An economic history of the Champagne contracts, lessons for regional development

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Abstract

This paper highlights the success factors of the governance of the Champagne supply chain. Scholars on economic organisation stress the role of the contractual enforcement to explain the stability of the economic exchanges and the ability of the economic and political actors to foster their own development (North, 1999). Our contribution detailed explicit and implicit mechanisms related to the vinegrower-merchant relations in the regional system. The Champagne region had the particularity to posses a double-head organisation, regrouping all the farms and firms involved in the agronomic, and commercial process of the regional wines. This private board is supported by an institutional environment, common market organisation, French rural acts, and national and international legislations on geographical indication. These legislatives and administrative components define precisely the productive and market rules.

Rely on a longitudinal approach we reinterpret the way the *interprofessionnal* (general) agreement, essential part of the governance of the regional market, evolved during decades (Barrère, 2003). This rereading illustrates the interdependency between explicit and implicit enforcement mechanisms which foster the cooperation. We argue that asymmetric investments in advertising play a major role in the stability of the regional cooperation. The achievement of the reputation of the AOC Champagne by massive advertising and commercial investments mainly realised by the *negociants* is central to understand the convergence of both party strategies on a long term. These investments step in as catalyst of a negotiated environment and award the self-enforcing character of the contracts. It makes efficient the set of private arrangements and regulatory mechanisms designed to eradicate opportunistic behaviours. During all the second part of the 20th century, the form of the contractual agreements evolved. Governance tools were added and suppressed. However these forced or desired adaptations slightly alter the nature of the cooperative process. The flexibility of the private arrangement, as well as the comprehensive economic policy, ensures the durability of the general agreement in spite of crisis. These results backup the hypothesis of the new institutional economics on the necessity of complementary institutions to make the market efficient (Aoki, 2001).

Introduction

The regional Champagne productive system has characteristics that suggest the need for a reinterpretation of the mechanisms of territorial governance related to geographical indications (GI). The abundant literature offered both by geographers and economists to describe territorial governance in the food or wine growing areas of France or other countries only imperfectly describes the nature of the mechanisms introduced to establish vertical cooperation (Boivin, 2010; Kelly, 2007; Rousset, 2004). The patterns of interpretation employed give a synchronic vision of governance mechanisms without analysing the trajectories for the construction of there process. Now, their effectiveness is the result of a succession of steps towards the construction of complex systems to allow the negotiation of multilateral agreements and the indispensable enforcement mechanisms that limit the transaction costs and smooth the flows in local markets. In Champagne, the AOC/PDO[1] is complemented by formal institutions, contracts, branch agreements and regulation also present in other wine producing regions. The combination, however, presents a singular character by the collective dynamics and informal rules observed. The guideline for regulation of the Champagne market has since 1941 been based on a protean inter-professional agreement whose mechanisms can be appreciated in the light of recent contributions to the literature on neo-institutional economy (North, 2005; Mazé and Ménard, 2010).

The institutionalist reading envisages two categories of mechanism involved in governance. On the one hand, institutional arrangements, explicit or implicit contracts that cement relations between pairs of agents or between groups/lobbies, are quite frequent in the food industry (Ménard and Klein, 2004). On the other hand, guarantee mechanisms, legal rules, tribunals, third parties that accompany the arrangements to make them executive. The most recent work highlights the self-executing aspects of the arrangements which make them stable and effective in the short or long term (Aoki, 2001). In most circumstances, a complete contract able to take into account all of the transactional attributes carries prohibitive costs the agents cannot assume. This infers the setting up of adjustment procedures, flexible contractual clauses and self-enforcement mechanisms (Gil and Marion, 2009). The analysis of these phenomena is based on models of execution whose purpose is to make the agreements stable when the long-term profit associated with this cooperative behaviour exceeds the profit of opportunistic behaviour (Klein, 1992, Lazzarini *et al.*, 2004, Mazé and Ménard, 2010). Most often, these models are not concerned with the trajectories for the constitution of agreements and the underlying mechanisms that provide the revenue to give value to cooperative behaviour. We hypothesise that a synchronic reading of institutions does not enable the rigorous measurement of the changes in economic parameters, nor to understand the strategic expectations of each clause in the agreements. The diachronic reading of the genesis of mechanisms of governance provides a better understanding of the complementarity and substitutions between the various types of guarantee and their effectiveness (North, 2005). In this article we attempt to associate the two approaches to improve a longitudinal study of localised productive systems (LPS) and to perfect our understanding of the mechanisms of territorial governance. This combined reading appears essential to explaining the sensitivity of the relational models encountered in local productive system to variations in institutional environment.

[1] AOC: Appellation d'Origine Contrôlée is the first regulatory framework of the Geographical Indication in France. The Common Agricultural Policy substitutes the Protected Denomination of Origin (PDO) in the 90's to the national schedule.

One of the original features of territorial governance as encountered in Champagne is that multilateral cooperation between the whole of the 15 to 16 thousand players in the vineyard and merchant economies has been given formal expression in the form of the inter-professional agreement resulting from a highly sophisticated process of collective decision making. The construction of the governance of Champagne depends on repeated, frequent and uninterrupted negotiations between two categories of player with partially convergent interests despite their very considerable economic and social differences. The path development of Champagne LPS was several times to be affected by internal events or external shocks. The changes observed in regulation procedures during the post-war decades resulted from changes in the strategic objectives of the two inter-professional “families”. Cooperation between the two groups of agents commits shared objectives and a discipline that is hard to put into practice, since the alternatives for opportunist behaviour in the complex production process are numerous. Tensions regularly undermine the concrete processes of governance of the system. The inter-professional contract expresses a strategy shared between the vine grower and the wine merchant, while reflecting the balance of power between the two; but it also shows changes in the nature of national and community economic policies.

The paper is organised in the following way. In section 1 we develop an analytical framework for mechanisms of territorial cooperation combining two approaches of the New Institutional Economics (NIE), that of self-enforcing mechanisms and that of a diachronic reading of the institutional distortions and re-combinations (North, 2005 ; Aoki, 2001). Section 2 supports our theoretical propositions from the example of LPS Champagne, an GI that has been through a remarkable development accompanied by extremely specific forms of organisation. In this section, we come back to the foundations of the mechanism of the territorial income that is the guarantee of cooperation. Section 3 explains the specific strategy of the Champagne merchant, alone able to take on the costs of promoting the AOC to the benefit of all the players. These specific strategic investments have consequences on vertical relations. We conclude by highlighting the regularity of strategies in the successive regulation models and the long-lasting nature of the agreements.

1. Institutions in the development’s trajectories

The theoretical basis of our analysis combines the approach on the complementarity of agreement guarantee mechanisms and of institutional changes. Mazé and Ménard (2010) ascribe the stability of contractual relations on a diversity of schemes aimed at guaranteeing the transactions and the trade-off between conserving and losing the quasi-income obtained by the repetition of transactions with reference to the “reputational” model of Klein (1992) – in particular savings in research and adaptative costs after paying an entry cost in an idiosyncratic relation. This model explains the robustness of informal contracts in a way where it is difficult for a third party to intervene because there is no record of the terms of the contract and the contract is incomplete. The complementarity of guarantee mechanisms between formal and informal mechanisms, of private institutions embedded in a regulatory framework enables a reduction in the costs of information and negotiation when multilateral agreements are activated. For North (1990, 2005), the explanatory mechanism is effective institutions, a selection process spread over time. Cooperation depends on the fact that the strategic options and psychology of agents – in particular their aversion to risk – will lead to the choice of more or less flexible mechanisms. This choice is contingent on opportunities offered by the institutional environment and not only on abstract strategic parameters. Time is needed for the agents to align their strategies, to construct means of transmitting information and standards (David, 1994). A diachronic reading of institutional change requires the inclusion of the paths of dependence that have shaped the history of economic systems.

1.1. The effectiveness of guarantee mechanisms and bilateral dependence

Research on self-enforcing mechanisms for cooperation is based on a general principle of translating the profit matrix according to the game played by the agents. From cooperation there results a pay-off. So long as their options conserve this quasi-rent, the agents have an incentive to cooperate. This self-enforcement process backs up explicit guarantee mechanisms. (Aoki, 2001; Traversac, 2011).

- Economic activities are embebded a framework of judicial and legal rules. Those adopted for agricultural production systems are part of the rural code to cope with the hazards of seasonality of production, sanitary risks and the small size of structures from standardised contracts and schemes aimed at favouring negotiations between upstream and downstream players.
- Collusive mechanisms. Second level organisations increase the negotiating power of their members by grouping the supply and sharing the assets. The cooperatives bring coordination outside the market which reduces the uncertainty for the producers by creating alternative outlets and/or more favourable sales terms.
- Territorial dependence mechanisms. Spatial proximity and shared public facilities, public infrastructures, university centre, labour market, geographical indication, mecanicaly force the parties to cooperate.

Joint and specific investments – difficult to reallocate to alternative uses without loss – are likely to generate a quasi-income resulting from bi- or multilateral cooperation. Mazé and Ménard (2010) show that from the case of the bovine inter-professions in the west of France, a special transactional scheme inserted into a multilateral organisation induces a pay-off. The repetition of transactions and the accumulation of information on individual behaviour within a stable framework contribute to lowering the transaction costs which in turn ensures longevity to the relations and their scope. This information – reputation – can even be shared by the professional communities and become the guide to subsequent transactional choices (Greif, 2005). Investments designed to reduce production costs can have similar effects and be wisely used to create “cooperative dependence” (Aoki, 2001).

1.2. Institutional change

The research programme of the historic branch of the NIE which became formalised after the appearance of the first work by Douglas North (1990) focuses on the orientation of work to be carried out on the problems posed by human cooperation in an ever more complex environment, i.e. increase in number of agents and distance of exchanges. The mechanisms allowing the pay-offs of the division of work and the exchanges brought about by this division require a parallel change in the institutional environment to limit the costs of this multiplicity of transactions. The research programme that it was to found falls into two main lines of investigation. The first line of investigation aims to establish a taxonomy of institutions and the accompanying economic mechanisms. In the case of the Champagne LPS this exercise has given rise to an abundant literature. This explores the nature of the inter-profession – AOC relationship and its consequences on economic performance (Montaigne and Traversac, 2008; Barrère, 2003; Viet, Diart-Boucher, 2007). The second line seeks to extrapolate the consequences of historical phenomena to understand how past arrangements influence the present and the future. From a neo-institutionalist point of view, the changes in trajectory mostly proceed from an incremental change affecting the range of choices given and the nature of the ways of dependence (Kingston and Cabalerro, 2009), with the institutions at time t depending on those of time t-1. The likelihood of agents adopting an institutional option will be significantly greater when the latter has been tested and used previously.

The institutions are first of all defined as being the rules of the game in a society. They are guides to human interactions. They circumscribe the range of individual choice. They can be formal or informal, and serve as codes of conduct (Searle, 2005). Formal rules and unwritten conventions complement each other in society. When the costs generated by economic relations, the costs of transactions, are analysed, it is observed that organisations are a consequence of the costs for which they were created. Organisations include political, economic, social and educational bodies. These are groups of individuals marked out by a common object established to achieve a common objective. In the vine-growing and wine-producing world, the wealth of different forms of organisation demonstrates the variety of objectives of the groups of players that they represent. Organisations can also adopt objectives to ensure their own survival, independently from that of the players who have conceived those organisations.

Distinguishing the rules underlying the strategy analysis of the players is an indispensable prerequisite to a theory of institutions (Ménard, 2003). To proceed in this direction, the individual behaviour of agents and their collective behaviour must be understood through their organization strategies. The assumptions on behavior made by neo-institutionalist analysis distinguish it from the standard economy. In neo-institutional analysis, the major effect of institutions through influencing behavior is to reduce uncertainty (North, 1990). They establish a stable structure of human interactions which is not necessarily the most effective but which reduces the psychological pressure on the agents. The non-coincidence of behaviour toward individual maximisation and the attainment of the best social output through cooperation is one of the central lines of inquiry in game theory. The solutions of these models are obvious when the games are repeated. When the interactions between the identified players are renewed and when there are a small number of players, cooperation becomes a spontaneous solution. On the other hand, cooperation is difficult to maintain when the number of players is large and the information on individual behaviour is costly (Greif, 2005). When the game is played a single time, it can lead to a solution of the prisoner's dilemma type. When it is repeated many times, defection is not the dominant solution. Indeed in an iterative game, there is often no dominant solution. Players act by reacting to the game of other players. Cooperation can occur even without any instrument of coercion especially in regional system where face to face interactions predominantly shape economic activities. The literature on the subject is immense over all of the social science disciplines, in economy and in law (McAdams, 2008). In practice, the difficulty in obtaining information on the reciprocal strategies of agents is the central problem in any cooperation, whence the importance of intermediary organisations allowing strategies to be displayed and adjusted. The contracts, written or tacit, also help to partially get around this difficulty by offering a reading of the strategies of the contract signatories. Primary function is to provide explicit *ex-ante* intentions, rather than to provide legal guarantees for the commitments of one or other party (Brousseau and Glachant, 2001).

The capacity of agents for organisational innovation is expressed mainly through incentives to cooperate. These operate through systems of bonuses rewarding the respect of commitments to cooperate, or penalising opportunist behaviour. The guarantee that commitments will be honoured arises from complementary mechanisms activated within and outside the bilateral contract agreed upon by the agents. A third party playing the role of litigation arbiter ex-post can intervene in both public and private tribunals, *e.g.* the inter-profession of Champagne wines has an arbitration commission for transaction-related litigation. Peer judgment guarantees that the opposing parties will not have to face a judge who is totally foreign to the special economy and technological idiosyncrasic constraints of the sector.

Historically, economic development arises in an institutional framework of coercive policies. The essential point in the research on the processes of economic development nevertheless remains to understand under what conditions voluntary cooperation can be maintained without a Hobbesian solution of constraint by a State to create the conditions for a cooperative solution[2]. For sometimes the coercive power of the State has been used in a contrary sense to economic development or at the will of economic agents, complicating the strategy of the agents in place. The extension in use of the AOC/PDO in the 1970s was encouraged by the French State, which was following its own rural development purposes in favour of mediteranean vineyards. It dramatically affected this quality of the label and reduced the ability of agents of the northern vineyards to regulate theirs owns AOC/PDO.

The supposed stability of institutions raises unanswered questions on the way in which they evolve and are transformed. This leaves the question at the heart of the concerns of development analysis. From informal conventions set up within the wine growing community to laws on agricultural orientation, continual changes influence the behaviour of economic agents and their organisations. These institutional changes arise from complex processes that are laborious to interpret because they are generally at the margin of several institutional forms (Greif and Laitin, 2004). These institutions typically change incrementaly more than by rupture. The formal rules may change abruptly, but the informal constraints embedded in the customs, traditions and codes of conduct are unpredictable. These cultural constraints link the past to the present and future and largely determine the trajectory of economic organisations and the strategic options observed[3].

The legal guarantee arrangements have their own rules for change and are made to last, with high inertia. Understanding development trajectories implies understanding how institutional

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[2] In HOBBES' acceptance of public power the civil state is founded by a contract between individuals and the sovereign. According to this contract, individuals transfer their so-called "natural" rights, with the exception of inalienable rights, to a central authority, the Sovereign, depositary of the State. The contract is based on more than mere consent. It sets up a "common power" capable of imposing respect for the conventions by penal sanction. The Sovereign guarantees that men will not fall back into the state of nature (Hobbes, Leviathan, 1651).

[3] The hypothesis on evolution advanced by Alchian in 1950 suggests "*a ubiquitous competition*" eliminating inferior institutions and rewarding by survival those most able to solve human problems (Alchian, 1950). Now, a study of institutions in the agricultural sector shows that many of them stand the test of time. They appear more to add to each other than to substitute for each other.

changes maintain cooperation within a game whose rules evolve. The "reputational" model of Klein (1992) bases the guarantee of execution on the matrix of pay-offs in a cooperative game where the entry and exit costs for cooperation are an obstacle to great changes. Anticipated pay-offs as prices and costs evolved infer the agent behavior with more or less latency.

The complementarity of enforcement mechanisms between formal and informal mechanisms, of private institutions embedded in a regulatory framework enables a reduction in the costs of information and negotiation when multilateral agreements are activated.

2. Technical and organisational singularities in the Champagne LPS

The Champagne market is mainly characterised by the distribution of specific assets over a long time span between two families of players. On one side, the vine growers hold a major proportion of land suitable for growing AOC/PDO grapes. The merchants possess commercial infrastructures and brands that enable the effective marketing of Champagne, in particular for export. The complementary nature of these assets induces a "localised" cooperation for the production of a AOC/PDO with a very high added-value, which is not exceptional for a wine growing region; but in the LPS Champagne, the complementarity arises in different terms with a strong willingness to cooperate upstream and downstream (Lanotte and Traversac, 2011).

2.1. The distribution of assets between the wine grower and merchant, the basis of regional economic cooperation

By the late 19th century, the competition between wines of the south, less costly to produce than those of northern climes, forced the Champagne merchants to play the differentiation card. They found themselves confronted with classic phenomena of the agricultural economy, production highs and lows, fraud, counterfeit and speculative behaviour (Boussard, 2007). In the inter-war years, the industry and the State sketched out the two main routes in the regulation of the wine market, the AOC/PDO schedule and the discipline of upstream-downstream relations which helped to correct the hazards in flows and prices and to increase quality-based investments. But it was not until after the war that these mechanisms were set definitively into place for the long term. From 1920 onwards, Champagne adopted a valuing scheme for special protection, based on AOC/PDO-inter-profession regulation peculiar to itself, anchored explicitly in usages sometimes going far back in time[4]. There is a clear distinction between upstream grape production control on the one hand and downstream wine production control on the other hand. The AOC/PDO is a public asset without any affectation of property rights to any particular economic agent. It can therefore benefit all the players of an LPS linked to the AOC/PDO. There is, however, a strong asymmetry in the control of the

[4] Initiated by land owners, this initiative was to have echoes from the side of the merchants. "*From the second half of the 19th century, the merchants set themselves up as convinced defenders of the Appellation Champagne, in particular through their union*" (Garcia, 1986, p66). From the choice of referring back to the real or imaginary precedence of old practices came the PDO scheme in its current form. Records of these practices are to be found in all kinds of archive, writings by the erudite, account ledgers or growers' records of merchant firms. The company Ruinart Père et Fils founded in 1729 and Moët et Chandon in 1743, among the oldest of firms, have been the subject of instructive monographs in this connection.

production rules. These result exclusively from a choice of land owner representatives. The State acts as a guarantor of a general doctrine that incidentally is quite blurred (Sylvander *et al.*, 2011). The separating of functions calls for a strong mutual dependence between these two categories of player, complementary asset holders, who regularly highlight the representatives of one or other families (de Brissis, 1999).

The translation of the period of transactions, from wine – a stable product – to grapes – a perishable commodity – has strong consequences on how the transactions are carried out. It induces the planification of vertical relations adapted to the hostage situation in which the grower may find himself following harvesting if he has no wine-facilities for long storage of its harvest. During the second half of the 20th century, the two players therefore introduced marketing contracts so as to ensure a regular offer on the final market and to secure the vine growing investment[5]. Until 1940, there was no real regulation of supply contracts and the merchants were in a privileged position owing to the virtual absence of any competition among wine growers on the final market. There were nevertheless attempts at partial regulation before the war, in particular to limit the destabilising effect of hazard on the price of grapes.

2.2. The three periods in modern Champagne history

From 1941, three epochs marks the growth of the vineyard and the forms of institutional arrangements (Lanotte and Traversac, 2011). The most visible part of these institutional arrangements, the contracts, through the rules they carry with them, reveals both i. the balance of power between merchants and vine growers (cf. table 1), and ii. the convention for market regulation, prevailing during each epoch (planning, multilateral contract, deregulation).

- Between 1941 and 1959, a quasi-administrative instrument was introduced by the authorities, ratified by the vine growers and the merchants, to monitor production and flow standards. This instrument relied on an organisation, the Comité Interprofessionnel des Vins de Champagne. From its origin in 1959, the CIVC regulated the exchanges on the basis of a principle of an administrative allocation of the totality of the Champagne grape supply. It centralised the attribution of order forms called “bons déclaratifs non échangeables”[6]. Each merchant had an allocation based on an historical reference. The regulation system was incremented in 1950 by indexing the price of grapes to the average price of a bottle of Champagne. This reference price, called “prix obligatoire”, was calculated from the average ex-cellar selling price. This principle turned out to be particularly advantageous for the vine growers, to the point where in 1955 the merchants refused to buy any grapes. Repeated conflicts led the CIVC to interrupt the administrative regulation and to adopt a more flexible management of market relations. But the principle

[5] The representatives of the merchants and of the Marne wine growers are in the habit of having discussions within the *Commission Spéciale de la Champagne Délimitée*, the so-called Châlons[5] Commission. But in spite of everything, in the mid-twentieth century there still did not exist one single “contractual framework” for the whole of the inter-profession, each fixing the contractual conditions for the exchange of grapes on a year by year basis, in a market that may be likened to a “spot” market (to the highest bidder without constraints). The wine growers, who were more numerous and whose survival depended a lot on the purchasing terms offered by the merchants, were in a difficult situation related in particular to their higher than normal production costs.

[6] For the record, on these dates almost the whole of the production was the subject of transactions in grapes or clear wine.

of an agreement on the general Champagne strategy would be preserved in the succeeding regulation scheme.

- Between 1959 and 1989, the regime became one of multilateral agreement based on voluntary subscription by the largest number of growers and merchants to a permanent contractual commitment. The strength of this agreement would be in proactively defining the concrete modalities for bilateral contractual relations. Five successive inter-professional contracts were adopted. The inter-professional contract included a set of incentives to cooperation (see below). The measures adopted by the representatives of unions, members of the CIVC, were made obligatory by the public authorities who "extended" the agreements to the whole of a product, the AOC/PDO wines of Champagne, by ministerial decree[7]. The grape price / bottle price index, an ever-increasing ratio during the period, shows explicitly how the grape growers obtain a clear adjustment of the bargaining power in their favour. This observation is in part an explanation for the rupture of the inter-professional contract in 1989. Chambolle and Gaucher emphasise the nature of cooperation mechanisms, those relating to a variation of bargaining power towards the vine grower (Chambolle, 2000; Gaucher *et al.*, 2005). Through the introduction of alternative marketing instruments, investments in own brands by the cooperatives and direct sales by the wine growers, the vineyard's negotiating power increased within the inter-profession by breaking the merchants' monopsony. It used this "re-adjusted" balance of power to obtain a share of the profit in the industry that was advantageous to it (Chambolle, 2000). This contract consort with the formidable development of the Champagne market. In 30 years, the vineyard area was to more than double and the number of bottles of Champagne sold was multiplied by five.

- From 1990, the design of the inter-professional contract changed form and lost its consistency because of the application of a counter-regulatory doctrine to the Champagne market. After 1993, a very strict interpretation of Community competition law (art. 101-109 of treaty of European Union functioning) was to prohibit the price clause. From being obligatory, the price of grapes in the inter-professional contract became "indicative", and then "observed". The value of each transaction had from then on to be set by mutual agreement between buyers and sellers. To stay in compliance with the Commission's decision, the price index is no longer designated in the inter-professional contract model. Nevertheless, professionals in the sector remain attached to the use of this reference. This custom attenuates price differences, improving coordination in the industry and allowing the planning of supplies to the merchants by limiting speculative phenomena, in particular temporary overbidding on price, a source of instability and tension.

[7] Up to 1989 these agreements were published by the government commissioner who validated the inter-professional agreement in order to give it the force of law.

Table 1: The successive phases in the regulation of Champagne wines.

	The inter-war years market	The administrative regime or the pre-contractual period Hierarchical management of upstream-downstream relations	The full inter-professional contract The completeness of the contract	The median inter-professional contract Liberalising of the market and the bilateral contract
Period	1918-1941	1941-1959	1959-1989	1989-….
Share of bargaining power (α)	$\alpha_m > \alpha_v$ with m: merchant v: vine growers	$\alpha_n > \alpha_v$ GP=24->28% BP with GP: grappe price BP: bootle price	$\alpha_n \sim \alpha_v$ GP=34% BP	$\alpha_n < \alpha_v$ GP=33% BP
Striking points	1911 – Scale of vintages 1930 - Creation of the AOC/PDO 1935 - Commission de Châlons	1941 - Creation of the CIVC	Frequent adjustments in the clauses of the inter-professional contract to the needs of the conjoncture	Rupture from 1989 to 1993 Maintenance of the inter-professional contract and bilateral commitments
Result	Stable vineyard area 10 000→12 000 ha Sales of 30/40 million bottles Reduction in vine growers' and merchants' numbers Dramatic fluctuations in the price of grapes from year to year – 1.1 FF (1922), 10/11 FF (1926), 1.3 FF (1935)	Vineyard area of 12 000 ha Sales of 30/40 million bottles	Strong growth of vineyards 12 520→29 035 ha (+132 %) Large increase in sales 42→249 million bottles (+ 489%) France + 438 % - Export: + 596 % Moderate inter-year variations - (~ 1/1,3)	Slower pursuit of growth - 30 000 →34 000 ha Increase in sales - 250→352 million bottles From 3 Euros to 6 Euros

The Champagne industry managed to create value despite an offer limited in volume by joint investments and very close coordination of the flow of investments[8]. This success is partly related to the cooperative relationships that became established upstream of the industry, to

[8] The price of Champagne PDO grapes is 10 to 15 times greater than for table wine.

the discipline of the economic agents and to the introduction of various types of enforcement mechanism.

2.3. The instruments to guarantee cooperation

The regulation scheme set up in Champagne for vertical vine grower-merchant relations is designed like all contracts with three specifications: i. investments in the assets required for cooperation, ii. coordination tools and enforcement process, iii. rules of distribution of the quasi-rent. The long-term commitment of buyer and seller aims to facilitate the coordination of flows along the supply chain. It should be noted that this contractual mechanism serves explicitly to reduce the uncertainty. The actual specifications of the inter-professional contract mention the rewards attributed to growers and merchants who play the contractualisation game and the sanctions applied for deviant behaviour. The strength of the succession of these agreements lies in the capacity of the Champagne players to create institutional innovations ensuring their enforcement. This mechanism is based on third parties called in by the private players to make the contractual commitments enforceable on the one hand, and on the other hand on incentives to modify the balance of power between growers and merchants.

The inter-professional contract includes several clauses aimed at facilitating cooperation and adhesion to the contract. The main incentive is based on a bonus for commitment, and appeared in the 1967 contract, to be later made systematic, and designed to reward only those growers who respect their contract agreement to its full term. It is financed by a fee on all grape, grape-must, and “clear-wine” transactions at 6% to 8% of the value of the transactions. The contract was to change design and name – quality bonus – but remained in the spirit of a reward for the stability of the bilateral relation. Added to this are various clauses favouring contract signatories in procedures for attributing rights to produce or sell. Priority for the marketing of wines was given to producers under contract, first of all through wine circulation “vouchers”, and then through the release of “reserve” wines. The change in the order of the attribution of the plantation rights involved a revision of priorities written into the law on the French agricultural politics and local schemes. The tacit agreement of this revision implies that there was overall approval by players in regional agricultural regulation, public authorities and agricultural unions. Public and private third parties were solicited by the Champagne producers to arbitrate in conflicts between upstream and downstream. The public authorities were and remained the natural third party in the wine world when it is a question of regulation. The most general form of its action in favour of quality wines concerns the regulations on GI. By setting up a coherent AOC/PDO labeling scheme, the French State, and after the European Union, contribute to the standardizing of production and products. Thereby they facilitate the organization of exchanges by reducing controlling and measuring costs (Sylvander *et al.*, 2011). The extension of agreements by ministerial decree or prefectural[9] order made participation obligatory for agents in the functioning of the inter-professional instrument in its two dimensions. The principle of obligatory voluntary contributions lent a unity of action to the producers of the Champagne AOC/PDO which very significantly enhanced the effectiveness of collective action. It reduced opportunistic behavior by prohibiting alternative options. It also reduced the risks of moral lapses by imposing the monitoring of technical installations. The public action applies the private strategy at

[9] Regional French State representative

numerous levels and on various scales. The international EU-Third State agreements on the protection of PDO contribute to the value of this scheme.

Added to public instruments for the arbitration of litigation and civil and administrative tribunals are private tribunals. The extended agreement authorises the CIVC to nullify a non-compliant contract and block the corresponding transaction. It can impose fines (up to 80 000 Euros), engage a civil action or require competent administrations (Ministry of Agriculture). The inter-profession is a private organism endowed with delegations from public services and enjoys nearly the same prerogatives as a market regulation authority. Its actions protect the two parties from any deviation. The policy of wine growers' union has been and remains to favour vertical relations, manifest in the large efforts that the SGV (Syndicat Général des Vignerons – growers' union) has devoted to promoting the inter-professional contract. It does nevertheless encourage the creation of alternative industrial organisations, able to compete with the merchant at the marketing stage. The development of direct sales (by the producers or the cooperatives) directly strengthens the negotiating power of the SGV. Pre-eminence over the marketing functions that the merchants had possessed for a long time was to develop from the late 1960s. The sale of Champagne by the grower developed, mainly in French and EU markets. In sixty years the segmentation of the industry has greatly developed following the strong vertical integration of marketing functions by the wine grower. This strategy aims both to capture value and to re-adjust the balance of power with the merchants (Chambolle, 2000). The development of second level cooperatives became part of an industrial policy imposed by the SGV on the UMC (Union des Maisons de Champagne – merchants'union), with clauses written in to the inter-professional contract.

2.4. Territorial clauses

The geographic proximity of wine growers and merchants means that cooperation is easy, resulting in savings on the costs of communication and transport (Torre, 2006). The adoption of common rules of the PDO type and of coordination mechanisms stems almost automatically from this proximity constraint. This logic when applied to Marshall type externalities of proximity produces synergy effects in most LPS (Torre, 2006). In Champagne, the SGV and the UMC have made the choice of territorial cooperation, totally prohibiting external alternatives.

From the beginning of the 20th century, the SGV and the UMC instituted a rule on exclusive territorial cooperation by prohibiting the incoming and outgoing flow raw materials (transcribed in the laws of 1908 and 1927). Uniquely in the French wine industry, under its brand names, the merchant can sell no wine other than Champagne. As for the wine grower, he cannot send grapes or grape must outside the AOC/PDO area. This rule strongly constrained the players to cooperate by raising the cost of alternative options. The AOC/PDO decree prevents the substitution of southern AOC grapes in Champagne production sites. Transferring a wine making establishment to another region is still possible for the merchant. This strategic choice does, however, involve costs of replicating industrial plant. Though it does not totally proscribe the adoption of this strategic (Mumm in California, Moët in Argentina, Bollinger in Chile), it is strongly dissuasive.

3. Self-enforcement of vertical relations through promotion investment by Champagne firms

In practice, the cooperative relation between the grower and the merchant in our case depends mainly on the complementary nature of their respective assets. The inter-professional agreement and the willingness of these two players to cooperate are, however, insufficient to explain the relative contractual stability. This would be to ignore the rivalry between the two players. The wine growers themselves market Champagne under the denomination "de propriété", *e.g.* estate wine. There is nothing to prevent the merchant from producing grapes. Engaged in a compete/cooperate relation, the growers and the Champagne firms find themselves in a different position from a simple vertical relation of supply/demand. "The grape market […], is thus positioned in a quite original structure of vertical relations where downstream competition between merchants who have made marketing investments (brand development, sale networks) find themselves exacerbated by the supply of Champagne appellation grapes: production capacity is by definition limited and the quantities offered to the merchants are limited by the direct marketing strategies of growers and cooperatives" (Gaucher *et al.*, 2005, p1).

Once they had been dispossessed of the innovations, the grape varieties and the wine making methods that have accompanied the development of Champagne, the producers were left with only one specific asset, the Champagne AOC/PDO as a brand. This relied on two types of complementary resource: i. a monopoly on production and an exclusive claim to the brand by the growers alone in the AOC/PDO, ii. the commercial investments of the merchants to uphold its reputation and prevent substitution by wines of other competing origins. The growers were aware of the major role the merchants had played in enhancing the value of their wines. Investments in reputation were mainly made by the merchants. "… without the merchants' marketing efforts which have forged the renown of a sparkling wine, Champagne today would have been just one among many. Growers would have less revenue and Champagne and all that goes with it would not have known such prosperity. In his wake, the merchant has enabled the development of many activities ancillary to Champagne, and the arrival of the harvester- handlers too, who also market Champagne wines and profit from the reputation of the big brands" (Garcia, 1986, p74).

We suggest that the promotion efforts by Champagne firms to a large extent explain the relative stability of contractual relations by making the agreement self-enforcing. Other authors may stress the importance of security of supply for the merchant so that he may invest massively in promotion and distribution (Gauchet *et al.*, 2002), but they do not sufficiently emphasise the size of commercial investments prior to the relation to explain the very existence of the agreement. "… in the setting up of this delicate balance, the chronology of investments is crucial. If the merchants have not invested massively and sufficiently early on in the reputation of their own brand associated with the PDO, the development of direct marketing of a standard product by the vineyard reduces the merchant's supply capacity and creates competitive pressure which hinders the emergence of merchants' brands aimed at higher quality market sectors. Up to now, apart from Champagne (where merchants' brands invested in the reputation of high quality products very early on) very few brands in PDO regions have acquired an international image […]" (Giraud-Héraud *et al.*, 2002, p8). Advertising should not be seen merely as a signal of quality but also as a regulatory tool for vertical relations (Xie and Wei, 2009). The advertising effort made by the merchants has effects not only on the final market but also on the upstream-downstream relation.

Investments in specific assets devoted to the promotion of Champagne wines by the merchants stems from the stability of upstream-downstream cooperation.

In a comparative study of Champagne and Bordeaux wines, Réjalot shows that the communication strategies are different in these two vine growing areas. Although "it is the big brands of the merchants and the CIVC who have the largest Champagne advertising budgets and who use the main media for advertising […] the essential part of communication and advertising is done by the CIVB[10] …" (Réjalot, 2000, p428-429). There are various types of advertiser for promoting Champagne wines. Communication can come from merchant firms, cooperatives or harvester-handlers when they are communicating about their own brand or product, or from the inter-profession or the unions when they are highlighting the Champagne AOC/PDO. It is the big brands of the merchants and the CIVC who take on the largest part of advertising costs with their important budgets. It is therefore not surprising that the amounts spent on promotion by the inter-profession and the merchants in Champagne wines are distributed differently from other wine growing regions (Lanotte and Deluze, 2010). At the CIVC, the budget (a little under 20 million Euros) is shared equally between technical projects and promotional campaigns at about 6 to 7 million Euros[11]. Out of 23 million Euros of media advertising investment in 2007[12], the top ten Champagne firms were responsible for 60%. The share of investments borne by all the Champagne firms is estimated at about 80% (Onivins, 2008). The CIVC releases generic type advertising communications[13]. The Champagne firms produce brand advertising that is chiefly intended to underpin their commercial actions. But the latter by investing in their own brands convey the generic image of Champagne at the same time, contributing to the enhancement of the reputation of the AOC/PDO. These private Champagne brands are totally in allegiance to the PDO, which in return benefits the whole industry[14].

Creating a brand of Champagne wine requires the authorisation of the CIVC, to avoid the uncontrolled multiplying of agents in the industry (*e.g.* retailer/store brand types). Apart from advertising budgets, the major brands are able to be effective in maintaining the reputation of the brand/AOC pair to an extent that the wine growers, the cooperatives and the CIVC cannot match. The oligopoly of merchant is responsible for ensuring the presence of Champagne on external markets through commercial networks controlled by the multinationals in the wines and spirits sector. This symbiosis between the private brands and the AOC/PDO is emphasised by all involved in Champagne (de Brissis, 1999). The AOC/PDO and the wine growers depend on this strategic assets held by the merchants. The Vine Growers' Union develops the following argument: Champagne wine is produced from AOC/PDO grapes of

[10] Comité Interprofessionnel des Vins de Bordeaux.

[11] For comparison: the turnover for Bordeaux wine was 3.84 billion Euros (for 710 million bottles sold) and for Champagne 4.45 billion Euros (323 million bottles) in 2008.

[12] Media costs in the alcoholic drinks sector are estimated at close to 320 million Euros, the highest investiments being in the beer and whisky sectors (Source: TNS Media Intelligence - Viniflhor). The wine sector represents only 13 % of these total costs (7 % for Champagne).

13 Symbolic advertising message "The only Champagne is Champagne" signify it is forbidden to usurp the AOC.

[14] Rejabot takes the example of a comic book: A single red line on a bottle unambiguously evokes a bottle of Champagne in the reader's mind, Mumm Cordon Rouge as it happens, cf. Hergé, "The Crab with the Golden Claws", Casterman, 1960 (p.13 and 18) or Goscinny & Uderzo, "Asterix and the Banquet", Dargaud, 1965, p.18.

very high quality, and advertising must above all promote the Champagne AOC. In practice, the suppliers of grapes like the cooperatives give priority to firms who convey the Champagne image. “We propose – and the growers have no objection to this – that there should be priority of supply to the ten or fifteen large firms who promote the Champagne image. The identity of these Champagne firms must be defended, with their craftsmanship and distinctive product from a process beginning with clear wine. Today, some adopt the opposite reasoning, with highlighting of the brand. But a brand is above all a marketing affair, and if tomorrow supply problems continue, who can say whether some firms might secure supplies elsewhere, selling wines that would not be entitled to the name Champagne, but would be sold under the prestigious Champagne brand name? And indeed this is already happening in the United States” [15].

On several occasions, over advertising campaigns for Champagne brands that did not clearly mention the AOC/PDO has led the SGV to start with the CIVC an action to obtain that merchant be ordered to explicitely mention the origin of the wine and promote the AOC/PDO. Indeed, some merchants consider the grapes as merely raw material (provided they are of high quality) and are turning more and more to branding. But the danger is that all feeling of belonging could vanish. What could disappear if the AOC/PDO is abandoned in favour of their own respective brands is an identifying sign for both external recognition by consumers and internal recognition within the industry. The AOC/PDO with its reputation has not only an informative function, but also an intangible idiosyncratic character, binding together the members of this AOC/PDO (Torre, 2002). Moreover, as pointed out by Eymard-Duvernay, the reciprocal confidence between buyer and seller that is necessary in exchanges is founded not only on reputation or fame but also on commitment (Eymard-Duvernay, 1994). This commitment often takes the form of specific non-recoverable investments – sunk costs. In the case of Champagne, it is the investment in the Champagne appellation that is “specific”, since, unlike the brand name, it is attached to the PDO area.

And further, the major Champagne firms are diversifying by setting up abroad. They produce sparkling wines in the United States, Cava in Spain, marketing them under their “umbrella brands”, freeing themselves from the geographical limits imposed by the AOC/PDO. The merchants justify their action by the need to control the distribution channels in these countries with local products required for effective marketing. The risk is then that the brands might gradually leave aside the AOC/PDO and turn to less costly raw materials.

[15] P. Leroy, deputy secretary to the CGT Champagne union, quoted at the address http://www.laterre.fr/article.php3?id_article=126

Conclusion

In this article we have tried to show that the organisation of localised production systems (LPS) can be re-interpreted through a diachronic analysis of their institutional arrangements. The regulation of the Champagne system is the result of an institutional history that through repeated exchanges has enabled a dual and incremental process of strategy alignment by the two parties in the presence of contractual mechanisms with the regulation standards in force[16]. Grower and merchant have had to cooperate to schedule production, more especially since the production cycles are very long. This has given rise to a long-term understanding and an idiosyncratic organisational instrument, the inter-profession ⊗ AOC/PDO. To reduce transaction costs, there is centralised coordination of the various stages in the writing of the contract. Two unions, representatives of whom preside over the CIVC simultaneously, negotiate and draw up the parameters of the bilateral contract between the two families, and its operational details – the inter-professional supply contract, the management tools, the juridicial protection of the PDO, concertation with the public authorities, R&D priorities. The originality of the regulation of this LPS lies in the way this central resource is made up and the asymmetrical distribution of investments agreed in order to ensure a strong and durable differentiation of these products on the markets. The willingness expressed during the inter-professional negotiation process to share the value equitably legitimises the permanence of the agreement (Rasselet, 2001). The contractual agreements concluded in Champagne both generally and bilaterally are applied more or less completely to satisfy a strategy shared by vineyard and merchant management. This common vision has gradually spread to the whole of the agents, to an extent that the determination of the union leaders, essential when regulation was first being introduced, seems secondary today.

We have shown that several forms of arrangement have succeeded each other to make the equilibrium durable in the long term. The strength of the Champagne LPS depends on relatively dense and complex incentives to cooperate. Local inter-professional cooperation has been effective because it is stabilised by appropriate guarantee mechanisms and has many times been adapted to economic and political circumstances. Their stability does result from processes designed to reduce the benefits of cheating behaviour, by self-enforcing mechanisms (Mazé, 2007). If the agents respect their commitments, it is above all because any breaking of the agreements is costly and uncertain. Added to the inter-professional contracts are mechanisms of a private nature aimed at enhancing the benefits of cooperation. In particular, the advertising investment of the Champagne firms in favour of the AOC/PDO contributes significantly to the stability of inter-professional relations. By improving the well-being of all the agents, this investment is both a mechanism for improvement in consumers' willingness to pay and a real means of cohesion between vineyard and merchant. This enables both horizontal coordination, by avoiding direct competition between the merchant and the harvester-handlers, and vertical coordination within the industry itself. The way the Champagne union leaders have played out these various mechanisms makes the Champagne experience particularly interesting (David, 1994).

[16] The three periods from the Secxond World War to today are to be divided into fourteen contractual sub-periods.

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