

The cooperatives' sources of efficiency: a catalyst for the emergence of localized norms

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ABSTRACT

A large theoretical literature has identified the deficiencies of cooperatives and deduced they should disappear. However, the empirical literature has not confirmed a significantly lower level of efficiency for cooperatives. A survey of the empirical literature and new data on French cooperatives show that the theories were right but that their inferences were wrong, since they overlooked alternative sources of efficiencies. On one hand, difficulties of coordination occur due to cooperatives' lack of flexibility and rationalization. On the other hand, these deficiencies also foster the emergence of another source of efficiency, based on a deep knowledge of the activities by and between the actors.

RESUME

Une importante littérature a montré que les coopératives sont caractérisées par un certain nombre de déficiences qui devraient les faire disparaître. Cependant, la littérature empirique ne permet de constater une différence significative d'efficacité. Une revue de la littérature empirique ainsi que l'exploitation de nouvelles données sur des coopératives françaises montrent que les hypothèses théoriques sont pertinentes mais que leurs conclusions sont erronées. En effet, elles négligent l'existence de sources alternatives d'efficacité. D'une part les coopératives rencontrent des difficultés de coordination en raison de leur manque de flexibilité et de leur déficit de rationalisation. Mais d'autre part, ces déficiences sont également les conditions pour l'émergence d'une source alternative d'efficacité, basée sur une connaissance profonde des activités par les acteurs et l'interconnaissance entre les acteurs.

1. Why haven't cooperatives disappeared ?

Since the 19th century (Gide 1905), cooperatives have remained marginal in the economy (less than 5% of employment, with strong differences from one sector or one country to another), but they periodically keep raising strong interests in the economic literature : thanks to their continual existence, cooperatives have been used by economists as testing grounds to observe alternative behaviors that may potentially spread to the whole economy. For instance, the large theoretical literature about the producer cooperatives in the 1970s and the 1980s gave insights about the incentive problems in enterprises in the context of a crisis of authority and the necessity of increasing productivity. This literature – whose main authors were Alchian and Demsetz (1972), Furubotn and Pejovich (1972), Jensen and Meckling (1976) or Fama and Jensen (1983) on one side and Vanek (1970), Meade (1972), Hansmann (1980) or Bonin and Putterman (1987) on the other side – has been recently reviewed in Cook (1995), Doucouliagos (1997), Borgen (2004), Furubotn (2009) or Jossa (2009).

The current crisis may raise new interests for cooperatives, whose economic stability contrasts with the current economic volatility. Each of these crisis has raised awareness for cooperative in the main stream and improved the knowledge of the cooperatives. In this paper we focus on two characteristics. First, the individual profitability in cooperatives is reduced. Secondly, power is only vested a posteriori (after elections), since members have a priori equal powers. These two characteristics are common to all cooperatives¹ and they may have similar impacts regardless of the sector in which they develop². Our

1 Three kinds of cooperative exist: workers' cooperatives (or labor-managed firms), providers' cooperatives (trading cooperatives) and users' cooperatives (purchasing cooperatives). A part of the literature concerns every kind of cooperatives. But such cooperatives as the workers' cooperatives, the providers' cooperatives (farming) and users'

hypothesis is that cooperatives and stock companies have different sources of efficiency.

Since stock companies are the great majority of the enterprises, tools are principally developed in the economy to reach their specific needs. For instance, stock markets and accountability norms give them the possibility of reaching higher levels of performance. Cooperative companies obey different rules, meaning that stock companies-specific tools are partially unsuitable for them. Specific ones have admittedly been developed: the most well-known case is the Mondragon Corporation Cooperative which created its own bank, its own university and developed in very different economic sectors, so that economic partners of cooperatives may often be cooperatives (Whyte, 1999). But even in such cases where many cooperatives band together, cooperatives still strongly depend on and are subject to an environment dominated by stock companies. Thus either cooperatives are bereft of key economic tools or they have to adapt to tools which are not tailored for them. Both cases have a negative impact on their performance.

On one hand, opponents to cooperatives deduce from the above statement that cooperatives should eventually disappear if there were no competition distortions based on public policies, or that they should exist only in under-developed sectors or under-developed countries as the demutualization processes in Great-Britain seem to confirm. On the other hand, defenders of cooperatives consider that the environment is biased in favor of stock companies. They argue that cooperatives' continual existence is in itself proof of strong efficiencies, and that these efficiencies would be significantly greater in a more favorable environment. More generally, they live in an environment which promotes competition rather than cooperation, and elitism rather than democracy. These authors defend the idea that public policies should help cooperatives to overcome this competition distortion.

The empirical literature does not allow one to conclude in favor of one thesis over another. In terms of labor managed firms, which have benefited from the most comprehensive analyses, there is no significant difference between cooperatives' and stock companies' efficiencies (Doucouliagos 1997). There are no such syntheses of the empirical literature for other types of cooperatives. Thus the debate turns to theoretical approaches. On one side, authors try to show that an equilibrium based on labor managed firms would enhance the general efficiency (Vanek 1970). On the other side, authors try to demonstrate that deficiencies of cooperatives in matters of investment (Furubotn and Pejovich, 1972), effort incentives (Alchian and Demsetz, 1972), or allocative efficiency and risk management (Jensen and Meckling, 1976) are due to the cooperative structure and not to an unfavorable environment.

In this paper, we shift the question of efficiency from an analysis of its level towards one of its source: in cooperatives, the knowledge is widely shared rather than specialized and experienced rather than rationalized. That shift helps to explain why the global equivalence of efficiencies might coexist with local inefficiencies. After recognizing that cooperatives encounter inefficiencies as expressed in parts of the literature, we go on to argue that the obstacles to economic flexibility and rationalization release space for the expression of other sources of efficiency. We argue that the universal rational framework - which is developed in stock companies - helps them coordinate with external partners since the economic rationality is the dominant logic, but this framework prevents them to adapt to local specificities. On the contrary, cooperatives suffer from their lack of economic rationality (lack of mobility and of professionalization), but the inter-acquaintance which emerges from a better stability of activities and people help them to build a better localized rationality.

The following section is a survey on cooperatives through the lenses of their deficiencies. Then, a third

cooperatives (financing) have their specific literature. Only the consumers' cooperatives (where the users are private individuals rather than enterprises) are little studied. Our analysis deals with all types of cooperatives, since they all have two main aspects in common: the capping of profits and a democratic organization.

- 2 Main sectors on which an empirical literature has been developed are finance, insurance and farming (especially dairy) for providers' and users' cooperatives and various sectors such as printing, plywood, building and industry for producers' cooperatives.

section suggests that those deficiencies might positively result in a greater stability: using French data (780 jobs in cooperatives and 25500 jobs in stock companies), we show that the cooperative jobs have significantly higher tenures than jobs in stock companies. The fourth section concludes by showing that cooperative norms are favorable to the emergence of localized alternative rules. On one hand, the economic deficiencies leave place for the expression of alternative norms. On the other hand, the stability promotes the emergence of local rules which are the result of a shared history. These alternative rules are based on a good knowledge of the activity, which is favorable to efficiency. But their specificity raises a problem of coordination with external actors, who are by definition unfamiliar to those norms, which is a source of inefficiencies.

2. Economic deficiencies

Cooperatives' distortions of the capacity of the markets to allocate resources optimally are based on two main types of deficiencies: cooperatives exhibit rigidities which prevent them from correcting the allocation of resources according to the environment's evolutions ; and they lack accuracy when they reallocate mobile resources. First, we present those deficiencies and secondly, we analyze their consequences with respect to innovation and growth. We also benefit from an empirical literature, but the literature on cooperatives was for the most part theoretical, so we are often resigned to referring to papers dating from the 1980s, to cover the main sectors in which cooperatives develop. Having said this, drawing from the past literature also allows us to test that cooperative norms have a similar affect across time and sectors.

2.1 Two types of deficiencies

Cooperatives encounter two main difficulties: first, in setting precise objectives, and secondly, in reaching these objectives accurately and at low costs.

Slowness of the decision processes : pluralism of objectives and difficulties of financing

For cooperatives, rigidities stem from the slowness of their decision-making process and the low insertion in the capital market. In cooperatives and stock companies, routine decisions are made in the same manner, i.e. by leaders with the legitimacy to decide. However, when it comes to making strategic decisions, cooperatives and stock companies differ: in cooperatives, power is less concentrated than in stock companies, since it is not commensurate with capital ownership. Thus, it takes more time to make a strategic decision: more people have to be consulted on the board of directors³ or in general meetings. In a stock company, when members disagree, the point of view of the few main stockholders prevails, whereas there is no such concentration of the power in a cooperative. Moreover, the capacity to make decisions is more fragile in cooperatives, so that cooperatives strongly suffer from rapid changes: the coordination between a broad number of members requires collective references (Hansmann, 1996), especially given the fact that cooperatives' objectives are often less precise than those expressed by stock companies (as we will discuss below). Yet, the existence of these common references requires a certain degree of stability.

Moreover, there is no univocal consensus on the objectives of a cooperative, which implies that there is no common language to facilitate the decision-making process. Whereas most stock companies make decisions under the generally accepted norm of maximizing profit (La Porta et alii, 1999 ; Hansmann and Kraakman, 2000 ; Aglietta and Reberieux, 2004 ; Salles, 2007), it is not the case for cooperatives

3 « because of their elaborate decision-making structure (farmers councils, farmers board, and management board), cooperatives are easy to get trapped in endless, political, and internal oriented discussions, hurting the quality and speed of decision-making » (Kyriakopoulos et alii, 2004, pp 385-387).

since profits are not redistributed. Namely, while the profit seeking is not abolished, it is explicitly limited, which allows for a pluralism of objectives (Jensen and Meckling, 1976). Indeed, cooperatives may answer or satisfy the diversity of their members' needs (Cook 1995). On one side, the Cooperative Identity Statement elaborated in 1995 by the International Cooperative Alliance gives a list of values such as “self-help, self-responsibility, democracy, equality, equity and solidarity”, which cannot be rationalized. On the other hand, there is no univocal criterion to establish the power structure within a cooperative : power is conferred through an election which may be based on very diverse criteria, many of which are tacit or loosely defined.

Once a decision is made, the financing of important decisions (to realize new investments or to redeem an enterprise to achieve critical mass) extends the lead time. Cooperatives have indeed a low capacity to raise funds. They control the prices and the sales of their stocks, which inhibits the possibility of realizing capital gains. Moreover, dividends are limited, making cooperatives' stock relatively unattractive to investors⁴. Even their own members are not prompted to invest sufficiently (Vanek, 1977) : cooperatives face three investment's problems. First, according to what Furubotn and Pejovich (1972) name the horizon problem, the cooperatives' members have no possibility to sell their stocks at their updated value, which implies that they definitely lose the benefits of investments that have yet to bear their fruits at the time of their departure from the cooperative. They cannot sell at the actual price of the enterprise. Thus, members are limited to making short-term pay-off investments decisions which they will benefit from before leaving. Secondly, members benefit from much less liquidity than a mere stockholder who invests in a cooperative, as members' financial decisions are tied to other functions (worker, user or provider): their investments are much riskier. This leads to the portfolio problem (Cook, 1995) : members are prevented from adjusting their cooperative assets to match their personal risk preferences, which means that the members' investments are suboptimal (Nilsson 2001). Thirdly cooperatives face a common-property problem (or free-riding) : since all members benefit equally from the advantages which stem from investment, each member holds the interest to benefit from without investing.

The control of the stocks' exchanges by the cooperative and the low attractiveness of those stocks mean that the market for cooperative stocks is deficient. On top of that, a significant part of the funds are subtracted from the market on ground of the indivisible reserves' principle : those reserves cannot be pulled out of the cooperative unless the cooperative ceases its activities. Thus, the lack of liquidity of the cooperatives' stocks undermines optimal resource allocation (Vitaliano, 1983). The deficiency of the stock market for cooperatives implies that cooperatives encounter difficulties to finance their activities. They do not benefit from the market of stocks to rapidly raise funds, since their financial appeal is low. Consequently the difficulties to gather required funds also contributes to the delay cooperatives encounter in taking decisions.

Deficit of rationalization to reach the objectives : obstacles to the use of controls and optimization techniques

Once a cooperative has set an objective, that is to say once a decision is made and has gotten the required financing, how efficient are cooperatives in reaching it precisely and at lower cost? On one side, cooperatives are lacking the proper tools to reduce the pluralism of objectives and the resulting agency conflicts with their employees. Stockholders benefit from specific tools for enforcing objectives (Fama, Jensen, 1983) which leads to greater accuracy. They may align the employees' objectives with

4 In a cooperative, investors have less power than in a stock company. For instance, the fourth principle of the Cooperative Identity Statement elaborated in 1995 by the International Cooperative Alliance is the following : “If they enter to agreements with other organisations, including governments, or raise capital from external sources, they do so on terms that ensure democratic control by their members and maintain their co-operative autonomy”. From this point of view also, investors are more interested in investing in stock companies than in cooperatives.

their own objectives of profitability by granting stocks⁵, which gives them the possibility of compensating for the necessary contractual incompleteness (Hart and Moore, 1999). Yet, this solution is not open to cooperatives, since the profitability of their stocks is limited by the lack of freedom to sell them and the weight of indivisible reserves. Granting stocks as a payment option may also enhance the level of compensation, thereby making stock companies relatively more attractive for job seekers on the labor market. This gives stock companies the capacity to rapidly change their managers (bearing in mind that stock companies have higher general capacities to make rapid decisions), if they do not respect the objectives that have been set by the stockholders. Moreover, when stock companies are quoted on stock exchanges, the quotation forms a benchmarking opportunity for the stockholders, which allows them to exercise a certain degree of control over the employees (Jensen, Meckling, 1976)⁶. A change of majority enhances the probability of a change of managers, so that managers are all the more prompted to respect stockholders' interests. The agency problem identified by Alchian and Demsetz (1972) is better resolved in stock companies: managers are prompted to ensure that stockholders' interests are respected.

Lastly, members of cooperatives often exhibit lower competences in a managerial role. Indeed, whereas stockholders are specialized with respect to their financial role, members of a cooperative are both financiers and users (or providers or workers). This lack of specialization implies a lack of rationalization. Members of a cooperative do not have the financial competences the stockholders may have, and they do not have the option of employing financial specialists given that cooperatives have multiple objectives, which differ from one cooperative to another⁷.

On the other side, they are disadvantaged in using optimization techniques. First, since the objective of a cooperative may be loosely defined, it prevents cooperatives from benefiting from optimization techniques, such as financial calculation techniques which contribute to the optimization of "economic value added" for stock companies. Secondly, cooperatives' employees may be less competent in using these techniques, because cooperatives are less attractive for competent workers. For instance, in Spanish Basque cooperatives (Prades, 2006), managers have lower salaries than their counterparts in stock companies. In particular, incentive tools which are not used in cooperatives, such as stock grants, give stock companies the possibility to increase the level of compensation, making them relatively more attractive on the labor market. In addition, rigidities in cooperatives offer fewer career opportunities for workers, meaning that cooperatives are less capable of attracting the most qualified workers compared to their counterparts. Our data on French cooperatives (appendix) reveals that for equivalent occupational group, people in cooperatives have a lower education level than their counterparts in stock companies. The same has been shown on Portuguese cooperatives (Pestana and Gomes, 2003).

Lastly, in a cooperative, many decisions are made by non-specialists. In a workers' cooperative, some managerial decisions are made by elected employees who are not trained to take such decisions. While employees working at a stock company are limited to – as consumers – either purchasing or not purchasing any given item, the members of a cooperative have the added power of influencing the production decisions made by their specialist colleagues.. In France, the CUMA ('Coopérative d'Utilisation de Matériel Agricole' : facilities provider cooperatives for farmers) which were created in the JAC movement ('Jeunesse Agricole Catholique' : agricultural catholic movement) insisted on the fact that farmers rather than engineers should select the facilities (Brissaud, 1983). Specialists' lower degree of domination within cooperatives has already been empirically established in the banking

5 Frech (1976) ; Shavell (1979) ; and (Rasmusen), 1998 for an analysis applied to cooperative banks

6 Since those authors began to defend those ideas, the power of stockholders have grown. Although managers had reached an important power in the 1970s, stockholders' powers grew during the 1980s, according to the development of the "economic value added" concept and the IFRS norms (International Financial Reporting Standards).

7 Gide (1905) argues that the cooperative movement was divided into many ideological trends. This fact also prevented cooperatives from dealing with social and economic objectives separately, which hinders the use of optimization's techniques.

sector. First, cooperative banks are more developed in markets for private individuals and small enterprises (Leclerc et alii, 1999), i.e. with persons who are less specialized. Secondly, financial intermediaries in Spain account for 40% and depositors for 50% of the capital in stock companies, compared respectively to 5% and 80% for cooperative banks (Server Izquierdo and Melian Navarro, 2001), which means that specialized actors have more power in stock companies than in cooperatives. A similar result is established for dairy cooperatives in Greece (Oustapassidis et alii, 1998) and in the USA (Babb and Boyton, 1981: 161): cooperatives are less indebted, which means that they depend less on specialized external actors.

For all of these reasons, rationalization techniques may be less prevalent in cooperatives than in stock companies. In practical terms, using a sample of 37 financial advisers for small and medium enterprises' advisers in the western region of France, Abdesselam et alii (2002) show that the customer-adviser relationship in cooperatives is based on a deeper inter-acquaintance thanks to the longer life of the relation. Indeed, non-technical information is used more often in cooperatives, as opposed to accounting, financial, or industry-specific documents and other control techniques.. A study on Germany and France (Hildebrandt and Quack, 1996) confirms that banking advisers replace their clientele less frequently in cooperatives than in stock companies and Plihon (1998, p10) shows that the average size of agencies of cooperatives is 11 employees compared to 21 for stock companies. Both of these figures imply a greater degree of inter-acquaintance and familiarity between advisers and their clientele.

2.2 Consequences on innovations and growth

Innovations

Four theoretical causes for a lower level of innovation in cooperatives may be identified. First, cooperatives tend to be risk-averse, especially regarding risks that are introduced through innovation. Members are at once financiers and users (or workers or providers) within their cooperatives, which means that they accumulate the risks associated with both of these functions. Consequently, they already perceive a high level of risk and the decision to innovate depends on both financial and non-financial elements. In addition, the collective decision process requires a high level of stability in the environment (Hansmann, 1996). Secondly, even if members are eager to innovate, the cooperative may have trouble financing the project: as seen above, members tend to reach a suboptimal level of investment due to three types of investment problems and cooperatives are relatively unattractive for external investors. Thirdly, even if innovation is green-lighted and financed, cooperatives must deal with a slower decision-making process, a potential handicap that makes cooperatives susceptible to innovating later than their counterparts. Since there is no free market for membership rights, the short run allocation of resources is not Pareto-optimal, which means that the internal skill set of the cooperatives does not closely adhere to market trends (Vanek, 1970). Lastly, the lack of control over employees by members of a cooperative prompts them to curb the introduction of new competences (marketing, international or technological innovations), which they will not be able to properly control or manage. In addition, even if a decision to innovate is made, cooperatives' limited recourse to compensation options prevents cooperatives from attracting the best skills on the market, the very skills that are most likely to produce the latest innovations.

Data on 541 workers' cooperatives in France between 1970 and 1979 (Defourny 1990) show that cooperatives in building, printing and intellectual services are less capital intensive than the industry average: more efforts are made in the recruiting and compensation of members (higher personal costs) than investing in technical solutions. The lower investment in technical solutions implies that the production capacities per worker are not optimized, which reveals that these cooperatives are less reliant on the economic optimization logic. It has also been shown (Defourny 1990, Babb and Boynton 1981)

that cooperatives do not optimize the use of their capital: the asset turnover is lower in cooperatives, which means that a unit of capital leads to a lower unit of sales.

Marketing innovations are also less spread in cooperatives as shown for 25 dairy cooperatives compared to 104 dairy stock companies in Greece (Oustapassidis et alii 1998), for 17 wine cooperatives in France (Courret 1996) and through the history of the consumer cooperatives in Europe and North America (Furlough 1999). These authors show that members might consciously reject some marketing innovations as foreign to the cooperative tradition. Oustapassidis et alii (1998) also argues that the process of diversifying activities is slower in dairy cooperatives than in stock companies⁸. The international development is also lower in cooperatives, as shown for French cooperative banks (Plihon 1998, p22) and European cooperative banks (Dalmaz 2002, p77). This last author also notes that financial innovations are implemented less often in cooperative banks.

Growth

The slowness of the decision processes and the difficulty to gather capital funds may imply a slower growth for cooperatives. Barraud-Didier and Henninger (2009, p57) and Kyriakopoulos et alii (2004, p385-386) show that for agricultural providers' cooperatives it is rational for members with the highest growth rate to leave the cooperative, since they will not benefit from more power in spite of their size and given that their needs and objectives have become distinct from those of the majority.. The lower levels of of product and geography diversification also imply a lower growth of the economic activity.

The cooperatives' slower growth-rate also stems from the slowness of the decision processes for mergers. A merger requires general meetings in each cooperative and history shows that these decisions are particularly time-consuming to make (Bonin (2005) for dairy cooperatives, Dalmaz (2002) for financial cooperatives). As a consequence, using German financial cooperatives in 1997, it has been shown that 80% of them have a business volume of less than 250 million euros although the higher scale economies have been known to reach 300 millions euros (Kotz and Nagel, 2002, p66). The same results have been shown for 86 Acadian cooperative banks (Leclerc et alii, 1999), 697 Spanish cooperative banks (Marco Gual and Moya Clemente, 1999) and for French cooperative banks characterized by a lower merger and acquisition activity than in stock companies (Labbye et alii, 2002, p92). Lastly, bank cooperatives are less developed in risky activities whose growth rate is even higher.

Cooperatives' relatively lower growth rates may make them prone to becoming dominated on their markets, which in turn increases the difficulties they encounter in their activity.

3. Stability

Those who oppose cooperatives deduce from these deficiencies that cooperatives should disappear over time, if it weren't for the fact that they are supported by competition distortions. Proponents of cooperatives try to show that these predictions apply neither in the theoretical literature (which holds that cooperatives' deficiencies are present under very specific conditions), nor in the empirical literature (which argues that cooperatives do not have a lower level of efficiencies and exhibit a greater longevity). In this paper, we concede that cooperatives face structural deficiencies which drive them away from the economic logic of rationalization. In the following section, however, we show that these deficiencies result in a high stability of economic activity, which allows for a different source of efficiency to emerge (as expressed in the following section).

3.1 The stability of the activities and of the members

As shown in the precedent section, there is a low liquidity of the cooperative stocks, especially in terms

⁸ It may be added that the lower diversification of activities induces a lower diversification of risks, although cooperatives' rigidities are already a weakness in coping with risks..

of reserves. Yet, Dalmaz (2002, p78) notices that in European bank cooperatives indivisible reserves are the main part of the capital stocks, which means that an important part of the capital stocks is stable. The stability of the capital results in the stability of the activity. Standard and Poor's gives high marks for European bank cooperatives on the ground of the strong stability of their activity despite an unstable environment. Allen and Gale (in Labbye et alii 2002, p87) show that the variations of depositors' incomes and of financing costs are lower in cooperative banks. The lack of liquidity of the cooperative stocks reduces the likelihood for the board of directors to change, whereas the stock company's higher degree of liquidity may lead to rapid change in the composition of the majority.

A significant part of surpluses are entitled to indivisible reserves, which means that if stakeholders want to benefit from them, they have to remain members. Every member who leaves the cooperative loses the possibility of benefiting from the surpluses he has contributed to build over time. On top of that, those benefits are all the more important, that they are collectively owned, which makes it possible for cooperatives to create new services for members. The inter-acquaintance contributes to the creation of a collective patrimony whose value is conditional on the loyalty of members within the cooperative. The democracy structure also strengthens stability, since it provides members (workers, providers or users, according to the cooperative type) with the possibility of expressing their ideas rather than quitting when there is a problem.

3.2 The stability of the cooperatives' partners : the case of the employees

We assume that the stability of partners creates a general atmosphere of stability which in turn effects on all partners. In particular, we examine this assumption about employees in the case where they are not members, namely in providers' and users' cooperatives (not in workers' cooperatives). Our data allows us to test the hypothesis that the stability of members contributes to a general stability for all partners. Specifically, we analyze the average tenure of employees in providers' and users' cooperatives. Our data are extracted from the 2007 "Enquête Emploi" (a national employment survey) conducted by the INSEE (French national institute of statistics and economic studies). Individuals from 62,000 households are surveyed, so that the database includes 108,000 subjects (only subjects over 15 years of age are present). Among them, 53146 have a job (48,9%), of whom 780 work in a cooperative⁹ and 25600 work in a stock company. Although the employment survey is not built to be representative of the enterprises, our population is structured as the general population¹⁰ : around 1,5% of all jobs and 2,3% of the jobs outside the public sector. More precisely, cooperatives are not equally distributed in sectors : according to a zoning of the economy in 16 sectors, 80% of the cooperative jobs are concentrated within 3 of them : 56,9% in finance, 15,9% in commerce (essentially supermarkets and their central purchasing) and 6,3% in the food industry.

The average tenure of an employee is 9.8 years for stock companies, compared to 13.9 for members of cooperatives. This gap is reduced if the analysis is limited to industries in which cooperatives are present, which means that cooperatives develop especially in more stable industries¹¹. However, there is still a significant difference (about 3 years) within the food industry and supermarkets and central purchasing, so that the cooperative structure seems to have an impact on the norms which rule an

9 We gather "coopératives" and "mutuelles" in our population, since "coopératives" and "mutuelles" in France are often "mutual" and "cooperatives" in other countries. All these enterprises have in common that they have indivisible reserves and that the power is conditioned by the economic participation but is not proportional to the capital amount.

10 Two national studies were realized in 2007 in France on cooperative and mutual enterprises : by the INSEE (www.insee.fr/fr/themes/detail.asp?reg_id=99&ref_id=eco-sociale%C2) and by Recherches et Solidarités (www.recherches-solidarites.org/thematiques/economie-sociale).

11 Mayers and Smith indicated already in 1988 that "past studies attempt to assess the relative efficiency of alternative ownership structures on a common scale (a disequilibrium approach). Our analysis differs in that we take the efficiency of alternative ownership structures as given and seek to explain why different structures are most efficient in different lines of business (an equilibrium approach)".

industry. The literature acknowledges the significance of such a difference: for instance, a similar two-year gap has been studied in Germany when comparing companies with and without collective wage contracts; the former companies have a higher tenure (Gerlach, and Stephan, 2008). This confirms our assumption that cooperatives reduce the domination of rules based on economic rationality. Moreover, our data show that individuals receive lower compensation in cooperatives than in stock companies (annex 1), so that employees should be willing to leave their jobs, and that women are over-represented in cooperatives (53% of the jobs, compared to 37% in stock companies) whereas they have lower tenures. These two characteristics may negatively bias our tenure estimates, meaning that ceteris paribus actual tenure gaps between stock companies and cooperatives should be even greater. We confirm our assumption that the cooperative status contributes to a lower degree of mobility for employees, even in cooperatives where employees are not members but just partners.

Table 1 – Average job tenure

Table 1 – average job tenure

Average tenure (in years)	Stock companies	Cooperatives
Food industry***	10	13
Supermarkets and central purchasing***	10	13
Finance, insurance*	14	15

Source : Enquête Emploi Insee 2007. 728 jobs in cooperatives ; 25599 jobs in stock companies.

*** values are significantly different at the 1% level

* values are not significantly different

Cooperatives are less attractive on the labor market, meaning that the highest-skilled workers, who happen to be the most mobile¹², are likely to prefer working in stock companies. On the employer side, cooperatives are more concerned with retaining their employees, given the fact that they provide jobs that are less attractive on the labor market. In other words, employers in cooperatives run the risk of deteriorating their labor skill sets by being forced to fill a vacancy with a lower skilled worker.. Given that cooperatives are less committed to technical and marketing innovations, they also tend to invest less in recruiting young workers with new skill sets, who are often characterized by their mobility; in turn, this puts less pressure on senior workers who would be relatively uncompetitive compared to an influx of younger workers with new skills.. Moreover, Coutrot (2004) shows that most innovative enterprises have a high fraction of temporary employees and Maurin (2002) notices that Information and Communication Technologies are highly transferable, which strengthens the employees' mobility, and are quickly obsolete so that an innovative strategy strengthens the general mobility. Lastly, since monitoring tools are more developed in stock companies, employees' errors may be more visible and more easily punished in stock companies, which makes hiring and firing churn more likely.

In these latter explanations the greater stability seems to result from passive consequences of cooperatives' characteristics. But cooperatives and employees could also voluntarily seek and actively contribute to greater stability. Individuals who know that there is more stability in cooperatives may decide to join cooperatives for that very reason, if they have a preference for stability. As it turns out, our data show that for equivalent occupational groups (in this case, executives), workers in cooperatives have lower education level than their counterparts in stock companies (see appendix). On the labor

12 Both because they are more demanded on the market and because the fact that they have a high educational level may express a higher preference for a rapidly growing career.

demand side, cooperatives' lower attractiveness on the labor market may partly account for their recruitment of individuals with a lower skill-set. On the labor supply side, candidates applying for cooperative positions may be less concerned with developing a "successful career" as defined by economic criteria: individuals exhibiting lower educational levels might also be the individuals who explicitly chose not to maximize their educational level.. The assumption that people may choose their stability is supported by the fact that our data also show that executives are less paid in cooperatives than in stock companies (see appendix): even though they receive lower compensation, they choose to stay in their enterprises. On the employers' side, cooperatives may try to recruit workers who value cooperative principles, rather than the most competent workers, who are the most mobile. Lastly, if there is a general atmosphere of stability in a cooperative as shown on the side of members, employees will less be prompted to seek mobility.

4. Conclusion

From the previous sections, we know that cooperatives structurally interfere with the development of economic rationality and that they are characterized by a higher stability of activities and of members. The first result means that the lower interdependence of economic rationality on cooperatives' activities creates space for other norms to come about and rule the activities. The second result implies that this space may be taken up by norms which are designed within cooperatives, thanks to a temporality which makes it possible for people to develop inter-acquaintances, and thus, common norms. This result is also coherent with the fact that cooperatives invest more in labor than in capital. It was already observed for producer cooperatives (Bonin, Putterman, 1993) that the comparative empirical literature is little developed. The absence of data makes a comparative study meager at best. We had to extend our survey to the 1980s. We also contributed to the extension of this literature by identifying a new French source which may be used to study cooperatives. The fact that we found similar results for different countries, different industries and different periods is also an indication that our hypothesis is robust. We found few data in the literature to test the hypothesis of the stability of economic activities in cooperatives. Further insights about our hypothesis should investigate such data.

In this paper, we show that cooperatives should not be regarded as a direct source of alternative norms, but as a catalyst for the emergence of localized norms, which build themselves in the specific environment where their activities develop (Prades, 2006). Whereas enterprises where there is a strong mobility are ruled by external norms, a sufficient stability of internal social relations may result in the building of norms, which are specific to the enterprise¹³. When mobility is high, people do not know each other outside their functions as defined on a contractual basis. Conversely, stability strengthens the inter-acquaintances, so that relationships may be reinforced beyond the initial economic functions. The specificity of local rules is reinforced by two facts: cooperatives are often ruled by specific law¹⁴ and they have generally their origins in homogeneous populations (Hansmann, 1996).

This has a significant impact on efficiency. The norms which develop inside the cooperatives are more adapted to the lives of the members and their partners, which may enhance the internal efficiency. But they complicate the coordination with external partners and people who are the most mobile, which reduces their efficiency. This result implies that inter-cooperation is a very valuable means to accelerate the development of cooperatives. Since they have an advantage in building localized norms, they may want to explore this growth opportunity, by reinforcing the cooperation with other cooperatives, rather than focusing on stock companies' tools which are based on an economic rationality for which they are structurally disadvantaged. The cooperative model is not a technical one, based on formal innovations,

13 In particular, cooperatives may contribute to favor territorial norms rather than norms which originate from the group or from the sector (Colletis et alii 1997).

14 For instance, a general law was enacted in 1947 in France, but it was preceded and followed by numerous sector-specific laws, which create specific rules for specific cooperatives. The same was already noticed about non profit corporations by Hansmann (1980: 836).

but a living way of building adequate norms, according to specific social relations. This specificity of cooperatives should contribute to our understanding of how to develop stakeholders' participation in stock companies.

Appendix : Level of professionalization and of compensation

Our data show that executives are under-represented in cooperatives for the finance and insurance industry, as well as the supermarkets-central purchasing industry. Moreover, on one side, our data show that among the executives category, cooperatives' employees have a lower level of education (table 2). On the other side, executives are significantly less paid in cooperatives than in stock companies in finance (2766 euros compared to 2321 on a population of 46 people in stock companies and 33 in cooperatives) and in supermarkets-central purchasing (2945 euros compared to 2022, for a population of 30 people in stock companies and 6 in cooperatives). Thanks to one indicator or the other, we are able to show for these three sectors where cooperatives are most developed, that cooperatives' executives are less demanded on the labor market, which implies that they are less mobile.

Table 2 - Executives' levels of education in cooperatives and stock companies

Table 2 – Executives' levels of education in cooperatives and stock companies

Executives' level of education	> bac+2	bac+2	bac	CAP-BEP*	Without qualification
Stock companies	56.7%	17.5%	12.7%	7.2%	5.9%
Cooperatives	35.5%	27.1%	21.3%	9.7%	6.4%

Source : Enquête Emploi Insee 2007 on 3804 executives in stock companies and 155 in cooperatives.

*CAP and BEP are French vocational training qualifications.

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