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**“Contract Adaptation and the Quasi-Judicial Role of Large Retailers
Learning process with Quality Uncertainty”.**

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Abstract

Most of the recent advances in contract theory focused on contract’s formalization and adaptation regarding ex post court enforcement efficiency. But why transactors write explicit contract that they know cannot be court enforced ? The theoretical argument developed here is that contract adaptations may reflect mutual learning process between contractors. Writing explicit contract terms, whether court enforceable or not, makes it clearer to the transacting parties what has been agreed upon, thus decreasing the cost of private enforcement sanctions. Empirical data are based on the joint analysis of a full set of contracts between one retailer and its beef suppliers, and their diachronic evolution before and after the BSE crisis (period 1993-2000). The major contractual innovation rests on the design of *tripartite* contracts between this retailer, slaughter firms and producer’s associations. The results show that an increased formalization of contracts aims to counterbalance the loss of information’s about farmer’s breeding practices, and to facilitate learning process on quality specifications at the retailer level. Hence, contrasting with the usual idea of supplier’s expropriation by large retailers, we show that the retailer just try to adjust their employee’s competencies and on-going contractual performance failure due to quality uncertainty.

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Introduction

The level of formalization of contracts, as well as their dynamics, has been recently emphasized in the economic literature. Most of the theoretical or empirical analysis focus then either on the optimum design of ex post renegotiation process with a third party enforcement (Salanie 1994), or on the costs of maladaptation in long term contracts (Crocker-Masten 1996). The nature of the economic trade-off is related to the optimal level of completeness of contract terms regarding the risks of contractual hold-up. However, contract adaptation may serve other objectives. In particular, why transactors write explicit contract that they know cannot be court enforced ?

This paper proposes an alternative theoretical interpretation, as well as empirical evidences, supporting the idea that contract adaptations may also reflect mutual learning process between contractors. According to Benjamin Klein (1992), writing explicit contract terms, whether court enforceable or not, makes it clearer to the transacting parties what has been agreed upon, thus decreasing the cost of private enforcement sanctions.. As a matter of fact, competence and learning perspectives have been neglected by economic contract theories (Foss, 1993; Masten 1993). Except for long term contracts, few empirical studies proposes a comprehensive analysis of contract dynamics and adaptation mechanisms.

The empirical analysis will focus on contract evolutions between large retailers and producer in the french beef industry after the BSE crisis. The major contractual innovation rests on the design of *tripartite* contracts involving both slaughtering plants and producer's associations, and its adaptation modes over time. Empirical data are based on the joint analysis of the full set of 15 contracts between one specific retailer with its beef suppliers and of their diachronic evolution before and after the BSE crisis (period 1993-2000). This unexpected event in 1996 works as a revelation mechanism both of limitations in consumer's

² The main theoretical analyses developed in this paper is based on my Ph D dissertation (Mazé, 2000). Thanks to Egizio Valceschini for his constant support during this research program, as well as for facilitating introduction and access to data. Diligent research assistance was provided by Cecile Choimet. Part of the data were collected during the european project FAIR6-CT98-4404 financed by the European Commission.

information, and of maladjustment in contract design in the beef industry. Learning process are analyzed here by identifying and linking competencies and organization patterns.

In order to develop a comprehensive analysis of these contractual transformations, the first part of the paper discusses alternative theoretical interpretations about the rationale for contract formalization, as well as the learning issues for their adaptation through time. The presentation of our case study is introduced in a second part on organizational competencies and learning processes about contract adaptation. The two last parts focus first on quality standardization and internal organizational change implemented by the retailer and second, on the mechanisms of contract renegotiations and dispute settlement with its beef suppliers.

The results of this analysis show that the definition of these new contracts aims to counterbalance the loss of information's about farmer's breeding practices and change in the organization of their activity. In contrast with the usual idea that suppliers are expropriated by large retailers as a consequence of specific investments, we show that the retailer just try to adjust the terms of trade to on-going changes and performance failures. The rationale here is the threat of a loss of their reputation capital regarding consumers. This analysis supports the idea of Arrunada (2000) where a quasi-judicial function of large retailer is proposed, i.e. a situation where the retailer is acting as "courts of first instance" in their relations with their suppliers.

I. Contract dynamic and efficiency : a transaction cost approach.

Rather than looking for the definition of optimal contracts, transaction cost economics develop a more comprehensive analytical framework to contracting problems (Williamson, 1996). The aim of this section is to propose a positive framework, rather than normative, for the analysis of contract dynamics and adaptations over time. The analysis focus specifically on the role of contract formalization as a support for transactions with two respects. First, as a device for the design of optimal contract enforcement mechanisms **(1.1)**. Second, when contract choices by decision makers may be subject to failures and learning processes **(1.2)**.

1.1 – Formal contracts and the definition of their self-enforcing range.

The more standard economic literature formulates the contracting problem as defining court enforceable terms that minimize malincentives to contracting parties. Hence, transactors are assumed to design optimal contracts so that they provide a reward structure for alternative court-enforceable behavior (Masten 1999). Contract enforcement is then a major concern in recent contract theory. In this perspective, contract formalization is mostly analyzed as a way

to improve court enforcement. The aim is to “fix” contracts by writing down all elements of intended performance under all contingencies.

As a matter of fact, most real world business rely to a large extent on private rather than court enforcement. Private enforcement mechanisms use either bilateral dependency, like “hostage” mechanisms (Williamson, 1983), or economic sanctions, that is a capital cost that can be imposed on a transactor that attempt to hold-up (Klein, 1992). This capital cost consist on two parts : I) the future loss directly associated with the termination of the relationship, ii) the loss associated with the depreciation of the transactor’s reputation on the market place. In fact, Klein (1996) suggests that court enforcement of explicit contract terms complement private enforcement by optimally defining what is called the *self-enforcing range of contracts*.

The self-enforcing range of contracts defines a “*tolerance zone*”, where self-interested contractors will commit themselves to their contractual promises (Klein 1992). Most real contracts are imperfect in the sense that they are intentionally structured to leave many elements of intended performance unspecified or unenforceable by the court. Hold-up problems arise with the possibility that one of the contractor violate the intent of their contractual understanding by expropriating the quasi-rents from specific investments made by the transacting parties. With private enforcement mechanisms, it is possible to transactors to leave some contract terms unspecified and still to reduce potential hold-up risks³.

In fact, contract formalization may also help to reduce misunderstandings between the contractors, and thus reduce the costs of imposing private sanctions (Klein, 19992). The development of mutual learning process among the contracting parties may facilitate the implementation of contract specifications and their guarantees to the consumers. In this situation, court enforcement is not the primary reason for contract formalization.

Proposition 1 : *Writing explicit contract terms, whether court enforceable or not, make it clearer to the parties what has been agreed upon, facilitate learning effect (Klein, 1992)*

The interactions between learning processes and the evolution of contract design are mostly neglected in contractual perspectives (Foss, 1993). In the economic literature, the incomplete nature of contracts is associated with the costs of writing things down, as well as the search and negotiation costs associated with more completely specifying contracts in an uncertain environment. Often passed over by contract theorists, another significant category

³ The analytical framework developed by Klein (1992) shows the nature of complementarities between private and court enforcement. The latter presents the advantage of reducing the economic resources needed for creation of a credible reputation capital involved in private enforcement mechanisms.

of costs associated with contractual specifications is measurement costs on quality or performance of goods or services (Barzel, 1982, Allen, 1991). In this perspective, there are always some aspects of performances, that are prohibitively costly and not easily to measure and to specify, even through imperfect proxies or quality standards. The measurement of quality specification is part of the contract design, and is subject as well to learning processes.

Proposition 2 : *An increased formalization of contract and quality requirements improve the gains from contractual guarantees on quality.*

In the economic literature, the effects of quality uncertainty on contract choices are still mostly analyzed through the concepts of adverse selection and moral hazards⁴. In this perspective, contract efficiency is mostly driven by the reduction of information asymmetries between contractors, and by the design of incentives mechanisms. In the transaction cost perspective, other governance mechanisms may be at stake to facilitate contract adaptations and the resolution of measurement problems (Barzel, 1982; Williamson, 1996). As a matter of fact, contractual hazards, as well as measurement problems, may change over time.

The self-enforcing range of contract is then never defined once for all, and contractors have regularly to adjust the term of the contract term to on-going changes (Klein 1992). Contractors may find themselves outside the self-enforcing range of contract : that is *ex post* market conditions may exist where the “hold-up” potential are greater than the sanctions that can be imposed to him (Klein, 1992). Then, some adjustments in contract design are a necessary condition in order to preserve the efficiency of private enforcement mechanisms. Contract adaptation is then a central economic issue.

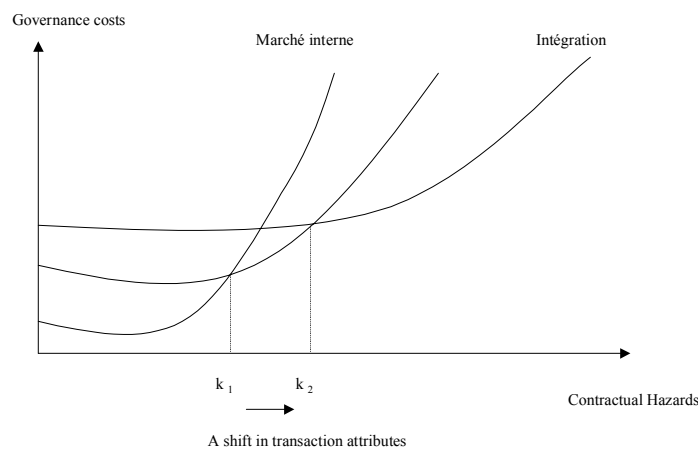
1.2 – Contract adaptation and the formalization of quality specifications.

Most empirical studies dealing with the dynamic of contracts focus on the adaptation of long term contracts (Joskow, 1987, Crocker-Masten 1996). In fact, more complex mechanisms are in general at stake. Unstead of analyzing contract design alone, the transaction cost methodology intent to link contract design with the identification of specific organization patterns chosen by the contractors to deal with necessary adjustments over time (Williamson, 1985). The analysis of adaptation modes to unanticipated disturbances mostly focus on the specific properties of market versus integration, i.e. hierarchy. This analytical framework offers a systematic way of analyzing the relative merits of alternative contractual arrangements and a set of testable propositions (Figure 1).

See Barzel (1977) and (1989) for an extensive and documented critic of these different theoretical approaches.

The main issue is to identify what governance structures can coordinate efficiently and reduce the cost of opportunism, without the bureaucratic costs involved in integration. While market governance mostly requires unilateral and autonomous adaptation, negotiations and bilateral agreements are required for the other governance structures. Thus, governance choice is influenced by a trade-off of the benefits of market flexibility and the costs of potential sources of contractual hazards leading to more centralized decision-making.

Contract design and the static efficiency of alternative governance structures



The success of transaction cost economics is mostly due to its both positive and normative propositions regarding the efficiency of organizational choices (Masten, 1993). However, this heuristic model of Williamson (1985) has been criticized for its static analysis. The comparison of the relative efficiency of these governance mechanisms relies then on the manager's beliefs about what could be these costs of organizing under these corresponding alternatives (Masten, 1993). The co-existence and the stability of varied organizational have been cited as evidence of the irrelevance of transaction cost theory.

The scarcity of performance indicators relative to organizational decisions and the lack of adequate conceptual models may impede the ability of managers to draw causal inferences and learn from past experience (Masten, 1993). Major organizational decisions are made infrequently⁵. Long lags often exist between the time an arrangement is adopted and

⁵ The difficulty is that : ex ante the choice of contract depend of subjective perception of the actors (Crocker-Masten, 1988) The inference problem can be overcome when external interference with contractual relationships directly or indirectly causes contract term to depart from the optimum. Crisis or radical change in market condition may help to identify changes in transaction attributes and the alignment of contract terms.

performance realized. The existence of organizational procedures that assist decision-makers to limit potential sources of errors and mistakes in these adjustments, is central.

- ♦ At a micro-analytical level, contracts may allow some automatic adjustments, through price indexation, penalties like take-or-pay provisions. Thus, some tolerance zone within which misalignment can be absorbed is defined. Information disclosures, as well as private arbitration mechanisms are also involved in the latter, that maintain some reciprocity between the contracting parties (Ménard, 1996).

- ♦ At the level of governance structures, contracts are complemented by standardized procedures, based on routines developed among partners and on standards jointly adopted. Their relative efficiency is depending of the own inside organization of the contractors. The allocation of decision rights and authority, the design of information systems, as well as incentives and monitoring of employees, are also part of governance mechanisms. In this way, Nelson & Winter (1982) suggest that routines are skills of organizations. Skills, individual and collective, are inseparably bound up with other aspects of the organization.

Most of the empirical studies incorporating a competence perspective focus primarily to aggregate levels of industry structures or national innovation systems. They supply dynamic and path dependent considerations to explain the direction and size of the firm integration activities (Dosi, Teece, Winter, 1991). In this perspective, natural-selection arguments that only firms that chose organizational form correctly would survive are dominants. Rather than the quality of decision-making, the speed and accuracy of market selection processes influence organization survival. However, the firm as a repository of tacit knowledge and competencies is mostly neglected in contractual perspectives (Foss, 1993).

The reluctance of contract theories regarding this approach is mostly the result of the difficulty to ascertain competencies that are mostly tacit and generated through experience of particularity (Williamson, 1996). This also involve a recognition that “history matters”, both for individual agent’s decision and on the level of the firm, but also that. Another point is that, rather than maximizing decisions, decision-maker try to economize on their own bounded rationality through adaptative decision procedures. For Williamson (1991), decision makers can adopt farsighted, but myopic decisions in the way that they cannot anticipate all contractual hazards. The study of governance structures may take into account the economic influence of organizational competencies and learning process over time.

Compared to other social science, the economic analysis of learning process provide a restrictive framework by adopting an instrumental (performance-oriented) and “single loop” approach, i.e learning process where the frame of action remain unchanged (Argyris-Schön,

1994). Another important distinction concerns the difference between *learning as a result* (What the organization learn) and *the learning process by itself* (how do we learn) referring to the accumulation of information in the form of knowledge and skill. Our case study will consider more specifically learning process on measurement problems of quality attributes and those involved in the governance of contractual relationships.

II. Organizational competencies and Contract adaptation : a case study.

The use of organizational competencies is at stake in the development and adoption of technological or marketing innovations. These situations display many features of learning process based on successive essay/error adjustments. Detailed case study provide a good opportunity to understand their interactions with contract adaptation in situation of radical uncertainty. Our empirical data is concerned with the creation of a new branding strategy by one of the major large retailer in France for beef products (2.1) and the analysis of organizational changes and contractual innovations in the vertical supply chain (2.2).

2.1 – The development of retailer’ brand name : the RQC strategy for beef products

A general recent trend is the development, at least in Europe, of branding strategies by large retailers based on high quality products and/or traditional productions⁶. The agro-food sectors had the “primeur” to experiment a new branding concept by retailers that combines an official quality certification and new forms of contracts with all the suppliers involved in the supply chain. This concept was introduced in 1992 by one of the 10-top large retailer in France under a specific label and logotype, that we will call here, “*Retailer Quality Chain*” (RQC). This label includes the name of the retailer and fosters the communication to the consumers.

The development of this branding concept and strategy extends dramatically after the BSE crisis in 1996. These evolutions are reflecting the increasing concerns of large retailers regarding liability rules and a loss of their reputation capital among consumers due to sanitary defaults on food products. Other retailers try to develop similar approach in France (Sans-De

⁶ This strategy was first initiated as a way to counterbalance both the influence of large brand name of agro-food firms (like Nestlé, Danone,...), and second, the increasing competition of new incomers, like retail discounters, with low prices and generic products. The creation of this RQC label relies on a vertical differentiation.

Fonguyon 1999). But its diffusion is also due to the international development of these large retailer and their use in other European countries (Spain for example) and more recently, for some specific imported products (like GMO-free products). The organization that will be analyzed here is then representative of specific organization design by the retailer to sustain its RQC branding strategy and of the problems experimented by the contractors for their initiation.

The beef sector was one of the first involved in this “RQC” branding strategy by the retailer. With the BSE crisis in 1996, it becomes a priority for the retailer in order to restore the confidence of consumers, and at least maintain sale volumes in a context of large drop in consumption. The RQC specific supply chain organization provides extra guarantee through the contractual commitment of all the suppliers involved at the different stages of the production process. After the BSE crisis, the target sales for all the 133 french local stores of this retailer were to get at least 70% of fresh beef product under this RQC brand name. In 1999, the total production for this RQC label included about 7000 animals every week. As a consequence, these retailer’s branding strategy involves today an important proportion of the economic activity of the beef sector in France.

Initially, the communication to consumers supporting this RQC label conveys the image of traditional “terroir” through the use of local breeds (like the breed *normande*, for example) and specialized breed for meat production (*Charolaise, Limousine,....*). But since 1996, the priority became to secure the consumers on the *traceability* of the information regarding the product’s origin and the animal’s feeding (especially banishing the use of meat flour)⁷. Other criteria have been also included in the list of quality specifications applied by the producers, but not necessarily communicated to the consumers.

The formalization of the list of quality specification that have to apply all the agents involved in the production process is a central part of the organization of the RQC system. Only part of it is communicated to the consumer. More important is the fact that the three main quality factors is influenced by several participants in the vertical production chain :

- tenderness is mostly related to the slaughter technology, but can also involve the retail stage through the maturation delay (min. 12 days).

⁷ The regulation of beef labeling changed in France just after the BSE crisis in 1997 in order to improve consumer information, and include informations about the animal’s origin (for example, the indication that the animal was born, reared and slaughtered in France), breed and animal’s type (cow, steer, heifer). This legislation will be extended at the European level during the autumn 2000. In the case of the RQC list of quality specifications for beef products, specialized dairy animals, as well as young bulls are banished.

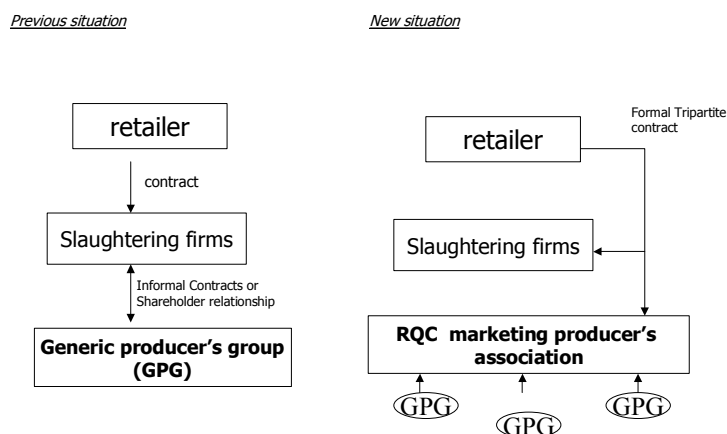
- the breed and the animal feeding is linked to farmer's good practices, as well as animal welfare.
- *the traceability* system involve all the participants, but is implemented for smaller bundles of animal than the standard requirements (i.e. 50 animals).

The main characteristic of the technology in the meat industry is that it cannot even aim to guarantee a relative homogeneity of the final product to the consumer, like in the case of canned vegetable or milk, for example. Quality controls rely mostly on an intimate and mostly tacit knowledge of the nature of production process at the different stages. For the retailer, their importance increased with the reputation capital associated with its brand name for consumers (Klein-Leffler 1981). However, the effectiveness of these quality controls involves both objective information and the embodiment by firms of specific competencies.

2.2 – A contractual innovation : the design of Tripartite contracts.

The other innovation associated with this RQC concept is the formalization of tripartite contracts with their suppliers, both slaughtering firms and producer's association. These new forms of contractual arrangements were initiated first through a partnership with a local producer's association, (called FQRN) dedicated to the promotion of a the french breed (*Normande*), mostly located in west of France. These forward contracts contrast with the usual dominance of informal contracting in agriculture (Allen-Lueck, 1998). This formalization and extension of contractors may be interpreted as an indirect way to control the production technology used by the producers. As a matter of fact, this *traceability* criteria involved a strengthening of the control all along the vertical chain of production, including also at the farmer's practices.

Figure 2 : A new form of contractual arrangements in the beef sector in France



For the retailer, this new forms of contracts with producer's associations aims to improve knowledge and reinforce guarantees over the earlier stage at the farm level. The relationship with the farmers is one of the major critical point for quality specifications. According to property rights theory, the ones that have the most influence on final quality must bear the consequences of their actions (Barzel, 1982). The design of new contracts is then part of the control mechanisms over the quality specification that the retailer had to implement with its suppliers. The certification aims thus to complete the contractual mechanisms and to guarantee for the retailer controls all over the vertical chain and over the process, especially at the farm level. As suggested by Spiller-Zelner (1997), it acts like a *support transaction*, where a more close coordination is needed, but a complete integration inefficient. This system introduces also more transparency in the rent sharing, and thus in the allocation of incentives between all the economic agents in the supply chain.

This general architecture of the RQC system preserves the individual contractual freedom of breeders and, at the same time, increases the guarantees regarding the origin of the animals and their modes of production. As a matter of fact, cattle marketing still presents the characteristics of a *search market* where buyers have most of the time to visit farmers for the selection and sorting of animals (Mazé, 2000)⁸. This organization of transactions is efficient regarding the high flexibility needed by extensive farming systems and the high heterogeneity of animals. Hence, for the retailer, these tripartite contracts remains incomplete and other decision mechanisms are at stake for the governance of these RQC beef supply chain.

This tripartite contract is composed of three distinct parts. One is dedicated to the quality specifications to be applied (product presentation, labeling rules, traceability specifications). A second one to the commercial blanket contract (reception control, ordering system, payment delays), and the last to the control planning on quality specifications. The design of this forward tripartite contract serves as a model for the total 15 RQC contracts signed by the retailer with each individual association and slaughtering firm.

The governance of RQC supply chain introduces a central and new contractor : a collective producer's association that is dedicated to the marketing of branded beef products. These associations were created by generic breeding associations or producer's groups in order to promote differentiated cattle production. In 1999, the RQC agreement was delivered for 8 different producer's associations regrouping around 23 700 individual breeders. These

⁸ See Hobbs (1997), Mazé (2000), for an analysis of cattle marketing channels in Great-Britain, and France. In France, 19% are sold through market places (with bilateral negotiation of prices), 15% direct relationship with farmers, 34% middlemen, 32% producer's group. Few transactions are going through auction markets.

associations are not dedicated to the RQC supply chain and may commercialized other types of animals. However, the motivation for their introduction in the RQC system is twofold :

- ♦ For efficiency considerations. The involvement of these producer's associations present the advantage to define an unique negotiating partner instead of a multitude of small breeders. The large number of individual farms may increase negotiation and coordination costs for the planning in quantity and quality of the large RQC supply volumes. They also allows a reduction of the quality controls and certification costs, both by delivering technical advice's to farmers and supervising some part of the quality auditing system.

- ♦ For information disclosure considerations. By introducing producer's associations as direct contractors, the retailer was bypassing slaughtering firms as the only negotiating partner. Thus the retailer raised a *coalition* with farmers for more transparency in the vertical chain, including both quality *traceability* and rent sharing among the contractors.

The development of these specific information disclosure procedures may be interpreted as the result of an excessive market power of the retailer over its suppliers. However, in a context of strong uncertainty and changes in consumer behavior, they also may be considered as a way to reduce performance failures and improve quality guarantees. The participation of slaughtering firms includes 6 of them in France, with 11 slaughter plants. Half of the RQC beef supply in covered by only one slaughtering firm, the leader in France⁹. Among the other slaughtering firms, three of them (mostly regional firms) supply about 15% each, and the last less than 5%. This high concentration level reduces this market power argument as the main explaining factor of contract design and adaptations. Our assumption is contract adaptations are reflecting mutual learning and changes in competencies and know-how. The analysis will focus first, on the inside organizational changes implemented by the retailer in its relationships with its individual stores and their product-line manager of own-branded beef products (Section 3). A second step in the analysis will consider the adaptations and difficulties met in managing these new contracts with the suppliers (Section 4).

⁹ The beef industry in France presents a oligopolistic structure with two dominant firm : the cooperative and multispecies (beef, pork, mutton) group SOCOPA and the private group BIGARD, created in Brittany and bought in 1995 the second most important cooperative French group ARCADIE. Beyond these two majors, others regional slaughtering firms still remains : the cooperative groups SOVIBA in Pays de la Loire, and ALLIANCE in the North of France, SICAREV in Burgundy area.

III. Quality Standardization and organizational changes for the retailer.

The implementation by the retailer itself of this RQC branding strategy evolved over time. First based on a voluntary adoption by local store managers, its adoption became an obligation for all the 133 chain stores after the BSE crisis in 1996. Contrasting with other retail chains that using franchising agreements, our retailer is the owner of all its 133 local french stores. Hence, the organizational choices made by the retailer reflect both changes in incentives at the intermediate levels of the hierarchy (3.1), and the evolution of competencies with an increased centralization of decision (3.2).

3.1 – The incentives to product-line manager : the reduction of agency costs

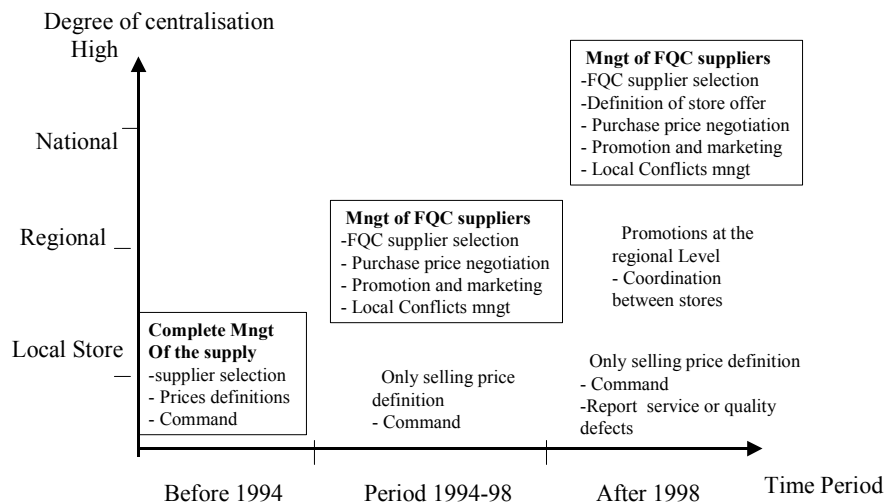
The success of RQC beef products is also due to their adoption the local stores and the product-line manager. For beef products, the manager are highly skilled professional master butchers. Prior 1994, they had a large, or even complete, autonomy of decision over beef supply and their relation. Local stores defined their supply strategy for beef products and their relationships with slaughtering firms. The performance of the beef product-line manager relies on the achievement of a minimum turnover and some commercial margin level. The development of RQC beef products relies also on the initiatives of some local stores and master butchers in developing direct relationships with local producer's associations.

At the beginning the sales of RQC beef product relies only on a voluntary and contractual basis for the product-line manager. These stores had only to sign a chart where they committed to : (1) the use of full cut carcasses only, (2) an « exclusive dealing clause » with a specific supplier, even during the promotional offers, (3) a respect the maturation delay included in the list of specifications. These requirements are mostly related to general traceability rules and the reduction of potential frauds due to a substitution between certified and non-certified products at the store level.

However, a centralization of decision making occurs with the development of the beef RQC branding to a larger number of individual stores and others regional sales area. This centralization process takes place gradually over time (Figure 2). The first step was a transfer of decisions from the basic organizational unit (the store) to a regional level (called “*bassin*”). The second step organized this transfer from this regional level to the central national level. Since 1998, the central national bureau defines and supervises the overall procurement strategy for RQC beef products. The creation, in 1994, of an intermediate

regional level (called “bassin”) aims to improve the coordination among the individual stores located in the same regional area.

Figure 3 The Centralisation of decisions : the case of RQC organisation



This centralization of decision mechanisms in large retailer’s organization is a general trend observed in other European countries (Arrunada 2000). Through this new general organization, the individual stores don’t participate in tariff negotiations any longer. The transfer of missions to the central national bureau includes the complete follow-up of the RQC supply chains, i.e. the selection of new suppliers, the definition of quality specifications, the negotiation of prices, the planning of commercial animations by breeders in local stores.

The selection of RQC beef suppliers follows hereafter a new procedure through 5 steps : (1) the search for potential partners, (2) the *in situ* testing of the products by some stores (including quality, competition comparisons), (3) the writing of a technical report with detailed technical and economical evaluation (production costs, quality specifications,...), (4) the submission to an internal committee for the validation, (4) the signing of the blanket contract. This centralization of decision mechanisms change the tasks of both store managers and beef product-line manager. The aim of the store manager is therefore to implement these decisions at minimum cost, and for the beef product line manager to care about performance.

The adoption of RQC beef product still depends of the decision of the master butcher depending of its own performance objectives, i.e. net margin level and annual turnover. Some

variability among store in adopting RQC beef products¹⁰. The achievement of this margin rate is strongly dependent on the specific know-how of the master butcher regarding the optimization of cuts for mixed or specialized meat breeds. Large differences exist with dairy animals usually used for unlabeled beef products.

The creation of the intermediate organizational structure (*the “bassin”*) had a central role in the additional training of the master butchers to these new RQC beef products, as well as increasing homogeneity and standardization among individual stores in order to sustain the reputation of RQC beef products with the consumers. On a more general level, problems also appear with a decentralized decision-making, because of misalignment between the optimal behavior of the decision makers and the behavior that is optimal for the company as a whole. The development of this retailer branding strategy increases the need to secure its reputation capital and its credibility to consumers.

Potential frauds on quality and opportunistic behavior of its store manager may affect the reputation of the retailer’s brand name and its credibility to consumers. In large retailer this situation arises because of substantial delegation of decision-making to store and product-line managers at store level. When these division manager are subject to high powered incentives and there are no mechanisms to control long term effects, these manager are tempted to take decisions that boost their apparent performance (Arrunada, 2000)¹¹. The centralization of decisions is then a tendency which reduces the importance of these dysfunctional phenomena.

However, the efficiency of this centralization process may be constraint by the bounded rationality of top-managers and potential management mistakes. The nature of this trade-off was analyzed by Williamson (1967) for defining the optimal size of the firm. The gains from an increased market power due an integration process may be overcome by economic loss due to possible mistakes by managers having a bounded rationality. The centralization process is then limited by a trade-off of the reduction of these agency costs and the loss of flexibility and the mal-adaptations in planning activities. In agro-food sector, perishable products are subject to such limits, with some differences according to the type of products.

¹⁰ There is some variability in the adoption of RQC beef product among stores. Historical pattern explain partly these differences. The region that initiated these RQC beef supply chain have the best results. However, several stores (located in the south and west of France) are still resisting to the instructions delivered by the Central national bureau (6 stores over 133 total stores). But a change in the global computer system is planned that will make such direct commands impossible.

¹¹ Arrunada (2000) analyses these agency problems and shows that when store managers have no longer the authority to influence payment process, an improvement of the situation of suppliers may be observed.

As the retailer is the owner of its own stores, this centralization aim to change administrative and incentives mechanisms to support the reputation of their own brand name to the consumers. This process is similar to the standards used in franchising systems (Lafontaine, 1992). But this centralization of decision making may deal with other objectives than the overcoming of these internal agency problems, like to reinforce its negotiation power. Instead of having a decentralized negotiation between suppliers and individual stores, this centralization may facilitate potential abuse of their position. However, for the development of its RQC branding strategy, the retailer adopt a more cooperative behavior.

2.2 – The evolution of competencies and the benefits of third party certification.

The nature of the uncertainties regarding quality products and their potential impact on the reputation capital of the retailer is one of the reason for this cooperative attitude. The use of an official quality certification may be analyzed as a way to reduce the lack of knowledge about production process. The communication to the consumers is based in priority on the retailer brand name, and not the certification by itself¹². As a matter of fact, the retailer was not, during the 1993-1999 period, the official “owner” of the certification agreement used for its RQC brand name. The retailer waited, until 1999, to deposit its own certification demand and to become the official beneficiary of the certification. The question is then what were the costs/benefits of such situation for the retailer.

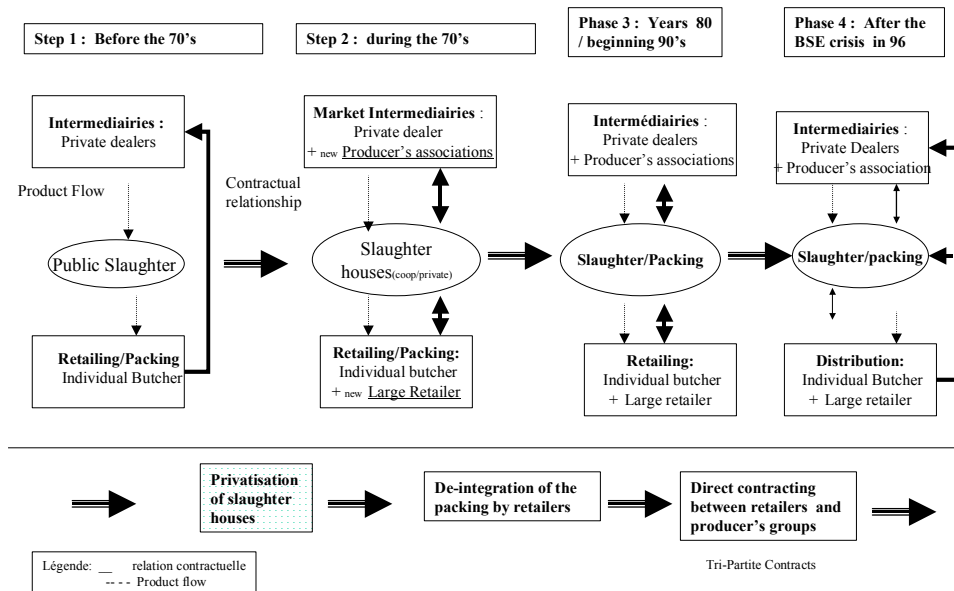
As suggested by some economists, a specific division of labor induces also a division of knowledge through the development of learning by doing processes. The embodiment of tacit knowledge in competencies is important for the resolution of measurement problems on quality attributes or performances (Barzel 1982). The ease of measurement is influenced by competencies and embodied know-how of the seller and the buyer, as well as by the definition of quality standards. Depending of the seller or the buyer respective skills, measurement costs may be very different and asymmetric between the contracting parties.

The codification of quality specifications may facilitate their learning and their appropriation by a large number of people. The aim of these quality standards is to facilitate their reproducibility and adoption at a large scale. According to this analysis, it is possible to demonstrate that, though this official certification process, the retailer was able to benefit from the expertise and the formalization of already written quality specifications.

¹² Barzel (1982, p.37), suggests that quality “standards appear to be the substitute for brand name, and the usage of the two will be negatively correlated. It is expected that the fewer the dimensions of a commodity amenable to

In the RQC system analyzed in this case study, the use of an official quality certification appears, as a way to overcome this loss of information about cattle production, but also the lack of formalization of this butcher's know-how about quality specifications. These evolutions may be explain, at least partially, by the evolution in the organization of vertical relationships in the beef industry since the 70's. The evolutions are summarized in the figure below. Since 30 years, most large retailers are engaged in a de-integration process of slaughter activities and a supply strategy based on the delivery of "boxed beef" (Mazé, 2000). But with this outsourcing strategy, the retailers and their master butchers loose their control over cattle selection and over direct relationship with farmers.

Figure 4 : The integration/de-integration process and its evolution in the vertical chain of the french beef sector since the 70's (Mazé, 2000)



In this division of labor at the different stage of the vertical chain, the retailer was involved in the final retail cut and the sale to the consumers. The performances of highly skilled master butchers relies mostly on professional experiences and the embodiment of tacit knowledge about meat packing, and less about breeding practices. These organizational evolutions create path dependencies and changes in competencies (forgetting and unlearning).

standardized measurement, the greater the emphasis on brand name. Even for commodities that can be cheaply measured, however, brand name helps to assure that the measurement are correct for consumers (p.37).

Thus, the advantages of this quality certification for the retailer relied on an increased codification of quality specifications and on secured quality controls at the farm level¹³. Writing explicit contract terms, whether court enforceable or not, make it clearer to the parties what has been agreed upon, facilitate learning effects (Klein, 1992). The codification of quality standards does not mean standardization, defined as an increase uniformity of products. Product uniformity lowers the costs of measurement, but this reduction is not always possible (Barzel, 1982). *The greater the number of individual agents involved in the implementation of an individual contract, the more important will be the gains from an increased codification of quality specifications.*

Another point about the advantage of this certification is that when there are strong interdependencies between a set of connected transactions for the elaboration of final quality, individual responsibilities may be difficult to disentangle, thus reducing the ability of incentives and monitoring to curb opportunistic behavior or mistakes. The use of this third party certification allow to choose the cheapest point in the production process to realize these measurement, rather than making them *ex post* at the time of the exchange (Barzel, 1982).

The use of this official third party certification encounters for the retailer several advantages, both regarding its own organizational competencies and its relationships with its suppliers. However, some limitations appear when also the certification body didn't notify to the retailer existing non-conformities by its suppliers in the implementation of quality specifications. This situation is by the fact that the retailer was not the "owner" of the certified list of quality specifications. Certification costs were paid directly by the slaughtering firms and the certification was proposed to the retailer as an added and ready-made service. Finally, the retailer was not aware of the tariffs applied for the certification.

IV. Contract Renegotiation and private governance mechanisms

The decision of extending the branding strategy by our retailer introduces another radical change in its relationships with its suppliers and in the market conditions after 1996. The introduction of new suppliers allows some quantitative adjustments, as well as in contract terms. Thus, some evolutions appear in the completion of these tripartite contracts **(3.1)**. But these adaptations in contracts terms were insufficient to deal with the market changes, holding the retailer to renegotiate more completely its contracts **(3.2)**. But some of the producer's association refused to renegotiate, thus creating a "hold-up" problem for the retailer it-self.

¹³ See Ménard (1996) for more details on some recent evolutions in the legal rules supporting the organization of

3.1 – The completion of contracts and the nature of adaptation mechanisms

The governance of this tripartite contract is managed by our retailer, and its central bureau in Paris. Hence, the organization of transactions are completed by other rules not included in the contract but that are affecting transaction efficiency. Our Retailer is holding the authority in the relationship, and thus is having a discretionary power of decisions to complete some terms of the contract. This is reflecting the incomplete nature of the contract and the specific internal organization of the retailer. The centralization of decisions reinforce the need for formal procedures for the coordination with all the 133 individual stores¹⁴. Two dimensions are here at stake in order to reduce coordination costs.

First, the organization of these RQC chains are based on an *exclusivity rule* for easiness of coordination, and traceability : One store is working with one slaughtering firm. This exclusivity rule is not included in contracts but is defined by the central bureau for allocating the different stores to the accredited suppliers. Stores cannot choose other suppliers.

Second, the retailer signs one contract with one producer's association and one individual slaughtering firm. If one slaughtering firms is working with other involved producer's associations, this slaughtering firms sign several RQC contracts. Associated with the *exclusive dealing* arrangement, this facilitate the report of quality or service defects, as well as the planning of quantities needed for the individual stores and the slaughtering firms.

Adaptation of contracts terms was still implemented by the retailer. Court enforcement was not the main issue for these evolutions. The completion of the contract aimed first at clarifying transaction organization and reducing potential emerging sources of conflicts. It is also used at times to formalize previous implicit contractual practices and quality specifications. Several contract clauses were successively added by Carrefour between 1993 and 1997 in the blanket contract (see below **table 1**).

private certification systems in the french and european agro-food sector.

¹⁴ One of the consequence of this exclusivity rule is that the retailer is controlling the internal competition among slaughtering firms to have access to individual stores. However, at the same time, the major slaughtering

Table 1: Successive adjustments included in the initial 1993 blanket contract

Three part of the blanket contract	After 1994	After 1996	After 1997
List of quality specifications			Implementation of a Quality Improvement cycle
Commercial contracts	- the complete pricing formula	- Price promotions - Live commercial animation with RQC producers	- Price premium level for the breeders
Control planning			Formalization of the control planning

However, this increased formalization of contracts leads to another economic trade-off between the gains of increases quality guarantees and the costs of *ex post* contract maladaptations due to a misalignment of contract terms in a changing environment (Crocker-Masten, 1996). The main adaptation mechanism in this formal contracts is relative to the pricing rule, i.e a « cost-plus » price system based on the reference of cattle market prices (Table 2 below).

The achievement of a price premium provides strong incentives and motivations for the participation of individual producers. Since the price paid to the farmers is indexed on local markets, the price adjustments are realized automatically, and don't need to be renegotiated for each individual transaction. Price determination is usually one of the major source of dispute with breeders. This adaptation mechanism reduces negotiation costs.

firms in France, including the leader SOCOPA, change their own organization with an increased centralization of decision-making regarding their relationship with large retailers and with producer association.

Table 2 : The pricing rule : a cost-plus pricing system indexed on market prices

Final Price paid by the Retailer includes three parts : one regarding producer's payment, a compensation for FQC producer association, and one for the slaughtering firm

$$P = [X + PP] + [AC] + [SC + TC + M]$$

With X = indexed regional or national cattle market price for the considered type of animals, I ;e the reference price is calculated on weighted average of R grade cows and O grade cows (corresponding to smaller and light animals). Young bulls are prohibited¹⁵

PP = a price premium for the cattle farmer (between 0,8 ct/kg and 1 F/kg).

AC = a compensation attributed for the costs supported by the RQC producer's association (based on about 10 cts/kg]

SC = the slaughtering costs supported by the slaughtering firm calculated according to the real cost accounts.

TC = a compensation attributed to the slaughtering firms for the special traceability costs supported for the RQC beef products (about 0,10 ct/kg).

M = a negotiated margin for the slaughtering firm (%), based on cost accounting

The design of this pricing rules presents also the advantage of increasing flexibility and the risk of incentives misalignment (Crocker-Masten, 1988). However, the BSE crisis in 1996 induces important disturbances in beef and cattle markets. The consequences of higher uncertainty on contract efficiency has lead to contradictory results in the transaction cost literature (Crocker-Masten, 1996). But, facing such situation, transactors may find themselves outside the self-enforcing range of contractual arrangements, that is *ex post* market conditions is greater than the private sanction that can be imposed to him (Klein, 1992).

In this way, the BSE crisis creates what Williamson (1985), an unexpected *fundamental transformation* in the governance of contractual relationship between the retailer and its beef suppliers. The change of balance in the relationship between our retailer and its earlier beef suppliers comes from a drastic change in differential of market prices. If the cost-plus design of the pricing rules defines some range for adaptations, misalignments came from differentials in the level of reference prices used in the contracts. These reference prices are dependent of the type of the animal (cow, heifer, steer), as well as its breed. Usually mixed breed like the *Normand* encountered lower market prices than for specialized meat breed like *Charolaise* or *Limousine* reared in the central area of France. Originally, this difference was central in the economic calculus of the retailer for the design of RQC supply chain, allowing

¹⁵ These prices apply even if animals effectively delivered are heifers or steers, for which market prices are usually higher. Hence, slaughtering firms have high incentives to sort animals corresponding exactly to the retailer requirements. Bundling strategies of heterogeneous products is central for the economy of this sector, and met similar problems to those analyzed by Kenney-Klein (1983) or Gallick (1984).

as well as the payment of a higher price premium to producers. But, with the BSE crisis in 1996, this comparative price advantages disappeared.

First, the general reduction of price levels that affects french cattle market after march 1996 was more important for specialized breed (*Charolaise* or *Limousine*) than for dairy or mixed breeds¹⁶. This is a typical adverse selection effect (Akerlof, 1970). The former breeds, due to differences in feeding practices, presented a lower probability of having contracted the BSE disease, but nevertheless encounter lower market prices during a some period of time.

Second, the extension of the branding strategy of the retailer had also an unexpected effect on local reference market prices. This *Normande* breed is mostly reared in a delimited regional area in the west part of France. The extension of the RQC branding strategy at a large scale creates a *rationing phenomena* on local cattle market places in this region.

The retailer faces an unexpected increase in reference prices used in its RQC contracts, and thus suffers a change the self-enforcing range of its previous contracts. The proposition relies on a reduction of the price premium paid to the breeders (about -20%). With the extension of its branding strategy, the retailer decides a diversification of its suppliers by agreeing 6 new RQC producer associations (*Charolaise* breed), and to renegotiate previous contracts with its two first RQC producer's association. Given that the retailer may suffer some loss from an unilateral break of these contracts, he has interest in resolving conflict. This is becoming increasingly important with the growth of beef sales under retailer's brand.

3.2 – Dispute settlement mechanism : the role of producer's associations

Even if our Large Retailer benefits of some discretionary power in the termination of the contracts, an unilateral decision may have been less efficient by affecting its reputation among other potential new suppliers (Williamson, 1985). Without any contractual guarantees, rational suppliers will refuse to engage in the development of specific assets for the production of RQC beef products. Hence, it could deter future collaborations and the cooperation of others suppliers in order to improve the implementation and the enforcement of quality specifications for the RQC production. Retailer's reputation must inspire enough confidence to convince suppliers to invest in assets which are specific to the retailer.

¹⁶ Contrasting with other European countries like Germany or Italy, beef consumption patterns in France are more oriented toward cow meat, rather than toward young bulls. Before 1996, France was the first net importers of cow carcasses from Great Britain. After the BSE crisis, the restrictions on importation from Great Britain increase momentarily the market price of cow carcasses in France (Mazé, 2000).

Actually, the continuity in the relationship is supposed to favor the creation of an organizational rent between the contractors through a mutual learning process and mutual adaptations regarding the implementation of quality specifications. The private governance mechanisms designed by the retailer includes originally mutual information and negotiation process with the RQC producer's association. The RQC producer's association is the major place where the negotiation surrounding the nature of the contract and its acceptance by the producers is carried out. Most of them are dedicated marketing producer's associations dedicated to the development of quality certified beef products.

The introduction of these RQC producer's associations as full contractors is one of the major organizational innovation defined by the retailer. They perform several functions in quality control and the efficiency of auditing and certification process. Currently these RQC producer's associations perform four functions :

- to organize the negotiations with the Retailer about the definitions regarding the list of specifications for RQC beef products, and the quality control planning.
- to coordinate the planning activities between the local producer's group and departmental producer's associations (allocations of production volumes,...), and also the slaughtering firms.
- to realize the follow up of registered ("referencement") feed manufacturers (for the non-use of meat flour and hormones) which supply the RQC's farmers.
- to coordinate, with the retailer central bureau, the planning of local animations realized with the attendance of farmers taking place twice a year in each store.

These RQC producer's associations play a key role in the governance of the quality system set by the retailer to support their RQC brand name. They are also part of the global quality system implemented to get the certification. The implementation by the farmers of the RQC quality specifications is controlled both by the association and the independent certification company. This pyramidal organization of the certification, with a partial delegation of some of the auditing follow-up and recording allow a reduction of the total amount of certification costs (Mazé, Galan, Papy, 2001). Moreover, these associations deliver technical advices to their members and to individual breeders in order to improve their compliance to these specifications and traceability documentation.

However, the ability of associations to discipline breeders vary greatly according whether their individual members are mostly cooperatives or individual breeders dealing with independent market intermediaries. Others differences include internal decision mechanisms, and the nature of representatives members (coops, local associations or breed unions) in the

administrative board of these marketing associations. Retailer's representatives are participating, with slaughtering firms and the breeders, to regular meetings organized by these associations. This participation is part of the governance mechanisms used by the retailer to prevent potential sources of litigation and to get information about the effective compliance of RQC quality specifications and the future improvements. This participation was first experimented with the *Normande* FQRN producer's association.

This association FQRN was a pioneer in the development of these new types of contractual arrangements between retailers and cattle producers in France. Its organization serves as a reference for the development of these new forms of partnership with producer's associations. The board of the FQRN association includes three "colleges" : one for the producers (including representatives of the producer's groups) with about 50% of the votes, one for the slaughtering firms of their representatives, and the last one for the retailer. The last college has no direct voting right, but their presence may influence the nature of the debates and all decisions regarding the implementation of the RQC beef products. The retailer is represented in this last college. However, this involvement of the retailer at the producer's associations level does not guarantee the absence of disputes and divergence of opinions.

This participation of the retailer to these instances help to organize dispute resolutions. As suggested by Arrunada (2000), the retailer is thus acting as "courts of first instance" in their relations with their suppliers. At this stage, court enforcement is not required. And a potential abuse of their position is limited by the need for re-contracting and preserving its reputation regarding the agreement of new suppliers. During the period where the retailer was extending its RQC branding strategy, the preservation of this reputation was crucial¹⁷.

Moreover, large retailers and their local stores are very often subject in France to pacific, or sometimes violent, demonstrative actions by farmers leading to the destruction of building or merchandises. As suggested by some authors, violence is also an enforcement mechanism, that may influence the governance of contractual relationships between retailers and their suppliers. In order to avoid these demonstrations, the retailer develop a strategy of dialogue with professional farmer's unions or associations. In the new centralized organization of the retailer, this dialogue is managed at the national level by the retailer's "sourcing" bureau for meat products. However, one main conflict occurs in 1998 with one of the major RQC producer's associations.

¹⁷ During the extension period 1996-2000, only one slaughtering firm experienced this exclusion in 1998 due to several problems (planning, delivery service, quality). However, this firm delivered a very marginal part of the RQC supply, but was the main competitor of the actual first slaughter firm supplying half of the RQC sales.

In fact, this conflict appear when the retailer asked for a reduction of the price premium paid to the breeders due to a change in market conditions. All the RQC producer's associations accepted this reduction of the price premium level, except one : FQRN. The existence of a rent is a necessary element but insufficient to ensure respect for the quality of the products. It is not so much the existence of the rent as the fear of losing it that plays a role of incentive. Control mechanisms as well as the possibility of exclusion therefore completes the existence of the rent. The threat of termination is also an enforcement mechanism.

However, the perception of what is a fair rent sharing may be a source of potential litigation between the parties. In this way, what makes the difference between this FQRN association, except the fact that it was one of the initiator of this RQC concept and the other associations is the nature and the number of its member (see annex). Both of these factors may influence the perception of the economic activity and of its necessary adjustments. The board of this association, mainly controlled by breed unions, refused this reduction of the price premium, thus resisting to the pressure of the others members (heterogeneity of interests leading to conflicts). However, in this case, the retailer didn't use its exclusion right acting more like "a court of first instance" in the resolution of this dispute, and go through a complex dialogue process.

Conclusion

Court enforcement is in many cases the court of "ultime appeal", when all the other private enforcement mechanisms have failed. Recent analysis have extended their focus on the efficiency of ex post private arbitration mechanisms. However, this case study demonstrate that enforcement mechanisms are very diverse and specific governance mechanisms may be designed by the contracting partners. In agricultural sectors, the collective organization of individual producers may be interpreted as a way to introduce some private ordering mechanisms when ex post court enforcement is difficult, or even impossible. A similar logic is at stake in the design chosen in this case study, by the retailer in order to develop a new branding concept based on a closer coordination with producers. Here closer coordination does not mean integration (Hobbs-Loader 1996).

Contrasting with the usual idea that suppliers are expropriated by large retailers as a consequence of specific investments, we show that the retailer try first to adjust the terms of trade to on-going changes and performance failures. In this way, no optimal contract can be defined and even large retailer have to develop specific adaptation mechanisms where

contract dismissal or even mistakes are always possible in a very uncertain environment. Transaction cost theory differs from other theoretical explanations about vertical integration based on monopolistic arguments, or even as a way to break some “bottle neck” among stages in the value chain and secure greater throughput. The analysis focus is in priority on difficulties of monitoring quality, tussle for rents or specific versus residual rights to ownership. Hence, following this line of argumentation, the detailed analysis of the successive organizational and contractual adaptations aim to counterbalance the loss of information about farmer’s breeding practices and to secure the branding strategy of the retailer, as well as its reputation capital to the consumers. However, the design of these governance mechanisms makes possible some learning process at the retailer level that are visible in the pattern chosen for the adaptation of their contracts with their suppliers. This characterization of learning process remain at a preliminary stage by studying reactive adaptations, rather than proactive solution and reasoning to improve contract governance, and do not allow an evaluation of their effects on contract efficiency. Contractors are placed in a reactive position, rather than

Transaction cost economics may allow one to explain the form of contract, including contract terms that may appear “one-sided” or “unfair”. If large retailers want their suppliers to invest on dedicated assets allowing, they have no interest to be implementing opportunistic behavior. Because it is clearer to the transacting parties when a violation of contracts has occurred, transactors know when to impose a private sanction. But opposite to the proposition of Williamson (1996) suggesting that, if their an increase of disturbances, we must observe a decrease of hybrids regarding markets of hierarchy. Hybrid forms well become unviable when the frequency of disturbances reaches high levels. Hybrids are disfavored by greater variance, *ceteris paribus* (p.117). The explanation is that in hybrids adaptations cannot be done unilaterally, and must be negotiated leading to major sources of litigations. However, these new forms of contractualisation occupy a significant market share in the beef sector, and is developing for other food products.

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Annex : statistics of production and geographic localization of RQC associations.

Breed		Date	Geographic area in France	Nb of farmers	Nb of basic Member	% RQC vol.
<i>Normande</i>	<i>N°1</i>	1993	Normandie	6990	27 + 8	32,2 %
<i>Montbéliarde and abondance</i>	<i>N°2</i>	1994	Jura, Doubs	4032	4 coop	13,3 %
	<i>N°3</i>	1996	Savoie Alpes	892	3 asso	2,7%
<i>Charolaise</i>	<i>N°4</i>		Bourgogne	3127	5 coop	14,5 %
	<i>N°5</i>		Bourgogne, Auvergne	2780	?	14,1 %
	<i>N°6</i>		Pays de la Loire	1612	4 coop	5,9 %
<i>Limousine Charolaise</i>	<i>N°7</i>			Poitou-Charentes	1800	4 coop
<i>Blonde d'Aquitaine</i>	<i>N°8</i>	1997	Sud-Ouest	1950	5 coop	3,3 %