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# How Can Transaction Cost Economics Add to the Understanding of New Contractual Formats in the Norwegian Agri-food System?

Svein Ole Borgen  
Agnar Hegrenes

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<b>Authors</b>	Svein Ole Borgen, Agnar Hegrenes
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# Preface

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The Norwegian agri-food sector is under rapid transformation, one aspect of which is increased use of diverse contractual arrangements between farmers and their customers. The significance of new types of contracts has been more debated in other European countries and USA than in Norway. This situation may be caused by the fact that contract farming has been less frequent in Norway, and that the national framework for regulating farming activities have been very extensive and detailed.

The research project “Market coordination through new contractual arrangements” (Markedstilpasning gjennom nye kontraktsformer) financed by the Research Council of Norway attempts to bring forward information on the use of contracts in the Norwegian agri-food sector, both from a theoretical and practical point of view.

This working paper is a relatively broad discussion of how Transaction Cost Economics can add to the understanding of the transformation of the Norwegian agri-food sector.

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Oslo, May 2005

Ivar Pettersen  
Director general



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# 1 Introduction

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The point of departure for this paper is the observation that new types of contracts now seem to emerge in the Norwegian agri-food system. New contractual formats are linked to the ongoing restructuring of the Norwegian agri-food system, largely driven by a deregulation of the national agricultural policy, and the strengthened position of the retailer chains at the cost of farmers and food processors. New contractual formats are found at all stages of the vertical production-distribution chain from farm to fork. In another working paper (Hegrenes and Borgen, 2005), we have explored and exemplified the ongoing changes in the Norwegian agri-food system in more detail.

The purpose here is to address issues of a more theoretical and conceptual nature. There are multiple questions that need further considerations: What do we more precisely mean by contracts? Why are contracts considered as an important coordinating device in economic analysis? What is the value and further implications of using contracts as a unit of analysis? What are the major contractual forms and how can they be categorized?

As argued by Brousseau and Glachant (2002), contracts have proved to be a useful conceptual device in economic analysis since it sets focus on elementary social structures; i.e. those that regulate coordination at a bilateral level. But despite its simplicity as a concept, the contract also opens up for a number of more complex issues when integrated as a building stone in a more extensive theoretical framework such as among others Transaction Cost Economics (TCE).<sup>1</sup> Brousseau and Glachant (2002) have summarized the following advantages from using contracts as a unit of analysis in the study of organizations and economics:

- The analysis of contracts allows a re-examination of the exact nature of difficulties associated with economic coordination, while deepening our understanding of the functioning and the basis of coordination mechanisms.

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<sup>1</sup> Brousseau and Glachant (2002 p. 6) claim that contract theory has developed into three branches in economics through the last decades; incentive theory, incomplete contract theory and the new institutional transaction cost theory. Our focus here is delimited to the last-mentioned theory.

- This approach illuminates the details of various provisions for coordination: routines, incentives, the authority principle, means of coercion, conflict resolution etc. As will be clarified later, the study of the *interplay* within these governance mechanisms is of particular interest here.
- Analysis of the origins of contracts illuminates how agents conceptualise the rules and decision-making structures that frame their behaviour.
- Studying the evolution of contractual mechanism helps to understand changes in the structures that frame economic activity.

Clearly, a proper understanding of related theory is useful in order to explain the variety of contractual mechanisms, and the ways by which they evolve in real life. The relevant theory(ies) is (are) those that set contracts as the prime unit of analysis. Transaction Cost Economics (TCE) is an obvious candidate. We will briefly resume the motivation for claiming that TCE is a theoretical framework that can enhance our understanding of the new contractual forms. Given our empirical interest in this project—changing contractual arrangements in the Norwegian agri-food sector—we will pay particular attention to the recent theorizing associated with the intermediate governance forms; so-called hybrid governance structures. This is motivated by the observation that agri-food is characterised by a myriad of contractual arrangements “between market and hierarchy”, to follow the standard TCE-terminology. Unfortunately, the vocabulary when it comes to hybrid governance is not standardized as yet (Ménard, 2004a), and multiple specific questions remain unsettled.

As indicated in the title, the paper sets out to clarify how TCE can add to our understanding of the emerging contractual formats in the Norwegian agri-food system. The first part of chapter 2 gives a brief introduction to the basic explanatory framework of TCE. Thereafter follows a review of some recent attempts to conceptualise hybrid governance. In chapter 3, focus is set on the agri-food sector. The more specific objective is to summarize prevailing investigations of the agri-food system that bear some relevance to our discussion of hybrid governance. This includes selected literature on vertical integration, as well as attempts to predict the causal mechanisms behind various governance forms, basically in a TCE-spirit. But first and foremost this chapter refers to a recent empirical attempt to classify hybrid governance in agri-foods (Verhaegen and Van Huylenbroeck, 2002). The classification in question is empirically grounded in a large number of agri-food cases that can all be characterised as special types of hybrid governance. Finally (chapter 4), we summarize our answer to the overall question of the paper: How can TCE in general—and in particular the theorising on hybrid governance as it stands today—contribute to explore the new contractual formats in the Norwegian agri-food system? This final chapter serves as a critical discussion of the potential benefits of applying this line of thought to the empirical reality of the Norwegian agri-food system, but will also shed light on the blind spots and weaknesses of the theory as it stands today.



## 2 The basics of Transaction Cost Economics

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To gain a deeper understanding of the nature of contracts—and the dynamics of evolving contractual arrangements—we need to address theories into which contracts play a fundamental role. The contract should be the major unit of analysis and play a fundamental role in the explanatory framework that constitutes the core of the theory.

There are several such theories to select from in the scholarly literature within economics, organization theory and institutional analysis. One is the so-called complete contract theory. A complete contract is defined as one that is signed taking all variables into account that are or can be pertinent and that are enough to completely coordinate the agents (references). In this explanatory framework, the uncertainty of the future is reduced to elements coming from a predetermined and—per definition—an exhaustive list. Interaction between the parties lasts only for one period. Once signed, the contract will never have to be revised. None of such assumptions are acceptable in our case since the research problems are indirectly assumed to be non-existent. It is the very existence of uncertainty—the fact that the involved parties don't have all information available at the time of contracting—that makes complete contracts an unattainable scenario.

Given our ambition to analyse the evolving contractual arrangements of the agri-food system, it is more relevant to turn to the way contracts are conceptualised within Transaction Cost Economics (TCE). As shall be explained repeatedly throughout the paper, we consider TCE as a relevant framework to explain the changing structure of the Norwegian agri-food system. However, there are multiple problems to take into account. TCE is clearly not a theory that can give a “complete” description or explanation of anything. A part of our ambition here is therefore to address some of the major “blind spots” and weaknesses of the theory as it stands today. More specifically, we concentrate on the scholarly discussion centred around the so-called hybrid governance forms; i.e. the intermediate governance forms with elements of both markets and hierarchy. Clearly, this is what we usually find in the real world; everything else is pure theory. We will review the relevant literature with a bent towards their potential to illuminate our empirical field, which is the agri-food system in general, and the Norwegian agri-food system in particular.

## 2.1 The antecedents and major concepts of TCE

Indeed, the contract is perceived of as fundamental unit of analysis in TCE. Williamson (2002) draws a distinction between the “science of choice” and the “science of contract”. The former refers to neoclassical economics, and its refined optimisation apparatus. Williamson conceives of the “obsession” with choices in this influential line of thought as a deception. This is not a new critique. As argued by the old institutionalist John Commons (e.g. Commons, 1931, 1932), the ultimate unit of analysis in economics should contain the three principles of (1) *conflict of interest*, (2) *mutual dependence*, and (3) *order*.<sup>2</sup> Williamson holds that the contract lives up to these demands better than does the act of choice. Involved here is a more general critique of neoclassical theory, and in particular its emphasis on how the price system coordinates the use of resources, to the neglect of the inner workings of real firms and the related theory of the firm as a governance structure.

But what do we more precisely mean by contract, and why has this concept developed a prominent position in economic theory the last decades? A contract is in economic theory normally conceived of as an agreement under which two parties make reciprocal commitments in terms of their behaviour. It is simply perceived of as a bilateral coordination arrangement (Brousseau and Glachant, 2002). This interpretation clearly touches on the legal concept of the contract, but also transcends it since it is explicitly linked to a wider—and varied—body of economic theory. Over the past thirty years, the “contract” has become a central notion in economic analysis. Under the umbrella term “new institutional economics” (NIE), the following branches can be identified (Ménard, 2004b): *Transaction costs economics* focus mostly on explaining the existence and properties of alternative modes of organization and the trade-off among them. *Agency theory* primarily examines incentives; i.e. the way a principal can induce agent to behave according to his interest. The *property rights paradigm*—old or new— centres on ownership and the related allocation of decision rights as a determinant for understanding relationship-specific investments. The contract plays a significant role in all branches.

Following Brousseau and Glachant (2002 p. 4) these disciplines—which have in common the fact that contract is assigned a fundamental role as unit of analysis—have developed from a dissatisfaction vis-a-vis Walrasian market theory. New analytical tools have been sought to explain how economic agents determine the properties, quantities and prices of the resources they trade in face-to-face encounters. If these agents are subject to transaction costs, if they can benefit from informational advantages, or if there are situations in which irreversible investments must be made, then it is reasonable to expect that one will not see the same goods traded at the same price and under the same rules as on a Walrasian market. Following in the footsteps of Smith and Walras, neoclassical economists long based their analysis of the functioning of decentralized economies on the notions of market and price system. As first argued by Coase (1937, 2002), this application of Walrasian analysis, in which supply meets demand around a posted price, does not however, satisfactorily account for the characteristics of a decentralized economy. In particular, TCE has contested the neoclassical dogma that scarce resources are allocated by means of the price mechanism only. Neoclassical economics is further criticised for overemphasising the significance of its favourite themes like marginalism (“choices made at the margin”), equilibrium and optimisation. As observed by Simon (1978 p. 6):

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<sup>2</sup> “I start with scarcity, like all economists, as universal for all economic theory, and then I proceed, as did Hume, to show that out of scarcity proceeds not only conflict, but also the collective action that sets up order on account of mutual dependence.” (Commons, 1932 p. 266).

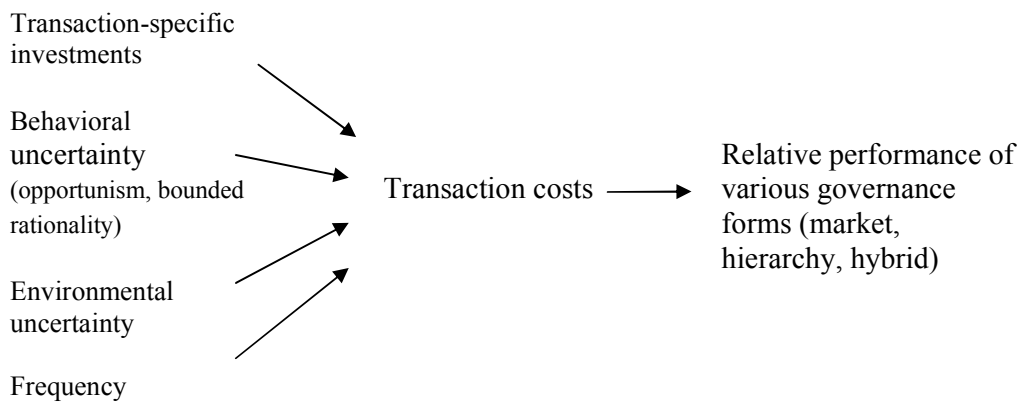
*“As economics expands beyond its central core of price theory and its central concern with quantities of commodities and money, we observe in it ...[a] shift from a highly quantitative analysis, in which equilibrium at the margin plays a central role, to a much more qualitative institutional analysis, in which discrete structural alternatives are compared”* (as cited in Williamson, 1991).

Neoclassical economic theory is predominantly occupied with abstract conceptualizations of markets, whereas much economic activity evidently takes place within firms. But if markets are so superior as claimed by neoclassical theory, why do we have firms? Ronald Coase was the first scholar to conclude convincingly that the boundaries of the firm depends not only on its productive technology and the relative prices of its production resources, but also on the costs of contracting business. Coase’s seminal article “The Nature of the Firm” (1937) has contributed substantially to reinterpret and transform economic theory, and have through the last decades triggered multiple new questions that have earlier been ignored. Coase’s imperative was to “study the firm as it is”, i.e. to challenge the black-box-assumptions of neoclassical theory. The neoclassical interpretation of the firm as a production function should make way for the view of the firm as a governance structure.

Coase’s point of departure is that resources are allocated by two different institutions: markets and firms. The very presence of the firm implies that the price mechanism had somehow failed. Had it not, firms should not have emerged at all. He thereby contests the general and influential idea set forth by the classical theorist Adam Smith that market is the default form of economic exchange. This is not true by any necessity, and the clue is rather to clarify under what conditions markets have pre-eminence over other modes of governance. According to Coase, market failure should be attributed to the fact that allocating resources through the market costs something. The replacement of the market through the authority of the firm helps to reduce the costs of using the price mechanism (“marketing costs”). The firm exists because—under certain conditions—it is a more efficient mean of resource allocation and decision coordination than the price mechanism. The costs of contracting is reduced if a factor of production (read: entrepreneur) don’t have to enter a series of contracts with other factors of production, but rather replace a series of smaller contracts with one long-term contract. The emergent relationship is defined by Coase as the firm. Since Coase opened this new door, TCE has been more and more refined. It has gradually been applied to analyze such diverse phenomena as outsourcing, vertical integration, long-term contracting, foreign market entry strategy, sales force control and compensation issues, changes of property rights and regulatory regimes (Rindfleisch and Heide, 1997).

The underlying explanatory framework of TCE as it stands today has a uniform core. The general claim is that organizations are structured to minimize production and transaction costs (though the theory pay only lip-service to the former). The credo is that different governance forms (market, hierarchy, hybrid) evolve in order to minimize transaction costs. The dependent variable is the continuum from the “pure” market through various intermediate hybrid forms (partnerships, joint ventures, cooperatives etc.) to the “pure” hierarchy. TCE sets out to explain the relative performance of the market, hierarchy and hybrid. More specifically, if the circumstances of a particular transaction change (either the inherent properties of the transaction or the nature of the transaction climate or both), an adjustment of the transactions and the governance form is expected to follow. The switch-mechanism by which one governance form is expected to replace another is of a cost-benefit type. In principle, if a cost-benefit analysis of transactions is in favour of markets in a specific setting, the market is predicted to emerge. TCE can be outlined as in a simplified causal model (cf. Figure 2.1). Relative performance of various governance forms is a function of transaction

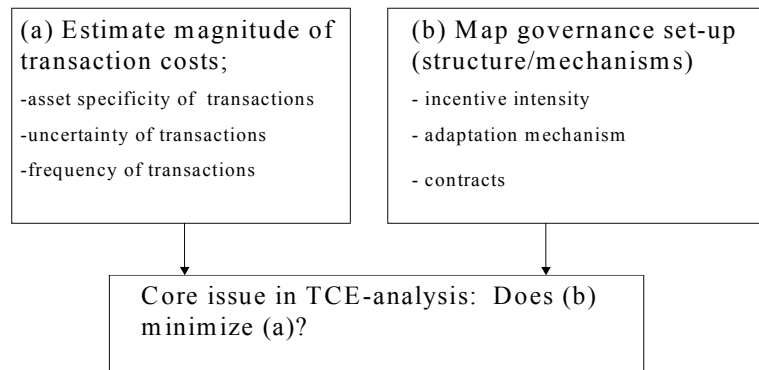
costs which are a function of transaction specific investments, behavioural uncertainties, environmental uncertainty, and frequency. These factors constitute the essence of the transactional nature of the activities that needs to be organized.



*Figure 2.1 The basic explanatory framework of TCE*

Source: Rindfleisch and Heide (1997)

From the perspective of TCE, a relevant issue to explore is whether there are any dependencies between the transactors. If dependencies exist between them, a need will follow to safeguard their economic interest, which further implies transaction costs (i.e. costs that are associated with necessary control and monitoring activities). TCE further suggests what can be the sources of these dependencies between the transactors; i.e. various kinds of uncertainty, various types of specificity, or the fact that “few numbers” are involved (such as monopoly and oligopoly). Furthermore, the rationale inherent in TCE is that performance depends on the fitness of the mode of governance to the attributes of the transaction. The outcome of this fitness is that total transaction costs are minimized (cf. Figure 2.2). This implies that simple transactions can be managed by a simple governance structure, whereas complex transactions call for more complex governance structures.



*Figure 2.2 The core questions addressed by TCE*

Source: Adapted from Verhaegen and Van Huylenbroeck (2002 p. 9)

The variety of ways of organizing transactions reflects the fact that transactions differ in some basic attributes. Milgrom and Roberts (1992 p.30) identify five kinds of transaction attributes:

- the specificity of the investments required to conduct the transaction
- the frequency with which similar transactions occur and the duration of period of time over which they are repeated
- the complexity of transaction and the uncertainty about what performance will be required
- the difficulty of measuring the transaction
- the connectedness of the transaction to the other transactions involving other people.

An investment is transaction specific if it would lose much of its value outside the specific use it is initially intended for.<sup>3</sup> Transaction specificity is closely associated with mutual dependency between the parties. Transactions that require specific investments also require a contract to protect the investor against early termination of or opportunistic renegotiation of the terms of production relationship. If one of the parties finds himself in a “lock-in” situation, he runs the risk of being subject to opportunistic behaviour from the other party; i.e. a so-called hold-up. The hold-up problem can be described as the problem in which each party worries about being forced to accept disadvantageous terms later, after it has sunk an investment, or worries that its investment may be devalued by the actions of others. The significance and consequences of this problem will depend on the degree of asset specificity and opportunistic behaviour.

Moreover, it is reasonable to assume that the frequency of the transactions in question—and more indirectly their degree of programmability—will significantly influence the organization structure. One-time affairs call for another governance structure than frequent transactions. In the first case they can be expected to use available general mechanisms, for instance to resort to the court to resolve any disputes. The general contract law is the major instrument to settle conflicts. In case of parties

<sup>3</sup> The description of the attributes is a summary of Milgrom and Roberts (1992 p.30–33).

who interact frequently, one would expect another mechanism to settle disputes. They rarely resolve conflicts in courtrooms. Arbitration is a well-known instrument.

The complexity of the governance structure (including the contracting process) will also be dependent on the degree of uncertainty associated with the transactions in question. Clearly, uncertainty has many facets and sources, and focus must clearly be set on the types of uncertainties that are most relevant and consequential for the transactions in question. In an empirical study of vertical integration, Sutcliffe and Zaheer (1998) made a distinction between three sources of uncertainty; i.e. primary, competitive and supplier-based. The last-mentioned source is directly related to the risk of opportunistic behaviour from suppliers. Not surprisingly, this source appeared in their empirical study to be the most significant driver towards vertical integration. Generally, the more complex the transaction is and the more uncertainties there are about the required performance, the more difficult and complex the contracting process will be. If it is difficult to specify and measure performance, the contracts will typically specify rights, obligations, and procedures rather than actual performance. Even when the desired performance is perfectly predictable, it might be difficult or costly to measure performance. The “solution” is often to rearrange the affairs to make measurement easier or to reduce the importance of accurate measurement.

Transactions also differ with respect to the degree of interconnectedness to other transactions. Some transactions are largely independent of all others. Other decisions are much more interdependent. One way to respond to close connectedness is to strengthen central coordination mechanisms.

Transaction Cost Economics assumes that agents are boundedly rational and behave opportunistically. Bounded rationality means that there are inherent limitations on human mental abilities that prevent people from foreseeing all possible contingencies and calculating their optimal behaviour. It may also include those limitations on human language that prevent perfect communication of those things that are known. Opportunistic behaviour means self-interested behaviour unconstrained by morality. An opportunist is a person who takes advantage of any opportunity to achieve an end, often with no regard for principles and consequences. Opportunism and trust are two opposite sides of a coin. A trustworthy person is a person who is capable of being dependent upon, in situations where behaviour and outcome cannot be perfectly controlled.

## 2.2 A typology of contracts

It should be clear by now, that contracts play a fundamental role within TCE. Indeed, one important achievement in this theory is the development of a typology of contracts; i.e. generic modes of contracting that all represent a coherent match between the nature of the underlying transactional characteristics and the contract type. These modes are commonly referred to as classical contracting, neoclassical contracting, hierarchical contracts and relational contracts, drawing on the typology developed by Macneil (1974).

### 2.2.1 Classical contracting

Classical contract law is congruent with and supports the autonomous market form of organization. A classical contract is characteristic of market relationships, with prices of assets involved as the determinant, whereas specificity and contractual safeguards are very low or null. Transactions within the framework of classical contracting are “sharp in by clear agreement, sharp out by clear performance” (Macneil, 1974 p. 738). In other words, these transactions are completely specified ex ante. Adaptation beyond the explicit terms of the contract is not expected. The identity of the parties is irrelevant.

Classical contracts are monetized in extreme degree. Contract law is interpreted in a very legalistic way, which implies that more formal terms (e.g. written agreements) supersede oral amendments and other less formal features. Typically, it implies hard bargaining, to which the rules of contract law are strictly applied.

### **2.2.2 Neoclassical contracting**

Neoclassical contract law applies to contracts in which the parties to the transaction maintain their autonomy but are nevertheless bilaterally dependent. These types of contracts are “agreements in principle”, including tacit as well as explicit arrangements. A neoclassical contract is typically a long-term arrangement, in order to develop a continuing relationship. The identity of parties does matter, since bilateral dependency is non-trivial. Adaptation mechanism must be elastic enough to enable parties to adjust to consequential disturbances. The parties to such contracts maintain autonomy, but the contract is mediated by an elastic contracting mechanism. Long-term, incomplete contracts require special adaptive mechanisms to effect realignment and restore efficiency when exposed to unanticipated disturbances. Neoclassical contract refers disputes to arbitration rather than the courts.

### **2.2.3 Hierarchy and unilateral contracts**

Hierarchy (also called internal organization and unilateral contract regime) is a still more elastic and adaptive mode of organization. A distinguishing feature of internal organization is that bilateral adaptation is effected through fiat. Following Williamson (1991), the implicit contract law of internal organization is forbearance. Hierarchy acts as “its own court of ultimate appeal”. For obvious reasons, courts refuse to hear disputes for instance between one internal division of a company and another. The parties in a firm must for the greater part resolve their differences internally. Prices play a relatively small role in internal adjustments while asset specificity and contractual safeguards have high values. In these contractual arrangements, adaptability to highly consequential disturbances is crucial, while highly specific assets create risks of opportunism that detailed safeguards are built in to reduce.

### **2.2.4 Relational contracts**

A relational contract is “[a] contract that specifies only the general terms and objectives and specifies mechanisms for decision making and dispute resolution” (Milgrom and Roberts, 1992 p. 602). Such contracts are typically more flexible than classical and neoclassical contracts. Unilateral contracts are usually of a relational type. Relational contracts are common for internal governance, but also for some form of hybrid governance types, as we shall explore further in subchapter 3. One special case of relational contract appears to be more and more common in agri-food; i.e. a relatively general contractual framework combined with reference(s) to public quality standards, in some instances also to company-specific, private standards. As the number and significance of such quality standards evolve at all levels of the food supply chains, it is reasonable to assume that their role as points of references for long-lasting contractual arrangements will increase. To the extent that the standards cover the essential aspects of parties’ interaction, the issues to remaining issues to determine may be relatively few. Clearly, we would expect more of this “framework + reference”-contractual formats in long-lasting interaction which is typically (but not necessarily) characterized by emerging mutual dependencies, capability to minimize various types of transactional uncertainties, as well as frequent interaction.

## 2.3 Operationalization and measurement issues

Somewhat ironically, the notion “transaction costs” is far from clear-cut, or rather, it appears as a generalized concept that covers a wide range of sub-types. To avoid an inflation of different more or less relevant subtypes, it is an obvious need to classify them in a structured manner. Rindfleisch and Heide (1997) have categorised transaction costs according to their sources and types. They make a distinction between three sources of transaction costs; safeguarding, adaptation, and performance evaluation. The first one, safeguarding, is associated with asset specificity. The second one, adaptation, is related to environmental uncertainty. The third type, performance evaluation, is predominantly linked to behavioural uncertainty. Moreover, Rindfleisch and Heide (op.cit.) draw a distinction between two types of transaction costs; direct costs and opportunity costs. The latter is important since an omitted benefit is also a cost. Taken together, these distinctions amount to a matrix consisting of six different subtypes of transaction costs: (1) costs of crafting safeguards; (2) failure to invest in productive assets; (3) communication, negotiation and coordination costs; (4) maladaptation; (5) screening and selection; measurement costs; and finally (6) failure to identify appropriate partners; plus productivity losses through effort adjustment (cf. Figure 2.3).

	Asset specificity	Environmental uncertainty	Behavioural uncertainty
<b>A. Sources of transaction costs</b>	Safeguarding	Adaptation	Performance evaluation
<b>B. Types of transaction costs</b>			
- Direct costs	Costs of crafting safeguards	Communication, negotiation and coordination costs	Screening and selection (ex ante) Measurement costs (ex post)
- Opportunity costs	Failure to invest in productive assets	Maladaptation: failure to adapt	Failure to identify appropriate partners (ex ante). Productivity losses through effort adjustment (ex post)

*Figure 2.3 Sources and types of transaction costs*

Source: Rindfleisch and Heide (1997 p. 46)

Clearly, not all subtypes are equally relevant, and the three subtypes of direct transaction costs are most commonly referred to in empirically based TCE-based studies. However, for the sake of a complete analysis, it is worthwhile to have in mind that transaction costs are also associated with decisions that are bluntly wrong (e.g. selecting wrong contractual partner) or myopic (pursuing a strategy that creates more problems than it solves).



## 2.4 How to conceptualise hybrid governance forms?

As already mentioned, one important insight from Transaction Cost Economics is that economic analysis should not be limited to decision processes at spot markets only (i.e. decisions of autonomous buyers and sellers), but also include decision processes within firms or hierarchies (“internal decisions”). A further insight is that markets and hierarchies are merely two “pure” (ideal-typical) forms of governance. What we find in real-life, are a myriad of diverse blends of governance instruments, where various kinds of contractual arrangements are constitutive components. Doubtless, the awareness of the importance of such intermediary forms has been growing among scholars through the last decades (Klein and Shelanski, 1996). One of the major contributors to the development of TCE, Oliver Williamson, has stated that (Williamson, 1991):

*“Whereas I was earlier of the view that transactions of the middle kind [between market and hierarchy] were very difficult to organise, and hence very unstable, on which account the bimodal distribution was more accurately descriptive, I am now persuaded that transactions in the middle range are much more common. The uniform distribution appears most nearly to correspond with the world of contract as it is.”* (as cited in Affuso (1990) after Williamson [1985 pp. 83–84].

Notwithstanding the increased interest, there are many unsettled questions. There are multiple theoretical and empirical contributions in the scholarly literature, but at this stage, they have not successfully converged on a common vocabulary. As underlined by Brousseau (1995), hybrid governance appears to be defined either axiomatically or in a descriptive manner. Williamson’s (1991) definition—that the hybrid form is an intermediate form between market and hierarchy—exemplifies the former type. Notwithstanding its fruitfulness and capability to add to our understanding of the dynamics of governance mechanism at micro level, this axiomatic approach is still incomplete and insufficient. The problem is that this definition does not clarify in any detail the nature and characteristics of hybrid governance beyond the obvious fact that hybrids are positioned somewhere between “pure” markets and hierarchies. So what? That is where the greater part of organizational forms is positioned. There are many questions to address, some of which are of a fundamental nature: What are the more precise characteristics of a hybrid form? Is it a stable or a transient type of governance? Given that a specific governance structure has elements of both market and hierarchy, what determines the concrete mixture in a specific context? What are the design parameters that determine the structure and core processes of a specific hybrid form? Under what conditions can hybrid forms be expected to emerge and retained? What are the (dis)advantages of specific hybrid forms as compared to pure markets and the pure hierarchies, respectively?

It is somewhat ironic that there is so much valid knowledge available about pure and abstract governance forms that are never found in practice, but limited knowledge about the forms that are observed in real life. As argued by Coase (1988), the problem is no longer to identify the properties of the market and of the hierarchy, but to analyze the differences among the multiple types of coordination modes, which are most often of a hybrid nature. An important analytical challenge is to develop an analytical framework by which various modes of hybrid organizations can be compared in a structured and informative manner. Furthermore, one should clarify the conditions under which various coordination forms are most likely to work efficiently. This subchapter is devoted to a review of selected literature on hybrid governance, with the purpose of emphasising the issues that contribute the most to our understanding of hybrid governance forms in the agri-food system. Not by accident, we start with some relatively general contributions, and end up with an empirically grounded typology that

are of practical use for our empirical study of new contractual arrangements in the Norwegian agri-food sector.

The first conceptual and methodological point to take into account when studying hybrid governance, is to draw a distinction between governance forms and governance mechanisms. Market exemplifies the former, and prices exemplify the latter. This distinction is a key to understand the flexibility of hybrid forms, since it emphasises the potential for combining governance instruments into governance forms. Metaphorically speaking; the fact that there is blood in all animals, does not mean that all animals are alike. From this basis, a principal distinction between four types of generic coordination mechanisms may be developed. Pihl (2000) is one of several students of organizations who have developed a classification according to this line of thought. This type of classification also sets focus on the respective conditions under which the coordination mechanisms work effectively. This is related both to the parameters that TCE enrolls in its explanatory framework, but also some other variables. The essence of his classification can be visualized as follows:

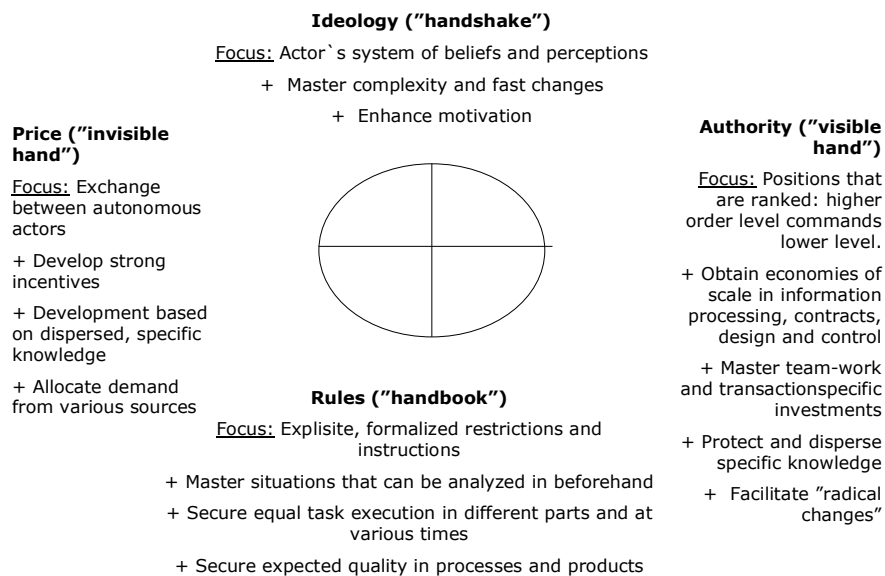


Figure 2.4 Coordination mechanisms

Source: Pihl (2000)

There are many ramifications of this distinction for the theoretical and empirical study of hybrid governance. First of all, it helps to increase the awareness of the combinatorial potential and flexibility that is inherent in organizations. In principle, there are numerous ways of combining the building stones in questions (read: price, authority, rules and ideology). The relevant issue to explore empirically is *why* a specific mix has evolved and found its form over time. If we can assume that many various blends of governance mechanisms—in principle—may solve a specific organization problem<sup>4</sup>, how come that one specific solution is selected and retained? This calls for a closer

<sup>4</sup> The notion of equifinality may be applied here; i.e. the conditions in which different initial conditions lead to similar effects.

investigation of the specific empirical reality that underlie a governance form, including its inner dynamics over time and its institutional context.

Notwithstanding the usefulness of the distinction between governance forms and governance mechanisms, the risk emerges that the flexibility is exaggerated and the complexity explodes. Hybrid governance is not a question of friction-free combinations of governance mechanisms. There are organizing principles to take into account, more or less specified in the literature as per now. The theme is evolving, and there are contributions available that suggest a further structure of hybrid governance forms. We shall here concentrate on three contributions that appears to be well structured and illuminating; i.e. Hennart, Brousseau and Ménard. They differ significantly, but are all based on the idea that governance forms should follow from the transactional characteristics that underlie the activities subject to organizing.

### 2.4.1 Hennart's theory of hybrid governance

Hennart (1993) has developed a model that sets out to explain the emergence of hybrid forms, based on a comparative analysis of selected transaction costs; i.e. the costs of cheating and shirking. At the outset, Hennart formulates some propositions that lay the foundation for the study of hybrid governance:

1. As already mentioned, one must distinguish between methods of organizing (the price system and hierarchy) and economic institutions (markets and firms). There is no one-to-one correspondence between the two, and any given institution may, under specific circumstances, use a mix of both methods of organization.
2. The two organizing methods—the price system and the hierarchy—use different techniques to organize economic activities. The price system rewards agents on the basis of their outputs; hierarchy rewards on the basis of behavior (inputs). In a world of zero transaction costs, both would be equally effective (Coase, 1937). With positive organizing costs, each technique will experience divergent levels of organizing costs for a given transaction.
3. The cost of using price constraints (cheating costs) is the cost of measuring output plus the losses due to fraud when measurement is imperfect. The cost of using hierarchy is that of using behaviour constraints. This cost, which can be called “shirking cost” is the sum of the cost of constraining behavior plus the residual amount of shirking due to imperfect behavior constraints.
4. Price constraints minimize shirking but encourage cheating; behaviour constraints minimize cheating but encourage shirking. The choice between using prices and hierarchy will depend on the relative costs of measuring output plus that of tolerating the residual amount of cheating as compared to those of constraining behavior and bearing the residual amount of shirking.
5. Markets are institutions that predominantly use the price method of organizing. Firms predominantly rely on hierarchy. However, because of diminishing returns to measuring output and constraining behaviour, both firms and markets will often use a mix of price and behaviour constraints. The firm's mix will contain a high proportion of behaviour relative to price constraints, the mix in markets will be biased towards price constraints.
6. The combination of price and behaviour constraints defines a wide variety of institutional forms along a continuum which goes from pure spot markets to traditional firms. The model explains why the most common institutional forms use both methods of organizing.

Hennart's theory is particularly oriented towards the enforcement properties of prices and hierarchy. Hierarchy controls individuals directly by constraining their behaviour

(by imposing behaviour constraints) while prices do it indirectly by measuring their behaviour (through price constraints). Under hierarchy, individuals receive a salary to “do as told”, while self-employed individuals governed by the price system are rewarded on the basis of their output. Each system has its own biases: using prices maximize efforts, (read: minimizes shirking) but incites individuals to inflate the price and/or reduce the quality of their output (read: encourages cheating). Relying on hierarchy results in the opposite bias: under hierarchy individuals are not paid in function of their output, but instead are rewarded for following directives. They therefore have strong incentives to minimize efforts (to shirk) unless properly supervised, but being paid a fixed sum of money to follow orders, they have few incentives to cheat. Hence, the price system experiences low shirking, but potentially high cheating costs, while hierarchy faces low cheating but high shirking costs.

Then, organizing costs are the sum of shirking and cheating costs. What is clear from this study is that most coordination mechanisms have elements/components that resemble the market (such as prices, involvements of limited duration) as well as components that resemble hierarchies (such as specialized supervision processes, delegation of authority etc.).

Any given transaction will be organized by the mix of price and hierarchy (i.e. by the mix of price and behaviour constraints) that minimizes organizing costs. The prediction is that a transaction will be organized within a firm if the reduction in cheating costs (achieved by replacing price constraints by behaviour constraints) exceeds the resulting increase in shirking costs. In the opposite case, a transaction is expected to be organized by the market.

## 2.4.2 Brousseau’s theory of hybrid governance

Another interesting contribution that can enhance our understanding of hybrid governance is developed by Brousseau (1995). He has developed a “morphological grammar” intended to describe any type of contract between two types of agents. A contract is defined as an arrangement between two parties about what each of them shall do to realize value through their relationship. Contracts are designed to regulate spot exchanges as well as long-term interactions. In a world of bounded rationality and information failures, contracts are assumed to have three essential functions:

1. *To enable contractors to coordinate their actions successfully:* Since the future is uncertain and human rationality is “bounded”, economic agents do not undertake systematically compatible actions. Disequilibrium costs can be economized when some types of mechanism are designed to establish for each party the actions that collectively generate a desirable output.
2. *To ensure the enforcement of promises:* The value of a transaction is inherently uncertain. Between any agreement to enter into an exchange and the fulfilment of it, intentional or accidental events might arise to threaten its completion. For this reason coordination devices include a “guarantor function” able to require restitution of losses to the remaining party in case of defection by the other.
3. *To share the quasi-rent:* When compatibility is ensured and when promises are enforced, a quasi-composite rent is generated. The third function of contracts is to share this quasi-rent among the participants.

Brousseau underlines that these three categories are present in any type of contracts. His further assumption is that any kind of coordination process can be described with a limited number of items or “clauses” that define each of these mechanisms in more detail. He claims that there are only a few mutually exclusive options to design each mechanism. Each clause can only take a finite number of states, each of which corresponds to a possible mechanism design. For instance, supervision can be operated

by each party, a generic mechanism like the court, or a specialized supervisor who can be either one of the parties or a third party. When they design a contract, economic agents can adopt three alternative solutions in order to ensure technical coordination:

- to define routines (the way of using assets is fixed ex ante and there is no means of redesigning it during the contract)
- to implement a centralized authority mechanism (one of the agents has the discretionary right to redefine the use of the resources involved in the transactions)
- to design a decentralized authority mechanism; the contractors can bargain to redefine the use of the resources involved in the transaction.

This reasoning has a strong resemblance to the distinction referred to above between the authority mechanism and governance mechanism. One of Brousseau's contribution is that these options must be explicitly linked to the nature of the underlying transactional characteristics. Clearly, Pihl, Hennart and Brousseau (and others could be referred to also) all help to enhance our understanding of hybrid governance. As per now, however, the reflections presented by Ménard (2004a) appear to be the scholarly contribution that most thoroughly addresses the determinants, dynamics and structure of hybrid governance forms. We will therefore pay particular attention to his reasoning on the nature of hybrid governance.

### 2.4.3 Ménard's theory of hybrid governance

Ménard's point of departure is the observation that there exists a great variety of agreements among legally autonomous entities that do business together in a particular manner: They mutually adjust with little help from the price system, and they share or exchange technologies, capital, products and services, but still without a unified ownership. A wide range of examples is found in the real world; such as cooperatives, subcontracting, networks, franchising and collective trademarks. The intriguing research question is, as already mentioned, when a hybrid organization is chosen, what determines the choice of a specific form among all the various possibilities? Further, what determines the internal properties of these arrangements? What are the major drivers of transaction costs? Which elements of the underlying transactional pattern are most relevant as we search for an in-depth understanding of new organizational patterns? To clarify, Ménard follows the "standard" TCE-framework and pay particular attention to the significance of specificity (i.e. mutual dependence) and uncertainty.

#### Transaction specificity: Investing in mutual dependence

Through the last decades, TCE-based research seems to have converged on the assumption that transaction costs are predominantly driven by transaction uncertainty, transaction specificity and transaction frequency. But are they necessarily equally important, or should they be internally ranked in some way or other with respect to their significance? In his discussion of hybrid governance, Ménard (2004) suggests that specificity should have superiority as compared to uncertainty and frequency when assessing the relative importance of various determinants:

*"Uncertainty is secondary to the existence of specific investments in that without at least a minimal degree of mutual dependence in assets, there would be no hybrid arrangements properly speaking"* (Ménard, 2004a p. 13).

Hence, he considers the primary source of transaction cost in hybrid governance forms to be the degree of mutual dependence, which is essentially another name for transaction specificity.

Multiple empirical tests have confirmed the role of asset specificity (and thereby dependency) as a key factor in the trade-off among different modes of organizations; i.e. the decisions to organize transactions through markets, within firms or by interfirm agreements. Ménard prefers another focus since he sets out to examine how investment decisions that *purposely creates a significant degree of mutual dependence* between the involved players help to understand what governance will be chosen for monitoring the arrangement in question. Thereby, he wants to understate that a fundamental issue for partners choosing to organize transactions in a hybrid form is their commitment to make investments that create significant and durable mutual dependence, but still letting property rights and decision-making distinct. Here too, the cooperative organization is an illustrative special case since members in such organizations voluntarily give up some of their autonomy in order to establish and control (in the case of a sales cooperative) a secure outlet for their products. There are obviously multiple other organizations that encompasses the same basic characteristics. As Ménard develops this reasoning further in accordance with the TCE-framework, he suggests the following proposition:

*“The more specific mutual investments are, the higher are the risks of opportunistic behaviour, and the tighter are the forms of control implemented”.*

This proposition is a good starting point for empirical investigations of various hybrid governance forms, organized according to their relative degree of transaction specificity (synonymous to mutual dependency between the actors involved). But what is the nature and basic structure of this dependency? Ménard distinguishes between two generic strategies for developing mutual dependency; (i) complementarities and (ii) creation of joint investments. In the former case, each partner develops specific assets, and the resulting network of various partners is based on their complementarities. Multiple empirical studies have emphasised the importance of durable contractual relationships in situations where complementary investments are at stake. In the latter case (joint investments), partners decide to pool resources and create joint investments as part of their activities. Joint investments are essentially about creating a multiplier effect. Ménard suggests that this kind of hybrid governance is typical of agreements for the development and transfer of products among organizations with different minimum efficiency scales. The establishment of the cooperative is typically—but not necessarily—an effort to overcome the problem associated with small-scale operations; i.e. to create a multiplier effect through gaining economies of scale and reducing unit costs.

Furthermore, Ménard claims that problems arise with both strategies when weakly redeployable investments create mutual dependence; i.e. when durable investments made by the partners become customized to their mutual needs and presumably lose their value outside this application. However, he emphasises one significant difference between “complementarity” and “joint investments”: The first one leaves relatively open the form that the hybrid arrangement will take. Whether it is organized as a contractual arrangement or a form closer to integration, depends essentially on the intensity and scope of complementarities in question. On the other hand, joint investments immediately create significant mutual dependence. It is well established in the TCE-literature that this type of lock-in relationship represents a fertile ground for opportunistic behaviour. Contracts are normally incomplete, and do not provide sufficient safeguards. Therefore, with increasing risk of opportunism, forms of private governance arrangements develop for coordinating and policing the relationship. It is not unusual to observe that the governance of joint investment is moved away from a contract-based agreement and closer to quasi-integration. There are many examples of joint investments that are based on this general logic. Ménard refers to brand name

capital as one type, and collective trademarks as another. An abundant literature exists on the importance of implementing modes of control among partners to maintain reputation. Similarly, the literature on collective trademarks show the importance of devices focusing on quality control in order to prevent opportunistic behaviour. The reputation of a collective brand based on quality of products or services is typically dependent on human assets. Therefore, Ménard (1996) assumes that training and network-specific competencies of partners represent a key factor in the capacity to establish and maintain the reputation of the network.<sup>5</sup>

#### 2.4.4 Uncertainty associated with the transactions

What about the second driver that is assumed to shape hybrid governance; i.e. the degree of uncertainty that surrounds the transactions and activities they intend to organize? Interestingly, Ménard emphasises that uncertainty is secondary to the existence of specific investments, since without at least a minimal degree of mutual dependence in assets, there would be no hybrid arrangements properly speaking. It's well established in the literature that, once partners get linked through specific assets, the role of uncertainty becomes more relevant. The essential argument is that hybrids operate as a buffer, with risk sharing as a central motivation. From this basis, Ménard suggests the following generalized proposition when it comes to transactional uncertainty:

*“The more consequential the uncertainty is, the higher is the risk of opportunism, and hence the more centralized the coordination tends to be”.*

Uncertainty can grow out of a hybrid relationship for many reasons; because of features of the inputs required, because of the output expected or because of the transformation process itself. Uncertainty with inputs is often connected to issues of quality, quality control and the risk of free-riding. They can result from non-observabilities on resources or services traded among partners; i.e. the fact that qualities and efforts are not easily measurable. All these categories of uncertainty appear as highly relevant when it comes to the food industry.

#### 2.4.5 Empirical regularities that characterise hybrid governance

So far, we have established why and how specificity and uncertainty are likely to impact the specifics of the hybrid governance form. At least partly, this may give a generalised answer to why hybrid governance structures exist. But a more detailed description and conceptualization is called for. The next question to be addressed by Ménard is therefore whether there are any fundamental similarities—or empirical regularities—between the various types of hybrid governance. He claims that there are such empirical regularities, and that they can be summarised under three subheadings

- (i) pooling resources,
- (ii) competing, and
- (iii) contracting.

We will briefly present each of these factors, and briefly suggest their relevance in a further investigation of the agricultural cooperatives in Norway. Obviously, this

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<sup>5</sup> One derived question to raise is why firms sometimes prefer to develop and profile separate brand profiles for new products that differ somewhat from their ordinary product specter. For instance, the meat cooperative Gilde market specialized products under new brand names (not Gilde). One explanation may be that this separation reflects differences in the underlying brand capital structure. The reputation capital for specialized products must be developed and enforced in a different manner than the “bulk” products.

delimited attempt to apply the theory to this specific context is for illustrative purposes only and will only be of an indicative nature.

### **Pooling resources**

Ménard's reasoning with respect to "pooling resources" is as follows: "Whatever the form hybrid arrangements take, they are systematically oriented towards organizing activities through interfirm coordination and cooperation." Therefore, key investment decisions must be made jointly by the involved parties. But how come that the necessary joint investments are not organized in the form of a market or a hierarchy? Following Ménard, the hybrid appears as a trade-off solution. It exists because—at the one side—markets are perceived as unable to adequately bundle the relevant resources and capabilities, and—at the other hand—integration in a hierarchy would reduce flexibility by creating irreversibility and weakening incentives. In other words, hybrid governance combines the best properties of the market and the hierarchy, whereas the weaknesses of either forms are overcome.

Ménard further assumes that incentives are a driving force in the decision to organize transactions under hybrid arrangements, for the good and the worse. On the positive side, the incentives to search for rents represent an engine for strategies that require pooling of resources, and coordination of decisions.

On the negative side, sharing rents among the parties involve discretionary choices that can easily provoke conflicts and destabilize any agreement. Several implications follow, according to Ménard's reasoning:

*First*, because pooling resources puts hybrids at risk of opportunistic behavior, choosing the "right" partners is a key issue. Subsequently, hybrids are often selective rather than open systems. The identity of partners matters, whether partnership provides complementary resources (thus creating dependencies) or generates a multiplier effect (as in the case of collective trademarks).

*Second*, hybrids involve joint planning, in diverse forms. Ménard holds that the anticipated complexity of decomposing tasks among partners and of coordinating across organizational boundaries is a major factor in the choice of a specific mode of governance and in the design of mechanisms for monitoring the arrangements. This seems to have strong resemblance to the notion of technical separability. For instance, it is clear that the work of a farmer can be technically separated from the work of a processing firm. Judged from the perspective of specialization and competency, it is advantageous that the farmers can concentrate on his prime business (which is to produce unprocessed foodstuffs), whereas the food processor can concentrate on refining the raw foodstuffs. This division of separable tasks is commonly referred to as "the hierarchical decomposition of tasks" in the scholarly literature. It illustrates the advantages of specialization, but also underlines the necessity of coordination. The contractual solution may vary, but the coordination problem in hybrid organizations is never ignorable.

*Third*, information among parties to an agreement appears as crucial issue. The development of an adequate information system among partners is central to the survival of hybrids. In many instances, informational asymmetries of various kinds represent a major challenge.

To summarize Ménard's reasoning on this point: Pooling resources among legally distinct partners does not make sense without some continuity in their relationship. This continuity requires both cooperation and coordination. Partners must accept losing part of the autonomy they would have under a market relationship without the benefits of extended control that hierarchy could provide. Subsequently, a core problem for hybrid organizations can be formulated as follows (Ménard, 2004a):



*“How can the involved actors secure cooperation in order to achieve coordination at a low cost without losing the advantages of decentralized decisions?”*

This problem formulation is a good starting point for an in-depth understanding of the dynamics, effectiveness and performance of agricultural cooperatives. Members of a cooperative are expected to be concerned about the advantages associated with a decentralized decision structure, in the sense that they coordinate without giving up their formal autonomy. Members of a cooperative retain their formal position as freeholders. Decisions are decentralised in the sense that each freeholder is free to determine the volume of raw products that he prefers to sell. The cooperative possesses no formal authority rights (“fiat-mechanism”) by which members’ volume of supplies can be determined. This is typically more attractive for the farmers than a situation where the receiver (wholesaler, processor, retailer) owns the farm formally (a situation commonly referred to as “backward vertical ownership”). The advantages of the freeholder status is consistent to the reasoning of Hansman (1996) and in particular his so-called principle of low cost assignment<sup>6</sup>. This reasoning leads us to the other aspect of Ménard’s proposition, i.e. the criterion that coordination should be “secure enough” but nonetheless of a low cost nature. But the intriguing question is how this complex criterion of “high commitments at low cost” can be fulfilled? It seems reasonable to assume that cooperatives tend to strive to fulfil this criterion (more or less successfully, it could be added), or at least apply this criterion as an element of their normative basis. What is commonly referred to in the cooperative literature is the significance of social capital, for instance as materialised in the form of the “cooperative principles”.<sup>7</sup> Ideally, all cooperative members should voluntarily adhere to such principles, and thereby jointly build up a basis of social capital and mutual trust. Indeed, this enables their activities to be coordinated at a low cost. But the real world does not necessarily stand up to ideal principles. Also cooperative members may behave opportunistically under certain conditions. It takes considerable time to establish a solid basis of social capital in an organization. Social capital is of a fragile nature, and can easily be jeopardized. Given such limitations due to behaviouristic uncertainty—it is clearly a need for safeguarding contractual mechanisms, given that the mutual dependency is unignorable. So to re-formulate the problem in Ménard’s spirit; *how to minimize coordination costs, under the condition that the advantages of decentralization are retained* appears as a highly relevant credo for the study of cooperative organizations. This credo is a sound starting point for empirical studies of cooperative organizations as hybrid structures, where the interesting research task is to clarify why a particular mix of available governance mechanisms are selected at the expense of other combinations. The research method here must be of a more inductive (“bottom up”) type, since the aggregated knowledge on hybrid governance is yet by far sufficiently developed to formulate propositions at the necessary level of detail and specificity.<sup>8</sup> But still, the explanation should be sought within the nature of the transactional characteristics of the underlying activities that need to be organized in some way or other.

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<sup>6</sup> Hansman’s principle of the so-called lowest assignment of ownership, means the assignment of ownership that minimizes the total costs of transaction between the firm and all of its patrons.

<sup>7</sup> The principles are developed by ICA (International Cooperative Alliance) and available from <http://www.ica.coop/>.

<sup>8</sup> We will refer to one such “bottom-up”-approach later; i.e. the one suggested by Verhaegen and Van Huylenbroeck (2002).

## Competing

The next empirical regularity to which Ménard pays attention is the importance of competitive pressures in the shaping of a particular arrangement. The fundamental difference in hybrids is that partners remain independent residual claimants with full capacity to make autonomous decisions as a last resort. Ménard holds that the competitive pressure in hybrid organizations operate in two directions:

- First, partners to a hybrid arrangement compete against each other. This rivalry can take many different forms. The arrangement can be designed in a way that recurrently makes the partners compete, as for instance in subcontracting where they may try to attract customers from the same subset.
- Second, hybrids usually compete with other arrangements, including other hybrids.

The standard neoclassical explanation of hybrids as pure rent seekers looking primarily for market power does not explain much here. Rather, hybrid organizations tend to develop in highly competitive markets in which pooling resources are viewed as a way to deal with significant uncertainties and to survive (Ménard, *op.cit.*).

## Contracting

This problem is partially dealt with through more or less formal contracts. Contracts provide ways of regulating relationships among transactors, creating “transactional reciprocity”. The importance of relational contracting has long been acknowledged when cooperation carries advantages as well as risks. Advantages can be expected from extended market shares, from transfer of competencies, and from sharing scarce resources. But risks are also at stake. Contracts are incomplete and subject to unforeseeable revisions, since they are about transactions that involve specific assets that are often plagued with uncertainties. Part of the difficulty comes from the autonomy of partners who remain legally and actually independent in making decisions.

Ménard remarks that “contract” is often loosely defined so as to include all forms of agreement, whether they are explicit or not. To avoid this “catch-all, catch-nothing”-problem, he advocates Macneil’s approach, that contracts are defined as legally binding promises. The intriguing question to ask is why legal contracts represent such an important safeguard in market economies. Why are contracts so important? His answer is—in the TCE-spirit—that contracts are essential because of hazards generated by the combination of asset specificity and uncertainty. The hazards may refer to several situations, such as (1) bilateral or multilateral dependency, (2) measurement problems, (3) changing conditions over time, (4) ill-defined property rights, and (5) weaknesses in the institutional environment.

In a situation where the parties remain legally autonomous but mutually dependent for significant decisions, these hazards appear as particularly challenging. Reducing them through contracts requires them to design clauses that can efficiently constrain opportunism.

Most studies on hybrids substantiate the crucial importance of adequately selecting partners, a process rarely implemented through purely formal rules, e.g. bidding is used to test the market, and thereby to discipline partners. Selection is based on past experience in market relationships, on previous hybrid arrangements, and reputation. To be more specific, Ménard argues that contracts play a crucial role in coordinating partners, for the following five reasons:

1. The decision regarding the number of parties to be included in the arrangement; involving a difficult trade-off between bilateral and multilateral agreements. The former is easier to monitor, but involve higher dependency. The latter make the management of the relationship more complex, but allow comparisons and bench-

marking, a powerful tool for constraining opportunism. Most hybrids are of the second type, and may capture some positive properties of the markets.

2. Duration also represents an important tool. Contracts in hybrid arrangements are either long-term contracts, or short-term contracts automatically renewable. There is a close relationship between duration and the intensity of coordination. A consequence of this observation is that contracts and contractual relationships are two different things, with the former embedded in the latter. Empirical studies have documented that contractual relations may last for decades, whereas the underlying written contracts may be subject to annual renewals.
3. Contracts in hybrid arrangements specify requirements. Specifications usually concern quantities and, above all, quality standards. When a contract provides only a framework, specifications are typically included in detailed annexes.
4. Adaptation clauses are crucial.
5. Notwithstanding the richness of these clauses, contracts remain incomplete and subject to opportunism. Complementary safeguards are usually needed, which can be formal, or based on mutual commitments.

In isolation, none of these characteristics are entirely specific to hybrids. Ménard emphasises that it is their *combination* that gives hybrids a typical content, in that it defines a mode of governance oriented towards solving the fundamental problem of interfirm network. As formulated by Ménard, this problem is as follows:

*“How to economize on the contracting cost necessary to ensure non-opportunistic behaviour among autonomous partners, as well as on the cost of administering a broader range of assets within one single firm.”*

Ménard further observes that contracts often provide a relatively simple and uniform framework for regulation of the interaction between the parties. With contracts reduced to a general framework, the choice of a governance structure that can adequately complement contracts and contribute to their implementation becomes crucial. Mechanisms must be designed that are aligned with the characteristics of the transactions they support, filling blanks that are left out in contracts, monitoring the arrangement, and solving problems without repeated renegotiations. The general criteria is as follows:

*How can such governance arrangements secure contracts while minimizing costly or even impossible negotiations or re-negotiations.*

Finally, Ménard observes that a striking feature of contracts in hybrid organization is their standardization. Contracts are not necessarily tailored to the specific characteristics or situation of the partners involved. Uniformity prevails because it economizes on transaction costs; i.e. on what it would cost to customize and administer many different contracts, with the room this would make for opportunism. But as already clarified; if contracts provide only a framework, complementary mechanisms are needed for monitoring and managing hybrids (Ménard, op.cit. p. 19).

To summarize, Ménard’s reasoning on the nature of hybrid governance contributes significantly to our understanding of this form. From this perspective, the core question is as follows:

*What imperfect institutions should govern particular sets of transactions?*

Ménard emphasises the great diversity of agreements among legally autonomous entities doing business together, mutually adjusting with little help from the price system, and sharing or exchanging technologies, capital, products and services, but without a unified ownership. These characteristics are likely the minimum required to encapsulate the variety of hybrids.

Essentially, hybrid organizations exist because partners need to develop coordination, which requires interdependent investments. With ownership remaining separate, what matters most for understanding what form of hybrid is chosen is the intensity of this interdependence; i.e. the degree of *centralization* and of *formalization* of the mode of governance required for coordinating and checking partners that are legally independent. Three dimensions are assumed to be involved in any type of hybrid governance form:

- First, the contractual hazards, which results from interdependent investments and uncertainty and the provisions to deal with them.
- Second, the protection and distribution over time of the gains generated by the arrangement chosen, and
- Third, enforcement issues.

In a nutshell version, Ménard's theory is that hybrid arrangements develop when specific investments can be dispatched among partners without losing the advantages of autonomous decisions, while uncertainties are consequential enough to make pooling an advantageous alternative to markets (op.cit., p.160). Mutual dependence of investments is particularly significant for understanding the presence of contractual hazards, while uncertainty is particularly significant for explaining coordination problems.

*Thus the combination of specific assets and of consequential uncertainties generates opportunistic behaviour and miscoordination, which further determines the mode of hybrid chosen.*

If one attribute only is present, the governance leans towards contract-based arrangements. With both attributes together, the governance becomes much more authoritarian. Therefore, it is the combination of opportunism, or the risk of opportunism, and of miscoordination, or the risk of miscoordination, that determines the governance characterizing hybrid organizations.

The purpose of the next subchapter is to discuss the relevance and usefulness of applying this terminology and mode of theorising as a framework for discussing the nature of hybrid governance in the agri-food sector.

# 3 Hybrid contractual arrangements in the agri-food sector

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We have now presented scholarly contributions that address hybrid governance in a generic manner. The next question to address is to what extent we find such contractual arrangements in the agri-food sector? There are not very many studies that address hybrid governance explicitly, but quite a lot that explore the causes and consequence of diverse modes of vertical coordination. Given the purpose at hand here, we are particularly interested in studies that contribute to the understanding of sources that may potentially influence the level of transaction costs. Our focus is both on the causes of, the level of, and the consequences of transaction costs in the agri-food system. Following the summary in the former chapter, mutual dependencies (transaction specificity) and transactional uncertainty are of particular relevance. What types of mutual dependencies and uncertainties are most relevant in the agri-food system? And what types of governance forms and contractual arrangements seem to follow in this system? To explore the latter question, typologies of hybrid governance in the agri-food system are of particular relevance.

## 3.1 Studies of vertical relations in the agri-food system

Vertical relations are a favourite theme among students of the agri-food system, and have been subject to increasing theoretical and empirical exploration throughout the last decades. There are several definitions that refer to different types of vertical relations, differing predominantly with respect to strengths. The strongest form is vertical integration, whereas the weakest form is vertical coordination (see Table 3.1). It should be mentioned that some authors, e.g. Peterson, Wysocki and Harch (2001), use the term “vertical coordination” as a common denominator for all kinds of cooperation along the value chain. Here the term is used as in Strøm (1998).

All types are easily found in the agri-food sector. As we will return to later, one intriguing task is to explain under what conditions the vertical relations are more or less tightly connected and organized

**Table 3.1** Definitions of various kinds of vertical relations

<b>Term</b>	<b>Definition</b>
Vertical integration (strongest form)	All activities in the supply chain from farmer to consumer are owned by one party who has residual rights (decision rights plus right to residual outcome)
Vertical control	The activities in the supply chain are owned by different parties, but one of the parties possess decision rights over all activities in the value chain
Vertical coordination (weakest form)	The activities at different stages of the value chain are owned by different parties, but one or more of them are subject to some kind of coordination (beyond prices).

Source: Adapted from Strøm (1998)

Traditionally, vertical integration has been less explored in the literature than horizontal integration. The analytical apparatus provided by neoclassical theory has predominantly been applied to the analysis of horizontal market configurations; the strategic play and interaction between actors at the same level of the value chain. Focus is predominantly on optimization. By virtue of its proved capability to address comparative institutional analysis, TCE now appears as the preferred—and commonly accepted—framework for the analysis of vertical relations in agri-food. Not very many of them have addressed and specified hybrid governance explicitly and detailed, but these studies can nevertheless contribute more generally to our discussion.

With respect to causes of vertical relations in the agri-food industry, many authors have underlined the role of information asymmetry. Hennesy (1996) sets out to explore this information asymmetry in more detail. He suggests that three trends are underlying this increasing information asymmetry in the food industry; i.e. (1) A movement away from undifferentiated agricultural commodities toward more specialized products, (2) Reduced reliance on open markets for raw agricultural products, and (3) A movement towards agricultural industrialization. The second and third trends are closely related. Hennesy suggests that information externalities<sup>9</sup>, arising from uncertainty concerning the nature of the food quality and problems in detecting quality may be reasons why vertical coordination is being used to circumvent the marketplace.

Barkema and Cook (1993) identifies two primary reasons for increased vertical integration: (1) The modern consumer is demanding more processed food, and (2) there are more demands for more specialized foods such as low-calorie and ethnic foods. Traditionally, the market-pricing mechanism has been used to procure these materials. However, as argued by Barkema and Cook (op.cit.), market signals have become too “fuzzy” (unclear and unspecified) to guide the grower, whereas production contracts are much clearer in specifying the genetics, feeding programs and management programs that will provide the homogenous product required to meet the consumers’ tighter specifications. These are all perceived of as primary reasons for increased vertical integration.

Similar reasoning is presented by Cook and Iliopoulos (1999). They claim that an imperfect ability to detect the required attributes of foodstuffs, together with technology advances and a more discriminating consumer are significant problems that could be circumvented by greater vertical coordination in these industries.

Busch (2004) also claims that new forms of contractual relations between suppliers and buyers appear to play an increasingly important role in the agri-food sector. One of

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<sup>9</sup> An externality is an effect of a decision by one party on another who did not have a choice and whose interests were not taken into account.

his observations is that large retailer chains tend to prefer direct contracts with growers rather than using brokers so as to ensure year-round supplies. The reason why such contracts are often quite attractive to growers, is that prices are typically fixed (or within an established range) before the growing season begins. Such contracts allow the growers to reduce economic risks. Busch observes that farmers are often willing to accept lower prices in exchange for greater certainty with respect to income. His assumption is that such farms and firms only enter spot markets when forced to do so by virtue of calamities that have struck their suppliers, when demand is unexpectedly strong, or when production has exceeded contracted volumes (Busch, *op.cit.*).

The background for this development is the fact that agri-food markets appear as more and more oligopolistic in nature. Not surprisingly, as the supermarket share of all food sales has increased and as the industry has become more oligopolistic, the traditional intermediaries between farm and retailer have declined. This is especially true for fresh products. Some supermarket chains are now global in scope, which means that they are also found in so-called developing countries. Economic concentration in the supermarket system is increasing rapidly. One ramification, still according to Busch, is that the corporate behaviour of supermarket chains has begun to resemble that of other oligopolistic industries: “Just as the large auto makers watch each other, so do the large supermarket chains. Store design, size, product variety and placement in the store, and even employee relations are the subject of careful analysis” (Busch, *op.cit.* p. 5).

Interestingly, Busch further observes that, as a natural consequence of economic concentration, the role of non-price competition has increased considerably. This is not to say that price competition has been eliminated—indeed it remains critical, especially in the low-priced segment of the market: “But overlaid on top of the price competition are new forms of competition, each designed to create and maintain customer loyalty” (Busch, *op.cit.* p. 6). This observation—that non-price competition appears to be increasing at the expense of “conventional” price competition—appears to be consistent with a hybrid governance perspective. A limited focus on prices only is an insufficient analytical perspective, since it is unable to take into account the significance of the other mechanisms that are in play.

To summarize, these types of studies confirm that both dependency and uncertainty play a significant role as causal factors behind vertical relations in the agri-food sector. However, none of the studies mentioned above are very detailed when it comes to the more specific design of the governance form. In the next subchapter, we will present contributions that invite to a more detailed investigation.

### **3.2 Mahoney’s and Boehlje’s prediction of governance forms**

Boehlje (1999) offers a more comprehensive review of governance forms in the agri-food sector, to a large extent based on Mahoney (1992). Boehlje’s starting point is an observation similar to the contributions mentioned above. The food production and distribution industry in the western world is in the midst of major structural change. His summary of driving forces includes changes in product characteristics, in worldwide production and consumption, in technology, in size of operation, and in geographic location. Boehlje holds that the structure of an industry or system is typically dimensioned in terms of size, financial characteristics, resource ownership, technology, and similar characteristics. With respect to the agri-food sector, however, he claims that the most dramatic changes refer to changes in the way of doing business. In particular, two profound changes are occurring in the way in which the agricultural system carries out its economic functions: (1) Development of food supply or value chains from genetics to end user/consumer, and (2) The adoption of process control technology and a

manufacturing mentality throughout the entire food chain, and especially in agriculture. Supply and value chains increase the interdependence among the various stages in the food chain, using strategic alliances, networks, and other governance structures to improve logistics, product flow, and information flow. Competition occurs not in the form of individual firms competing within a stage, but in form of supply chains competing for their share of the consumer’s food expenditures. Biological manufacturing is characterized by industrialized production that uses modern business principles and manufacturing approaches, including procurement, inventory management, and process control technologies and techniques. To summarize, Boehlje claims that

*“agriculture is being transformed from an industry that produces and processes commodities to one that manufactures specific attribute products for unique end-use markets.”*

The intriguing question is what governance forms (including contractual arrangements) will result in the agri-food sector. In tune with the TCE-credo that governance forms must be linked to the transactional nature of the underlying activities they shall organize, Boehlje suggests a framework for predicting governance forms. He suggests that the governance form will be a function of three characteristics of the transactions and the industry: (a) asset specificity, (b) task programmability, and (c) task separability. These drivers are essentially coherent with the factors presented earlier in this working paper, but also bring in some nuances that deserve some further comments. As mentioned earlier, asset specificity refers to the specialized nature of the human or physical assets that are required to complete the transaction. Task programmability indicates that a transaction is well understood by all parties and often repeated, thus not requiring intense discussion or negotiations and being easily accomplished by impersonal coordination mechanisms, such as open access markets. This parameter is closely related with frequency. Separability refers to the ability to determine and measure the value of the contribution and thus the reward that should be given to each participant in the transaction. Based on these three parameters, Boehlje than predicts the organisational forms presented in Table 3.2. Spot markets are predicted to emerge in a situation with low asset specificity and low non-separability, irrespective of programmability. The underlying logic is that this type of activities are not very demanding and do not imply a particularly high level of transaction costs, so that a relatively simple governance structure will suffice. Long-term contracts are predicted with high asset specificity, low programmability, and low non-separability. In a situation with high asset specificity (mutual dependence), high programmability and high non-separability, vertical ownership is expected. The underlying logic is that a relatively “tight” governance form is necessary in order to organize activities effectively (read: minimize transaction costs).

**Table 3.2 Predicting Organizational Forms of Alternative Business Linkages**

Factors	Low Programmability		High Programmability	
	Low Asset Specificity	High Asset Specificity	Low Asset Specificity	High Asset Specificity
Low non-separability	1: Spot market	2: Long-term contract	5: Spot market	6: Joint venture
High non-separability	3: Cooperation (strategic alliance)	4: Cooperation or vertical ownership	7: Inside contract (Hybrid)	8: Vertical ownership

Source: Boehlje (1999 p. 1035), box numbers as in Mahoney (1992: Table 3. p. 576)



Mahoney (1992) has developed a framework for predicting governance structure form, the underlying dimensions of which are asset specificity and measurement uncertainty. His theorising draws predominantly on Transaction Cost Economics, but also to some extent on agency theory. The latter perspective comes to the forefront in his emphasis on measurement problems related to programmability and separability. In order to interpret the classification properly, it is useful to make reference to Mahoney's definitions of the core concepts. Low task programmability means that observing input (read: effort) is a poor measure for making rewards. Likewise, high non-separability implies that the observation of output is a poor measure for making rewards. As already mentioned, high specificity means that human, physical and/or site firm-specific investments are high.

As can be seen from Table 3.2, this classification encompasses six distinct governance forms. Spot market (boxes 1 and 5) is coherent with a situation where the output of the agent is easily measured (low non-separability) and asset specificity is low. Here, the degree of task programmability (i.e. the ease of input measurement) is not important. Of course, activities with such characteristics may be organized differently—i.e. in some type of vertical bindings—but this is not assumed to be neither necessary nor useful, according to TCE. In a situation where the output of the agent is easily measured (low non-separability) and asset specificity is high (boxes 2 and 6), a long-term relationship is necessary for the parties to commit to investing in the specific assets. In these cases, low non-separability discourages vertical integration. The prediction is that high task programmability would be accommodated by a joint venture, and low task programmability would be best suited to a long-term contract. When the output of the agent is hard to measure (the degree of non-separability is high) and the degree of asset specificity is low (boxes 3 and 7), a long-term relationship is required, due to the asset specificity. In a situation where the task programmability is low, a relational contract that provides incentive for cooperation between the parties is required, since output control and behavioural control are both ineffective. If task programmability is high, then the “inside contract” is predicted to be the optimal solution. In this contracting system, agents are paid based on their efforts, and any team production within these contracts is monitored by a manager. Finally, when the output of the agent is difficult to measure (the degree of non-separability is high) and asset specificity is high (boxes 4 and 8), contracting problems are predicted to be severe. If the degree of task programmability is low, a hierarchy (i.e. vertical integration) is predicted to be the optimal governance form. Under low task programmability (cf. box 4), this is all together the worst case, since asset specificity is high and both input measurement and output measurement are ineffective. In this case, a vertically integrated clan relationship is assumed to be optimal, since a considerable dose of social capital is required in order to alleviate opportunistic behaviour.

This type of classification clearly brings us one step further in our effort to understand the relevance and nature of hybrid governance in the agri-food sector. For the good and the worse, however, it should be noted that Mahoney's classification is anchored in a hypothetical-deductive methodology (i.e. in a “top-down” approach, so to speak). This methodology secures that the propositions are deduced from TCE in a logical manner. The propositions appear as empirically testable implications of the theory. The weakness is that this methodology does not take the empirical anchorage into account. Does this way of conceptualizing give a reasonable and balanced picture of the agri-food system, or does it mislead our attention only to certain aspects of it? To come to grips with this question, we call for analytical approaches with a stronger empirical foundation, one among which is presented in the next subchapter. At the end of the day, it is clearly advantageous that our investigation of the new and upcoming

contractual formats in the Norwegian agri-food system is based on either methodologies. Hopefully, such a combination will provide a more robust and relevant analysis.

### 3.3 Verhaegen and Van Huylenbroeck's classification of hybrid forms in agri-foods

So far, we have referred to “top-down” approaches, which clearly provides important insights of the dynamics of governance forms in the agri-food system. However, need supplements from studies with a stronger empirical basis in the agri-food system. Such an approach must be on level with the actual complexity of most hybrid forms, and help to organize empirical observations in a consistent manner. This approach also avenues a more inductive methodology; i.e. building theories that are anchored in empirical observations. So far, it seems that only one such approach is available; i.e. the one presented by Verhaegen and Van Huylenbroeck (2002), see Table 3.3.

Their classification makes it possible to analyse different empirical forms from a coherent perspective so that interesting similarities and variations can be revealed. Their work is of particular interest here because its data are drawn from the agri-food system. Their study summarizes data from 156 innovative cases in the Belgian food system. It is an attempt to clarify the essence of hybrid organizations by emphasising an array of independent variables; i.e. *distribution of property rights, coordination of supply and demand, function of the authority, decision power of the authority, quality objectives, transaction specificity, producers incentive, adaptation mechanism, and nature of the contracts*. We will comment on each of them briefly:

(a) With respect to *property rights*, market governance is characterised by autonomous actors having full property rights over assets and products whereas internal governance is featured by unified property. In comparison, hybrid governance structures is characterised by actors who possess property rights, but have transferred some of these rights to their transaction partners.

(b) Within market governance, supply and demand are coordinated by means of prices; i.e. the “invisible hand” which contrasts to the “visible hand” (the fiat-mechanism) of the hierarchy. In comparison, the common feature of the hybrid governance forms is that they are characterised by the installation of an authority to which the power is given to make a number of decisions. The more precise nature and function of this authority mechanism may vary also. All hybrid forms contain an element of authority, but the strength and extent/scope of this mechanism may vary substantially between different hybrid forms. A loose form of hybrid is to organise a framework or network only. A stronger form of authority is to coordinate and make provisions for a certain quality level. The decision power of the authority may vary from very weak to very strong.

(c) The objectives with respect to *quality* may vary as well. Within an internal governance structure, the ambition is commonly to develop and secure a common quality level for all involved parties. In a market governance structure, the ambition is first and foremost to secure a clearly defined quality level so that buyers and sellers can pursue transparent and well-defined transactions.

(d) Market governance is characterised by *non-specific transactions*, whereas hierarchy is featured by *very specific* transactions. Here too, hybrid governance is (roughly) characterised by some type of intermediate solutions and an intermediate level of specificity.

(e) Market governance is characterised by *high incentive-intensity*. Producer incentives are strong within the framework of a market. At the other end, internal governance is typically characterised by a low level of incentive-intensity.

(f) The *adaptation mechanism* is quite autonomous with market governance, whereas internal governance is characterised by co-ordinated adaptation.

Table 3.3 Classification of governance structures

	Governance structure				
	Market	Hybrid			Internal
		framework	co-ordinating	participating	
<b>Property rights</b>	autonomous property	autonomous property with transfer of some rights to the authority			unified property
<b>Coordination of supply and demand</b>	invisible hand (market)	invisible hand (market)	co-ordination by authority	determination by authority	determination by fiat
<b>Main function of the authority</b>		organising a framework	co-ordinate supply and demand	co-ordinate and produce quality	
<b>Decision power of the authority</b>		very limited: the functioning of the framework	limited: the production method, time to sell and price negotiations	high: production method and planning, prices and marketing	
<b>Quality objectives</b>	basic quality (tangible or clearly defined characteristics)	individual producer quality	unified producer quality	unified total quality of the diverse products	common total quality
<b>Transactions</b>	non-specific	somewhat specific	specific	very specific	very specific
<b>Producers' incentives</b>	high	high	high	moderate	low
<b>Adaptation mechanisms</b>	autonomous	autonomous	autonomous & coordinated	co-ordinated	co-ordinated
<b>Contracts</b>	classical	classical	neo-classical	relational	relational

Source: Verhaegen and Van Huylenbroeck (2002 p. 125)

(g) Last, but not the least, market governance is based on *classical contracts*, whereas internal governance is typically organized in the form of *relational contracts*. In principle, classical contracts presuppose no uncertainty (full certainty). Classical contracts can only be applied efficiently in situations where all factors (contingencies) are well known/identified, these contracts are complete contracts—“sharp in by clear agreement, and sharp out by clear performance”. The parties develop a discrete relation between them. The other three contract types—classical long-term contract, internal contract and relational contracts are used in situations with uncertainty, but prescribe different mechanisms to deal with uncertainty. The classical long-term contract format is characterised by an attempt to specify all future contingencies in the contract document (the written contract). The internal contract format is based on decision control, rules and routines. An actor is granted the authority to take decisions on behalf of another party. The parties to an internal contract develop a formal relation. Relational contracts

are based on informal mechanisms, like building trust and personal relations. The parties to a relational contract develop a norm-based relation.

Based on an in-depth analysis of these parameters in various empirical settings, Verhaegen and Van Huylenbroeck (2002) distinguish between three typical hybrid forms: “framework”, “co-ordinating” and “participating”, respectively. Of the three, “participating hybrid governance” is closest to internal governance, whereas “framework hybrid governance” is closest to the market.

### 3.4 Thick contracts, thin markets and lack of transparency

Finally, our review of the significance of vertical relations in the agri-food industry should include a short reference to some of the ramifications of increasingly tighter vertical bonds. One implication seems to be of particular interest here, i.e. the fact that markets are becoming thinner and the agri-food sector in total may become less transparent. Based on his extensive observations of food sectors in many countries, Busch (2004) claims that:

*“...wholesale markets are more and more what economists call thin markets – markets that handle the residual after most products are sold under contract at prices unknown to anyone other than buyer and seller.”*

The consequences of “thick vertical contracting” in the agri-food sector clearly needs some further investigations. Busch’ general assumption is that this development reflects a fundamental transition of the agri-food sector:

*“Less and less frequently can one make the claim that price summarizes in some meaningful way all the relevant attributes of a product. In sum, the market has come nearly all full circle to its precapitalist origins”* (Busch, op.cit.).

More specifically, this conclusion is based on the observation that agri-food markets have become less transparent as a consequence of the increased degree of vertical integration. Busch claims that, for a century or more, industrialized nations have collected price statistics at various locations on the supply chain, in order to increase the transparency of the markets, and thereby improve the way markets work in practice. Publicly available prices were important in order to ensure that the prices received were assumed to be fair by the involved players. Hopefully, the result would be lower prices to final consumers. Here, Busch clarifies some aspects of the increased vertical integration in the agri-food sector that seems to be underestimated so far:

*“But the widespread use of contracts for many agricultural commodities is rapidly undermining those statistics. To the extent that public markets are now thin, the prices recorded there are no longer representative of prices received. Moreover, they no longer correlate in any consistent way with those prices. In some instances, they are essentially useless (even if they may still be plugged into equations and used to calculate results). ...There is a great irony in this. The proponents of free trade have insisted that free trade would result in – indeed was synonymous with – the creation of a global market economy. But what has begun to happen, in part as a result of strategic decisions made by retail food executives, is the creation of a global network of largely private relations between buyers and suppliers. In that network, where product differentiation is encouraged and prized, price still counts, but price is no longer the universal solvent. Less and less frequently can one make the claim that price summarizes in some meaningful way all the relevant attributes of a product. In sum, the market has come nearly all full circle to its precapitalist origins.”*

There are several interesting points that can be drawn from Busch' reasoning: Conceptually, his observations emphasises the relevance of conceptualizing governance of the value chain as a hybrid form: Clearly, incentives in the form of prices still counts, but they appear more and more as constitutive elements of largely private relations. Interestingly, what Busch refers to as relations of a quasi-feudal nature, is only another name for the authority mechanism, the role of which is indisputable in hybrids. An interesting empirical question to address is to what extent the Norwegian agri-food system is also plagued by this reduced level of transparency. For sure, there are indications that the problem is unignorable in this context also. One example is the complexity that has been associated with collecting data in empirical studies of the marketing margins in the Nordic supply chains (Bergan et al., 2002).

To pull the threads together, the picture that emerges seems to be one of vertically coordinated and oligopolistically oriented supply chains that appear as less and less transparent. The retailer chains are clearly in the driver's seat in "their" respective vertical chains. It is not unreasonable to assume that it is first and foremost in their interest to decrease the level of transparency, since their room for strategic manoeuvring is thereby increased.

To sum up, it seems clear that issues related to mutual dependency and various types of uncertainty are indeed relevant drivers to take into account in the agri-food sector. There may be of course be other features of the transactional nature of the underlying activities that are underestimated in the literature so far, but the abovementioned factors at least represent a relevant point of departure for an empirical exploration of the Norwegian agri-food sector.

To advance the research further, a combination of a "top-down" and a "bottom-up" methodology appears appropriate. In other words, the major assumptions that are developed from TCE should be put to a critical test, and a more empirically grounded investigation of the case(s) in question should be an essential part of this test.

In the next chapter, we set out to conduct such a test—in a preliminary version—in the case of the Norwegian agri-food sector. The task at hand in this chapter is to apply the insights that are referred to up to this stage of the paper as a framework for analysing novel contractual arrangements and governance forms in the Norwegian agri-food system.



## 4 TCE as applied to the analysis of new contractual formats in the Norwegian agri-food system—a conclusive remark

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The purpose of this paper has been to clarify how TCE can enhance our understanding of the emerging contractual formats in the Norwegian agri-food system. We have constricted the initial question somewhat, since particular emphasis has been laid on the conceptualization of hybrid governance. We have concluded that this notion appears as a relevant analytical approach, and a well-chosen methodological tool for the analysis of the empirical reality of the Norwegian agri-food system. The empirically based classification of hybrid governance developed by Verhaegen and Van Huylenbroeck (2002) stands out as a particularly relevant frame of reference for our investigation of the changing contracting formats in the Norwegian agri-food system.

The task at hand in this closing chapter is to develop an answer to the initial question that is raised in the title. The discussion throughout the working paper has indicated a series of organizational and contractual issues that are highly relevant with respect to the future of the Norwegian agri-food system. The time has come to put the many pieces together, formulate the most relevant issues more explicitly, and develop their ramifications.

At the outset, it should be underlined once again that TCE is not very well equipped to address contextual issues, such as institutional preconditions and factors of a more cultural nature. TCE is essentially oriented towards the micro-analytics of organizations and contracts, and has less to say about the macro-conditions into which the governance structures are embedded. This limitation is obviously important to have in mind as we try to sort out TCE's relevance for a particular context. To clarify, Williamson (2000) has suggested a distinction between four levels of social analysis (Figure 4.1). Level 1 is the social embeddedness level where the norms, customs mores, tradition etc. are located, and religion plays a large role. Level 2 is referred to as the institutional environment level. The institutions of governance are located at level 3. Level 4 is about resource allocation and employment, the rationale of which is to get the marginal conditions in the economy right. Analysis at this level is continuous. At level 3 the

frequency is typically from 1 to 10 years, at level 2 the time horizon is from 10 to 100 years, while at level 1 the frequency may be of a very long-lasting nature; i.e. from a hundred to a thousand years. New institutional economics has mainly been concerned with levels 2 and 3; economics of property rights and positive political theory at level 2 and TCE at level 3. According to Williamson, neoclassical economics and agency theory are predominantly relevant at Level 4 (Williamson 2000 p. 597).

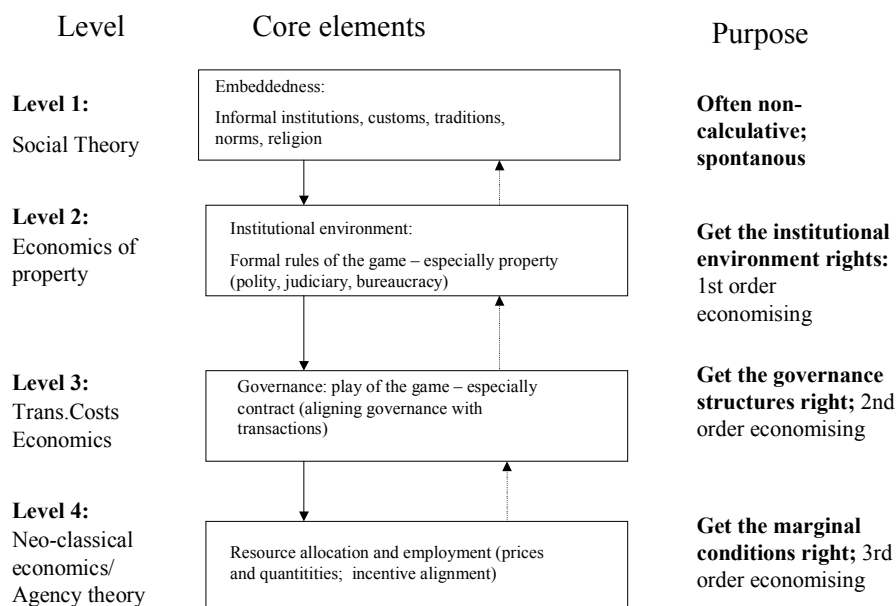


Figure 4.1 The Economics of institutions

Source: Williamson (2000 p. 597)

Our review of the changing contractual arrangements in the Norwegian agri-food system will predominantly address the intimate interplay and interdependence between the institutional level (level 2) and the governance level (level 3). Said differently, our interpretation of *contextualization* is to explore more explicitly the structure and processes by which these levels are related over time, and discuss the consequences. Following the vocabulary of Williamson (op.cit.), the scope of the analysis is extended to include the interplay between 1<sup>st</sup> order economizing (“get the institutional environment right”) and the 2<sup>nd</sup> order economizing (“get the governance structures right”). In the case of Norwegian agri-food system, it is obvious that the nature of the institutional model and the existing governance models have influenced each other in the post 2<sup>nd</sup> World War period. The fact that the agricultural cooperatives have been assigned the role as implementor of the nation-wide agricultural politics is presumably the most telling example. The successful period of the agricultural cooperatives in Norway must be understood in light of the particular institutional preconditions that were established in Norway at that time (Røkholt and Borgen, 1999). Under these preconditions, the major players (i.e. the agricultural cooperatives) were offered stable “rules of their game”, and they were in position to cultivate their play according to these rules. Various sanctions were activated in order to motivate the agricultural cooperatives to increase their capability and performance as implementor of the national agricultural



policy. (Another aspect is that this rules prevented them from developing capacity to play the game to succeed as commercial actors at an integrated, international market.)

Subsequently, an up-dated understanding of the core institutional preconditions is necessary to understand the future dynamics at governance level. What changes in the contractual format are likely to come into play in a situation where the institutionally conditioned stability of the Norwegian agri-food system is withering? The Norwegian agri-food system is in a period of transition, and must adapt to a more internationally oriented institutional framework, following Norway's obligations as WTO member. The intriguing questions are: What type of institutional framework? And how would these new "rules of the game" impact the governance level of the Norwegian agri-food system? These questions are not investigated further here since we set focus on the governance level. However, the theme is addressed further in Hegrenes and Borgen (2005). This exploration should also add to our understanding of one important driver of transaction costs; i.e. exogenous uncertainty associated with the new political reality. The exact ramifications of the increased political uncertainty, however, seems far from clear as per now.

The governance level is our primary level of analysis here. Transaction Cost Economics—and in particular the cited research on hybrid governance forms—is an important source of inspiration. The more specific task is to formulate relevant research issues that may illuminate the significance and dynamics of contracts as coordinating mechanisms in the Norwegian agri-food system. In other words; what substantial issues in the Norwegian agri-food system can TCE contribute to clarify and explain, and in what way? We will first comment on the drivers of transaction costs—transactional dependency and transactional uncertainty—and thereafter apply the basic TCE-thinking to substantial issues that we consider to be particularly relevant in a discussion of future contractual arrangements in the Norwegian agri-food system, three of which are:

- The nature of the vertical relations as it stands today, including the fact that the Norwegian agri-food system is now more and more characterised by "thick contracts and thin markets".
- The significance of quality development and quality enforcement, including a discussion of the significance of various quality signalling mechanisms like branding and collective trademarks.
- New contractual arrangements within the agricultural cooperatives, which appears to be mandatory in order to secure improved coherence (match) between changing competitive strategies and cooperative structures. The existing mismatch problems must be resolved. Future success at the market is conditioned on the cooperatives' capability to differentiate both raw materials and value added. The intriguing question is: What new contractual arrangements can help to facilitate this necessary transition?

#### **4.1 Transaction specificity (mutual dependence) as a driver of new contractual arrangements**

What is the nature of the transaction specificity that prevails in the Norwegian agri-food system? What type of mutual dependence prevails between the major actors? What are the major causes of this dependence? What governance structure follows, and why? What are the consequences with respect to efficiency and the relative distribution of influence? Here, we will delimit ourselves to a more indicative discussion, with a relatively limited empirical anchorage.

First, with respect to foodstuffs, there are obvious reasons to take the significance of time specificity into account as an important design parameter for governance structure. Foodstuffs are typically subject to value decay over time. Timeliness and synchronization of operations are therefore essential in order to create, secure and maintain the expected quality level. Effective logistics and time management are fundamental in production and distribution of foodstuffs. In particular, foodstuffs that are subject to rapid value decay (milk, meat, some vegetables etc.)—or at least the threat of rapid value decay—demand a well synchronized value chain, and presumably also a tight governance form that secure a proper and stable quality level over time. As such, this is clearly not a new insight. In the 1960s Wilcox and Cochrane (1960) emphasised the importance of

*“having control of the time and conditions of delivery, and the quality and appearance attributes”.*

An intimately related question, which seemed to be less emphasised at that time, is how this control and power function is distributed among the involved parties. Who wins, who loses? Who is the captain, and in position to—more or less—instruct the activities of the chain? Hybrid governance is a conceptual framework that avenues a more explicit discussion of these issues also.

More generally, expensive and advanced technological solutions are called for, for instance in the form of “cold chain technology” in the case of meat and dairy products. Busch (2004) observes that the first refrigerated rail cars permitted a transformation of the US beef slaughtering industry. He concludes that it is now technologically possible to maintain the cold chain from the point of harvest to the point of consumption on hundreds of fresh and frozen products. Low cost fuels combined with large container ships and linked rail-ship-truck container movement allow a wide range of new products to be found on supermarket shelves at relatively low prices (Busch, op.cit., p.8).

More specific propositions can be developed, for instance taking the different nature of food-products into account. Based on an analysis of this driver only—which is of course insufficient in an empirically based analysis—it is natural to expect a higher level of transaction costs in production and distribution of milk-based products than in the production and distribution of more storable vegetables. Following the TCE-logic, the governance form is expected to be stricter in the milk-chain than in the vegetable-chain. Let us underline that such a partial analysis is useful to clarify the underlying micro-analytics as seen from a “top-down” perspective, whereas a study of real-life phenomena should be more grounded in the empirical world. Transaction specificity is but one parameter to take into account.

It is well established in the scholarly literature that foodstuffs of a credence nature call for a more complex contractual structure, since prices are assumed to be insufficient as conveyors of information (Barkema and Cook, 1993). This problem calls for quality signals in the form of private branding, collective trademarks and certification. This further calls for governance and contractual forms with a complexity that is coherent with the transactional nature of the underlying activities in question.

One case study of such issues as it unfolds in the Norwegian agri-food system is presented in Jervell and Borgen (2004). This study explores three hybrid governance forms with the joint intent of securing market access for specialized agri-food products, in a situation where the dominating retailer chains are not very eager to bring these differentiated products into their shelves and shops. The study applies the typology presented by Verhaegen and Van Huylenbroeck in order to organize data and test the basic assumption that “the higher the quality level, the more complex and stricter is the governance form”. This assumption was confirmed, which indicates that the basic

thinking of TCE can indeed add to our understanding of the evolving contractual formats in the Norwegian agri-food system.

## 4.2 Transaction uncertainty as a driver of new contractual arrangements

TCE claims that if no uncertainty is associated with transactions—meaning that they are “sharp in by clear agreement and sharp out by clear performance”—they can be effectively organized through market governance. But if transactions are uncertain and risky—doubtless a common situation—safeguarding mechanisms and more complex governance mechanisms are called for. This insight is well established in organization theory. For instance, Thompson (1977) claimed that uncertainty appears as the fundamental problem for complex organizations, and that organizations respond to environmental uncertainty by “buffering” their technical core from its effects. Perceived environmental uncertainty exerts a considerable influence on organizational structures and processes. But uncertainty is of a ubiquitous nature, and not all sources and types of uncertainty are equally relevant. Sutcliffe and Zaheer (1998) have examined the relationship between uncertainty and vertical integration. Based on the prevailing literature, they made a distinction between three categories of uncertainty; i.e. primary, competitive and supplier-based uncertainty. Primary uncertainty is related to exogenous sources; nature, politics and the like. Competitive uncertainty is defined as the uncertainty that arises from the actions of potential or actual competitors, which may be either “innocent” or of a strategic nature. This type of uncertainty derives from moves or signals by economic actors in current or future competition with the focal firm, which may be “noisy” and difficult to grasp precisely. Supplier uncertainty is the behavioural uncertainty arising from the (strategic) actions of the exchange partner(s). It refers to the risk associated with ex ante or ex post opportunistic behaviour from suppliers. Williamson (1975) refers to behavioural uncertainty as “self-interest seeking with guile” and includes in the concept the use of self-disbelieved statements and misinformation with the intention of profiting at the expense of the exchange partner. Sutcliffe and Zaheer propose that supplier uncertainty is “strategic” and of a behavioural nature. This form of uncertainty refers specifically to possible opportunism by either the upstream or the downstream exchange partner.

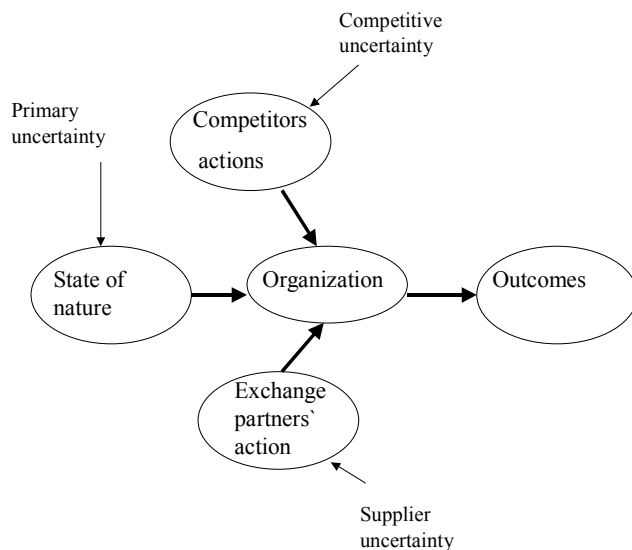


Figure 4.2 Sources of uncertainty

Source: Sutcliffe and Zaheer (1998)

Not surprisingly, this source of uncertainty appeared as the most significant driver towards vertical integration. Sutcliffe and Zaheer's empirical test confirmed that supplier uncertainty indeed results in decisions to increase firm scope through vertical integration. An intriguing question is whether this holds true in the Norwegian agri-food sector also.

Norwegian agriculture is exposed to multiple sources of uncertainty of a primary (exogenous) nature, related to nature and politics, respectively. The ramification for contractual arrangements is not necessarily easy to identify, but certainly deserve some further reflections. For instance, one unignorable source of primary uncertainty is the outcome of the ongoing WTO negotiations. The aggregated consequences for the Norwegian agriculture and the food processing industry are investigated by Mittenzwei and Nersten (2004). But the further consequences may be diverse and difficult to treat systematically and coherently without a final agreement and further specification. The overall consequence—which is an intended policy—is that most Norwegian agri-food markets are subject to deregulation; i.e. less state and more market. Presumably, this implies that agriculture—and the derived food-processing sector—is based more and more on genuinely market-based price determination, and less on governmental price support and market regulatory schemes. The percent PSE-rate, (PSE=Producer Support Estimate) being indisputably high in Norway, is expected to be significantly reduced the next years. All branches of the Norwegian agri-food system will be exposed to fiercer and more internationally oriented competition, although at differentiated rates.

It is not straightforward to discern the further consequences of this source of primary, exogenous uncertainty for the market structure and governance forms. Nevertheless, one interesting question to raise is how power relations may shift as a consequence of increased deregulation. According to Busch (2004), there is a general—and even global—tendency that deregulation of national and international food systems lead to oligopolistic competition between supply chains that are tightly integrated vertically from farm to fork. This competition is of an oligopolistic nature since a few large players dominate the market. This development pattern seems to hold true for the

Norwegian agri-food system also. Another essential characteristic is that the retailer chains have taken the leadership role in “their” respective chains.

What these observations boil down to, is that a causal link exists between the increased exogenous uncertainty and the shifting power relations in the value chain. For decades, the domestic production-distribution chains in the Norwegian agri-food sector have been institutionally stabilized. As the market regulatory schemes are removed and tariffs reduced, this stabilization is built down also. The consequences are experienced particularly directly and explicitly by the agricultural cooperatives, but the ramifications are observed at all stages of the value chain. The degree of vertical integration may of course vary. At the one extreme is integration via ownership, which is characterised by a fiat-mechanism. In that case, the owner (typically a retailer chain) is in position to instruct the producers and distributors by virtue of the decision rights that follows from the ownership. But there is also other hybrid governance forms in the agri-food system that are not coordinated through formal ownership, but tightly integrated through various contractual formats (Haugland, 1996; Knutsen et al., 2001).

The further consequences for the strength of the vertical relations and the associated contractual arrangements can hardly be discerned by reference to exogenous uncertainty alone. More specific propositions must be developed by reference to other sources of uncertainty plus the complete set of the characteristics of the underlying transactional characteristics. Let us just indicate briefly what this could mean in the case of the Norwegian agri-food system. Uncertainty related to the nature and quality aspects of the products (particularly quality aspects) is relevant here. As mentioned above, the significance of quality attributes of food-stuffs stems from the fact that foodstuffs are typically subject to continuous value loss due to decay. Synchronization problems must be solved as efficiently as possible in order to minimize risk for loss of time and thereby value decay. In the TCE-vocabulary, this is an issue of solving problems associated with time-related specificity.

Another well-known feature of foodstuffs is their credence nature, which is caused by the fact that information is asymmetrically distributed between sellers and buyers. For instance, if the seller claims that a particular item is processed in an environmental-friendly or animal-friendly manner, it is not necessarily easy for the buyer to verify the seller’s claims unless further documentation is brought forward.

Finally, supplier-based uncertainty, i.e. the risk that the exchange partners in the supply chain might behave opportunistically, must be taken into account also in empirical studies.

To summarize, there are multiple sources of uncertainty and much variation to account for in empirical studies. Further specification must be grounded in the specific characteristics of the products and value chains in question, as well as uncertainty associated with the risk of opportunistic behaviour from transaction partners in the value chains. In other words, the validity of the expectations that are developed from this established body of knowledge must be subject to critical testing based on empirical facts. Based on this research programme—and preceding programmes—that explore different agricultural sectors, we have at this stage the following case studies to bring forth:

- Hegrenes and Borgen (2003) analysed the potato sector: This study concluded that deregulation leads to oligopolistic competition, and the most aggressive one had taken the leadership. At least one wholesaler has made relatively strong efforts to improve potato quality and to meet consumer demands regarding potato varieties.
- Knutsen et al. (2001) studied the regionally based production of apples. One conclusion was that the fruit producers had few incentives to improve quality above the minimum requirements, and to plant varieties that the consumers demand. Another conclusion was that the producers were in an ambiguous situation because of

both large advantages and disadvantages to become more tightly integrated with the retailer/wholesaler chains. On the one hand the producers obtain a relatively secure long term outlet for their produce, and on the other hand they might be locked in position with decreasing influence and less possibilities to choose alternative marketing channels. The conclusions are further elaborated below.

- Jervell and Borgen (2000) studied the milk sector and the milk quota system: This study concluded that quota system had served as a flexible tool for implementing a wide set of political objectives and enterprises, within the framework of an advanced governance regime. Obvious conflicts of interest between farmers had been negotiated in a structured manner, and softened by the state. There have been unforeseeable changes in the rules, regulations and administrative practices. One reason why this has been accepted, is the way the quota system is embedded in the agricultural policy process.

### 4.3 Thick contracts and thin markets

In the scholarly literature, the significance of transactional frequency as a driver of transaction costs seems to be more contested than specificity, mutual dependence and uncertainty. The significance of frequency will not be discussed in detail. With respect to the Norwegian agri-food sector, we delimit our exposition to one aspect of transaction frequency, notwithstanding the fact that this problem is not the standard one that is normally described in the TCE-literature. Since the theme appears to be of particular relevance for the Norwegian agri-food sector, however, it deserves some special attention here.

Approximately 98% of the volume is traded through the four dominating actors that compete very much in the manner that standard textbook expects oligopolistic competitors to do. As seen from the perspective of the suppliers, the struggle is to gain access to one or more of the chains; i.e. to become an insider. On the other hand, it is not necessarily unproblematic to be an insider. Smaller producers may find themselves in a vulnerable and risky contractual position (Knutsen et al. 2001). The “chain captain”—a role played by the retailers—is in position to instruct suppliers, and more or less “force” the suppliers into his conceptual thinking and adapt to sales concepts that is not necessarily optimal for the supplier in the long run. Knutsen et al. (op.cit.) refer to one example where the supplier are “forced” to strip out all types of potential differentiation features in order to cultivate the cost-leadership profile that the retailer chain want to be associated with. In other words, the chains parties’ interests don’t necessarily coincide. What is good for the sales curves of the retailers and distributors is not necessarily good for the product development and business development of the suppliers.

Said differently, some suppliers are selected to become frequent suppliers and consequently enter into a process of transactional specificity. An appropriate contractual scheme is developed that regulates fundamental issues like quality level and transaction frequency. The selected suppliers—normally not very many—become insiders. As already mentioned, some insiders have experienced a dose of ambiguity here, since the frequent deliveries to one main customer increase their dependency. They run a substantial risk for being exposed to “Hold-up” situations. They are forced to be loyal to the sales concepts of the retailers, which are not necessarily in their strategic interest over time. Example: “Apples from Hardanger” is sold under a hard-discount concept, due to lack of other market outlets. In the terminology suggested by Levinthal and March (1993), an imbalance emerges between exploitation and exploration (Knutsen et al., 2001). Heide and John (1988) have emphasised the need for offsetting activities for small producers in such a vulnerable contractual situation. Nevertheless, these producers

are—more or less—integrated in a system that can somewhat loosely be coined “thick vertical contracts”.

Then, what about the outsiders? In the current Norwegian agri-food system, a very small proportion of the traded volume is now sold outside the four vertically integrated chains. The situation resembles what is normally called a thin market, with relatively few buyers and sellers. In short, they operate on increasingly thinner markets, and fight for access to established market outlets, and/or the establishment of alternative outlets (Jervell and Borgen, 2004).

Much more can be said about the strategic position of the “outsiders” also, but we will here instead pay attention to one important consequence of this particular market configuration (“thick contracts and thin markets”); i.e. the diminished degree of transparency with respect to prices and other vital economic information. In a study of “joint marketing” in the distribution of foodstuffs in Norway, Dulsrud (2005) has documented that suppliers pay a shelf fee in order to secure access to the retailer chains. Evidence of a more anecdotal nature is easy to find too. For instance, NILF has undertaken multiple studies of prices, marketing margins and price transmissions through supply chains in the Norwegian agri-food sector. The methodological challenge has been to get access to necessary data from the processors and distributors in question. To reveal information has emerged more and more as a threat to their competitive strategy.

More generally, Busch (2004) has emphasized that this situation is increasingly blurring the balance between private and public price information. Zawada (2002 p. 8) has concluded that a situation with “thick contracts and thin markets” impact the parties’ relative capability to control vital information, and thereby their relative power situation:

*“The changing character of agriculture, including the increased use of agricultural production contracts, has the effect of reducing the transparency of the process. The concern this raises is that the market system will be subverted in favour of those who control information, harming those without access to the data.*

*A system based on agricultural production contracts is more closed than the traditional markets. A sophisticated system has arisen for commodities such as grain, with grading provisions, traders and futures and other derivatives. An important part of this system is open pricing...The goal is to have a perfect market, without advantage given to those with inside information on prices.*

*Agricultural contracts work against this. Since prices are contained in an agreement that is privy only to (usually) two parties, there is an inherent restriction on price discovery. Unless one side or the other overtly publishes the details to the world, it is usually the case that only friends or family can learn pricing specifics.*

...

*...Confidentiality clauses also can have an impact on bargaining position.”*

To sum up, producers seem to be exposed to an on-off situation; i.e. to be accepted as supplier to one of the four retailer chains, or not. Insiders are in position to benefit from frequent transactions, which is reflected in the contractual format. But being an insider has a cost. The contractual set-up within a specific supply chain reflects the uneven market power between suppliers and buyers. A common situation is that the suppliers must adhere to the sales concepts of the retailers. The strategic problem is very different for those suppliers that do not succeed in getting access to one or more of the chains. Being an outsider, their problem is to establish an outlet that secures some degree of frequency at all. Outsiders must act in increasingly thinner markets. Information about prices and other fundamental economic issues appears to be more and more “privatized”

by the oligopolists. The further consequences for actors and the Norwegian agri-food sector in general deserve further investigation.

#### **4.4 TCE as a framework to explore the nature of quality enforcement in the Norwegian agri-food system**

As already indicated, TCE can add to our understanding of several aspects of quality development and quality enforcement in the Norwegian food system. What TCE inspires us to explore, is the causal link between the transactional nature of the activities in question, and the governance structure. One derived assumption is that the higher the quality level, the stricter and more complex is the governance form. Another prediction is that simple transactions (“sharp in and sharp out”) can do well with a simple governance structure, such as a spot contract. However, such transactional characteristics are not typical in the case of foodstuffs, as already mentioned. Prices appear as necessary but insufficient as coordinating mechanisms, due to information asymmetry, the credence nature of the products and likewise problems. Subsequently, more complex governance is called for, in the form of company-specific branding, third party certification or a combination.

More demanding food safety-regulations—including quality assurance systems and traceability systems—also challenge the players’ capability to document properties and quality level in a manner that far exceed the insufficient quality indications offered through relative prices. More generally, Carriquiry, Babcock and Carbone (2003) identify three incentives for growers and food manufacturers to adopt quality assurance systems (QASs): (a) increased consumer demand for knowledge about where food come from and how it was produced; (b) opportunities for producer groups to capture a greater share of the consumer dollar by differentiating their products; and (c) greater protection for food manufacturers and retailers against food safety liability. What constitutes a proper mix of public and private efforts in setting QASs is an unsettled question. Carriquiry et al. (2003) model the optimal degree of “stringency” or assurance in a processor’s quality control system over procurement of agricultural output when there exists uncertainty about quality. The model predicts that the degree of stringency depends on (a) whether the sought-after attribute is discoverable by consumers, (b) the price premium paid for the attribute, (c) the cost of quality control, and (d) the damage caused by false certification. Contractual formats that reflect this situation develop. For instance, a normal situation is now that contracts are of a very general, relational type (serve as a framework), and that a further reference to quality standard(s) is fundamental for the more specific content.

Clearly, quality enforcement appears as an important substantial issue to study in the light of new contractual arrangements in the Norwegian agri-food sector. Particular emphasis should be laid on quality standards in the form of private branding and collective trademarks and certification. The former is enforced by the company itself (“self-enforcement”) whereas the latter is enforced through third party certification and guarantees. It is not unusual to find combinations of the two in the Norwegian agri-food sector (Norberg and Myrland, 2003). Collective trademarks are of particular interest here. According to Ménard (op.cit.), the goal of collective trademarks—and their supportive mode of organizations—is to reduce customers’ search costs while benefiting from joint marketing. Collective trademarks usually involve backward coordination and often originate from suppliers, although retailers may also take the initiative. The larger the number of partners involved, the higher is the risk of opportunism. Large number of partners also implies that monitoring and control become more demanding. The intriguing question to raise is how effective such trademarks



work as quality signalling mechanisms, and what governance mechanisms is required in order to secure that the expected quality level is delivered over time. Jervell and Borgen (2004), in a study of Farmers Markets in Norway, predict that tighter quality control—and perhaps also stricter selection of members—might be necessary to secure the promised/necessary quality level over time.

This theme deserves further attention, both in order to provide the involved actors with relevant guidance for their development of quality standards, but also in order to add to our more theoretically oriented understanding of hybrid governance.

## 4.5 Analysis of changing contractual formats in agricultural cooperatives

As long as the members of a cooperative produce a homogenous raw product and the processed product has a low degree of differentiation (that is, it has almost perfect substitutes), there is little need for specific contracts with the members. This may still hold if the cooperative chooses to use the standard raw product as input for a differentiated final product. The membership “contract” is sufficient to give the producers correct incentives. However, if the cooperative decides to diversify the final product by using a diversified input, there may be a need for contracts with the producers specifying quantity, quality, and price of their production.

The cooperative form exemplifies fundamental characteristics of hybrid governance (Ménard, 2004; Iliopoulos, 2003) in the sense that the three empirical regularities suggested by Ménard—pooling resources, competition and contracting—are indeed in place in cooperatives. The more fundamental challenges for the cooperative are among others:

- How can the cooperative secure cooperation between its patrons in order to achieve coordination at a low cost without losing the advantage of decentralized decisions?
- How can the governance structure of the cooperative secure contracts while minimizing costly (re)negotiations?

Ménard (op.cit.) points out that cooperatives share some characteristics with both collective trademarks and partnerships in the sense that they all confront problems of control over quality in order to avoid negative externalities.

Agricultural cooperatives play a fundamental role in the Norwegian agri-food sector. They are now in a period of rapid transition. New competitive strategies demands differentiation of inputs (raw material) as well as differentiation of value added products (Sørensen, 2005). The contracts must stimulate members to differentiate their products, for instance organically produced raw materials vs. conventionally produced products. We expect to observe a development from general constitutional contracts to more specific contracts which imply more risk-taking on the hands of the farmers, changed incentive-intensiveness etc.

The relevant themes that are raised in this chapter, are summarized below:

<b>THEME</b>	<b>Illuminated in the following case-study</b>	<b>Message to be drawn from this study</b>
Deregulation and increased oligopolistic competition	Hegrenes and Borgen (2003)	Less regulation at the same time as concentration of retailer/wholesaler chains, and a much weakened horticultural marketing cooperative led to tight and dedicated vertically coordinated chains. There is still a target price system for potatoes and a few other vegetables. Import tariffs are important. The wholesalers are very central in quality definition and enforcement, packing, and in marketing. Producers in a relatively weak position.
Quality development and enforcement	Jervell and Borgen (2004)	Many parallel trends in quality developments and enforcement: Some qualities are defined by the government (organic farming), some are defined by voluntary quality systems, some by the retail chains, some in close cooperation between actors at various stages.
Restructuring of agricultural coops	Sørensen (2005)	Merging of regional cooperatives into nation wide concerns. More differentiation of products according to quality. Some of the qualities that consumers demand, originate at farm level; there is a differentiation of raw products and producers. The agricultural cooperatives try to develop quality and pricing system that gives the right incentives to producers and to organise the business activity in a way that reflects the value added of the differentiated products and the associated risk. The general membership contract is not enough, and various forms of additional contracts between cooperatives and specialty producers are expected to develop.
Emerging of specialised products and new market channels	Jervell and Borgen (2004)	Some farmers try to develop new market channels for various reasons, e.g. to reap a greater part of the consumer price, and to find outlets for specialised products that do not fit into the various retail store concepts. Farmers form framework organisations as the Farmers Markets to market such product. In Norway the Farmers Markets are sponsored by the agricultural marketing cooperatives.

## 5 Conclusion

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In conclusion, our review have hopefully convinced the readers that TCE can indeed add to our understanding of new contractual formats in the Norwegian agri-food system, and serve as an organizing framework for such investigations. But it is also clear that TCE needs to be carefully contextualized, and its blind spots should be kept in mind. The theory should not be stretched too much. For instance, TCE has nothing too say about phenomena at a macro-level, such as the changing political-institutional framework. With respect to the Norwegian agri-food system, it is clear enough that the fundamental drivers behind new governance structures and contractual formats are very much associated with factors that are exogenous to contractual partners in the value chain; not the least new political ideologies, which are read off in form of more liberalised international trade in foodstuffs, and deregulation of the national food system. Equally obvious, however, these overall changes imply that new sources of uncertainty increase and the general level of uncertainty is enhanced for all involved players in the Norwegian agri-food system. TCE can first and foremost add to our understanding of the manner by which this increasing uncertainty is dealt with by the producers and distributors in the system. This requires an in-depth understanding of the transactional nature of the underlying sets of activities. The theory helps us to analyse the basic conditions under which new contractual formats—or governance forms in general—are evolving. This is consistent with the standard distinction between the two levels of analysis—rules of the game (analysis of institutions) and how the players play the game, given these rules (governance). TCE helps to understand the latter, but presupposes a relevant understanding of the former. Subsequently, a *multilevel approach* is necessary in order to capture the nature of the new contractual arrangements that are evolving in the Norwegian agri-food supply chains. Indeed, an unignorable part of the contractual issues between a farmer and a consignee in Norwegian agriculture has traditionally been determined by public law and regulation and/or by a cooperative membership. Subsequently, our analysis must include and embed factors at the “institutional level” such as public regulations, contract law and norms. They all heavily impact the contractual situation of the individual farmer. Indeed, some observers would claim that the Norwegian agriculture is regulated in such a detail that there is almost nothing left to be filled into “normal” bilateral contracts between a seller and a buyer.

On the other hand, Norwegian food-producers—and the agri-food system as such—are gradually entering a new era. The institutional context is expected to change dramatically the coming years—from a relatively closed and protected national system to a situation characterised by much more international competition. The ramifications are many and diverse. Here, it should suffice to say that in order to come to grips with the ongoing changes, an analysis is required of both the institutional framework level and the governance level.

Finally, it should also be briefly mentioned that TCE is clearly subject to continuous development and refinement. Just to mention one promising example: In an effort to overcome the problems related to different levels of analysis which is addressed above, Jacobides and Winter (2003) has suggested that a more evolutionary version of TCE is needed. Implicitly, a more advanced understanding of the dynamic interplay between individual actors and the social structure is called for also. The efforts to develop such an improved understanding have begun, but it is too early in the process to verify its usefulness.

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