration	Traditional cooperative operating only in member-related businesses
<i>The free-rider problem</i>	
<p>In a large membership where members are anonymous to each other, each individual may think that something wrong is happening and that somebody has to take action, but “somebody else” should do that. Free riding may be seen also as the individuals’ investment behavior. Furthermore, members may understand that the cooperative’s survival may be threatened by a reduced volume but each of them say that others should be more loyal, not themselves.</p>	<p>A homogeneous membership and small joint assets imply low free-rider problems. A new member benefits from the firm’s existing assets, but the existing members may gain from letting new ones to join freely. Thanks to the new member the volume increases, whereby economies of scale can be reaped. When members withdraw, they cannot take with them the wealth to which they have contributed during their period of membership, but they have still benefited from their membership in terms of favourable market exchanges. Further, a co-operative that operates solely with ameliorating badly functioning markets will have limited capital so the withdrawing member will lose only a small amount.</p>
<i>The horizon problem</i>	
<p>It can not be excluded that the members understand that the cooperatives’ cooperative status is threatened but they might think that this does not matter very much as the problems will not be really serious until the specific member has retired.</p>	<p>Due to a homogeneous membership and a low level of investments, the efficiency losses resulting from the horizon problem may be overshadowed by the fact that members enjoy better functioning markets during their period of membership. In addition, the homogeneous membership includes strong social and economic interdependencies, whereby members tend to have longer time horizons. Members’ utility-maximising behaviour can therefore reach beyond a person’s own lifetime. If the co-operative works only with member-related activities it is likely that its undertakings will consist of simple and stable business functions. Such activities change so little over time that the horizon problem declines.</p>
<i>The portfolio problem.</i>	
<p>With a large and heterogeneous membership and with diversified and complex business operations the cooperative makes many investments which are not in the best interests of all members. This may not only create conflicts within the membership, but it may also give rise to dissatisfaction and alienation.</p>	<p>If a co-operative’s operations strengthen the members’ market position and there is trust between the members, the portfolio problem is less potent. If the membership is homogeneous and if the co-operative firm operates only in the problematic market, all the members will benefit from all the investments and operations in the firm. The firm is not engaged in diversified activities. The activities of the firm are straightforward, becoming less capital-intensive and stable over the years. Hence, it does not matter very much that the unallocated capital is inflexible or that owner-shares are not transferable.</p>
<i>The monitoring problems</i>	
<p><i>As members are anonymous to each other they remain passive even though they are aware of the rising problems of the cooperatives. The individual does not know what is happening, has weak incentives to take action and does not want to use his or her own resources to organize a resistance movement.</i></p>	<p>Neither the follow-up problem nor the decision-making problem is significant under the high member-commitment that is likely if the membership is homogeneous and the co-operative is successful in correcting the market failures that the members may face. The proceeds from the member’s investments are in the form of improved trading conditions, whereby their investments result in positive gains.</p>

Figure 1: Economies of scale in traditional cooperative enterprises: Outcrowding social capital and lowering economic performance.

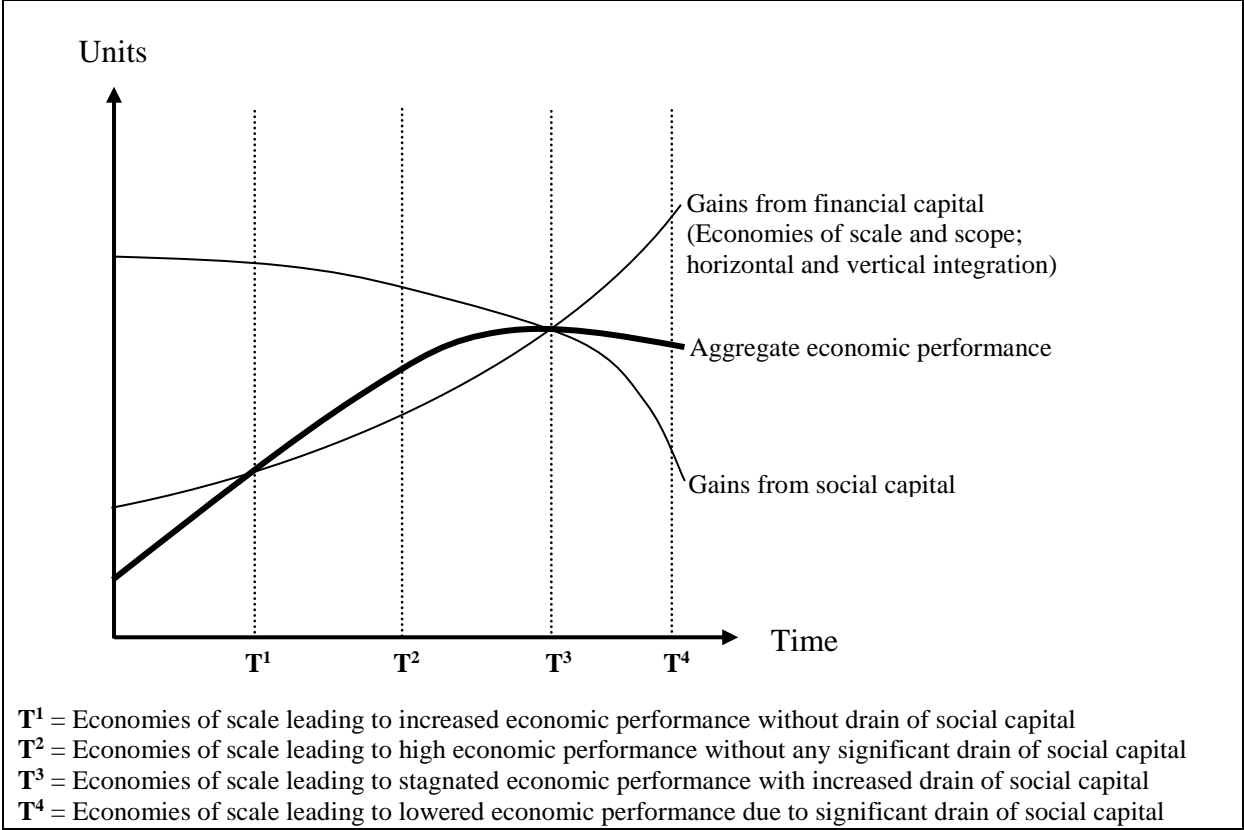


Figure 2. Transformation of capital needed for performing activities.

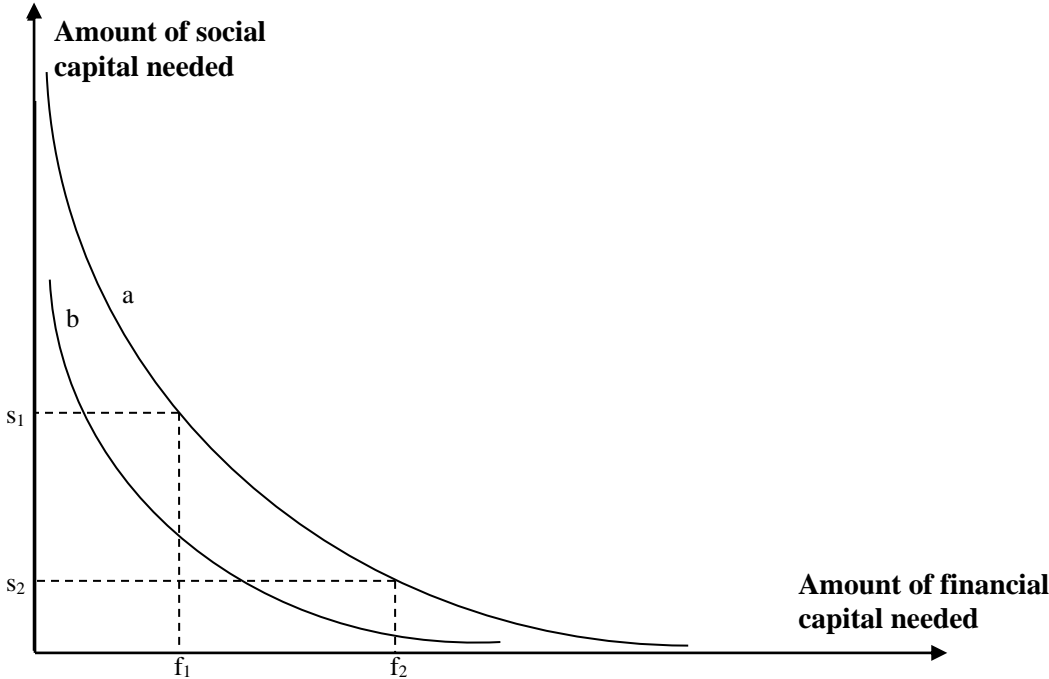


Figure 3: Amount of capital available for an actor to perform various activities.

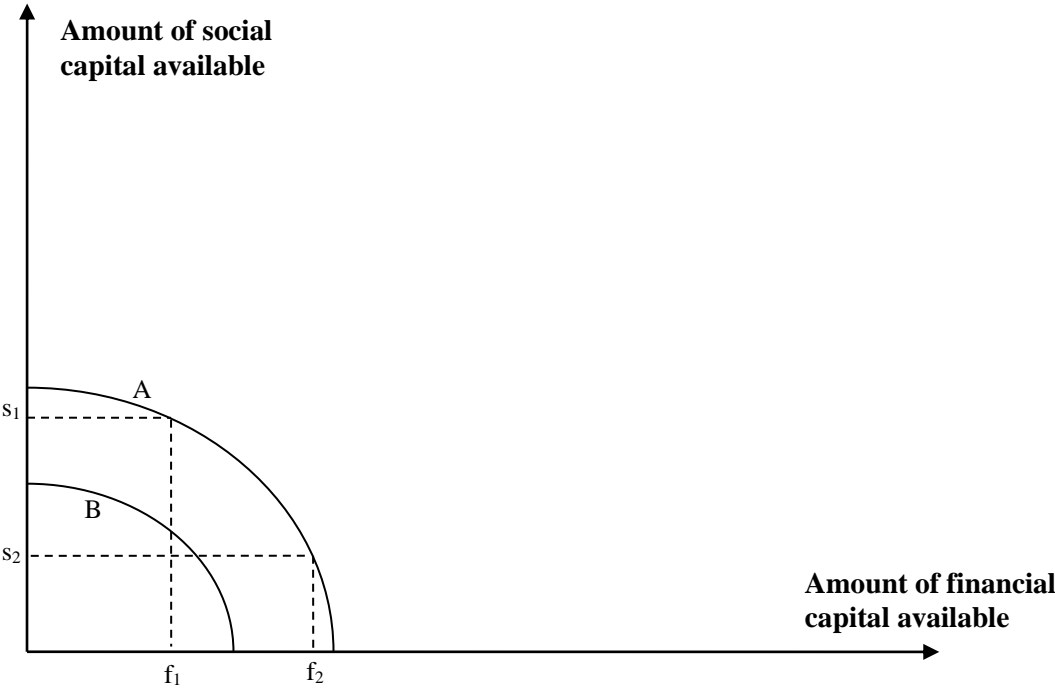


Figure 4: Optimal use of capital by an actor performing various activities.

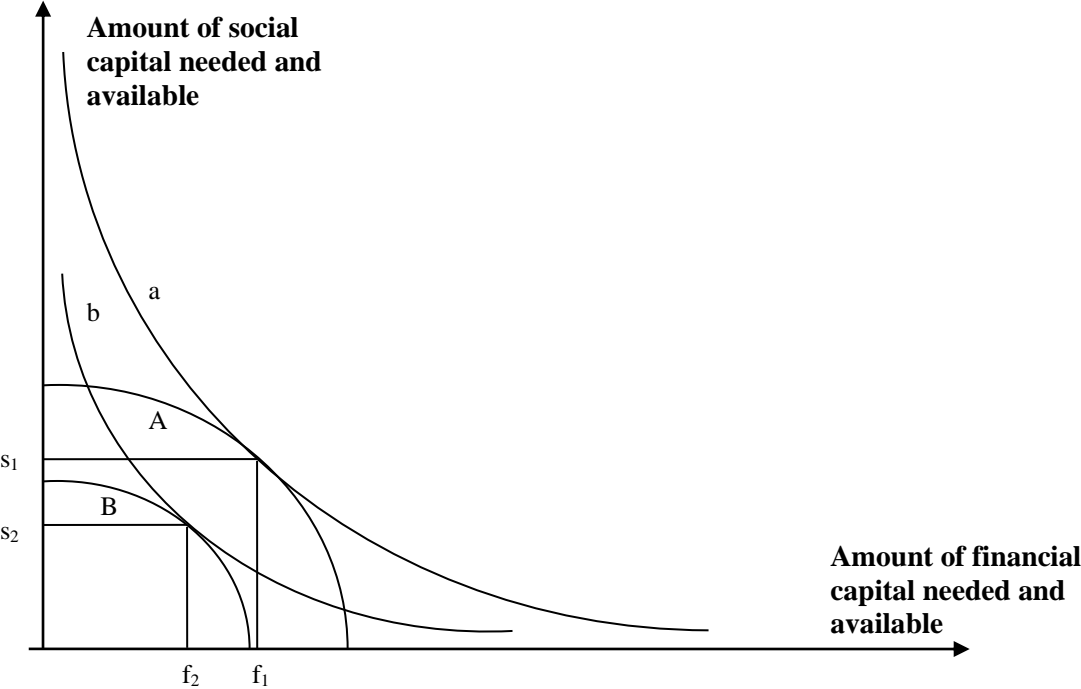


Figure 5: Transformation of capital needed for performing activities that require different combinations of financial and social capital.

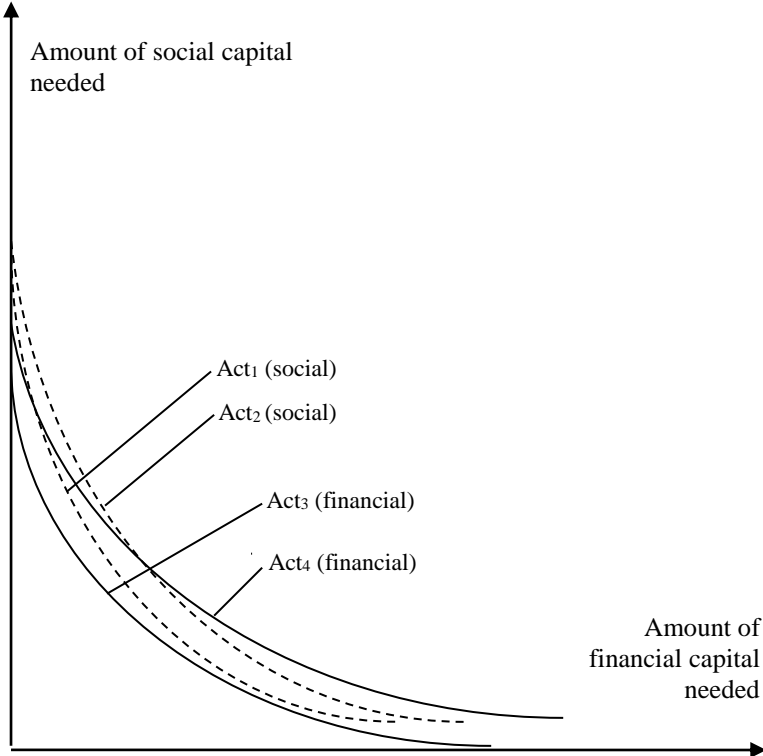


Figure 6: Cooperatives' and investor-owned firms' sets of social and financial capital.

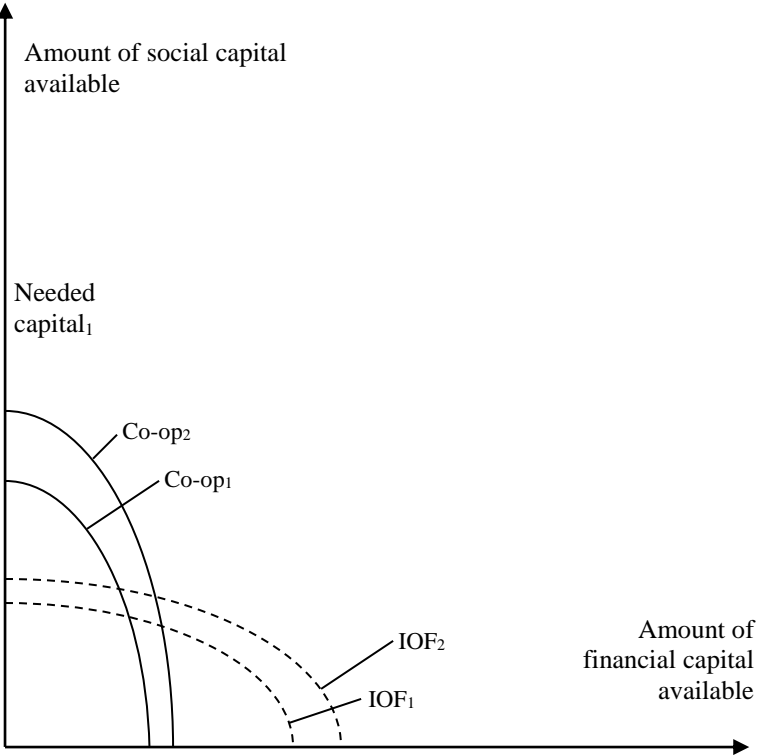


Figure 7: Cooperatives' and IOFs' optimal use of capital for conducting activities, which are best conducted with financial capital.

