Opting for Hybrid Institutions: the Emergence of Marketing Boards Revisited

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Abstract

This paper investigates the factors influencing the emergence of a particular type of self-regulated hybrid institutions: the agricultural marketing boards. We expand on the perspectives of two strands of new institutional theory that provide insights on the emergence of institutions. One of these strands is concerned by private ordering while the other focuses on public enforcement. The paper adds to the existing literature by examining the emergence of institutions that stand in between these two polar orders. We illustrate our propositions by analyzing the emergence of the industrial milk marketing board in Québec (Canada) in order to shed light on the factors that limited cooperative contracting and that consequently carried out to resorts of a dual institutional nature. The analysis is supported by empirical data from the milk industry in the province of Québec in Canada.

1. Introduction

Institutions facilitate transactions and reduce costs in many ways. They mitigate information asymmetry, define property rights, enforce contractual arrangements and provide public goods. Institutions may emerge from private cooperation between agents or from the coercive power of the State. Several scholars have investigated the emergence of private (Milgrom et al. 1990, Bernstein 1992, Schwartz and Scott 2003) and public institutions (Hadfield 2005 and Rubin 2005). Many studies suggest that private order would be preferable notably because of its superior cost effectiveness (Greif 2005). Others have questioned the limits of private ordering and emphasized the importance of repeated interactions and symmetric distribution of gains among trading partners to facilitate cooperative endeavors (North 1990, Pirrong 1995). The current article falls

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within the scope of these later works by adding new evidence that cooperative behavior is harder to achieve between traders having a different bargaining power.

The agricultural sector is particularly relevant to expand on our proposition since most agricultural markets are characterized by oligopsony or quasi-monopsony market structures and asset specificities. These circumstances generally lead to unbalanced bargaining power and a relative dependence between commercial partners. Farmers, which are more numerous and dispersed than their up- and downstream partners, have sought a long time ago to organize collectively in order to improve their weaker bargaining position. They either avoided trading with these firms through the development of cooperatives, or self-regulate their contractual agreements with a delegation of power from the state. Recent developments in new institutional economics (NIE) have added to our comprehension on existence and performance of the former alternative. This literature has however left the study of emergence of state-enforced self-regulated institutions deficient. The interest of these institutions lies in their hybrid institutional nature, combining private and public orders. This intriguing hybrid nature is precisely the focus of our attention in this paper which investigates the factors influencing the emergence of hybrid institutions.

Our paper expands on the perspectives of two strands of new institutional theory that provide insights on the emergence of institutions. One of these strands is concerned by private ordering while the other focuses on public enforcement. The paper adds to the existing literature by examining the emergence of institutions that stand in between these two polar orders. We argue that even in a repeated interaction contractual relationship, state action through the development of hybrid institutions may be necessary to guarantee transactional security between partners having different bargaining power. Similar to Pirrong's results (1995), our proposition does not infer to repeated interactions the sole source of success for cooperative behaviour. Balanced bargaining position would also be a prerequisite. We illustrate our propositions by analyzing a particular type of self-regulated hybrid institutions known as agricultural marketing boards in order to shed light on the factors that limited cooperative contracting and consequently led to their emergence.

The analysis is substantiated by empirical data from the milk industry in the province of Québec in Canada, a country where marketing boards still constitute an important part of the national agricultural policy. Canadians' milk marketing boards have the particularity to be exclusively organized and managed by producers which is or has not always been the case in other countries. Their emergence strictly originated from farmers' initiative, comforting the private nature of their origins. Due to its perishable nature, milk constitutes an interesting object of analysis in new institutional economics. The survival of important milk marketing orders and boards, and unnumbered dairy cooperatives in several countries tend to support the fact that milk is an agricultural product that necessitates a specific coordination and efficient contract enforcement institutions. Many other agricultural products are perishable so we believe our analysis may be transposed in a broader perspective.

The paper is organized as follow. We begin in section 2 with a discussion on agricultural markets and the nature marketing boards. Section 3 introduces briefly the theoretical insights used in the paper. Section 4 presents an empirical investigation of the particular episode relating the emergence of contractual hazards prior to the creation of the industrial milk marketing board in the province of Québec and the response adopted by the government. Section 5 discusses the broader role of marketing boards and their relevance nowadays. Section 6 concludes.

2. Agricultural markets and marketing boards

2.1 Specificity of agricultural market structure

Agriculture has long been considered an exception as an economical sector. Although this exception is nowadays contested, notably since the inclusion of this sector in the international trade negotiations, a number of specificities still explain the occurrence of market failures and the willingness of many governments throughout the world to regulate these markets. One of those specificities concerns monitoring difficulties and the inability of farms to realize important economies of scale (Valentinov 2007). Hence, since firms positioned in the up- and downstream positions with respect to farmers do not face these difficulties, they develop significantly larger sizes than agricultural enterprises. This phenomenon is at the origin of the oligopsonistic market structure that characterizes most agricultural markets. As mentioned by many scholars, these non competitive market structures disadvantage farmers in terms of bargaining power when transacting with their up- and downstream commercial partners. Farmers' disadvantage does not only lie in their vulnerability to monopolistic pricing from their trading partners but also from their weaker capacity to surmount opportunistic behaviour from agro industrial firms (Staatz 1987).

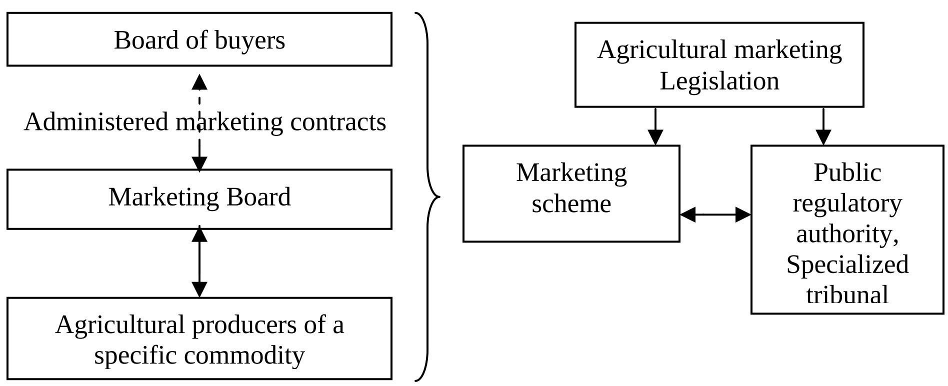
To overcome their weak bargaining position, farmers have extensively used different forms of collective actions. Agricultural cooperatives are by far the most widespread form of collective action known and the most studied in the economic literature. Other forms of collective actions such as marketing orders and marketing boards have developed but exhibit a more controversial character since they possess legal coercive powers to regulate agricultural markets. Some economists suspect these institutions of interfering with market coordination and causing deadweight losses caused by their anticompetitive effects. Other scholars emphasize their institutional advantage by economizing on transaction costs and rationalizing some marketing operations. Besides their contentious nature, these collective actions constitute interesting examples of self-regulated institutions combining private and public orders. An analysis of these institutions must necessarily begin with an investigation of their nature.

2.2 The nature of marketing boards

Marketing boards have known their apogee during the 1960s and 1970s. They are generally defined as “legislatively specified compulsory marketing institutions which perform any of the functions of marketing on behalf of the producers of a particular agricultural commodity” (Veeman 1987, p.992). There exist various types of marketing boards having different powers over marketing and prices. Some boards have the power to restrict supply or have a monopoly over exports whereas others only negotiate minimum marketing conditions with buyers or assume promotional activities. Moreover, the administrative and organisational nature of boards differs from country to country, within countries and among products. Considering this diversity, it is not surprising to find no unified typology in the economic literature. It is however possible to differentiate boards in two broad categories, producer-controlled and state-controlled boards. Some boards are controlled by the state to the advantage of urban and foreign buyers. These boards are mostly found in developing economies. Producer-controlled boards, on the opposite, benefit from statutory coercive powers delegated by public authorities and aim at improving producers' bargaining position. These two categories can be further divided according to the destination of marketed products, domestic and export. Hence, the Canadian wheat board belongs to the export type whereas the Canadian milk board is a domestic board.

Because most boards were dismantled during the last decade, the present paper will focus on boards operating in Canada, one of the last countries where they are still important and dynamic. Canadian boards are producer-controlled and most of them regulate the domestic market. Before examining their structure, a clarification deserves attention. We believe the term marketing board, although widely used, is misleading within the framework of an analytical procedure. The core of this institution rather lies within marketing schemes. These later are legislations specific to each board that set the rules of the game, notably through the specification of the board's powers. The marketing scheme becomes effective with the approval of a public regulatory authority and a sufficient majority among producers affected. A marketing board is basically the producer-elected organisation in charge of administrating the marketing scheme. A board of buyers might also be formed to negotiate with the producer board. Marketing schemes and boards come under a broader legislation that also provide for statutory safeguards against boards acting contrary to the public interest through the creation of a specialized public regulatory authority supervising boards' activities. This authority acts also as a specialized tribunal when disputes over the marketing schemes or contracts arise. Figure 1 presents a diagram of the organisational structure of a producer-controlled marketing board.

Figure 1. Organisational structure of a marketing board.



Producer-controlled marketing boards exhibit a dual institutional nature combining private and public orders. Their organisation is constituted of private agents: producers and buyers/processors. Producers form the central private order since they initiate the institutional arrangement but they rely on a public mechanism to enforce their contractual arrangements and regulate their partnership with buyers. The delegation of legal powers enforces contracts at three levels. It helps producers to discipline themselves by making the marketing of their production through the board mandatory. It coerces buyers to negotiate with the board and to establish a marketing contract. Finally, the public regulatory authority enforces administered contracts. The private and public orders complement each other. The private organizational mechanism alone would be insufficient to coerce buyers to negotiate with a board of producers. On the other side, public order alone would costly discipline producers.

3. Theoretical framework

3.1 Information asymmetry, property rights and contract enforcement

It is now widely recognized that institutions greatly influence the performance of economic agents. By setting the rules of the game and hence a stable structure to human interaction, they reduce uncertainty. At the commercial transactions level, institutions have the ability to reduce transaction costs in many ways. First, they attenuate information production and collection costs. Information having important public goods attributes, institutions minimize costs by centralizing and distributing information among trading partners. They also reduce transaction costs caused by information asymmetry. Second, institutions define and enforce property rights. They provide measurement methods that economize on transaction costs related to the attributes' measurement of exchanged goods and create monitoring procedures to protect property rights. Finally, they enforce contractual arrangements through private or public mechanisms. Institutions can design various mechanisms to increase the probability of contractual performance. They may set trading rules, modify incentives, impose penalties to defaulting traders, limit the number of trading members and provide a legal framework for resolving disputes.

Marketing boards, as institutions, have historically exhibited a wide range of services intended to reduce transaction costs. They disseminated information on markets, employed supervisors that participated to sampling and grading operations in downstream firms, determined quality standards, set trading rules and provided dispute resolution mechanisms. All these functions were operated within a hybrid institutional setting; all services were enforced by delegated legal powers integrated in the self-regulated institution. The use of legal means to enforce collective action raises the following question: why did such hybrid institutions developed? To answer the question, we first look at the factors influencing the emergence of private and public mechanisms.

3.2 Private or public enforcement?

In order to reduce uncertainty and frame their exchanges, agents can either resort to vertical integration, institutions that arise from cooperative interactions among private agents (private ordering) or institutions that derive from the coercive power of the state (public ordering). These two latter solutions have given birth to different trends in the economic literature. One trend focuses on public enforcement, legal systems and contract law (Rubin 2005, Hadfield 2005, Schwartz and Scott 2003). Another trend is concerned with private ordering and concentrates on explaining how agents develop private mechanisms in the absence or failure of public enforcement (Milgrom et al. 1990, Bernstein 1992, Greif 1993, Clay 1997).

The basic difference between private and public ordering lies in the extent of their enforcement boundaries. Public enforcement relies on standard contract law and uses the power of the state to coerce all parties to litigation rules. Public enforcement basically applies to all disputes. In contrast, private enforcement requires the voluntary cooperation of contracting partners to be effective and is strongly based on reputation (Richman 2004). This may be achieved through diverse mechanisms such as self-enforcement, reputation, trust and organizational mechanisms (Hadfield 2005). Another important difference is the nature of their "persuading tools". Legal enforcement employs the coercive power of the state and is based on contract law and litigation rules. Punishment translates in financial compensations and an increased cost of doing future business on the reneging party by demanding more favourable contractual terms (Gow et al. 2000). On the other hand, private order relies on specialized law and procedures. Sanctions of the private type affect the opportunist partner in two ways. They include the future losses that result from the termination of the relationship and the damage to the partner's reputation in the market.

The literature on private ordering distinguishes various factors explaining the recourse to private enforcement. Private order emerges either because public enforcement is not available (Clay 1997), or because public enforcement is available but private order is more efficient (Bernstein 1992). Private order would also be preferable notably because of its superior cost effectiveness (Greif 2005). Since private ordering leads to more efficient outcomes than legal mechanisms, why are not all transactions regulated by private institutions? The related literature partly answers the question. Specific conditions are necessary for private ordering to develop. Cooperative behaviour is decisive. Some works argue that repeated interaction enforces reciprocity which in turn has a positive influence on cooperation (Ellickson 1991, North 1990). Pirrong adds that a symmetric distribution of gains from changes in property rights between partners is essential for the success of cooperative behaviour (Pirrong 1995). In a more general perspective, Richman investigates the comparative efficiency of private and public orders through the analysis of each mechanism's strengths and flaws (Richman 2004). Private and public orders display different characteristics answering different enforcement problems. Hence, depending on the nature of transactions at stake and availability of entry in the community of traders, agents will either rely on private ordering or public institutions to secure their transactions.

Another condition not mentioned in the literature relates to the asymmetric bargaining power of trading partners. In the empirical case presented here, the oligopsonist market structure created unbalanced bargaining positions. This situation induced distrust over the symmetric distribution of gains from trade from the weaker bargaining side, be it a perception or a reality. Moreover, the presence of asset specificities making partners interdependent seemed to have increased the suspicion of opportunistic behaviour from the party having the stronger bargaining power. Under these circumstances, trust and cooperation are more likely to be undermined, even with the presence of repeated interactions. One would thus expect to observe the development of a public order to be more probable when this situation prevails. The emergence of a hybrid institution might be an efficient alternative when vertical integration is not feasible or the recourse to public courts is inefficient. But what are exactly hybrid institutions?

3.3 Hybrid institutions

Although it seems that hybrid types of institutions indeed exist, they did not receive much attention in the literature so far. In a recent article, Grief (2005) referred to quasi-private institutions. The particularity of these institutions is that they are basically private but critically depend on public order institutions to be effective. Examples of such hybrid institutions are credit rating agencies that need to secure property rights and reputation-based enterprises or chains (hotels, large producers, wholesalers, banks) that depend on protection of their brand names to maintain the value of their reputation. The use of public order is critical to the operation of these institutions. The legal literature emphasizes self-regulated institutions. Other types of hybrid institution could include self-regulatory agencies that are characterized by a deliberate delegation of the state's power. In both types of hybrids, the public order is used to support the action of private initiatives. However, they differ in the intensity of the public ordering influence. The presence of a public order is likely to be more intense in a self-regulatory organization than in a hotel chain although both organizations depend on legal tools to be fully operational.

This observation brings us to consider hybrid institutions in analogy with hybrid organizations mentioned in the organization theory. If one considers private institution mostly close to market coordination and public institution analogous to an integrated firm, hybrid institutions would lie in a continuum of arrangements between the two polar orders. Thus, hybrid institutions would combine public and private interventions and participants with varying degrees of public ordering intensity. But the similarity between hybrid institutions and organizations ends there. To the best of our knowledge, the question of the factors influencing the emergence of hybrids has not been analyzed extensively in the economic literature. However, the literature on self-regulation mentions that self-regulation with delegation of public power can minimize some transaction costs such as information, monitoring and enforcing costs, which may influence the state's choice when granting its power to a private organization (Ogus 1999). These self-regulated hybrid institutions benefit from a greater degree of expertise than state agencies which induces lower costs, they decrease monitoring and enforcement costs due to their internal private ordering, they are less formalized than public institutions and thus save on the costs of amending rules, and finally, the administrative costs of hybrids are borne by private agents, whereas public institutions are financed by taxpayers. In order to add to the literature, the next section tackles the emergence of hybrid institutions with an empirical example.

4. The limit of cooperation: the case of the industrial milk marketing board of Québec

The widespread economic explanation for the creation of marketing boards is that periods of low agricultural prices raised farmers' suspicion about the good functioning of the market (Veeman 1987). Cooperatives were then settled but their failure to adequately respond to farmers' expectations on prices led these latter to create marketing boards which could provide a substantial countervailing negotiating power with agro industrials. This explanation thus assumes the hypothesis coming from political sciences explaining that farmers, as a lobbying group, were able to use political clout to create institutions allowing them to improve their negotiating power (Ledoux 1971). In other words, government involvement in agricultural marketing was an effort to raise producers' profits by allowing the creation of producers' monopolies.

This explanation is plausible but partial. Using insights from new institutional economics, the foregoing analysis proposes a more complete and truthful explanation. We suggest that government involvement in agricultural marketing was also a response to contractual enforcement failures arising with the development of oligopsonistic food processing industry and agricultural asset specificities. Absence of cooperative behaviour among trading partners and difficulties in applying sanctions seemed to have prevented any self-enforcing mechanism to develop. The low value of products traded and the temporal specificities of transactions discouraged expensive and long recourse to public courts. Enforcement of contractual relationships between farmers and buyers through a hybrid self-regulated institution may therefore have arisen as a low-cost alternative to regulate contractual relationships in that specific economic sector.

Our analysis focuses on the case of the emergence of the industrial milk marketing board in the province of Quebec.[1] The empirical data and evidences that we used have been drawn from historical records, two major governmental inquiries (Héon Report 1956, April Report 1967), documents available from the milk marketing board and academic thesis done few years after the implementation of the board. The first administered

[1] Until 1980, there have been two types of milk sectors in Québec: the fresh milk and the industrial milk sector. The fresh milk dairy sector is concerned with the processing and conditioning of fresh liquid milk whereas the industrial dairy sector is concerned with the processing of butter, cheese, milk powder and concentrate, and other processed dairy products.

contracts written between 1967 and 1980 were also analyzed. We finally interviewed former milk producers when written documentation was lacking to understand historical conditions.

A. The Rise of Contractual hazards

The rise of market-oriented agricultural production during the first half of the twentieth century translated in new possibilities but also new difficulties for agricultural producers. Within a few decades, the dairy sector underwent an irreversible shift from a subsistence model to a specialized and commercial one. Farms not longer consumed and processed milk on site but sold it to processors via the market or contractual arrangement. Farmers could either sell their production to agricultural cooperatives or private processing firms. Most contracts with the downstream firms were verbal. These first commercial transactions implied many operations such as transport, classification, price fixation, payment mode, that constituted many potential litigious situations between traders. The oligopsonistic structure of the market combined with asset specificities enhanced the possibilities for contractual hazards. Although it is mentioned in historical documents that commercial disputes arose between cooperatives and their members, most disagreements emanated from farmers and private firms' partnerships. The following analysis is thus especially concerned with the latter cases.

The development of contractual agreements in such circumstances presented three major challenges to the trade. First, there subsisted an important information asymmetry between partners, thereafter called the supplier and the buyer, relative to the sampling, weighting and classification of milk at the plant. All these operations were the buyer's responsibility but were critical in the determination of suppliers' returns. Since no or very few external controls were performed to monitor the manipulation of milk during the different tasks, suppliers suspected opportunist behaviour over sampling and grading of product (Héon Report 1955). No empirical evidence demonstrates that buyers were opportunistic. However, the information asymmetry strongly affected the suppliers' perception of the possibility of opportunistic behaviour by the other party.

Second, the buyers faced imperfect incentives to minimize transport's costs and to care for milk owned by suppliers during transport. From the farm's gate to the plant, the supplier was responsible for the product and transporters' pay. However, the trucker's choice, itinerary, collection schedule and transport prices were decided by buyers (Héon Report 1955). This organisation of the milk transport did not provide any cost-reducing incentives to buyers and created conflicting situations. Any increase in transport price was contested by suppliers. Moreover, suppliers claimed that milk transport schedules were irregular and that it affected the quality of milk. Concerns over transport's costs and damage to milk quality emerged among farmers and numerous conflicts with buyers are reported (Héon Report 1955).

Last, there were numerous allegations of contractual commitment problems among buyers. Being able to bank on competition among many producers, processors enjoyed a considerable bargaining power that could be used to settle prices and selling conditions at their advantage (Ledoux, 1971). For instance, buyers could refuse deliveries, change selling conditions or change transport prices without giving any justification or warning (Forgue 1971). There is considerable evidence that buyers had all rights over the supplier's delivery. A specific case mentioned in a governmental report reveals that suppliers' contentions were discouraged by the buyer's threat of not buying their milk anymore (Héon Report 1955).

In sum, the development of market-oriented farming presented numerous occasion for contractual hazards and misperceptions. Beginning in 1952 in Québec, an overproduction crisis following the economical recovery in Europe greatly exacerbated these problems. The prolonged period of low prices increased farmers' suspicion regarding the fairness of the whole marketing system (Veeman 1987). The presence of site and temporal asset specificities in the milk production sector enhanced the vulnerability of this industry to potential opportunistic behaviour. Milk farms are linked to a given geographical area. Changing production site implies selling land and buying elsewhere. These transactions incur non-negligible costs. Continuing production on the same site but selling to a farther commercial partner also entails costs (Héon Report 1955). The proximity of buyers and sellers makes the transaction of the contractual relationship site specific. The temporal specificity of milk, due to its perishable nature, is also often mentioned in historical documents (UCC 1955). If agreement cannot be reached rapidly in case of a dispute, the product quality decreases and causes a value loss. This situation does not affect both partners in the same manner. Contractual breach could significantly change the producer's income since most producers sold their whole production to a unique buyer. Breach also created high transaction costs. Searching for a new partner involved search costs and loss of product's value incurred during the search's time. On the buyer side, the loss of one seller's delivery was not that critical since it meant a relatively small share of the total processed production[2]. Furthermore, the oligopsonistic nature of the market provided other sources of supply among other surrounding producers.

B. Contract enforcement failures

The most successful attempt to address the producers bargaining power weakness and related contractual hazards seemed to be the formation of agricultural cooperatives. During the first half of the twentieth century, cooperatives were encouraged by federal and provincial governments through the adoption of various laws that allowed farmers to collude through them, benefit from income tax exemptions and direct injected capital (Doyon 2002). Following these measures, many important agricultural cooperatives developed. Cooperatives had however two major flaws. First, their slow development prevented them to compete efficiently with private enterprises such that even after decades of cooperatives' development, most milk producers had to sell their product to processing enterprises (UCC 1955). Cooperatives processed 45.7% of industrial milk production and 2.2% of fresh milk for the 1951-1954 periods (Ledoux 1971). The limited action of cooperatives prevented them from being an effective widespread contract enforcement mechanism. As mentioned in a governmental document, "although a noteworthy progress, it seems that Quebec cooperatives, at least at the present stage, cannot be accepted as a system enough influent, effective and widespread to solely assure an efficient marketing of Quebec agricultural products" (Héon Report 1955, free

[2] In a governmental report dating from 1955, it is mentioned that there existed situations where a thousand producers were selling to one processing firm. (Héon Report 1955)

translation). Second, cooperative action in the downstream sector was weakened by the well known cooperative curse: free-riding. Non cooperative members benefited from cooperative actions without bearing the cost of membership which conferred them a competitive advantage over members. This phenomenon might well have contributed to the cooperatives' slow development.

Besides cooperatives, the use of verbal contracts should have favored the emergence of an informal mechanism to enforce trading arrangements. However, such institutions obviously did not develop. We believe mechanisms based on mutual cooperation would have probably failed. We motivate this proposition by the fact that the critical conditions for private ordering to develop were missing. First, cooperative behaviors were almost totally absent between partners during that period. Trading partners had frequent repeated interactions that could theoretically favor cooperative behavior. Nevertheless, the suspicion of suppliers towards the buyers of their production was considerable. As mentioned earlier, distrust originated from information asymmetry in the grading of product, imperfect property rights allocation over transport and buyers commitment problems. Second, the cost of applying sanctions seemed to be especially high. To be successful, private ordering relies on private sanctions. In our empirical case, sanctions would have turned to be hard to apply between agents evolving in an oligopsonistic market and having different bargaining power. Some buyers did not fear much about losses of future trade since the supply of one producer did not alter substantially their processing activity. Damage to the buyer's reputation was limited by the temporal and site specificity of milk. Historical documents specified a case where a buyer behaved faultily with many suppliers but still did not suffer reputation damages (Héon Report 1955, Forgue 1971). Cheated suppliers argued that the very few outlet alternatives would increase substantially their transport cost and thus preferred a status quo position.

Contractual hazards could have also led to legal courts' resort. Nonetheless, this alternative is not much tackled in historical documents. From a theoretical point of view, this situation can be explained by the fact that the legal system is inefficient to resolve disputes in particular cases. Its efficiency depends notably on characteristics of transactions and nature of contracts. First, agreements between producers and buyers being mostly informal, an efficient enforcement through legal courts was by definition very hard to realize. Second, the small amount and low value of products in a transaction could hardly justify a costly resort to courts by individual milk producer. Finally, observation problems due to temporality of product and lack of technical expertise on the industry impose serious limitations on the role of courts in solving this kind of disputes.

To sum up, pure private and public enforcement mechanisms were not widely used by suppliers to guarantee their transactional security with buyers. The only efficient alternative was to sell to cooperatives but as we have seen, this was not a possible option for most suppliers. This situation could have lasted and income or price support could have been settled to counteract weak bargaining power and low milk prices. However, the state did not go in that direction and preferred to give the production sector a mean to self-regulate their commercial relationship with the downstream processing sector as we shall see in the next section.

C. Institutional response

Contractual hazards and low prices affecting the agricultural production sector rose concerns among farmers and some agricultural observers. It is mentioned in a governmental report that this situation impaired the development of an efficient and competitive agriculture in the province. To address the issue of the agricultural marketing problem, the provincial government created an Inquiry Commission in 1952. One of its objectives was to propose solutions to provide Agrifood products in quantity and quality to a growing population of consumers. In its conclusion, the Inquiry Commission, called later the Héon Report, recommended that a law on the marketing of agricultural product including the power to create marketing boards be adopted (Héon Report 1955). The enactment of the *Quebec Agricultural Marketing Act* in 1956 sealed the debate: marketing boards obtained the legal basis to operate.

Considering the low price crisis and the emergency of the situation, why did the state prefer to deliberately delegate its power to a group of private agents rather than assist the agricultural sector through income and price supports? The answer to this question is not obvious and may lie in the broader problem encountered by suppliers in the marketing of their products as we just analysed. The state's concern at that time was mainly to favour the development of a stable and progressive agriculture. This objective could be reached through a strong support to market-oriented producers, best able to take up the challenge of feeding the growing population. The survival of this type of producers was dependant upon market prices and transactional security. Income and prices support only resolved the income problem. Marketing boards represent a dual solution in that sense. They improve the bargaining position of suppliers which may improve their returns and they offer an effective enforcement mechanism that help attenuate contractual hazards. Moreover, this alternative implied a low-cost state implication since the industry self-regulates and self-finances the activity of the board.[3]

5. The broader role of marketing boards

To the best of our knowledge, we are not aware of any analysis of marketing boards' content of marketing contracts. A quick look at them is however instructive. Their content is illustrative of partners' concerns in commercial transactions. Contracts' clauses written in the first industrial milk marketing contract in 1968 are listed in a table in appendix 1. The first marketing contract provided for information asymmetry uncertainty in clause 3.09, which stipulates that an expert representing the board may be present or participate to sampling and testing of delivered milk at the plant. Clauses that aimed at mitigating the commitment problems are also included. They encompass a clause that gave a sufficiently long delay to suppliers to adapt if changes in reception modalities occurred (2.02), if higher quality norms requirement were modified (3.07), and if a plant considered shutting down (4.05). Contrary to the widespread belief that marketing boards only serve producers' interests, the analysis of contracts' content shows that clauses were far from being "one-sided". Suppliers were also limited in their unilateral decision power. If milk supplied did not meet norm requirements, penalties were defined (4.04) and milk was returned to the supplier at its own expense (4.06). The imperfect incentive problem over transport was not tackled in the first contract because it implied a third agent, the

[3] The cost minimization issue is not developed here but constitutes an interesting idea for a further paper.

transport firms. Contracts on transport were later written separately from the marketing contracts.

What is surprising in contracts' content is that price aspects concern only a small fraction of overall clauses. It is especially surprising considering the fact that the literature on marketing boards highlights principally one objective of boards which is to increase and stabilize producers' income. The other general objective of marketing boards is to encourage an ordered marketing. This later objective has much less attention although it constitutes a premise for better prices. The definition of ordered marketing is not explicitly detailed in the Law nor is it defined in the literature. We thus deduce that it refers broadly to organized coordination of products, which aims at harmonizing the movement of products through the various transactions between trading partners in order to increase transactions' efficiency. In the case studied, most clauses aimed at promoting an ordered marketing of milk through a better coordination such as the mitigation of information asymmetry between commercial partners, the creation of proper incentives, information sharing, establishment of trading rules and enforcement of contractual arrangements.

Our empirical findings shed a new light on the broader role of marketing boards. Content of contracts negotiated between producers and processors suggests that marketing boards were not only a producers' monopolies seeking to increase their users' rents but that they really assumed a broader range of functions. What about today? Are marketing boards still undertaking as many functions as they used to? And if so, are these functions still pertinent in nowadays Agrifood economical context? Answering those questions would fall out of the scope of this paper but we surely can give some hints to apprehend them through a few additional questions. The economical context of the first half of the twentieth century has certainly changed but has the bargaining power of the different agents changed tremendously? Are contractual hazards such as information asymmetry or contractual commitment between suppliers and buyers still occurring and if so, are they relevant anymore? The latest negotiated marketing contract between the Quebec milk producers and processors is far more sophisticated than the 1968's one. It however includes clauses that intent to attenuate contractual hazards and transaction costs such as the first marketing contract. Are agents keeping these clauses because they fear the consequences of their withdrawal or because they really need them? Whatever case, agents appear to consider these clauses important to the stability of their contractual agreement and prefer not to remove them from the contract.

6. Conclusion

Cooperative behavior, necessary to establish an efficient private ordering among contractual partners, is harder to achieve in some circumstances. Pirrong mentioned that asymmetric distribution of gains is an important impeding factor. Our paper adds that unbalanced bargaining power between partners influence greatly voluntary cooperation. The absence of cooperation favors the resort to public ordering to enforce trading arrangements. However, as we suggest in our analysis, public ordering appeared costly and showed significant limitations. In such specific cases, a hybrid institution may emerge, combining private and public order. Our empirical investigation demonstrates that government involvement in agricultural marketing was not a deliberate effort to raise producers' profits by allowing the creation of producers' monopolies but rather to help them mitigate contractual hazards considering their weaker bargaining power. Our paper, by emphasizing the broader role of marketing boards, presents a more complete picture of the institution. Economists should not underestimate these functions when evaluating their economical performance.

May our analysis be transposed in a broader perspective since we focused on a specific empirical case? We believe it can since the agricultural specificity we focused on, the unbalanced bargaining power between farmers and buyers, is a widespread situation in agricultural markets around the world. Perishable agricultural products are more subject to opportunist behavior due to their temporal specificity. Moreover, contractual hazards of the type described in this paper are not unique to our case. Information asymmetry, imperfect incentives due to flawed property rights and problems of contractual commitment are not rare exceptions in trade. Emergence of marketing orders in the United States or *interprofessions* in France may well fit our propositions but this assertion is to be verified.

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APPENDIX 1

Table 1. Clauses contained in the first marketing contract.

Contractual clause	Content
II-Purchase and reception of milk	2.01 Buyers have to buy all milk respecting quality norms from their suppliers.
	2.01 Suppliers must sell exclusively to their appointed buyer.
	2.02 If a buyer changes its reception modalities, he has to give its suppliers a sufficiently long delay so as to allow them to modify their installations or change buyer.
III-Quality norms	3.01 All milk supply must respect quality regulations.
	3.02 Milk must meet quality norms A (high quality) or B (lower quality).
	3.04 Milk must be refrigerated immediately after milking at less than 40 degrees Fahrenheit.
	3.05 Frozen milk can be refused by buyers.
	3.07 Buyers requiring higher quality norms must inform the board. Norms become effective in a time delay of at least 30 days after having informed the board.
	3.08 Higher quality norms requirements allow the board to negotiate new prices with the buyer.
	3.09 An expert representing the board may be present and participate to sampling and testing of delivered milk at the plant.
	3.10 Buyers must comply with norms following some specifications
IV-Milk refusal	4.02 Suppliers must only deliver milk conformed with regulations
	4.03 Non-conformity of milk must be noted by buyers on an individual form for every supplier.
	4.04 If milk does not meet requirements, penalties are defined.
	4.05 A supplier cannot change buyer before having informed it by a written letter at least 30 days in advance. Penalties are defined.
	4.05 A buyer cannot shut down a plant without having informed its suppliers by a written letter at least 30 days in advance. Penalties are defined.
	4.06 If milk is refused at the plant for non-conformity, milk is returned to the supplier at its own expense.
V-Price and payment modalities	5.01 Sets minimum prices for quality A milk, quality B milk and cream.
	5.02 The buyer must control milk quality at least once a month. If he does not, he must pay to the supplier the quality A minimum price.
	5.03 A premium is paid to suppliers delivering bulk milk[4].
	5.04 A premium is paid for deliveries made between October 1st and March 31th.
	5.04 Specifications of the content of milk in fat. If milk delivered contents more than the minimum fat required, a premium is paid for each 1/10 percent of fat in more.
VI-Payment mode	6.01 Payment must be done by check or money order.
X-Litigation procedures	10.01 Elaborate a private-public dispute resolution process: 1) Conciliation 2) Arbitration 3) Specialized public court.

Source: Convention collective 1967-1968. Fédération des producteurs de lait industriel du Québec.

[4] Suppliers could deliver milk under two forms: in milk-churn or bulk.