Support for Farmers' Cooperatives

Case Study Report

Ownership and control rights transformations: The evolution of the Deutsches Milchkontor GmbH

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European Commission

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Preface and acknowledgements

In order to foster the competitiveness of the food supply chain, the European Commission is committed to promote and facilitate the restructuring and consolidation of the agricultural sector by encouraging the creation of voluntary agricultural producer organisations. To support the policy making process DG Agriculture and Rural Development has launched a large study, "Support for Farmers' Cooperatives (SFC)", in order to provide insights on successful cooperatives and producer organisations as well as on effective support measures for these organisations. These insights can be used by farmers themselves, in setting up and strengthening their collective organisation, by the European Commission, and by national and regional authorities in their effort to encourage and support the creation of agricultural producer organisations in the EU.

Within the framework of the SFC project, this case study report on the Nordmilch and Humana dairy cooperatives and their business cooperation has been written.

Data collection for this report has been done in the spring of 2012.

In addition to this report, the SFC project has delivered 33 other case study reports, 27 country reports, 6 EU syntheses reports, 8 sector reports, a report on cluster analysis, a report on the development of agricultural cooperatives in other OECD countries, and a final report.

We gratefully appreciate the kind support of Otto Lattwesen, Albert Große Frie and Hermann Cordes who have largely contributed to the success of this project.

The authors would like to thank the board members and managers of Nordmilch, Humana and Deutsche Milchkontor for their willingness to collaborate in this project and to share information on structure and strategy of their cooperatives.

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List of abbreviations

APO	Association of Producer Organisations
AG	Aktiengesellschaft (public limited company)
BoD	Board of Directors
CAP	Common Agricultural Policy
CMO	Common Market Organisation
eG	Eingetragene Genossenschaft (registered cooperative)
GmbH	Gesellschaft mit beschr. Haftung (limited liability company)
IoF	Investor-owned Firm
IoP	Investor-oriented Processor
DMK	Deutsches Milchkontor
PO	(recognized) Producer Organisation
OP	Operational Program
R&D	Research and Development

1. Introduction

1.1. Objective and research questions

The imbalances in bargaining power between the contracting parties in the food supply chain have drawn much attention, also from policy makers. The European Commission is committed to facilitate the restructuring of the sector by encouraging the creation of voluntary agricultural producer organisations. At the same time regulations which enable the integration and transformation of existing producer-owned cooperatives vis-à-vis large retailers have been drafted in the "milk package". Agriculture and Rural Development has launched a large study, "Support for Farmers' Cooperatives", that will provide the background knowledge that will help farmers organise themselves in cooperatives as a tool to consolidate their market position**.**

According to theory, cooperative processors develop typical strategies to cope with the financial and legal aspects of firm growth. Apart from board structure professionalization, prominent European and US cooperatives have re-organized their operative business units into more corporate types of organizations like limited liability companies or joint stock companies. Other cooperatives have more and more deviated from traditional principles of cooperative finance and started to develop capital seeking entities, invited investor owners and in recent history partially or even fully transformed into Investor-owned Firms (IoFs). Various theoretical explanations for these observations have been discussed in the literature. The main idea of this case study is to better understand ongoing processes of ownership and control rights transformations in the German cooperative dairy sector. This report provides an analytic narrative on the story of the largest German dairy cooperatives, Nordmilch eG and Humana eG, and the strategic merger of their operational businesses in 2011 to the Deutsches MilchKontor limited liability company (DMK). It's a narrative in that it reviews chronologically important stages of development prior and after the merger of 2011. It's analytical in that it integrates the most important insights and theoretical predictions on the changes of ownership and control structures in cooperatives in a concrete case study comparison. Nordmilch and Humana are key actors on the German and the European dairy market. After the merger, the company which is 100% owned by the two cooperatives unites production of a total of 11,100 active dairy farmers, processing 6.7 billion kilograms of milk in 23 locations employing 5,500 employees. With sales of EUR 4.0 billion (based on 2010 figures) DMK takes its place in the top ten of the European dairy industry. Nordmilch and Humana represent relevant examples for better understanding typical cooperative strategies and the phenomenon of ongoing ownership and control structure transformations in Europe´s cooperative sectors.

In this case study, the following research questions have been guiding the research

- Which development phases of each firm can be differentiated?
- How can they be related to typical stages of firm development known from the life-cycle theory of the cooperative firm?
- What have been the main structural reasons and obstacles for two independent cooperative firms to merge their operative unit?
- What role does the particular business environment in the European dairy sector play in the strategic decision making of the cooperatives?
- What have been the major changes and transformations in control structures and ownership rights and how can one understand why the traditional concepts of the cooperatives have been adapted?
- What policies at regional, national or EU level have been affecting, positively or negatively, the merging activities between the two dairies and what conclusions can be drawn from the cases?
- What remains to be done by policy makers and researchers, respectively?

A similar case study has been conducted within the Support for Farmers' Cooperatives project, which analyzes the Finnish Valio dairy cooperative. Though the Finnish and the German cases have been analyzed separately and are expected to differ in terms of important structural and institutional aspects, we expect valuable and complementary insights from both country cases.

1.1.1. Analytical framework

There are at least three main factors that determine the success of cooperatives in current food chains. These factors relate to (a) position in the food supply chain, (b) internal governance, and (c) the institutional environment. The position of the cooperative in the food supply chain refers to the competitiveness of the cooperative vis-à-vis its customers, such as processors, wholesalers and retailers. The internal governance refers to its decision-making processes, the role of the different governing bodies, and the allocation of control rights to the management (and the agency problems that goes with delegation of decision rights). The institutional environment refers to the social, cultural, political and legal context in which the cooperative is operating, and which may have a supporting or constraining effect on the performance of the cooperative. Those three factors constitute the three building blocks of the analytical framework applied in this study (Figure 1).

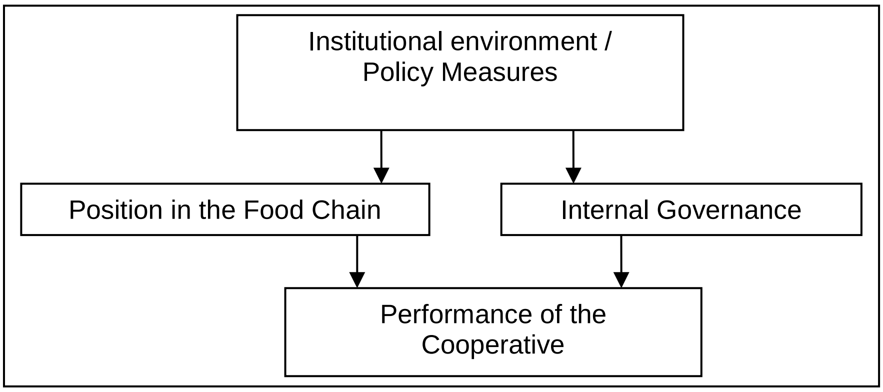


Figure 1: The core concepts of the study and their interrelatedness

1.1.2. Method of data collection

The case study is based on multiple data sources. First of all, secondary data was used such as academic literature, country reports of the Support for Farmers' Cooperatives project, popular press and electronic media, various archives and other sources of information. Additional information has been collected through personal interviews with management and control board representatives of the Nordmilch and Humana dairy cooperatives in spring 2012.

1.1.3. The perspective for horizontal integration

The European and especially the German dairy market have been affected by merging activities of the processing dairies within the last decades. Besides product differentiation and innovation, growth via mergers became and is the most important growth strategy (Heyder et al., 2011). Particularly the cooperative dairy sector has witnessed a crystallization of the structural change in form of an enormous number of mergers. Still in 2005 the German Raiffeisen Association saw an immense potential from further mergers in the cooperative dairy sector, advocating that only six to ten big dairy cooperatives should remain in the market, in order to bundle supply, reduce on a large scale costs and to be able to invest more in research and development (Booz et al., 2005). In the year 2010, each of our two case dairies (Nordmilch and Humana) represent the result of 32 to 42 mergers and acquisitions over the last 25 years.

1.1.4. Structure of the report

Section 1.2 will provide a review of relevant literature. Chapter 2 of this report is aimed to present a chronological description of the two cooperatives under study and their structural changes in the recent years. The analysis of different merging activities and the final merger of 2011 is provided in chapter 3. The following chapter 4 will assess the changes in ownership and control structures from a theoretical point of view and analyse some of the stages in developments presented in the previous chapters. Finally, in chapter 5 we will draw conclusions for the development of the German dairy sector, for EU-reform policy and further research.

1.2. Review of literature

Over the last two decades, the process of concentration in the German dairy industry has been, similar to other dairy markets of the European Union, very dynamic. Starting out from 360 dairy producing companies in 1990, by the year 2009 not more than 99 have survived (RLV 2011). In the year 2009, more than 60% of the milk processed in Germany – Europe´s largest milk producer – was handled by cooperatives (Hanisch et al., 2011). In the year 2011 the first and second biggest players on the German dairy market merged their operational business into the Deutsches Milchkontor (DMK) limited liability company.

In order to produce an "analytic narrative"[1] and at times a rather deductive approach in understanding and explaining the development of the two cooperatives, we will in the next section review the literature on theory and similar cooperative experiences against the background of the broader theoretical context of cooperative development. The first part of the literature review depicts typical problems of organization and collective action that arise during typical cycles of firm growth (Cook 1995). In the second part we will focus on typical motives and scenarios which allow to "predict" the restructuring process of the cooperative firm. We do so in order to specify research hypotheses and questions guiding our own empirical work.

Thus in the next section we will elaborate the key arguments explaining the relation between the institutional and market environments and firm development and the reasons behind the changes in cooperative board structures and internal governance.

1.1.1. Lifecycle approach of enterprise development

Firm theory has drawn much attention to uniform patterns that can be observed alongside the development of enterprises, known as life cycle theories (e.g. Mueller, 1972; Haire, 1964). Because cooperatives are specific in terms of ownership-user relationships, they are believed to follow a distinct pattern of development. In his inspiring work, Cook (1995) develops a life cycle theory of cooperative development, with the aim of better predicting development trajectories of US agricultural cooperatives. He suggests a five stage model, which can be re-entered, by finishing the first circle. The stages are, with special respect to the dairy sector:

1. ECONOMIC JUSTIFICATION – Milk markets have been characterized as being shaped by cyclic waves of excess supply. The establishment of cooperatives by individual producers is justified in order to "bring economic balance under their control, usually because of excess supply-induced prices" or to "countervail opportunism and holdup situations in situations when markets fail" (Cook, 1995, p.1155). Both arguments do well apply to dairy farmers and farmer owned processors. The perishable nature of fresh milk and transaction specific long term investments leave farmers vulnerable to the threats of opportunism and holdup from contractual partners (Bonus, 1986).

[1] For an introduction see: R.H. Bates, A. Greif, M. Levi, J.-L. Rosenthal, B.R. Weingast (1998): *Analytic narratives*, Princeton. Princeton University Press

2. CONSOLIDATION – Cooperatives that are established for the sole reason of reaching binding production limiting agreements among farmers typically vanish, while cooperatives that serve to prevent market failures are highly competitive vis-à-vis their investor-owned counterparts (IOFs).
3. GROWTH – Very quickly, the successful survivors of Cook´s stage 2 experience dynamic growths in terms of market share and member size. Focusing on cost leadership and bulking these cooperatives become a `yardstick´ price setter on the market, first causing price advantages compared to the IOF, because where producers own their processing industry these processors do not operate on the basis of realizing "double margins". In this phase cooperatives realize an advantage and become cost leaders. Growth is the consequence.
   GROWTH-PROBLEMS – Soon the Investor-oriented Processors (IoPs) have to pay similar or higher producer prices when competing with ever increasing cooperative dairies. As the difference for an individual producer between being a member-patron of a cooperative and delivering to an IOF without membership obligations becomes more dispensable, the cost of membership and the cost of investment into future firm growth are beginning to matter. Member owners cannot make claims to the cooperatives future firm value or capital stock. Problems associated with collectivized assets and "ill-defined property rights" occur. In this stage, "vaguely defined property rights lead to conflicts over residual claims and decision control – especially as cooperatives become increasingly complex in their organizational structure" (Cook, 1995, p.1156). These problems can be categorized according to Cook into the following five:
   - The *free-rider problem* appears in an external manner, when benefits and costs of actions are not perfectly aligned to the individuals undertaking the action. For example dairy farmers which are not members of a cooperative profit from a yardstick effect in markets with high cooperative shares (Hanisch et al., 2011). *The internal free-rider problem* refers to a situation in which new members of a cooperative enjoy the same advantages (e.g. milk price as residual claim), as existing members, which have invested in the cooperative before thus incentives for investing in open membership cooperatives remain small.
   - The *horizon problem* results from differences in the planning horizons of the cooperative members. Members which are about to exit the cooperative (e.g. for retiring), are not willing to commit long-term investments as they would not fully profit from the investment in terms of residual claimant rights. In fact older (exiting) members in dairy cooperatives would opt for a maximization of the milk price rather than retaining profits for strategic investments. The in general non-tradability of residual claims in traditional coops causes this problem.
   - The *portfolio problem*: Diverging attitudes to risk (or risk preferences) by member farmers – for example caused by different farm sizes – constitute a heterogeneous risk portfolio. As the proper investment decision depends heavily on the homogeneity of risk preferences of the investor, cooperative investments are believed to represent hardly an optimal risk portfolio (Nilsson 2001).
   - The *control problem* results from the missing external control of capital markets on the performance of the management body of the cooperative – in contrast to publicly limited companies, listed at the stock exchange. Principal–Agent problems between the management (agent) and the members representing control board (principal) arise, aggravated by information asymmetries.
   - The *influence cost problem* represents the cost of rent seeking incentives in contrast to production incentives for members, when a cooperative is active in different business fields (Cook 1995).

The common ground of the first three problems is that they hamper members to invest into their cooperative. However, newer research suggest that not only new institutional economics, but also behavioral science, and thus for example the quality of the business relationship with the dairy and member preferences which exist with regard to the process of firm governance and not only with regard to its outcomes raises or hampers the willingness to invest (Hellberg-Bahr et al., 2011). Two other stages of development deserve our attention:

4. CRISIS – Occurrence of the before mentioned property rights problems and external pressure from the competitive environment makes it difficult to manage the cooperative (Chaddad, 2007). These costs must be compared with foregone benefits in a "complex analysis of tradeoffs" (Cook, 1995, p. 1158). At the end of this stage cooperatives consider three remaining options: Exit, continue or transition (ibid.). These may lead to:
5. RESTRUCTURING – At this stage the cooperative reorganizes – as a response to these above described "five main problems of collective action" – in terms of a change in structure and strategy, based on the three mentioned options.

The observed restructuring process of cooperatives, especially in the dairy sector, during the last decades has led to new typologies which help to classify emerging cooperative models (e.g. Nilsson, 1999, van Bekkum and Nilsson, 2000, Chaddad and Cook, 2004). Part two of the literature review will deal with these models and their relevance for our own analysis.

1.1.3. Models of restructuring and ownership rights changes

As we can see from the previous section, predictions from the property rights theory may largely contribute to our understanding of the changes in the European/German cooperative sector. Over the last three decades, a large number of traditionally organized agricultural cooperatives have modified their organizational form (Bijman and Hendrikse, 2003; Bijman et al., 2012; Nilsson and Ohlsson, 2007).

However van Bekkum and Nilsson (2000) have shown that in addition to the problems of ill-defined property rights, it is also governmental interventions and changing market conditions that play a causal role for explaining cooperative changes. In this regard the global liberalization of dairy markets and increasing competition have forced cooperatives to adapt "structure and strategy" to changing business environments (ibid). In Europe the Agenda 2000 reforms, the Luxembourg reforms of 2003 and the stepwise abolition of the quota until 2014/2015 can be identified as the driving forces on a formerly protected market and in turn the adaptation of board structures and firm strategies.

More competitive markets require cooperatives to 1) Reduce (ownership and control) costs and develop new markets via mergers or acquisitions and to 2) Undertake long-term investments in branding, research and development (R&D) or internationalization, to be able to keep up with their international competitors. For Germany, relatively low levels of value creation (Hellberg-Bahr et al., 2011) and missing internationalization were identified as key weakness which would either lead to cooperative failures or rapid adaptation of strategies to branding oriented and internationalizing market structures (Ebneth and Theuvsen, 2005).

One main investment constraint, cooperatives are facing, are low levels of capital endowment. Therefore a presumed driving force behind the restructuring process is capital scarcity and the need for more equity capital, either by attracting other than member´s resources or by finding ways to raise capital from members.

In order to do so cooperatives can choose between different models (Cook and Chaddad, 2004). Among these models differences in ownership rights prevail as the main distinct characteristic of these organizational models (Nilsson, 1999). Cook and Chaddad (2004) use this ownership rights perspective to develop a typology of new cooperative organizational models[2], whereas

[2] There exists a similar classification by Nilsson (1999).

ownership is understood as residual rights of returns and residual rights of control (Hart and Moore, 1990). This typology views the traditional cooperative, where member-patrons hold all ownership rights, and the IoF, where ownership rights are solely hold by investors, as two ends of a continuum of firm re-organization in the process of restructuring among cooperatives.

For the first three organizational types (named the proportional investment cooperative, the member-investor cooperative, the new generation cooperative) ownership rights remain restricted to member-patrons, while for the other two organizational types (the cooperative with capital seeking entities and the investor-share cooperative), ownership rights are also allocated to external investors (Chaddad and Cook, 2004). Restructuring as an IoF links to the exit option (or demutualization) mentioned in the last stage of Cook´s life cycle approach from above, where residual claimant rights and residual control rights belong (adhere) completely to investors. These organizational examples of the change in ownership and control structures have been empirically observed several times:

- In *proportional investment cooperatives* members invest proportional to patronage. This model has been chosen during the restructuring process of "The Dairy Farmers of America", which even employed a base capital plan (Chaddad and Cook, 2004).
- *Member-investor cooperatives* make use of financial instruments to attract capital from their members independent of patronage. The cooperative net earnings are now allocated on volume of patronage and investment. Thereby residual claimant rights and residual control rights turn out to be ever more separated. This model has been chosen by the Dutch dairy cooperative FrieslandFoods (one of the predecesssors of FrieslandCampina)[3] and by the Australian Tatura Cooperative, which issued redeemable preference shares for their members (Chaddad and Cook, 2004).
- *New generation cooperatives* have as a constituting element residual claimant rights (often in form of delivery rights), which are tradable between members (Nilsson, 1999). This is important as it creates an internal market mechanism in order to have a transparent firm valuation and a value participation of members. New generation cooperatives are particularly effective in solving the horizon and free-rider problem. This organizational type has recently been chosen during the restructuring process of the New Zealand Fonterra cooperative

One of the most popular restructuring strategies of cooperatives in the dairy sector has been the establishment of a *capital seeking entity*, which is usually a public limited company (plc), either stock listed or not, where the cooperative remains independent and holds share. The first to do so was Kerry, a traditional Irish dairy cooperative, which set up a stock listed (plc) to acquire risk capital from outside (Harte, 1997). This model was immediately copied by other cooperatives and has become known as the Irish Model (Chaddad and Cook, 2004).

Besides this "Irish Model" of ownership transformations, where a majority of shares are held public and not by the cooperative – the Kerry Coop keeps a share ownership of only 17.1% of the plc[4] –van Bekkum and Bijman (2007) identify "The Finnish Model", where the cooperative retains the majority of stocks and therewith control.

However, other authors (Nilsson, 1999, Nilsson and Ohlsson, 2007, van Bekkum and Nilsson, 2000) remind us that for explaining ownership transformations not only structure and property rights but also strategy at the market matters for deriving a comprehensive organizational model. Applying Porter´s competitive strategy theory (Porter, 1980), the authors analyze how well the organizational structure of several dairy cooperatives fits to what they claimed to be

[3] When FrieslandFoods merged with Campina into FrieslandCampina, the new cooperative decided to get rid of this complex financial structure. Members are no longer shareholders.
[4] March 2012 http://www.kerrygroup.com/page.asp?pid=125

their pursued strategy alternative on the respective markets, namely "cost leadership", "differentiation" or "focus". The different stages in cooperative development may reflect responses of cooperative management to changes in the market. In the pace of enterprise development, cooperative dairies are believed to outgrow an initial cost leadership strategy becoming more and more differentiated or niche focused. These predictions may or may not comply with the claims of Cook´s Life Cycle model (Nilsson, 1999, Nilsson and Ohlson, 2007).

Up to now our understanding of "changing ownership rights" has mainly focused on the observable changes in terms of rights to ownership in the cooperative firms profit residual. But as the cooperative organization grows it becomes more complex to arrive at an efficient labor division between operative and non-operative decision making.

The increasing firm complexity is believed to motivate the "owners of the enterprise" to reduce the cost of ownership as it relates to both their claims to profit and their claims to participate in decision making. Members have preferences regarding the firm-profit-residual and regarding the process which determines how decisions come into being (Hansmann, 1996). These changes, which are referred to as changes in the internal governance of a firm, are dealt with in the following last part of the literature review.

1.1.3. Internal governance and board structure changes[5]

Governance describes the system of authority direction and control within and outside of the firm which ensures that management works in the best interests of the owners and enables them to obtain the largest possible benefit from their contributions or "investments" (Zingales, 1998, Shleifer and Vishny, 1997). Preconditions for the necessity of a governance system are the existence of appropriable "quasi rents" and a less-than-perfect allocation of the benefits from an economic exchange relation – a situation in which what everyone gets from a deal is neither perfectly clear from an ex-ante point of view nor from an ex post perspective (Williamson, 1985). In a cooperative firm the governance system is then the collection of internal and external mechanisms to protect the interests and investments of the (member-) patrons in ways which shape the ex-post outcomes of their relationship with the firm.

Like in any other type of firm the quality of decision making in a cooperative is a major ingredient for its success. Because the cooperative firm lacks "outside-control" by the capital market, there is a relatively higher demand on internal, self-enforcing mechanisms of authority and control. In what follows, these mechanisms inside the cooperative firm are referred to as "internal governance".

The theoretical literature on corporate governance identifies a number of mechanisms of governance and a number of reasons why the internal governance system of a firm should matter for its overall performance and sustainability. Agency theory provides the starting point for this theoretical discussion (Jensen and Meckling, 1976, Grossman und Hart, 1983). Agency theory takes into account that the owners and the managers of the cooperative may have diverging interests. Given that the information between CEOs and cooperative members is often asymmetrically distributed, incentives for self-interested behavior of the management exist.

The key role of internal governance mechanisms is then to ensure that self-interested managers act in the best interest of the owner-members. Another important function of a firm´s internal governance system is to make sure that declared objectives of the firm are aligned with day to day practice and action. Bureaucratic control, information systems, incentive aligning contracts, a particular business culture and trust and several reputation enhancing mechanisms are

[5] This part mainly bases upon a previous report of the SFC project on internal governance, done by Hanisch, M. and Rommel, J.(2011)

believed to reduce the respective cost of bringing this about (Tirole, 2006, Hansmann, 1996). For the analysis of changes in ownership and control rights it is important to understand how board characteristics such as composition or size affect performance?

For the case of enterprises which are not controlled by market governance from outside the firm the relation between performance and internal governance cannot be fully understood by applying one “grand theory”. Not all of the problems identified by the governance literature on publicly owned firms do equally apply to cooperatives and other democratic membership organizations. Furthermore, because cooperatives lack most of the external mechanisms that help controlling corporations, cooperatives may even have to develop more complex and diverse mechanisms of internal control than their corporate counterparts do. For some problem contexts, the application of the agency approach is even counterproductive because the board of directors may fulfill functions that clearly diverge from the agency approach’s postulates. The board may sometimes function as a political institution reducing the cost of conflicting interests among different groups of members. In other situations, the board may serve as expert advisor or resource network for the management (Cornforth, 2004).

Cornforth suggests applying “a paradox perspective” highlighting the main problems of internal governance and the main tensions that arise (2004, p.13):

- The tension between member representation in interest groups and the need to recruit “expert knowledge” from outside.
- The tension between performance goals and compliance with accountability and prudence.
- The tension between the needs of controlling and supporting the management

Depending on the roles allocated to the board of directors (member representatives, experts, resource network), different assumptions about the underlying incentive problems apply (compatibility of interest between management and directors) and different qualities of board members are needed (expert knowledge, conflict management, political representation, resource-network hub). For the analysis of the quality and role of internal governance, Cornforth (2004) reminds us that the problems that cooperative internal governance mechanisms have to solve may not take one or the other form represented by one or the other theory. Assessing the quality and likely impacts of different mechanisms of internal governance may instead benefit from taking an empirical multi-criteria perspective, simultaneously taking into account several problem dimensions.

Apart from enterprise performance and the alignment of incentives between the board of directors and the management, member heterogeneity, size and ownership dispersion have been marked as impediments to effective internal governance: the wider dispersed is the equity ownership of the firm, the higher the incentives to free ride on each other’s efforts to control the management (Gorton and Schmid, 1998, p.120).

In their study of the dynamics of board models of the thirty largest Dutch agricultural cooperatives Bijman et al. (2012) find that most of the observed cooperatives have indeed undergone changes in their corporate governance structures which affected the relationship between the board of directors and the management. However, no relationship between changes in corporate governance structure and the financial constraints the cooperatives faced could be identified. Thus the questions why cooperatives change their internal governance structures in the pace of growth development is largely an open question and answers may be as manifold as suggested by Cornforth (2004).

In this regard it is noteworthy that the authors manage to identify typical modes of adaptation of the board structures in the 30 largest cooperatives in the Netherlands: The authors distinguish a traditional governance model (1), where the General Assembly (GA) of members elects the board of directors (BoD), the main decision making body which in turn appoints and evaluates the management. Further the GA elects a Supervisory Committee to control the work of the BoD; In the so called "management model" (2), the most important feature is the combination of the tasks of the former BoD with the tasks of the cooperative´s management. The result is a board which largely consists of external professionals; finally the authors identify a board structure variety they call the "corporation model" (3), Here the BoD is united with the Cooperative´s Supervisory Committee (or the legally required Board of Comissioners) (Bijman et al., 2012). Thus the importance of the supervisory committee is increased.

1.3. Specific Questions and working hypotheses related to theory

The literature review allows us to further specify the hypotheses and research questions of the SFC-project in accordance with the applied case study methodology. Because the single case studies do not allow generalization the main analytical aim is to compare the case scenarios with known patterns of cooperative development.

Hypothetical claim to be analyzed	**To be found in work by**
Coop development follows typical cycle stages	Cook, 1995, Chaddad, 2007
Board structure development follows typical varieties identified	Hendrikse and Nilsson, 2012 Bijman et al., 2012
Structure is closely linked to strategy	Nilsson and v. Dijk 1997
Cost Leadership is becoming less important during after growth phase	Nilsson and v. Dijk 1997
Transformation of operative business towards member owned companies not being cooperatives, strengthen property rights and increase profitability	Chaddad and Cook, 2004
Change in ownership and control structures may ease outside investment and reflect the coops search for capital (capital seeking)	Chaddad and Cook, 2004
Changes may reflect the tightening of property rights of members	Chaddad and Cook, 2004
Change in management may reflect needs to reduce control, free rider, horizon, portfolio problems/ decision making cost	Cook, 1995

Table 1: Hypothesis as specified by literature review above

2. Description of the cases

Having the theoretical ideas, brought up by the literature review, in mind, we depict within this section the story of both cooperatives separately, until merging activities started.

2.1. Nordmilch eG

2.1.1. Early development

Nordmilch (North-milk) was founded 1947 in Zeven, a small city in the northwestern part of Germany, with a high density of dairy farms. The main economic problem to which the Nordmilch had to give an answer was oversupply. At the beginning Nordmilch was a private corporation registered as a limited liability company of dairies. The initial business aim was to buy excess milk from local dairies and farmers and to "sell it outside" the members´ markets in the form of milk and whey powder. In 1952, a cooperative society, the "Milchverwertung Nordhannover eGmbH", consisting of 39 cooperative dairies, took over the formerly corporately owned Nordmilch (Nordmilch, 1997). From now on these 39 primary cooperatives owned Nordmilch as their "second tier cooperative", which still existed to collect and process the surplus of the member cooperatives.

During this period, the Nordmilch management was mainly bargaining and trading with single representatives and chairmen of the 39 member cooperatives, and thus had no direct contact to the producers. Slowly it began to grow via acquisitions of nearby processing sites and started a curd branding strategy with its newly established brand "Milram" while at the time the number of member dairies quickly increased to 75.

As Nordmilch collected further acquisitions and started to successfully market curd under the Milram brand, conflicts with the owning dairies emerged, which began to perceive the second tier cooperative rather as a competitor and no longer as a representative of their own interest. In terms of production and marketing, Nordmilch had reached a considerable degree of independence from the primary owner-cooperatives – a development that has often been observed in multi-tier cooperative structures.

Until the milk quota introduction in 1984, delivery volumes, processing and marketing capacities increased steadily (Nordmilch, 1997). After the German reunification in 1991, Nordmilch expanded rapidly into the East German market, and in addition took over dairies in the northern part of Germany. Rapid expansion of Nordmilch further increased the distance between the first and the second level cooperative. Management and the supervisory board decided to introduce an in-house journal in order to better communicate strategies and decision making and the necessities on the dairy markets. In 1993, the group of primary dairies merged into a new gathering cooperative (the Milch-Erfassung-Nordmilch, MEN), which was primarily set up to deliver milk directly to Nordmilch and to guarantee a more stable inflow of milk for the company.

Having had a more or less moderate but constant growth of the business up to now, the horizontal as well as vertical merger of the Nordmilch with the MZO Oldenburger Milch dairy, Hansano, Bremerland-Nordheide and the MEN into the "Nordmilch eG" in 1999 was a quantum leap, resulting in the biggest player on the German market and the fourth largest dairy processing firm in Europe (Nilsson, 2000). One can understand this merger as a response to counter the entrance of the Dutch Campina cooperative into the German market, which at that time was shaking up the dairy business in Germany (Everwand et al., 2007). But undoubtedly the motives behind the merger were as well to enhance the financial basis of the cooperative and to exploit economies of scale and scope in production.

The most important restructuring element of the merger was the abandonment of the multi-tier structure of Nordmilch, which at that time often was held responsible for impeding structural changes and the realization of new strategies of Nordmilch. From now on Nordmilch operated as a primary cooperative, having dairy farmers directly as members. Thus Nordmilch developed from the second tier construct into the one-tier construct. In the pace of this process many positions of directors, managers and the various boards in the primary cooperatives became functionally obsolete. However the "political economy" of realizing this strategy created considerable cost. The move towards a one tier organization had consequences for the at that time difficult relationship between the management of the former second tier and the farmer members which originally did not design that structure.

2.1.2. Stages of crisis and response

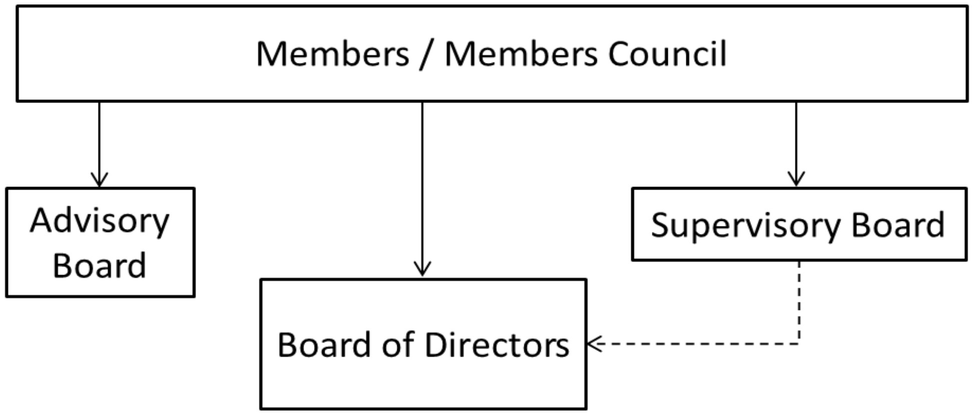
As one of our interview partners has put it "the merger agreement of 1999 was a weak deal". Representatives of each side claimed equal influence in the boards of the newly aligned company. As a result several positions in the management and on the boards ended up being held by two incumbents and additional board positions had to be generated. Soon it became obvious that boards were riddled by control problems. At the same time the EU-dairy market and the market environment became more and more integrated. Strategic decisions required flexibility and quick responses the Nordmilch management could not provide. It was difficult to change the mindset of managers, who had perceived their new colleagues up to this point as competitors. The upcoming control problem was one of the perceived problems responsible for the later crisis of the enterprise. Since 2001 the cooperative ran into severe difficulties.

In 2002, milk producer prices paid by Nordmilch were extremely low, even in relation to the national average. This caused many farmers planning to leave the cooperative, since they did not perceive an advantage from being a member of a cooperative anymore. Within a year, turnover had decreased by 5.6%[6] and Nordmilch was about to face hard times. The board of directors and especially the board of supervisors, both consisting also of honorary positions, were neither able to critically assess and to question the work of the management, nor were they able to suggest a tough but at that time adequate restructuring strategy. This reveals the size of the internal control problem which from a today standpoint has been clearly related to overly complex board composition and structure. Additionally at this time farmer-members held a majority in the managing board. Low producer prices triggered a blockade of restructuring and the emergence of a strategy which aimed at short run maximization of milk prices (Everwand et al., 2007).

In 2003/4 the chairmen of the supervisory board took action. A number of consulting agents were concluding their analysis of the Nordmilch´s problem heralding restructuring. Positions in the operating part of the board of directors were newly staffed. Substantial control rights were shifted from the board of directors to the board of supervisors. The board of directors became the operative unit and after the changes consisted only of professionals (no longer of farmer members). Another short term aim was to have no honorary representatives on the boards. The emerged board structures, which are depicted in Figure 2, resemble, with slight differences, the Bijman (2003) management model, where typically the classical distinction between management and board of directors in the process of restructuring is given up –both create one entity with non-honorary positions – and where the supervisory board absorbs most of the control duties of the board of directors. The reorganization of the internal governance system was only one part of the restructuring strategy of the new governing bodies. The second stage was a tough cut on cost followed by a rationalization process, which led to a disclosure of 11 processing plants and dairies until 2008, combined with a change in strategy (see section on strategy). The process towards the reorganization of the board structures of the Nordmilch is

[6] http://business.highbeam.com/137612/article-1G1-109133435/nordmilch-reshuffle-hot-heels-annual-results-german

described as a learning process relatively uninformed by other dairies´ examples. The main architect of design and changes is the chairmen of the supervisory board and changing characters in the dairy´s management. A key question in a debate about the future internal governance of the firm was the function and placement of honorary posts in member representation and control.



First steps towards a new board structure variety: own illustration, based on Bijman et al., (2012)
Figure 2: Idealized Board Structure of the Nordmilch

According to the chairman of the supervisory board honorary posts are irreplaceable to guarantee member participation and the balance of the control of the cooperative with its operative unit. In order to compensate for formerly direct control and to create an additional mechanism that would increase the capacity of the future office bearers in honorary posts to assess the firm´s strategies, since 2010 regular training courses for up to 110 office holders are organized. The member council is the locus of activity of office bearers in and for the different member regions. They play a role in the organization of elections in the mother cooperatives and organize yearly meetings on regional and local level together with the operative management. The member council has to confirm listed candidates for the supervisory board and is consulted for important management and recruitment decisions.

Establishment of the Nordmilch AG
A remarkable step of the restructuring process was the creation of the Nordmilch AG (plc). This alignment of business professionalization and board structure closely followed the “corporate model” discussed in Bijman et al. (2012). The idea was to re-organize the operative business branch of the cooperative in the form of a different legal entity. In the process the management gains additional autonomy in the operative day to day decision-making. The cooperative as the parent company holds the majority of shares issued by the AG.

Nonetheless in the many discussions about the issue mainly taking place between 2004 and 2007 the idea of external participation, for example by banks as investors (capital seeking), was never fully rejected. One condition for external shareholding was that its size was limited to 24.9 % – the maximum available minority share. As such the Nordmilch followed what has been called “The Finish Model” of restructuring among European cooperatives in which members dominate as shareholders.

Thus one could gain the impression that this quite typical form of restructuring was planned to improve the financial situation by seeking capital from outside investors. But interviewees told us that this was not the motive behind it. One indicator for this is the suspension (2007) of the chairmen of the board of managers, who had clearly opted for more radical steps towards internationalization and making the AG’s shares public.

The initial intention for the spin-off of the AG (plc) was in turn the idea of easing cooperations with other dairies and as a step towards preparing the merger with the Humana dairy. But during the spin-off process Nordmilch´s performance further degenerated. Finally the banks took a closer look to the short term credit conditions granted to Nordmilch. They began demanding a better insight into the operations of Nordmilch and made several suggestions towards having a larger say in the management and control decisions of the enterprise. After a conflict-ladden debate with the management a major bank threatened to cancel credit. This has been a wake-up call for the Nordmilch management and supervisory board which preferred to stay independent from internal influences of financial institutions. After the conflict with the banks had been settled a strategy to strengthen the position and independence of the management was crafted. A focus of that strategy was the increase of its equity capital ratio, to regain control over the conditions for credit.

In order to demonstrate trustworthiness and to strengthen relationships with members the AG issued for the first time profit participation rights (Genussscheine), available for the cooperatives members and employees on a voluntary basis. They are not restricted in terms of the amount of capital given to the Nordmilch and they are based on a fixed interest payment per year for a fixed period (up to 6 years), but carry the risk of insolvency. The specific arrangement made it possible to classify these profit participation rights as equity, but the capital may also be regarded as risk-capital. 10 to 20 Mio EUR are usually held at interest rates between 4-6% p.a.

The planned augmentation of the equity ratio meant a lower milk price for the members and coincided with an unprecedented depression of milk and producer prices in the "European Milk Crisis" 2008/2009, which lead to harsh conflicts with farmer-members and massive protests, culminating in a situation, where farmers left the cooperative. Most of them reentered the cooperative later on, but Nordmilch lost several hundred members to the rival Ammerland cooperative and Rücker (LZ-net, 2006). Regardless of these distortions, the restructuring process was well on its way, and the performance indicators began to increase since 2009. In 2010 Nordmilch merged with the much smaller Dargun cooperative, and took over a large cheese processing plant, where it had held minority shares already before.

	2010	2009	2008	2007	2006	2005	2004	2003	2002
Turnover [th. €]	2.147.284 (2.117.996)	1.880.947 (1.855.520)	2.587.987 (2.557.228)	2.422.198 (2.372.497)	1.955.079 (1.900.608)	2.090.788	2.109.677	2.250.981	2.339.325
Profit before tax [th. €]	23.722 (8.328)	32.078 (20.569)	21.148 (20.569)	32.495 (6.310)	-47.105 (1.123)	6.832	21.104	5.716	10.542
Profit (Net Inc.) [th. €]	16.254 (2.495)	29.643 (18.735)	20.283 (8.393)	31.771 (5.995)	-90.760 (-51.701)	2.686	21.130	-78.777	2.032
Cash flow [th. €]	n.a. (n.a.)	n.a. (56.403)	61.282 (47.627)	78.158 (48.192)	-48.161 (-16.291)	46.742	66.496	-31.576	52.118
Total assets [th. €]	498.026 (528.346)	509.309 (537.864)	493.668 (529.346)	587.027 (616.483)	512.200 (529.346)	54.0734	553.065	593.594	645.900
Sharehold-ers funds [th. €]	163.338 (174.160)	157.531 (159.412)	123.321 (140.684)	105.501 (132.298)	74.370 (124.867)	168.397	159.186	136.000	209.822
Profit margin (%)	1,11 (0,39)	1,71 (1,11)	0,82 (0,34)	1,34 (0,27)	-2,41 (0,06)	0,33	1,00	0,25	0,45
Shareholder return (%)	14,52 (4,78)	20,36 (12,90)	17,15 (6,21)	30,80 (4,77)	-63,34 (0,90)	4,06	13,26	4,20	5,02
Employees	2.433 (n.a.)	2.452 (2.147)	2.538 (2.238)	2.775 (2.487)	2.892 (n.a.)	3.241	3.915	4.031	4.189
Average milk price [€ cent/kg]	30,39	23,43	31,42	32,15	27,15	27,61	27,65	27,34	28,67

Source: Company Data; Milk (producer) prices retrieved from http://www.milkprices.nl/

Table 2: Key Financial Figures for Nordmilch Group; In parenthesis: Nordmilch AG

2.1.3. Strategy Nordmilch

In the literature, typical strategies of cooperatives have been related to their market environment and typical stages in cooperative development. In the pace of development cost leadership strategies have been reported to become replaced by product differentiation and labeling. Nordmilch followed from the early beginnings a cost leadership strategy for mass products as milk powder and sliced cheese. Although Nordmilch has become one of the top ten among Europe´s dairies this focus towards cost leadership in bulk segments well reflects its position in the market and its traditional orientation. By the year 2012 it is still the most important orientation of the dairy.

Besides that, with mergers and acquisitions a multitude of different brands and products accumulated, each of which is requesting investment, costly expertise and specific production channels. From 2004 on the new strategy was to re-concentrate on two core competencies: establishing and defending a Europe-wide cost leadership strategy and building up a second differentiation pillar by expanding the Milram brand. Several other brands were sold, and differentiated processing of an overly large number of products was given up. Hence the number of Nordmilch´s products remained comparatively small and decreased from 2.800 to under 1.000 individual products sold by end of 2005 (LZ-net, 2005). Internationalization has been reported to be an important strategy of food processors (Harte and Moore, 2008). However this strategy is still a problem for Nordmilch. The degree of internationalization rather decreased between 2005 and 2009 (Heyder et al., 2011). Specialized in milk powder and whey Nordmilch is not competitive on the international level. In the future higher investment in research and development will allow Nordmilch to differentiate quality and avoid direct competition with market leaders like for example New Zealand´s Fonterra.

In the next few sections we will characterize the development of the Humana dairy using similar categories and phases of development as for the Nordmilch case. Both firms merged in 2011. The objective of our analysis is to by means of examples better understand this merger and the main logic behind firm growth, structure and strategy decisions in the dairy sector.

2.2. Humana Milchunion eG

2.2.1. Development

Whereas the company name Nordmilch has a long tradition, dating back to 1947, Humana as a name exists only since 1998 on. In this year two cooperatives, the Milchwerke Westfalen (Herford) and the Westmilch Milchunion (Everswinkel), both seated in western Germany, merged into the Humana Milchunion eG, resulting in a total of 7.200 members and the coming into being of the largest dairy group in Germany (Nilsson, 2000). Milchwerke Westfalen was bigger in terms of processing volumes and revenue. Thus, it was decided that the members of the Westmilch Milchunion would enter the new company by exchanging shares.

Both cooperatives share an interesting and eventful history, since they experienced recurring cycles of growth in the form of mergers and acquisitions followed by crises and restructuring phases.[7] The Humana brand was originally created by the Milchwerke Westfalen, which was very well known in the market as a producer of baby food. This relatively high and differentiated profile led to the naming of the newly emerging cooperative ("Humana"). In the pace of merger

[7] One of our interview partners from the Humana Group told us that he witnessed in his career more than 55 mergers with other cooperatives and acquisitions of privately organized firms.

the Milchwerke Westfalen as well as the Westmilch Milchunion abandoned their multi-tier and second tier structures.

The internal organizational structure resembled the Bijman et al. (2012) management model, with the merging of board of directors and the management, even when parts of the board members still consisted of non-professionalized honorary positions. The overall structure resembled, in contrast to the Nordmilch, much more a holding group, where the Humana Milchunion cooperative as the mother firm held the share of several more autonomously working subsidiaries. In the following years Humana expanded rapidly by taking over several other companies, for example the large ice cream producer Sanobub GmbH (LZ-net, 2001).

Increasing capital requirements, resulting from the immense growth phase and jumps in operating revenue and processing has led the cooperative to issue non-voting profit participation rights, which had equity characteristics in 2003 (LZ-net, 2003). As the member farmers were (are), due to low milk prices, not able and not willing to invest and to bear the necessary sums, the German bank WestLB took the whole shares. The higher equity endowment has two effects; it enlarges financial possibilities and it raises creditworthiness, as the equity ratio increases. More importantly, the cooperative issued the shares on its own and therewith became an investor-share cooperative, open to external investors, but without voting rights. Yet, in a medium-term perspective it is planned that the members take over profit participation rights from the institutionalized external investors. An additional external driving force of the equity augmentation were the new regularities resulting from the Basel II accord, which demanded a higher compulsory equity share for companies (LZ-net, 2003). With this new equity Humana was able to continue the growth path, and presented overall convincing business indicators.

	2010	2009	2008	2007	2006	2005	2004	2003
Turnover [th. €]	2.027.140	1.716.993	2.202.850	2.194.541	1.896.559	1.825.953	1.778.499	1.783.061
Profit before tax [th. €]	10.476	7.436	11.319	15.656	-4.000	4.458	5.144	7.405
Profit (Net Income) [th. €]	5.796	9.562	8.636	15.050	206	1.746	484	17.905
Cash flow [th. €]	47.529	51.564	47.823	54.054	34.549	38.750	40.939	57.533
Total assets [th. €]	601.886	542.050	538.249	619.354	608.933	536.890	540.079	585.206
Shareholders' funds [th. €]	191.406	175.188	177.111	171.017	142.649	142.147	154.849	159.278
Profit margin (%)	0,52	0,43	0,51	0,71	-0,21	0,24	0,29	0,42
Shareholder return (%)	5,47	4,24	6,39	9,15	-2,80	3,14	3,32	4,65
Employees	3.007	2.833	2.710	2.920	2.941	2.866	2.858	n.a.
Average milk price [€ cent /kg]	30,02	25,06	35,20	33,54	27,76	27,99	28,54	29,34

Source: Company Data; Milk (producer) prices retrieved from http://www.milkprices.nl/

Table 3: Key Financial Figures for Humana Group

Beside the generally good business development, Humana went through a severe reputational crisis in the year 2003. Because the content of Vitamin B1, caused by miscalculation, was too low in a soy-milk product sold to Israel, two babies died and several others carried away severe handicaps. Humana had to pay a compensation of 25 Mio € to the families. This amount equaled more or less the inflow from the participation rights and caused heavy financial problems in the cooperative, which indicates how small the capital basis and especially the reserve funds are. In the long-term the cooperative recovered and was able to absorb these costs.

A planned mega merger in 2007 with southwestern German dairy cooperative Milchunion Hocheifel, and with the northern Hansa-Milch which would have clearly dominated the German market, failed because of missing member support from the partners. Nonetheless, Humana further restructured its business, closed several unprofitable dairy sites and sold the ingredients producing daughter Satro Gmbh to the competitor Campina, which finally led to a further increase in equity.

Establishment of the Humana GmbH
The restructuring process was completed in 2009 with the spin-off of the complete operative unit into the Humana Milchindustrie GmbH (limited liability company), of which the cooperatives Humana Milchunion, Küstenland Milchunion Mecklenburg-Vorpommern and the Milchwerke Thüringen are the shareholders. The new operative GmbH would manage the whole business of the group and milk prices were equalized between the cooperatives. One reason why Humana, in comparison to Nordmilch, organized the whole operative business in a separate entity relatively late is that they already outsourced most of the relevant businesses into subsidiaries, as for example the baby food production Humana. Nonetheless, the spin-off of the GmbH eased cooperation and the planned merger with Nordmilch.

2.2.2. Strategies of Humana

In its earlier stages Humana, or better, its constituting cooperatives, followed a clear price leadership strategy in the market. Growth and cost-reduction were the aims in the respective areas of bulk production of fresh milk, UHT-milk, or standard cheese. Therefore the cooperatives needed a steady increase in milk delivery, hence an increasing number of members, to exploit economies of scale. On the other hand, with changing market conditions, especially caused by the introduction of the milk quota in 1984, the cooperatives had to change their strategy. They increasingly tried to differentiate production lines from rival dairy processors by intensive branding. Several parallel production lines coexisted within a "processing and usage-hierarchy"[8], fully dependent on the respective ad-hoc price levels. Because by that time prices were highly depending on the CAP -intervention policies, the usage-hierarchies had to be flexibly adapted. A special internationalization strategy was not adopted. Only in Humana baby food a higher share of the turnover originated from international sales. In the year 2005, an analysis on the internationalization and performance of European dairies revealed the low foreign activity of Humana, as well as of Nordmilch (Ebneth and Theuvsen, 2005). For the years 2005-2009 a second analysis shows an even falling degree of internationalization for Humana (Heyder et al., 2011).

2.3. On alliances and failed mergers

Already in 2004, Nordmilch and Humana planned to merge their cooperatives societies. The new entity would have been, next to Arla, FrieslandFoods and Campina, one of the largest dairy producer cooperatives in Europe. But the merger failed due to financial problems of Nordmilch, which resulted from the crisis in 2002/2003 and the beginning restructuring phase. Humana was not willing to merge until a full recovery of Nordmilch would be achieved.

Companies that on the one hand want to grow and exploit scale advantages in production and on the other hand are not willing to merge, or restricted to do so by competition policies, have the possibility to enter into a strategic alliance or to found joint ventures. In dairy production, strategic alliances have another advantage, since production peaks may be buffered by the alliance partner. The strategic alliance between Nordmilch and the Finnish Valio dairy

[8] This term has been introduced by one of our interview partners.

cooperative, starting in 2006, is one example, of how Nordmilch tried to optimize production capacities. Another example of collaboration started in turbulent times. Irrespective of the failed first merger between Humana and Nordmilch, the two cooperatives founded the Mopro-Nord GmbH subsidiary in 2004, where each of the two companies held 50% of the shares. The subsidiary operates up to now a factory to refine whey, a by-product of cheese production. Since both cooperatives are large producers of cheese and the profitability of whey refining is particularly scale dependent, the factory in eastern Germany was the first successful business collaboration of the two cooperatives. In 2006 they renamed the joint venture into Wheyco GmbH, reflecting the international orientation, which remained up to now a daughter of the recently established DMK.

Later on in 2008, Nordmilch and Humana created a new collaboration called the Nord-Contor GmbH, which operated as a sales department for both cooperatives. This close collaboration was a first test whether the antitrust agencies would allow a cooperation of the two biggest dairy processors on the German market. Eventually, the German Cartel Office decided that collectivization of the distribution would not result in a "market dominating position of the involved parties" (Bundeskartellamt, 2009). Further collaboration was not precluded by the antitrust agency, a factor that has definitely paved the way to the final merger of the two cooperatives in 2011.

3. The merger to the Deutsches Milchkontor of 2011

In spring 2011, after a long preparation and harmonization phase, the regional deputies from Nordmilch and Humana voted separately with an approval of 98.5% and 93.3% respectively in favor of merging the two operative units of the cooperatives. The cooperatives themselves remained independent, though. The new operative unit, the Deutsches Milchkontor (DMK GmbH) limited liability company, is owned equally by the Humana Group and Nordmilch. The DMK unites 11,000 dairy farmers in Germany, generates a turnover of over 4 billion EUR and processes around 6.7 billion kg of milk.

In some of the northern milk collecting areas in Germany, the DMK has now markets shares of 40-50% and even higher (Fahlbusch et al., 2011)

In contrast to the failed merger between Humana and Nordmilch in 2004, the merger of 2011 was preceded by a long lasting assessment and harmonization phase. Learning from the difficulties of the first merger and from the successful merger of FrieslandFoods and Campina to FrieslandCampina in 2008, they adapted a stepwise merger framework, beginning with the exchange of raw milk, proceeding with mutual brand production, converging into the common sales management, and completing with the merger in 2011. The high equity ratios guaranteed that both met on a par with each other, unlike in 2004.

Main reasons for merging the activities were the possibility to bundle quantities in the German dairy market, to stand on a better financial basis in order to access foreign growth markets (especially Asia), to exploit investment and R&D synergy effects and to reduce costs of delivery, processing and marketing. Part 3.1 of this section will describe the organizational structure of the DMK, followed by the upcoming merger of the cooperatives in 3.2. Part 3.3 will describe the firm strategy.

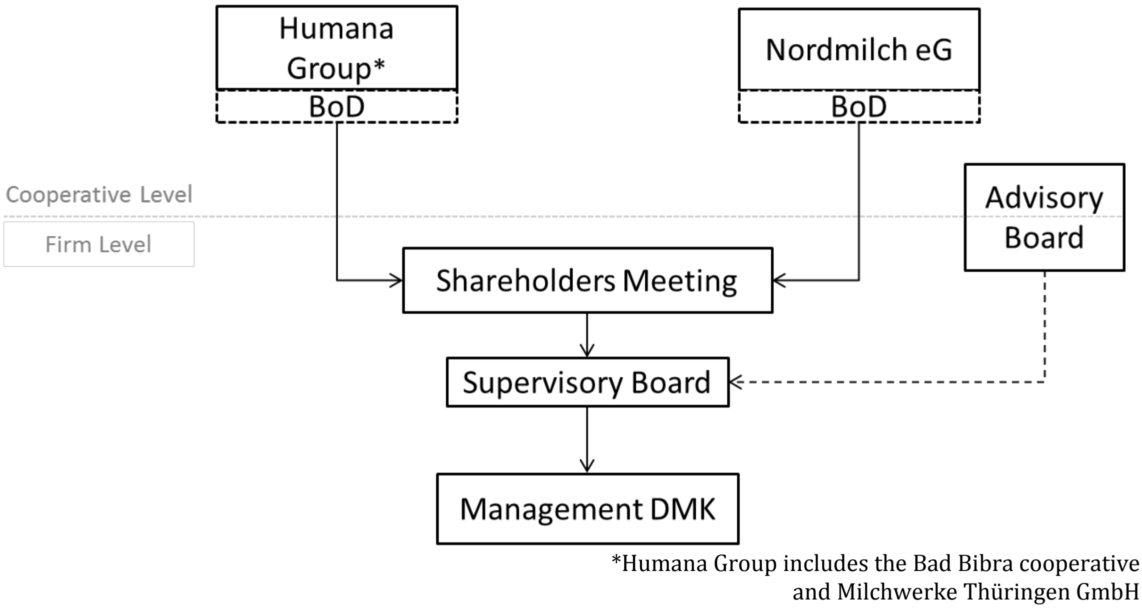
3.1. Firm ownership and board structure of the DMK

The new DMK has a complex corporate structure. An idealized model is shown in Figure 3. On top are the shareholders of the DMK limited liability company, which consist of the Nordmilch and the Humana group, which is made up of the Humana cooperative, the Bad Bibra cooperative and the Thüringer Milchwerke GmbH. Each of these firms is an independent legal entity, hence the cooperative legislation requires them to have own boards of directors and supervisory boards. However, these boards have no operative character. To guarantee that the interests of the different shareholding groups are equally represented in the DMK, the boards of directors of the cooperatives form the shareholders meeting (§48 GmbH-law) which is a permanent institution in the structure, having a wide range of competencies. It consists of 12 members, six from the Nordmilch and another six from the Humana group.

Thus, even in a slightly indirect manner, it is guaranteed that the farmers, which are the members shareholders of the cooperatives, are the proprietors of the DMK. The supervisory board, which has its legal origin in the German co-determination law[9], must consist equally of employee and shareholder representatives. The former part is elected by the employees, and must include two labor union representatives, the shareholder part is elected by the shareholder meeting, but the advisory board has proposal rights for the posts. However, the supervisory board does not consist of external professionals. The advisory board itself is a classical cooperative institution, which is assembled from the honorary working regional deputies of the cooperatives, and consists currently out of around 120 representatives. For staffing the shareholder side of the supervisory board, each candidate has to pass through an assessment

[9] §1 and §6, German Mitbestimmungsgesetz

center, which creates a ranking, upon which the advisory board can base its proposal. The Management is appointed by the supervisory board, upon suggestions from the staff council of the DMK. Thus in effect the supervisory board holds not only control rights, but also central governing elements of the cooperative.



Source: Own illustration

Figure 3 Idealized structure of the DMK

Together with the shareholders meeting, we can suspect here a variation of what Bijman et al. (2012) has called “the corporation model” of board structures. Under the management of the DMK are around 26 subsidiaries, and sub-subsidiaries coordinated, including the foreign sales management. The management positions are most of the time not internally recruited, but staffed with outside business experts. Beside this corporate structure, the cooperatives have 35 yearly district assemblies and organize 80 “DMK vor Ort” (DMK on-site) meetings to strengthen the relationship between members, the cooperative and the operative unit.

The producer price level is still decided separately by the directors’ boards of each cooperative, often resulting in different milk prices paid to members. Additionally, both cooperatives have a “management” without operative business. To reduce the complexity of this organizational structure and as a final step in the collaboration, the cooperatives plan to merge in 2012.

3.2. Upcoming merger of the cooperatives

Having two separate cooperatives, each consisting of a different membership, own boards, and own governance culture, causes high decision making costs for the DMK. Consequently, and as a finally step, the Humana cooperative and the Nordmilch cooperative plan to merge by the end of June 2012 to the DMK eG cooperative. The Merger shall integrate also the Bad Bibra cooperative, but until now not the Thüringer Werke GmbH. The aim is clearly to make structures more efficient, and to arrive at one coherent decision making process. This for example settles down, in one uniform producer price for all farmers[10]. However in this process it is not expected, to arrive easily at one consistent price formula for all producers, without neglecting specific

[10] Obviously not all dairy farmers receive the same price per kg delivered milk. Different bonuses, as for example a quantity bonus, have to be considered.

interests, since the pre-merger pricing mechanisms of Humana and Nordmilch differed significantly[11].

Other problems include the equalization of the cooperative shares while merging. This is why the cooperatives decided to choose the stepwise approach by first merging the operative unit, and afterwards getting together the cooperatives.

Within the organizational structure there will be small changes in the future. The shareholders´ meeting shall be scaled down to only eight members, instead of twelve, and the target size for the advisory board is around 80 members, reflecting exactly the DMK districts, instead of 120.

3.3. Firm strategy on the dairy markets

The DMK does not change the strategy inherited from Nordmilch and Humana. It is still a bulk producer of the so called “white line” and cheese. For cheese the DMK continues to follow a successful cost leadership strategy in Europe, specialized in (half-) sliced cheese. Nearly half of the delivered raw milk is directly used for cheese processing. To strengthen the portfolio, the DMK builds secondly upon growth in the brand business, namely ice cream (Sanobub), baby food (Humana) and the traditional Milram brand. The DMK still invests in quality improvements of milk powder, following a differentiation strategy to strengthen foreign market positions.

One increasing problem the product portfolio of the DMK is facing, are the shrinking demands for dairy products in the domestic markets (Schwaiger, 2012). As most of the surrounding national markets experience oversupply situations, the DMK tries to strategically expand the foreign business activities in Asia and North Africa. Profiting from these emerging markets is in the perspective of the DMK the only chance to grow, apart from horizontally growing via mergers. The DMK is still searching for partners to grow domestically, but also transnationally, which can be illustrated, for instance, by the (failed) merger attempt with the Dutch DOC Kaas cooperative.

Cost leadership, branding and internationalization strategies require strong and stable financing mechanisms. Besides one of the most relevant sources of financing – members’ shares –, the DMK builds upon internal financing via profit participation shares and retained profits and upon external financing via loans and credits. Particularly the retaining of profits for investment (summing up to around 20 Mio € each year) and the profit participation rights must be seen here as crucial for collecting risk-capital and for financing growth strategies.

[11] In spite of these considerations, the delegates’ meeting of both cooperatives enacted at the end of June 2012 successfully a common milk delivery regulation (Milchlieferordnung) and statutes that apply for all members of the DMK eG.

4. Comparing Humana and Nordmilch

In this section, we analyze the evolution of the two above described cooperatives to the DMK from a life cycle and from an ownership perspective, supported by the discussion about changes in the corporate structure of the cases.

4.1. Life cycles and specific problems

The life cycle approach of Cook suggests that the development of agricultural cooperatives – at least for the US case – follows a uniform pattern, of foundation, growth, crisis and restructuring. Out of the five described property rights problems, we think that three are playing a role for explaining the development of Nordmilch. The most obvious is the control problem after the merger of 1999, where the internal mechanisms were not strong enough to effectively control the decisions of the management. Especially the difficult dependencies between the honorary posts and the full-time employed professional management are prominent at that stage.

Secondly, the free-rider problem plays a role, since a lot of farmers quitted membership during market-induced low price phases and tried to re-enter when the cooperative augmented the prices, thus leaving the remaining members to bear the whole costs in the form of lower producer prices. Another kind of free rider problem occurs as Nordmilch gives out milk absorption guarantees, which in times of high prices motivate some members to artificially boost production creating a problem of oversupply and difficult planning of production for all members.

Finally, the horizon problem plays a minor role, since in most of the cases the planning horizon of dairy farms is continuous, as the farm takeover is guaranteed by a new generation, often family members, and thus the cooperative shares are kept with the farm and are not redeemed. This is especially the case in Northern Germany, where farm sizes are far above the national average, in contrast to the South. These problems in combination with external pressures from the market environment and its creditors, led Nordmilch into a serious crisis. From here on a long process of internal restructuring began, ending with the establishment of the DMK.

In contrast to Nordmilch, the Humana cooperative was established as a first tier structured cooperative with dairy farmers as direct members. Having had a similar phase of growth, we cannot easily identify one typical stage of crisis in time. Nonetheless, observing that Humana was searching for a better capitalization around 2003 and that members at that time were not willing to supply further capital, indicates that in the background similar problems like in Nordmilch were occurring with a tendency towards changing ownership and control structures.

At Humana, the horizon problem has been identified by our interviews as more relevant than in the Nordmilch case. Older members in the Humana Group were and are principally interested in maximizing the short-run maximization of the producer price. This fraction in the membership is much harder to convince to support growth strategies while the younger farmers are much more interested in strategic development and more focused on the mid- and long-term orientation and management of the cooperative. This could partially explain the observed investment problems of 2003. The scandal on Humana baby food has overshadowed other problems of development and clearly increased the pressure towards restructuring.

4.2. Restructuring

According to the above mentioned theory, which was derived from empirical observations, agricultural cooperatives, impaired by property rights related problems, choose in their restructuring phase between several models. Additional to these internal problems, Humana and

Nordmilch had to respond to drastic changes in the market environment, caused mainly by liberalization and increased competition on the dairy markets.

At a first glance it seemed that both cooperatives opted for the capital seeking entity model in form of the AG/GmbH to finance strategic changes, and to solve their internal problems. But their operative units were not established as the `Irish Model´ would suggest, since residual claim and control shares were completely held by the cooperatives. Reasons for setting up the operative units as separate entities can on both sides be found in the facilitation of the merging process, and in the relatedness to establish more flexible governance models.

Being not able (or not willing) to finance investments via external investors, which could imply control rights from outside, led Humana as well as Nordmilch to issue profit participation rights. Since these are set up in the form of non-voting but fixed interest bearing voluntary shares, a separation of residual rights of control and residual claims is achieved. Members or employees, holding profit participation rights, gain in first instance from realized business profits, followed by the residuum's' allocation to the reserves and finally to the farmers in form of compensation payments (patronage). This pattern makes Nordmilch, Humana, as well as now DMK a member-investor cooperative on a voluntary basis. Nonetheless both cooperatives are still open to new members, shares are indeed obligatory and based on delivery volumes, but not tradable among members, what makes them different to new generation cooperatives.

Regarding that at the core of the restructuring forces an investment problem with capital shortage can be analyzed, it is suspected that the Nordmilch and Humana restructuring was not as extensive as in comparable dairy cooperative cases, because both were able to refinance at low capital costs on the credit and loan markets, and in addition each year a substantially share of the profits is retained as investment capital.

After restructuring, a final step of the common history was the merger, which took place within the operative units of the cooperatives. Both operative units already took the form of a corporation with much leaner structures of boards and representation. In the process, Nordmilch finally gave up the joint stock company design of its operative unit and merged with Humana in the form of a limited liability company. This move and the final design of the DMK seems to be a consequence of the experiences the two cooperatives have had as major players on the market and as typical scenarios of the development of cooperatives in the food chain.

5. Overall conclusions

The emergence of the Deutsches Milchkontor GmbH has been analyzed against the background of contemporary experiences and theories of the organization and strategies of cooperatives. Theoretical findings are used to combine case evidence with hypotheses to analytic narratives of the cooperatives´ responses to market developments and firm growth.

We show that many decades ago both cooperatives started as traditional producer-owned organizations and are still owned by the dairy producers today. We show how structural imbalances in the market and strategies of cooperative cost-leadership have triggered a very dynamic scenario of firm growth in both cooperatives. As theory predicts, in this scenario both the internal governance of the traditional cooperatives and the control over typical problems of collective action among farmer-owners, pose challenges to firm development.

At the same time increasing competition among dairies and the global concentration of supermarket chains push traditional producer organizations towards professionalization and flexible decision making which can no longer be assured by traditional varieties of board structures and operational management. Both dairies organize about 10,000 to 12,000 members and decide to separate operational management from the internal governance of the cooperatives. In the presence of felt control problems, both dairies also decided to reduce board sizes.

As such, the developments analyzed seem to have followed predictable trajectories of cooperative professionalization. Different to theory predictions is that the involvement of outside investors or cooperative activities of capital seeking cannot be observed. The dairy is operating as a limited liability company because this goes hand in hand with a simple board structure based on shares and allows a separation and flexibilization of the operative business and eases mergers and related decision-making about representation in management boards.

The DMK-firm is "one-hundred per cent" producer-owned. This has consequences for the orientation of the firm. Different to what has been claimed by theory is the business orientation of DMK. DMK is regionally and nationally active and only to a relatively small extent engaged in international business. The same applies to theory predictions about increasing differentiation: DMK does what farmers expect of it. It bulks produce, strives towards cost leadership and concentrates on comparatively few labels. Thus claims towards changing orientations towards growing internationalization and large and sometimes risky investment in product differentiation are not or not yet fulfilled in the DMK.

Early business alliances between Nordmilch and Humana have been the subject of anti-trust and cartel considerations. The agencies applied no restrictions to future cooperation of the two firms and have so paved the way towards the formation of the DMK. In an earlier study Hanisch et al. (2011) have demonstrated how and why strong cooperative sectors in the dairy markets benefit not only their members but dairy producers in general. An explanation provided the yardstick effect of the cooperative sector which has been found to be effective in the EU-27.

Critical voices about the upcoming "giants" at the dairy markets have been raised. However, by the time of writing this study Arla Foods, a dairy cooperative company with member-owners in Sweden, Denmark and Germany sets out to merge with Milk Link in the UK and at the same time with Milchunion Hocheifel (MUH). The expected turnover amounts to about 9 billion EUR for the year 2012. This example indicates that in the years to come the race to size in the dairy market will continue and competition legislation will have to deal with it.

In the food sector, known imbalances originate from the retail side. The European “supermarket revolution” of the 1970s and 80s has given rise to just a handful of food retailers. Neither national cartel and antitrust agencies nor EU-competition law have managed to successfully restrict these largely international companies and the evolution of a quite imbalanced market environment. In the dairy sectors, producers have to deal with shrinking margins in a particularly imbalanced market environment. Findings from the new industrial organization literature (see Clarke et al., 2002) suggest that if imbalances cannot be reversed it may be a second best policy option to at least allow for the emergence of equally imbalanced structures on both sides of the market. The laisser-faire policy of anti-trust and cartel agencies can be interpreted in the light of this argument.

For the support of farmers´ cooperatives several issues related to the particularities of the cooperative firm have to be considered. With the growth of cooperatively-owned processors known problems of collective action, weak property rights and firm control gain momentum. This creates challenges for farmers´ cooperatives because the benefits of necessary professionalization may be countered by increasing agency problems between owners and managers. Professionalization of the cooperative “rightly understood” requires not only the restructuring of boards but also an increase in intra-firm communication of management decisions and in the capacities of those representing the farmer-owners in these new structures vis-à-vis highly professional managers. As an example, after a period of crisis and reconciliation the DMK has invested a lot into capacity building and training initiative for strengthening the relationship with 120 elected representatives of farmer members.

Though the demand for well-informed and professional representation will increase, in the future it remains to be checked if it makes sense that every large cooperative sets up its own program of training and capacity building for member representatives. For answering this question, cost-benefit considerations may be as important as the question of qualifications and scholarly independence. To avoid that internal communication, trainings for member representatives and efforts to complement changed responsibilities with the introduction of auxiliary boards simply degenerate to fig leaf activities on the way to the stepwise transformation into a management- or investor-controlled enterprise, these issues have to be taken seriously.

This claim is not a claim by itself. Farmers´ cooperatives enjoy exemptions in competition law and in the proposed restrictions on the maximum market shares of dairies on national and EU-level. These exemptions rest on the assumption that cooperatives differ in important aspects from Investor-owned Firms (IoFs). As was shown above, these exemptions may be well substantiated. However, to qualify for such exemptions in the future not only farmer-ownership but also the de-facto cost of participation and control may become more important than they are today. Cooperatives´ own efforts to increase the capacities of their member representatives may become an element among other qualifying criteria of good cooperative practice in this regard.

Legislators together with cooperative associations and education institutions may join forces to support farmers and their cooperatives in efforts to – in the pace of necessary professionalization – maintain “the cooperative difference” in Europe´s large producer-owned dairies.

Finally, in the near future liberalization and quota abolition will characterize the market environment for dairies. Many cooperatives, just like our case examples, are planning to continue policies of unrestrained acceptance of milk from members in order to signal secure delivery and reassure their members from the difference between cooperative membership and contracting with a private dairy. In this, the commitment of members to announced delivery plans will become important voluntary and cooperatively-minded instruments. Freedom of contract will be a necessary ingredient of the institutional environment enabling cooperatives to experiment with and find optimal arrangements between members and their processing unit.

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