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Agency and Constitutional Ordering in Networks

A Case Study of the Port Wine Industry

This paper illustrates how the network structures in which economic exchange is embedded can be the subject of individual or collective actions aimed at altering the conditions of action and power afforded by such structures. A second strand of our study concerns the notion that interorganizational networks are systems of economic as well as social and political exchange. We regard economic exchange as existing within dense fabrics of social relations, rarely able to rid themselves of baggage such as social exchange, kinship and friendship networks, altruism, and gift giving (Easton and Araujo, 1994). Similarly, the boundaries between economic and political exchange are seldom clear-cut. In economic exchange, actors trade resources and property rights, taking for granted the conditions and rules that structure their exchanges. In political exchange, actors trade a variety of resources with the aim of manipulating to their advantage the rules that structure economic exchange (Friedberg, 1990, 1993a, 1993b).

Furthermore, actors are often involved in a multiplicity of exchange relationships or multilevel games,¹ comprising different strands—eco-

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conomic, social, and political—and they pursue different agendas across the portfolio of their exchange relationships. As Padgett and Ansell (1993, p. 1263) put it, a move in one “game” is simultaneously a move in many other “games,” and single actions often have a multivocal character—that is, they can be interpreted coherently from many different perspectives.

Sabel (1993, 1997) and Herrigel (1994) introduced the notion of constitutional orders to refer to the background systems of social and political rules for engaging in specific practices, adjudicating disputes, and defining identities of constituent firms and the system in relation to the wider society. These constitutional orders often promote shared world views and beliefs, and provide perceptual filters for identifying and addressing issues affecting the collectivity of actors within an industrial sector (Child and Smith, 1987).

The notion of constitutional orders, as formulated by Herrigel (1994, pp. 99–100), is an attempt to relate governance mechanisms within an industrial sector to the background architecture of social and political rules that frame these governance mechanisms. Constitutional orders thus include both local rules arising out of interactions among industry members and those rules emanating from other levels of society and with the potential of structuring interaction episodes among industry members. Thus, industry constitutional orders resemble, in a generic sense, the relationship between a state governed by a modern liberal constitution and its citizens.

In this article, we want to amend the notion of constitutional order used by Sabel and Herrigel and relate it to the notion of agency. Whereas they concentrated on the industry level of analysis, we want to address a more complex industrial system, involving different layers of actors conducting a variety of economic, social, and political relationships among themselves. This system can best be described as an interorganizational network and comprises both local, informal rules arising out of repeated interaction patterns and formal, legally enforceable rules administered by actors that either are representatives of the state or have been mandated by law to enforce a specific set of rules.

The second difference between Sabel and Herrigel and our conceptualization of constitutional orders is the role we ascribe to agency, which is virtually absent from their conceptualization. We regard the interaction of agency and constitutional order as crucial to understanding the dynamics of industrial systems. The notion of agency is import-

ant for two reasons (Burns and Flam, 1990; Whittington, 1994). First, in multiple, complex, and intersecting rule systems, actors pursuing multilevel games must exercise a degree of discretion in interpreting and sorting out potentially contradictory rule systems. Second, actors often deploy considerable creative powers to reform and transform the rule systems and roles allocated to them in particular structures.

We use the port wine sector in Portugal as a case study to illustrate the interplay between agency and constitutional ordering in an inter-organizational network. In particular, we emphasize the second notion of agency highlighted above, stressing that initiatives aimed at changing the constitutional ordering of a sector can be the result of collective actions aimed at resolving concrete issues perceived as threatening part or all of the sector.

First we look at the role of collective action in promoting change in the constitutional ordering of networks and different ways of conceptualizing this role. Second, we briefly introduce the port wine sector as the setting of our case study. We then analyze the issue of excess stocks in the port wine sector and the emergence, consolidation, and results of a collective action aimed at resolving this issue. Finally, we revisit the notions of agency and constitutional ordering in inter-organizational networks in the light of our empirical results.

Collective action in interorganizational networks

In recent years, research in interorganizational networks has been increasingly concerned with change and dynamics in networks (Håkansson, 1992). Underlying this concern is the belief that networks are never in equilibrium and that the balance among the existing configuration of actor bonds, activity structures, and resource ties is never "optimal" (Håkansson and Snehota, 1995). Furthermore, existing network structures encapsulate power differentials and asymmetries that lead to tensions and attempts by underprivileged actors to reverse the balance of power in their favor.

This control is unevenly distributed and the efforts to increase control by one actor or group of actors will affect the level of control of other actors who will support, challenge, or actively resist those tendencies. These struggles for control are likely to be a key factor in explaining the dynamics of change in industrial networks (Håkansson, 1992).

One of the ways in which actors can fulfill their objective of increasing control is through pooling resources and coordinating activities with other actors sharing common interests. This may be achieved either through formalized structures that will emerge as an institutionalized “actor” in its own right or through the ad-hoc and informal coordination of activities directed toward specific objectives. Two different theoretical approaches have been proposed to explain the emergence and operation of collective actions and the formation of collective actors. The first of these is called the “Olsonian approach”; it takes a bottom-up view of how converging interests lead to the emergence of collective actions.

The Olsonian approach

The problem of collective action according to Olson’s (1965) seminal work can be framed in terms of a social dilemma in which actions that are individually rational lead to collective outcomes that are irrational. Put differently, a collective action problem exists when rational individual action by each of the members of a set of actors can lead to an inefficient or Pareto-inferior outcome (Taylor and Singleton, 1993, p. 196).

Olson observed that, when large organizations offer collective benefits as the sole incentive for membership, both the “imperceptible effect” and the “free-rider problem” are likely to jeopardize collective actions. As groups become larger, individual contributions to the collective action tend to be greater than the perceived individual proportion of the collective benefit shared by each member. Any member acting on a rational basis may maximize his or her benefits by not making any effort on behalf of the group while reaping the rewards of the collective good produced. If a significant number of members adopt this behavior, then suboptimal amounts of the collective good or Pareto-inferior outcomes will result.

Olson contended that this problem can only be solved if individual rewards are offered to complement collective benefits. According to his “byproduct” theory of collective action, these selective and private incentives are likely to play a key role in motivating individual contributions. As Udéhn (1995, p. 240) remarked, Olson’s analysis also contemplated the role of moral and social incentives in resolving the collective action dilemma despite relegating these concerns to the realm of sociology.

Olson's seminal contribution has been subjected to numerous criticisms and refinements (Udéhén, 1993). Two main issues concern us: (1) the failure of the Olsonian framework to explain the emergence of institutionalized groups of interests, or collective actors, and (2) the nature and scope of the incentives required to create and sustain these groups. In short, the Olsonian perspective adopts a *bottom-up*, atomistic perspective and is mainly concerned with the emergence of localized collective actions. Little or no effort is expended in explaining how collective actors can become institutionalized or how the relations between collective actors and their members develop, as well as in understanding how collective actions might emerge from within organized groups and affect the structure of the socioeconomic systems in which they are embedded.²

The neocorporatist approach

An opposite theoretical stance toward collective action and collective actors is represented by the neocorporatist approach to political systems. Corporatism refers to a political system where major groups of interests are aggregated into collective organizations whose purpose is to represent and defend the common interests of their members by participating in the formulation and implementation of public policies, with significant effort devoted to the process of interest intermediation (Schmitter, 1974; Lehmbruch and Schmitter, 1982; Williamson, 1985).³ A key issue in the neocorporatist model is that conflict resolution among interest groups can be achieved through their incorporation into forums where common policies are mutually agreed and implemented (Richardson, 1989). This requires that such groups be organized in structures that facilitate internal expression of individuals' interests, and that they struggle to represent and defend each group's common interests.

Furthermore, interests can be aggregated at different levels, each of them encompassing distinct structural forms and different processes of intermediation. Much research on neocorporatism has been concerned with the top-level aggregation of interests. Macrocorporatism involves intermediation through peak organizations representing the interests of large economic classes (e.g., employers and labor). At the lowest level, microcorporatism concerns bargaining and conflict resolution involving units such as firms, councils, and local representatives of chambers

of commerce or trade unions (Wassenberg, 1982). Between these two levels, mesocorporatism deals with organizations aggregating interests at a sectoral or regional level, such as sectorwide trade associations, labor unions, and/or regional public authorities.

In short, the neocorporatist approach adopts a *top-down* perspective and is mainly concerned with the processes of interest intermediation channeled through institutionalized collective actors. But neocorporatist approaches tend to overemphasize the brokerage power of institutionalized collective actors and their ability to aggregate and effectively represent the interests of their members. Moreover, specific issues may affect and polarize only small sections of their membership. Issue-based nets (see below) may emerge as temporary and contingent forms of association among small groups aiming at finding common solutions or brokering specific interests identified with a specific issue or set of issues.

A network approach to collective action

We turn now to the brief formulation of a third alternative to collective action and collective actors in interorganizational networks, which addresses some of the problems identified with both the collective action and the neocorporatist approaches. Collective actors may or may not adopt formalized structures. The former are created through an explicit contract, formal structures and rules codified in more or less explicit ways and subscribed by all its members. They constitute one type of formal organization or concrete system of action, to use Friedberg's (1993b, pp. 154–161) loose definition. They encompass such forms as trade associations, farmer cooperatives, trade unions, consortia of firms for joint sourcing or promotion, and self-regulatory commissions.

However, nonformalized collective actors may also come into existence. They are simply supported by virtual nets of relationships without a formal, explicit, or durable arrangement. Some informal pressure groups of customers or suppliers developing a lobbying activity or struggling for a common goal fall into this category. They exist as a collective actor since a net of relationships has been set up, developed, and mobilized in order to perform a particular collective action or set of collective actions. The identity of this collective actor is the product of the contingent and volatile set of interactions, and it is governed by local rules arising out of these interactions. Irrespective of the specific

objectives pursued, the ultimate goal of collective actors is to increase their members' power and control over the constitutional ordering of the networks in which they are embedded.

The emergence of a collective actor may be a complex and long process, especially if the group is large and heterogeneous. In general, it may be assumed that individual actors are likely to join a collective actor if individual benefits exceed the individual costs of contributing to the joint action. Nevertheless, three problems tend to jeopardize this process (Taylor, 1987). First, "free-rider" problems may occur, since benefits are collective but costs are individual (or vice-versa)—as in the Olsonian framework. Second, as groups become larger, the effect of each actor's contribution becomes increasingly imperceptible, which tends to favor free-riding. Third, the costs of setting up and maintaining collective structures may inhibit individual contributions. These costs encompass not only those mentioned above but also those costs related to communication and bargaining among group's members (Taylor and Singleton, 1993). However, when exchange processes are mainly political or social, costs and benefits tend to be difficult to identify and measure.

In large and heterogeneous groups, the creation and development of collective actors may be dependent on the role played by an inner core of highly resourceful and interested members, who provide the "critical mass" necessary for the formation and operation of a collectivity. A small subset of interested actors may be sufficient to mobilize resources toward the production of a collective benefit, despite the fact that the majority of members contribute little or nothing (Oliver, Marwell, and Teixeira, 1985; Oliver and Marwell, 1988; Marwell, Oliver, and Prahl, 1988).

As a result, relationships within collective structures may be differentiated and heterogeneous. On the one hand, a strong net of relationships is likely to be found among a small subset of interested and resourceful actors leading the collective action. On the other hand, the bulk of the membership is likely to be made up of passive actors linked by weak ties, and not directly committed to the provision of the collective benefit, though supporting it.

Last, formalized collective actors may not survive for long. They constitute vehicles for aggregating, aligning, mobilizing, and representing interests. But they may be relatively fragile, unable to resist trials of strength or to bypass obstacles placed in their way without

losing momentum and credibility. In particular, their representativeness may fluctuate over time as different sets of issues may polarize different segments of interests within their membership. A section of the membership or disenfranchised actors may pursue specific interests transcending the constitutional domain of a collective actor through what we call issue-based nets.

An issue-based net constitutes a form of temporary association based on cooperative relationships among actors aiming to influence through collective action(s) the constitutional ordering of the network in which they are embedded in relation to a specific issue. So, for example, in the case of the port wine industry, legal issues concerning exports of wine in bulk may only interest a group of shippers who engage in this form of exporting as well as grape growers who supply them and a group of importers located in countries that have traditionally imported low-grade varieties of port. This issue-based net transcends the domain of the exporters' association, is only likely to mobilize a section of their membership, and may dissolve as soon as the problems it has been set up to deal with are satisfactorily resolved.

In sum, interorganizational networks are interaction fields populated by autonomous but interdependent actors, where alignments of interests institutionalized through formal collective actors and informally through issue-based nets criss-cross the established order of economic exchange relationships. Actors may choose to pursue the same agendas across different relationships by actively seeking coherence among moves in the different "games" in which they are involved. On the other hand, fluidity and inconsistency over a disparate set of commitments, among different relationships and over time, allow these relationships to be reconfigured according to local demands and constraints. Thus, actors may pursue different and coexisting strategies to search for solutions to different issues in different arenas—for example, business interest associations and local chambers of commerce. Padgett and Ansell (1993, pp. 1263–1264) claim that multivocal action and political power are intimately connected. The point of multivocal action is flexible opportunism—maintaining discretion in the face of unpredictable futures and attempts by others to narrow the range of options available and to lock others into specific and predictable paths of action.⁴

The location of actors in a multiplicity of games and intersecting networks is crucial to the notion of "agency" in networks, which en-

tails the capacity of actors to reproduce or transform the conditions of actions afforded by their structural location in accordance with their individual or collective ideals, interests, and commitments (Emirbayer and Goodwin, 1994, pp. 1442–1443). In other words, agency emerges both through the gaps and “incompleteness” of the structural constraints and of the rules of the game embedded in a particular constitutional ordering and by purposeful acts aimed at reconfiguring the constitutional ordering in a manner that advances a particular section of interests.

Characteristics of the port wine network

Port wine is produced in the Douro valley in northeastern Portugal, a demarcated region covering approximately 1,200 square miles starting 62 miles east of Porto and extending as far as the Spanish border.

Grape growing is undertaken by an estimated 30,000 small farms that sell their production year after year to the same shipper, based on unwritten contracts and trust. The final product is then sold in the domestic market or exported by seventy shippers located across the river from Porto, to a large number of overseas destinations. The port business system is referred to in this paper as a “network” in the sense of a mode of economic coordination characterized by dense and relatively stable patterns of economic exchange, embedded in concrete time-space and institutional contexts.⁵ Figure 1 depicts the main features of this network.

The port wine network is characterized by peculiar aspects that make the study of agency and constitutional ordering particularly interesting (for further references to the history of port wine, see, e.g., Martins, 1990). The network is embedded in a stable, mature, and differentiated social structure. The split between production and distribution is both social and geographic. All but the final phase of production is centered in the farms of the Douro valley, whereas Porto and Gaia (on the opposite side of the Douro from Porto) are the distribution and trading centers. Socially, the split is between a rural and isolated social structure dedicated to grape production and a more cosmopolitan, wealthier, and better educated elite focusing on the technical aspects of production and trading. Both sectors are well represented by strong collective actors and a host of smaller interest groups (Brito, 1996).

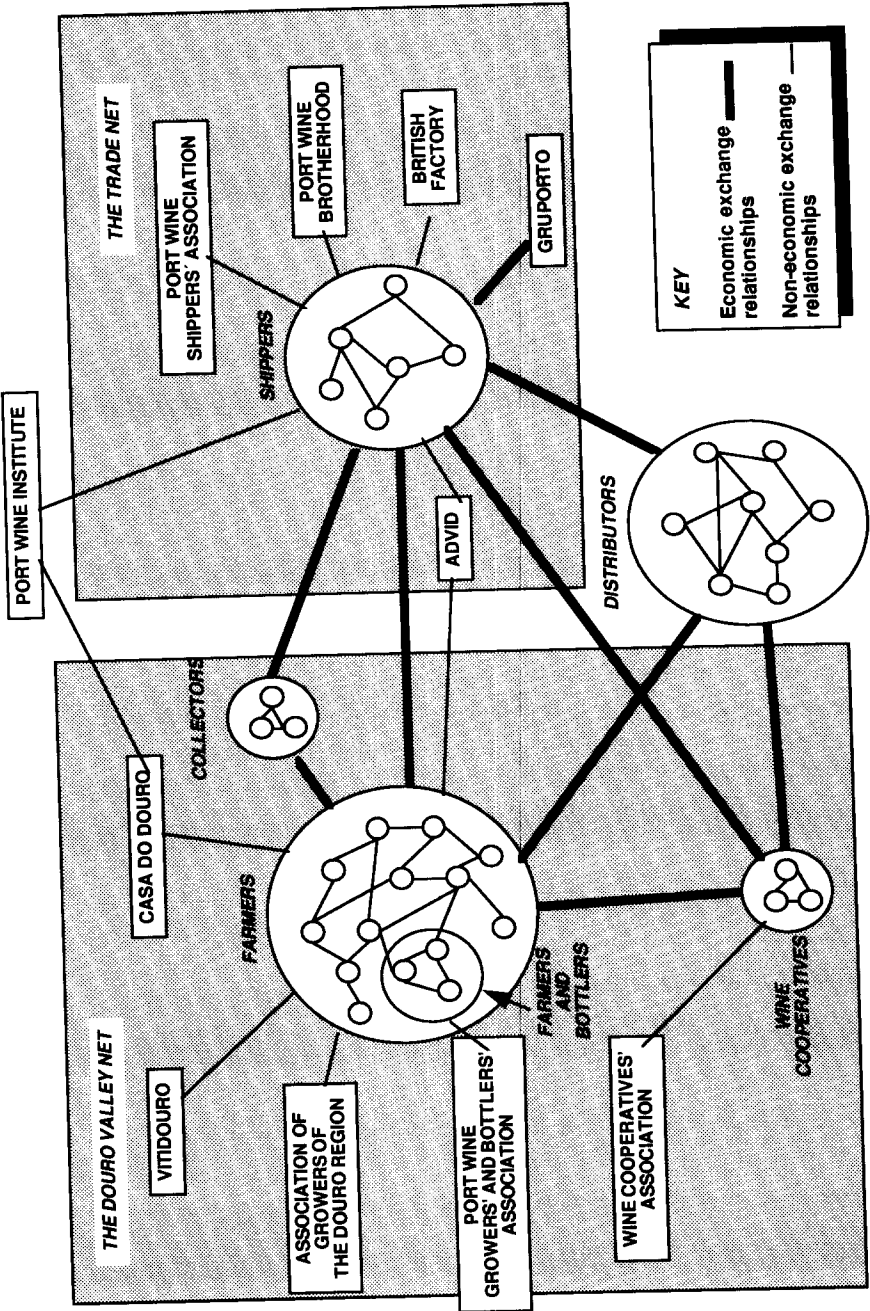


Figure 1

Production and distribution activities are constrained by severe regulative and protective legislation. Port was the first demarcated region in the world (eighteenth century), and the relationship between the legislative and regulatory powers, on one hand, and network actors, on the other, has always played a key role in shaping the fortunes of the whole network.

The excess stocks issue

After a decade of steady growth, the port wine sector faced some severe difficulties in the early 1990s. Most of these were caused by some years of overproduction, along with declining demand, which gave rise to the accumulation of approximately 100,000 excess pipes⁶ of port—that is, roughly the production from one harvest. This caused a sharp drop in the price but also in the reputation of port, an event that might damage the performance of the sector for many years to come.

The port wine sector is largely regulated and controlled by the Portuguese government, giving a statutory guarantee to a product made and traded by private organizations. The Port Wine Institute is the organization responsible for the implementation of government legislation and policy in this domain. It is empowered by law to establish the quantity of Douro wine that is turned into port every year in order to match supply and demand. This decision is based on a number of factors, such as stock levels, forecasted demand, and interest expressed by the main economic actors. The decision is made after a session of the General Council, the institute's consultative body, where representatives of the farmers, wine cooperatives, and shippers express their preferences in relation to the quantity of port to be produced each year.

The Port Wine Institute then authorizes Casa do Douro (the association in which all grape growers of the Douro region are required to register as members) to issue licenses that define production quotas for each vineyard. The central piece of this system is the "*cadastro*," an official register held and updated by the Casa, that classifies all vineyards on a scale of A (the best-quality vineyards) to F. This point-scoring system is based on twelve categories concerning three main attributes: soil, climate, and agricultural conditions. Once a vineyard has been awarded a score by an inspection team under the supervision of Casa do Douro, it is classified into one these A–F categories.

It is on the basis of this classification that the Casa determines the

production quota for each estate. Each farmer then attempts to fill his or her quota using grapes from the highest graded vines so as to maximize revenue. Subsequently, Casa do Douro is responsible for checking that production quotas conform to what has been authorized.

The system for determining and controlling production quotas thus constitutes a main pillar of the constitutional ordering of the network. The system also encapsulates a clear-cut division of labor and roles in the network. The trade sector has a strong influence in setting production quotas but is unable to control their implementation. The production sector can also influence the setting of production quotas, but its relative distance from consumer markets limits its ability to argue with the trade sector and the Port Wine Institute on this point. However, the implementation and control of production quotas are entirely a matter of self-governance for the production sector.

Despite the apparent accuracy of the system, some gaps between what was established and what was eventually produced have always existed. In general, these gaps have been small (Instituto do Vinho do Porto, 1993). After the poor harvest of 1988, growers had in 1989 and 1990 what is widely recognized as a free-for-all in production. In 1990, the Douro valley produced almost one-third more port than had been officially established by the Port Wine Institute (figure 2a). This huge overproduction destabilized the balance of stocks to sales and accounted for the accumulation of approximately 100,000 pipes of excess port (figure 2b). This situation was subsequently aggravated as demand declined in key markets. Global shipments of port dropped 3 percent in two years after almost a decade of steadily growing sales (Instituto do Vinho do Porto, 1992a).

Simultaneously, port prices were dropping sharply. From 1988 to 1991, export prices declined 4 percent per year on average, and production prices fell even further: Estimates suggest that they declined approximately 35 percent during these years. These events were perceived as real threats by most actors in the production and trade sectors.

Methodology

We used a case study approach, appropriate for the study of complex and dynamic interorganizational networks (Easton, 1995a, 1995b). We elected to follow three issue-based nets: one connected with a problem faced mainly by the shippers/exporters concerning bulk exports; one

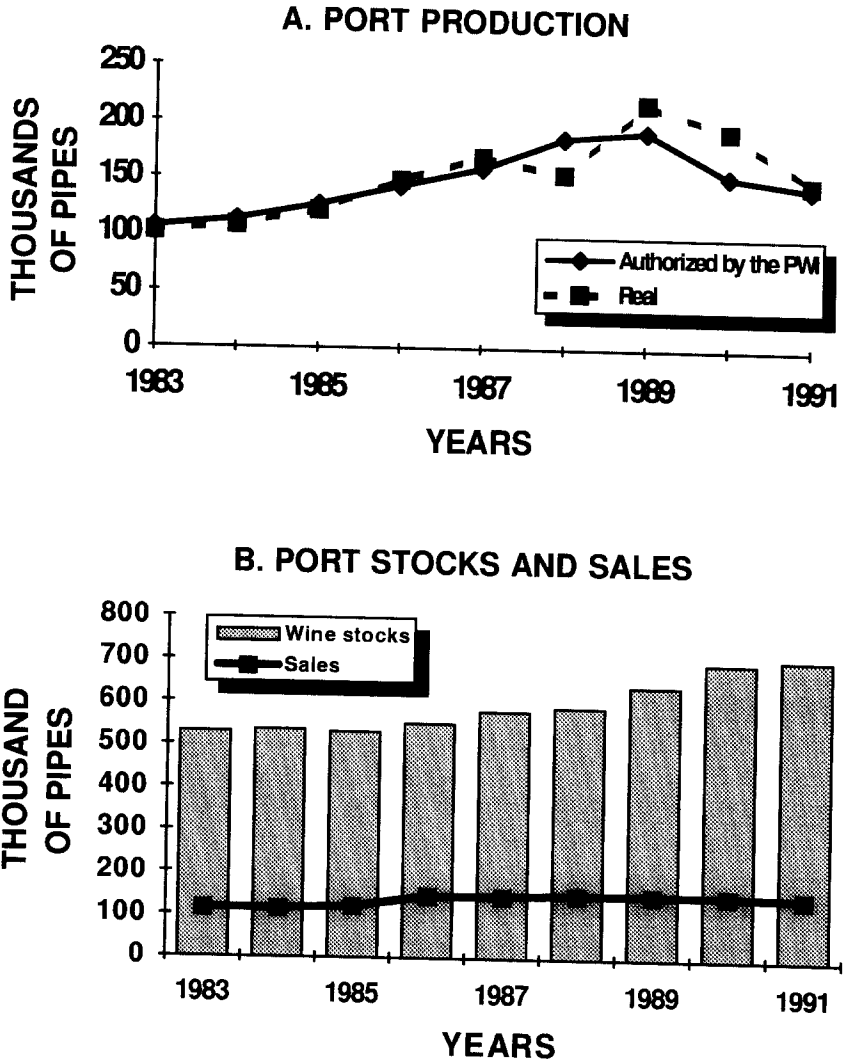


Figure 2

Source: Instituto do Vinho do Porto, 1993b

involving direct relationships between producers and exporters; and a third involving supraorganizational actors and representative organizations of different groups of interests. The excess stocks issue was ranked as the most important issue facing the sector in our total sample of fifty-six interviewees.

Each case study relied on the collection and analysis of primary and secondary data. Primary data were collected through semistructured personal interviews, all taped and transcribed verbatim. This material was then coded and analyzed with the help of a computer package dedicated to qualitative data analysis, NUD-IST.⁷ The procedures used for coding and analysis and the software used are described in detail in Araujo (1995) and Richards and Richards (1995). Secondary data comprised news items, interviews published in the media, and internal records of the Port Wine Institute.

The sample included not only actors directly associated with the port wine network but also experts in different fields (e.g., sociologists, legislators, historians, oenologists) connected with the production and distribution of port. The sample for the excess stocks issue included twenty-eight respondents. Nine respondents were farmers, twelve were directors of shipping houses, and one was interviewed in his dual role as farmer and cooperative director. The sample also included the chairmen of the Port Wine Institute, the Port Wine Shippers' Association, Casa do Douro, Gruporto, ADVID (an association of shippers and other organizations connected with the Douro valley, whose objective is technical development in viticulture and vinification processes), and the União dos Viticultores Durienses (the Association of Growers of the Douro Region). Ten respondents (five farmers, four shippers' directors, and the chairman of Gruporto) were primarily interviewed about the excess stocks issue. The remaining eighteen interviews addressed primarily other issues but also touched on the excess stocks issue.

The emergence and development of a collective action

Perceptions of the issue

All the farmers, wine cooperative directors, and shipping-house directors we interviewed clearly articulated their concern with the issue of excess stock. However, there were important variations in how they framed the issue. Farmers suggested that the excess stocks resulted from some difficulties in trading port. Some of them made it clear that such "difficulties" were very much the product of some shippers' inability to promote and sell port. In addition, farmers were concerned with the price drop at a time of rising costs—production as well as finan-

cial costs created by the need to carry large stocks. In any case, farmers perceived these issues as exogenous and beyond their control.

For their part, the shippers' directors demonstrated special concern with the conditions that led to the accumulation of excess stocks. In their opinion, most of the difficulties faced by the sector resulted from the Casa do Douro's mismanagement and its policy of free-for-all wine making—all the shippers' directors interviewed agreed on this point. In their accounts they used several derogatory metaphors to define the Casa's behavior and its role within the sector. They described the Casa do Douro as a "cancerous tumor," an "original sin," and the Casa's actions as akin to "minting counterfeit coins." The shippers were not alone in their criticisms of Casa do Douro. Many producers and associations in the Douro valley expressed similar views.

The Casa do Douro's perspective was obviously different, although its management recognized that overproduction had occurred and blamed it on the accumulation of small errors stemming from the introduction of a new software program to calculate production quotas. However, it denied that the situation resulted from opportunistic behavior or mismanagement. In interviews published in Portuguese newspapers (see *Expresso*, May 18, 1991; *Público*, February 11, 1992), Mesquita Montes, the chairman of the Casa, based his defense on three points. First, in 1985 and 1986 the Portuguese government licensed about 10,000 hectares of new vines, and the register for those vines was done in a hurry. This, Montes claimed, contributed to the appearance of some errors. Second, the Casa's chairman pointed out that most of these new vines were planted at a greater distance from each other than usual. However, the licenses issued for those vineyards were, as they used to be, related to the area covered. This gave rise to additional inaccuracies. Finally, the Casa introduced a new computer system in 1986 to improve the calculation of production quotas, but some failures in the system had caused further errors in the licenses issued.

Regardless of its causes, the effects of excess stocks were clearly recognized by all respondents. Furthermore, these events coincided with the end of the intervention of the Casa do Douro in securing the price paid to the farmers for their wine or grapes. One of the most important functions of the Casa in the past was to be a guarantor of minimum prices paid to the production sector. Partially funded by the government, the Casa bought from the growers at a preestablished price the wine (or grapes) they were not able to sell. The wine stored

was then released in years of short production. The purpose of this function was to protect farmers against the unpredictable evolution of export prices, as well as against potential exploitation of the production sector by the shippers.

Up to and including the 1990 harvest, the Port Wine Institute had established the price for which the Casa do Douro would buy the excess production. In practice, this intervention price acted as a minimum price for the whole sector, since no farmer would agree to sell its production to a shipper at a lower price. Usually, the intervention price for each harvest was set on the basis of the price established for the previous year, corrected by the inflation rate of the intervening period. However, following European Community legislation on free trade, the intervention price system was abolished in 1991. Since then, the Port Wine Institute has only established a reference price for the wine sold by the farmers on the basis of estimated production costs and market evolution.

Falling export prices along with the reduced capacity of intervention by the Casa caused a drop in the price of the wine paid to the farmers. Unsupported by institutionalized mechanisms to prevent rapid price instability, production prices became increasingly influenced by the power balance between the growers and the shippers, which clearly favored the latter, who managed to reduce significantly the average price paid to the production sector. Estimates suggest that, from 1988 to 1991, the average production price declined by 35 percent.

The shippers had apparently done well. They had managed to reduce the unit cost of their major input in excess of the decline of the unit price of their output. However, they began to realize that the falling production price was also affecting them badly. The trouble was that their stocks were being devalued in direct proportion to the price they were paying to the growers. This was particularly damaging, given that stocks represent the vast majority of the shippers' assets. Thus, reducing the price paid to the farmers was not a good solution for the shippers: It could solve some difficulties in the short term and increase profitability, but it would undoubtedly affect their business in the long term because their collective position in the network would also be weakened.

Mobilization of interests and the development of collective action

In late 1991, port stocks amounted to more than 700,000 pipes—almost five years of sales, which was a huge amount when compared

with a normal buffer stock of three and a half years (Instituto do Vinho do Porto, 1992b). Both farmers and shippers were aware that it was crucial to find a solution for this problem. Nevertheless, reflecting different perceptions of the issue, their proposed solutions were also distinct. Farmers were mainly interested in getting external support. In particular, they called for government support in the form of financial and technical assistance. Shippers assumed a much more active standpoint since they envisaged the possibility of taking the resolution of this issue into their own hands. An important feature of this process is the emergence of a collective awareness among the shippers about falling prices.

This collective awareness seems to have provided the basis for the emergence of a “network theory” (Mattsson and Johanson, 1992, pp. 214–215) shared by most shippers, reflecting the transformation of a local issue into a collective issue. When export prices began to plunge, each shipper attempted to resolve this problem by reducing the price paid to the farmers. In other words, this was an individual response to an issue that, despite its collective impact, was regarded as a local, individual issue. The excess stocks became a collective issue when the shippers realized that the articulation of their interests had to be done at a higher level, and the only way to address this issue was through a collective action.

This collective perception and a solution in the form of a collective action emerged within the shippers’ trade association, the Port Wine Shippers’ Association. The association conducted negotiations with the farmers and the Portuguese government. The outcome of this process was an agreement between the farmers and the shippers—represented by their associations, Casa do Douro, and the Port Wine Shippers’ Association, respectively—along with the Port Wine Institute on behalf of the government. According to this agreement, Gruporto—a consortium of shipping houses and some farmers—would buy 40,000 pipes of the wine produced in 1991 and still in the hands of the farmers and wine cooperatives.

In return for Gruporto’s commitment to absorb excess stocks, the Casa do Douro would guarantee that its excess stocks—estimated at 40,000 to 50,000 pipes—would be gradually released onto the market over the next five years. Moreover, the parties also agreed to reduce significantly the volume of port to be produced in future harvests as well as to reinforce the control of production quotas for each grower.

This meant, of course, putting significant political pressure on the Casa do Douro to enforce production quotas. Many growers—especially those who produced high-quality grapes (or wine)—supported these measures and saw it as an opportunity for further changes in the constitutional ordering of the network—namely, by relegating lower-graded vineyards to the production of table wine.

The collective action movement led by the shippers assumed a particularly interesting character since it encompassed a number of issues far beyond the financial outlay involved in absorbing the excess stocks. Full understanding of the collective action carried out to prevent the price drop cannot be based on economic factors. Indeed, one cannot overlook the fact that this collective action was embedded in a system of interdependent actors where the processes of interaction involved economic as well as political exchange.

Several facts support this perspective. First, despite being initiated by the shippers and led by their association—which provided the critical mass to start it—the collective action aimed at resolving the falling price issue was not restricted to them. The shippers also managed to enroll the Casa do Douro and the Port Wine Institute in their collective action. The shippers knew that Grupoporto could buy the excess stocks directly from the farmers and the wine cooperatives without the participation of either the Casa do Douro or the Port Wine Institute. However, they realized that a narrow collective action involving only the farmers, wine cooperatives, and themselves would not be sufficient to resolve their long-term problems. It was crucial to obtain the guarantee that no free-for-all production would occur again, leading to yet more excess stocks. For that purpose, it was necessary to set up an agreement involving also the Casa do Douro on behalf of the growers. The shippers were also aware of the possibility that Casa do Douro could renege on the agreement, under pressure from their members. They also knew that it was crucial to enroll the Port Wine Institute—that is, the organization empowered by law to establish the total amount of port to be produced in each harvest.

Therefore, the issue-based net that had initially emerged among the shippers grew as a result of the enrollment of other actors. The shippers attempted to play a two-level game by linking the excess stocks issue to more fundamental questions concerning the constitutional ordering of the network. Their action questioned the role of the Casa do Douro in regulating the production sector and its ability to control

production quotas. Their success in involving the Port Wine Institute in the resolution of this issue introduced a more overt political dimension into the shippers' collective action—that is, it made more explicit the link between the resolution of the excess stocks issue and some of the constitutional rules governing the network.

Effects of the collective action

When the agreement among the Port Wine Shippers' Association, the Casa do Douro, and the Port Wine Institute was established in mid-1992, the stocks were 24 percent higher than the minimum buffer stock. By late 1993, port stocks had been reduced by some 80,000 pipes, leaving them 12 percent above the minimum buffer level, a level considered normal for the sector. Furthermore, export prices, in contrast with the trend of previous years, began rising during 1993 and again after the harvest of 1994. The collective action had, apparently, succeeded in fulfilling its initial goals.

However, beyond the obvious effects on the level of stocks and prices, this collective action must be interpreted in the light of a struggle for power within the overall network. The idiosyncrasy of the struggle for power stems from its network or collective character. First, it is a struggle for power between two groups of interests: the shippers and the distributors located in the domestic and export markets. Indeed, the collective action led by the shippers was aimed first and foremost at reducing the negative effects of the excess stocks and strengthening their bargaining position vis-à-vis the distributors. In parallel, there was also a struggle for power between the Casa do Douro and the shippers, each trying to defend its position within the port network. The collective action led by the shippers also had the objective of locking the Casa do Douro into a pattern of predictable behavior in coming years and thus significantly reducing its power within the network. By achieving this objective, the shippers managed to question the representativeness of the Casa as a collective actor speaking on behalf of farmers' interests.

The concept of "power" in interorganizational networks usually involves the capacity of individual actors to control resources, activities, or other actors. If the excess stocks issue is analyzed from this perspective, the purchase of excess stocks by Gruporto can be interpreted as a power struggle aimed at increasing the shippers' control over a key

resource. The importance of this resource stems from the fact that it was weakening the individual strategic position of each shipper within the overall port network.

Nevertheless, the action led by the shippers was not designed simply to defend the interests of one or a few actors. Rather, it aimed at defending their interests as well as what they interpreted and framed as the collective interests of all the actors involved in the production and trade of port. Sharing a collective awareness of the negative impact of the excess wine, the shippers acknowledged that their position was weakening vis-à-vis distributors in world markets. Therefore, the agreement among the shippers, the farmers, and the Institute also concerned a number of basic rules underpinning the constitutional ordering of the network. It contemplated guidelines about the future production of port, as well as the process of enforcing the production quota for each vineyard. Their actions aimed at devolving power to the distributors. Viewed as a two-level game, their actions had primarily the effect of reducing the discretionary powers of the Casa do Douro and questioned its representativeness as an interest intermediary for the production sector. In summary, the concepts of power and agency are inextricably linked in a network context. The exercise of power by the shippers involved the alignment of interests in a collective action aimed at influencing the shape of the constitutional order of the network rather than the structural position of one or a few individual actors.⁸

Conclusions

The case of excess stocks addresses the emergence and development of a collective action aimed at coping with an issue that was negatively affecting the collective position of some groups of actors within the overall network. The collective action involving the shippers, the farmers, and the Port Wine Institute was led by a small group of shippers that acted as the critical mass—that is, the small subset of highly interested actors that mobilized resources toward the production of a collective good despite the fact that the majority of the other actors contributed little or nothing to collective benefits.

The collective action was embedded in a broader system of interdependent actors where the processes of interaction involving both

economic and political exchange criss-crossed different webs of relationships involving the farmers, shippers, collective actors, and regulatory bodies. The struggle for power between two major groups of interests, the shippers and the distributors, spilled over into a struggle for power between the Casa do Douro and the shippers, each attempting to expand or defend their power within the overall port network. The shippers' attempt to resolve the issue was also an attempt to lock the Casa do Douro into a predictable pattern of behavior regarding the control of production quotas and, by association, to discredit its role as a legitimate representative of farmers' interests. The shippers' action can thus be interpreted as a move in a two-level game, involving both the resolution of the excess stocks issue and a significant change in the rules of the game concerning the establishment and enforcement of production quotas. The opportunity to link the two moves through one collective action also contributed to a significant reinforcement of the power of the trade net at the expense of the production and distribution nets.

In this process, two issues must be stressed. First, the agreement involving the Port Wine Shippers' Association, the Casa do Douro, the Port Wine Institute and Gruporto (four institutionalized collective actors) was no more than the visible side of a virtual, issue-based net that had initially emerged among a group of shippers and was later extended to other actors, who were mobilized into the collective action. The appearance of this issue-based net, although located within the net of relationships of the Port Wine Shippers' Association, was identified with interests that clearly challenged the existing constitutional ordering and did not fit within existing domains of action of existing collective structures.

Second, the actions of the shippers, the farmers, and the state occurred at different times and assumed different roles. Indeed, while the shippers assumed a leading and active role throughout the process (mainly through their association), the farmers were much more passive. To some extent, the Casa do Douro was enrolled in this collective action when it became apparent that the shippers' actions had effectively isolated them, and their legitimacy as representative of the production sector's interests was being questioned. Finally, the Port Wine Institute played a supportive role inasmuch as it gave political support to a process that was framed as being exclusively economic in nature and as concerning collective interests.

Finally, this case illustrates how interests are not conceived in isolation and fixed, but negotiated and constructed through interaction with others. Collective actions appear both to depend on convergent interests—as in the Olsonian approach—and to provide opportunities for bargaining processes that help define what constitutes shared interests. The bargaining processes involved in extending the issue-based net initially centered on the shippers sheds light on how the definition of interests changes over the duration of a collective action.

In sum, agency and power in the context of this collective action phenomenon were concerned with the struggle aiming at reconfiguring the constitutional ordering in a manner that favored a particular section of interests at the expense of others. In this case, collective power for the trade net became a matter of collective awareness and understanding, of simultaneously framing common issues and matching them with collectively agreed solutions to remove one source of instability and unpredictability in the production net. The way agency and power are exercised in interorganizational networks depends very much on multilevel interaction processes, within and across distinct webs of relationships often mediated by institutionalized collective actors and informal issue-based nets, which aggregate and mobilize shared interests.

Notes

1. On the notion of two-level games in political science, see Putnam (1988).
2. To be fair, interest groups became a concern of Olson's much later on. See Olson (1982).
3. For a recent and comprehensive discussion of associative democracy, see the special issue of *Politics and Society*, 20, 4 (December 1992).
4. Friedberg (1993a, p. 158) described one source of power as the freedom of action or leeway that each participant in an exchange process has in transaction episodes with others, which determines the predictability of his behavior for others.
5. See Ebers (1997) for a definition of network as a mode of economic governance.
6. A pipe contains 550 liters of port.
7. NUD-IST is a trademark of Qualitative Solutions and Research Pty Ltd. For a description and review of the software's capabilities, see Rodgers (1995). For a broader view of the role of computers in qualitative research, see Kelle (1995).
8. On the relationship between power and agency and the relational nature of power, see Friedberg (1993b).

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