Blooming Together or Wilting Alone?
Network Externalities and the Mondragon and La Lega Cooperative Networks

Stephen C. Smith*
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Abstract

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This paper examines strategies developed by Mondragón Cooperative Corporation in the Basque Region of Spain, and La Lega cooperative network in Italy, to mitigate disadvantages of the typical cooperative organizational structure and market position but without losing its critical advantages and attractive features. A detailed institutional overview of these most prominent examples of successful worker cooperative clusters is presented. The paper argues that there are network externalities in coop formation and survival, that imply that even if other barriers to entry are overcome and a coop is established it may not survive, not because of intrinsic inefficiencies, but simply because of the lack of other cooperative entry, and to some extent also because of a lack of coordination among coops that do enter the market. The central hypothesis of this paper is that coop leagues can help to internalize these externalities, and its application is to show how this has been accomplished in practice, at least in part. The paper examines recent institutional responses to increasing global competition and requirements to improve access to finance and accelerate the pace of innovation and the improvement of product quality within La Lega and Mondragon. A systematic comparison of these two networks is presented along ten dimensions selected either for their role in the theoretical literature on cooperatives, labor managed and similar firms, or for their prominence in the formal structures of one or both networks; in each case the role of coop networks, whether through consortia or industry, regional or national associations is highlighted. Evidence of convergence between these two most successful, but fully independent, examples of coop clusters is proposed as a method of generating hypotheses about successful elements of supporting structures for worker coops. The paper concludes by exploring the implications of the institutional innovations of these networks for the ownership restructuring of enterprises in transition economies with substantial employee ownership, such as Russia, and developing countries with significant cooperative systems, such as India.

Cooperative Networks and Network Externalities: Innovation and Organizational Comparative Advantage in Mondragón and La Lega

I. Introduction.

The Mondragon Cooperative Corporation in the Basque region of Spain and La Lega cooperative network in Italy are arguably the most striking examples of globally competitive labor managed cooperatives. This paper serves first as an introduction to these networks, and as a systematic comparison of the innovative and evolving mechanisms developed by these networks to mitigate the disadvantages inherent in the typical cooperative structure but without substantially forgoing or compromising too much on the offsetting advantages and attractive features of the cooperative forms of organization. The paper examines the recent institutional responses within these networks to increasing global competition and requirements to accelerate the pace of innovation[1] and the improvement of quality, and considers their applicability to other coop clusters.

Second, the paper builds on the substantial literature arguing for the benefits of a Asupporting structure@ for coops, by developing a multiple equilibria theory of the role of cooperative networks in enhancing the density and efficiency of coops in a market economy. In particular, the paper argues that there are network externalities in coop formation and survival, that imply that even if other barriers to entry are overcome and a coop is established it may not survive, not because of intrinsic inefficiencies, but simply because of the lack of a sufficient amount of other cooperative entry and coordination of activities in fields in which returns to scale and scope are present. The central hypothesis of the paper is that coop leagues can help to internalize these externalities, and its application is to show how this has been accomplished in practice, at least in part. It is argued that both low and high coop densities may be sustained as an equilibrium; and in this regard the economic role of the league is to increase coop density to a level at which a higher-density coop incidence can be sustained as an equilibrium; and to increase the return to members from establishing a coop, increasing the equilibrium coop density at both high and low coop density equilibria. The latter effect can be obtained even when the problem of multiple equilibria is not present.

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A systematic comparison of these two networks is presented along ten dimensions selected either for their role in the theoretical literature on cooperatives and similar enterprises, or for their prominence in the formal structures of one or both networks; in each case the role of coop networks, whether through consortia or industry, regional or national associations is highlighted. The ten dimensions are: the entry problem of individual cooperatives; the problem of coop exits including the coop Adegeneration@ problem; relations with government and its possible role in individual coop and network success; decision making procedures, with an emphasis on the role of worker voice; the types of consortia and second level coops, and their roles in solving management and organizational problems; the role of, and policies toward, joint ventures and inter-firm alliances; innovation and technology transfer strategy; finance and investment instruments and institutions; institutions and instruments for risk mitigation; and employment policy. In the concluding section, the paper sums up results, and explores the implications of their institutional innovations for restructuring of enterprises in transition economies with substantial employee ownership, such as Russia, and for coops in developing countries with significant cooperative systems, such as India, or for other countries that would like to encourage development of cooperatives or employee ownership.

The extensive networks of labor cooperatives of the Lega in Italy, employing nearly 80,000 members, and Mondragón in Spain, employing approximately 40,000, as of the end of 2000, are arguably the most important and successful groups of Alabor cooperatives,@ hereafter called coops, or firms featuring full employee ownership and self-management, in the OECD countries. This paper will examine the reasons for the continued success of these unusual clusters of firms in the face of significant shocks and growing competitive pressures, providing insight into the comparative advantages of this form of organization. These networks offer an important laboratory to address several important issues for developing countries and regions. First, widespread (and apparently long-term) employee ownership has become a central feature of the transition economies following privatization. However, too little has been known about how to maximize the net benefits from this arrangement; the experiences of the most successful Western examples of long-term full employee ownership offers important insights. Second, a significant and growing number of workers not only in the U.S. (Blasi and Kruse, 1991), but in developing countries such as Korea (Cin and Smith, forthcoming) and elsewhere now participate in an ESOP, stock option, or stock purchase plan, which has led to clear benefits, but also to undiversified concentration of risk, and some of these firms are found in relatively disadvantaged areas; the experience of Mondragón in particular offers lessons for risk management strategies in the face of a large concentration of worker wealth in the firms in which they also work. Third, agricultural cooperatives play an important role in many developing countries; and these countries also feature other forms of organization with at least implicit employee ownership, from ESOPs in East Asia, to worker cooperatives in South Asia, to social enterprises in Latin America, to common property resources in Africa, and at least until recently township and village enterprises in China. Fourth, Mondragón and La Lega offer unique opportunities for testing theories of organizational behavior and organization that may be applicable to a number of institutions in developing countries. The two cases studied here are very separate; many institutional details differ significantly; and it appears that there has been almost no economic interaction between the Lega and Mondragón systems. However, there has been a striking pattern of convergence in functions if not always the organizational structures of these two networks.

A large majority of the empirical economic analysis of worker coops (and for that matter on employee ownership, profit sharing, a decision making participation[2]) has focused on productivity analysis. Most of those with a focus other than efficiency examine labor supply and other features closely related to efficiency in the long-run. This is by no means an inappropriate focus; as Oliver Williamson has observed, economics derives much of its analytical power from its relentless attention to efficiency. Although this study does not directly address productivity, it does so indirectly by considering other factors making for the entry and long-term survival of coops in a competitive environment. But the starting point of this study is the broad evidence in the literature that La Lega and Mondragón coopsBand others as wellBare not measurably less productive than conventional firms; and other evidence that supports the conclusion that they do not owe their existence to subsidiesBthat is, that these firms pass a Amarket test.@ Indeed the weight of the evidence in the literature is that productivity is often in practice somewhat higher in coops, despite possible problems facing such firms including access to capital (see e.g. Bonin, Jones, and Puterman, 1993). While there are a few studies that have found no productivity differences, almost no studies have ever found productivity advantage for conventional firms. But this productivity edge for coops found in the literature must also be treated cautiously, because it is of uncertain generality. In particular, the relative dearth of coops and the difficulties of entry may mean some selection bias is present: that is, only coops with a productivity advantage are formed. So this study will in effect implicitly assume no differences in intrinsic productivity across coops and conventional firms, once a full range of complementary institutions are in place and their costs fully included among the opportunity costs of production. That is, the study will not appeal to productivity differences as such in either direction to explain the incidence or organization of coops. With this starting point, the study then compares these two most important examples for similarities and differences that address several hypotheses about the source of organizational comparative advantage that enables their success, and the factors that might nonetheless make it difficult for these coop networks to be replicated in other countries as a result of market forces alone.

Thus, in part, the study has a different focus than much of the recent economic literature on coops. It examines conditions making for cooperative success in the face of specific potential market failures and organizational failures, as well as on coop and network adaptation, that is, organizational innovations internal to the coops and their networks. This paper argues that network externalities play a central role, but other market failures are considered as well, including credit market failures. It emphasizes that cooperatives are unlikely to be successful in a highly competitive environment without the roles played by higher-level coops and networksBthe Mondragon Cooperative Corporation (MCC) and Caja Laboral Popular (CLP) in Mondragon, and the various second-level structures of La Lega, or analogous network activities for other coop groups; but the paper concludes that with such structures, which in the cases studied here are entirely self-supported by contributions of the member coops, coops can continue to thrive, particularly in specialized niches, but in broad general sectors of the economy as well.

Another key assumptionB one based on casual observationBis that, to a significant degree, the institutional context, market structure, development stages, and technological environment determine the ownership and governance structures of the firm. This may make for diversity of ownership and governance across sectors and across levels of development within a competitive equilibrium. There is also likely to be hysteresis (or path dependence) in ownership and governance structures. When a diversity of ownership and governance forms are present, and costly to change, and there are fixed costs to entry, firms may specialize in the economy in accordance with the comparative advantage offered by their institutional characteristics, a phenomenon which I have elsewhere (1994a) termed organizational comparative advantage.[3]

The requirements of an empirical study of this type lead also to some departure in methodology. To begin with, this is a comparative case study, rather than an econometric exercise. This is inevitable, because the project had only two networks to study; even if one were to consider all the known cooperative networks (which would require extensive new field research), this would still leave at most a dozen significant cases worldwide.

The working assumption of the paper is that when functional convergence is found in the organizational and market strategies of these two most successful (but fully independent) coop groupings, that generalizations from these examples of convergence for a useful basis for working hypotheses of coop strategy that will be generally applicable also to coops and majority employee-owned firms in developing and transition countries. This study has sought areas of convergence and seeks to present them in a systematic manner. It should be emphasized that the strategy is a method of hypothesis generation, not a rigorous method of hypothesis testing in its own right. For that, we will need a significant number of replication examples in developing countries.

It is thus anticipated that coops in both La Lega and Mondragon and the networks themselves have adapted and specialized in ways that accentuate the benefits, and diminish the costs, of the aspects of their organizational forms that are effectively exogenous. What aspects of organizational structure may be taken as exogenous? The question turns out to be a somewhat subtle one, but the evidence suggests that effective, ultimate control by the worker-members is the most primal and unchanging feature.

Legal statutes and regulations on coops, and, in the Italian case, even coop law written into the national constitution, can and have been changed; and explicit coop bylaws have been modified in both La Lega and Mondragon at network and individual coop levels. However, bylaws, and laws for which the coop group lobbies, codifies certain features and effectively serves to keep them exogenous over long periods of time. In this interpretation, law is created in the first place by actors with a set of goals and values they wish to keep exogenous; and in this sense the role of coop law differs in degree rather than kind, in comparison with conventional business and contract law, or values and management styles in a conventional company.

We can identify aspects of organization that are exogenous, at least for the 1945-2000 period covered by this study, by determining which principles have never been altered internally or through any external legal or other environmental change supported by the coop or coop group. In the case of La Lega, the constitution (article 49 on coops), the national laws on coops, and individual coop by-laws have changed (including major revisions in 1992) but, for example, the principle of majority voting control by employees of the firm has never been altered. La Lega has, for example, demonstrated a willingness to give a minority vote to capital (even if there are almost no cases in practice since the law was modified in 1992 to allow for this), but there has never been any willingness to even consider outsider or capital majority voting control. Again, legal changes lobbied for by the coop networks serve to codify values and keep certain features exogenous. And again, the difference with conventional business and contract law is probably not a fundamental one; but institutions such as coop networks that promote specific social values in addition to seeking private profit are likely to exhibit a more complex relationship between law and exogenously given structures. Law on employee ownership almost always reflects broader social goals beyond efficiency alone (Smith, 1994b).

In the case of Mondragón, the exogenous features are primarily embodied not in the lawBalthough Spanish cooperative law is applicable--but in the internal Aten principles@ described in detail in the next section. These principles were explicitly designed by Mondragon founder Arizmendi from the beginning to prevent Adegeneration@ into conventional firms. For example, Arizmendi was an articulate opponent of Tayloristic (deskilled) production processes, and the principles among other things reflect and attempt to codify this stance. This may to a significant extent be taken as a constraint, an exogenous organizational variable around which an organizational comparative advantage had to be found to adapt and survive in the market. The interpretations and applications of the principles have been modified in Mondragon as external conditions have changed and, for example, the need for more formal corporate structures became apparent. In fact, various organizational adaptations have come and gone in the time frame of this study. The initial development of the Caja Laboral Popular (CLP), Mondragon=s famous credit union (described in detail below) was an endogenous response of the system to the need to attract more capital once the investment capacity of the socios (members) and internal retained earnings was exhausted, but within the constraint of maintaining the ten principles in the process of acquiring the needed capital. The CLP subsequently grew to become one of Spain=s largest financial institutions, and required by Spanish regulation to service noncoops, but the CLP still provides loans to coop firms and coop members. Although these loans are not subsidized, there is a clear advantage in having an intermediary that understands the coop form of organization and has extensive experience lending to coops and coop members.

For many years the CLP took on the role of providing overall guidance and direction of the Mondragon group. However, when the complex later reorganized as MCC, much of the directing role of the CLP was also replaced, and it became a more narrowly specialized and independent financial intermediary with much looser ties to the overall Mondragon network. So the directing role of a financial institution cannot be taken as exogenous, though one might not have guessed this from some of the literature on Mondragon. But in the view of Mondragon strategists at least the essence of the principles have remained inviolateBexogenous. Analogously, some of the organizational adaptations in La Lega described below represent alternative strategies to deal with the same requirementBto need to raise larger blocks of capitalBwhile maintaining exogenous features, perhaps most notably the majority control by members.

This study argues that many innovative Mondragon and La Lega institutions and strategiesBincluding the evolving organization of the networks themselvesBrepresent an endogenous response to the need to retain competitiveness while maintaining these exogenously given characteristics; and that active strategy at the network level serves in effect to build on potential advantages, and limit the effects of potential disadvantages, of the cooperative form of organization. To the extent that these networks have been successful in these aims, the lessons from this experience may have a very wide applicability.

The remainder of the paper is organized as follows. In Section II, overviews of La Lega and Mondragón are provided. In Section III, the multiple equilibria theory of coop density and network externalities is presented. In Section IV, a detailed comparison of the networks across ten strategic dimensions is presented. Section V concludes.

II. La Lega and Mondragón: Overviews

This section provides an overview of the two cooperative groupings examined in this paper. The best single comprehensive overview of the history and structure of La Lega remains Ammirato (1996), while that on Mondragon remains Whyte and Whyte (1991). Although both are now somewhat out of date, and neither provides an economic analysis per se, being written by a political scientist and sociologists respectively, they remain indispensable guides to these unique networks, and both are drawn on extensively. The overviews also draw extensively on the websites for both groupings, and interviews conducted by the author in Italy and Spain.

II.1. La Lega

La Lega Nazionale delle Cooperative e Mutue (The National League of Cooperative and Mutual Societies), known in Italy as Legacoop, or alternatively La Lega, was founded in 1886, and is the oldest and largest cooperative organization in Italy, and indeed one of the oldest and largest in the world. Its growth and development can be seen as an extension of the Italian labor movement spanning a period of over a century, and resulting from the efforts of innumerable individuals, sung and unsung, rather than of a single charismatic figure.

La Lega is a vast network, featuring some 5000 worker cooperatives, which are the subject of this study. La Lega also covers some 3000 agricultural coops, 2000 consumer coops, 5000 housing coops, hundreds of other specialized coops in fields such as fishing and transportation, and some 2000 mixed-form coops.[4] There are benefits of linkages and other economies obtained by grouping different types of coops in La Lega and in Mondragon (with its credit union and insurance coop). However, it is important to note that almost all of the institutions and adaptations reviewed in this paper are focused on the labor coop sector, which is fully autonomous. This is in sharp contrast to developing countries= typical government organized coop sectors, which group different types of coops under a single ministry dominated by growers and similar cooperative forms rather than labor coops, despite their sometimes competing interests (Abell, 1988). For example, in India, the sugar growers processing coops have never considered developing their factories as labor coops, because this might compete with the growers= profitability.

The range of areas that La Lega members have organized as cooperative enterprises is reminiscent of the range of ESOP-type forms suggested by Jeff Gates (1998). La Lega most commonly refers to itself as Legacoop, but we will adopt the alternative convention in the literature of referring to the network as La Lega in this paper.

The explicit purpose of La Lega has been to promote the development of cooperatives, and the diffusion of cooperative principles in society. Thus, it does not have a narrow focus on the productivity and profitability of its member coops aloneBalthough this is a necessary and important part of its mission. And La Lega is not only an umbrella group for worker cooperatives. In fact the overwhelming majority of its individual members belong to consumer, agricultural, and other cooperatives, rather than the labor coops which are studied here. Counting coops of all kinds, La Lega reported 4,826,920 members (soci), and a total of 239,148 employees, including workers in the consumer coops. But it should not be concluded that these other activities are irrelevant to the labor coops. In fact, the consumer coops provide an important retail outlet for products produced by both agricultural and labor coops in the network. La Lega housing coops are built by construction sector labor coops. The extensive backward and forward linkages among La Lega member coops is an understudied but potentially important contribution to the network=s overall success (more on complementarities in the following section). But the important bottom line is that the labor coops and their consortia retain full autonomy from the other forms of coops in La Lega.

La Lega defines itself as a network of autonomous cooperative enterprises. In addition to individual coops as listed above, it includes autonomous regional associations, industrial sector associations, specialized consortia, and a national association that engages in research, lobbying, and other activities of benefit to its members. Participation in La Lega is voluntary; any coop may secede and become fully independent. The fact that coops rarely do so despite required payment of dues and other fees is itself prima facae evidence that La Lega provides Areal services@ (as the Italians sometimes put it) to its members. Of course, part of the commitment may be philosophical; La Lega=s pedigree is to be part of an explicitly socialist political movement as well as a part of the International Cooperative Alliance. But today, La Lega expresses itself as a shared set of cooperative values rather than as part of an explicit political ideology per se. La Lega=s current mission statement emphasizes three main goals:

global competitiveness of member enterprises, the social role of coops in solving social problems and improving the general quality of life, and the expansion of workplace democracy.

The relationship between La Lega and its member coops could perhaps best be described as paternalistic. La Lega introduces itself on its website by saying that it performs the functions of (political, public relations, and other) representation, assistance, protection, and guidance; and is qualified to take care of its coop membership.[5] It performs the watchdog role of ensuring that La Lega standards are met by all members. Cohesiveness of the system is also reinforced through interlocking directorships across coop enterprises. Thus while membership of coops in La Lega is again voluntary, La Lega as a whole and its various second order coops and supporting structures take active roles and formulate specific policies that among other purposes include the obvious objective of keeping the system together.

As provided by the Articles of Incorporation of La Lega (Item IV: Sectoral and Local Structures), the organization is structured in two different branches, Sectoral National Associations and Local Leagues. Such associations are endowed with full autonomy to carry out its tasks, as provided for by the Articles of Incorporation. Legacoop is divided into AOffices@ and ALabor Departments.@ Moreover, at a national level, the cooperative movement runs different types of specialized services through a number of subsidiaries, especially in the fields of finance, training and consulting.

The source of funds for the regional and national La Lega organizations derives primarily from membership fees, and commissions from consortia participation. Consortia and other groups receive a commission for their services; we list four examples here. The financial arms, notably Fincooper, receive interest payments and other standard intermediation fees; marketing consortia may receive a share of sales value of products marketed; and coop purchasing agent consortia receive commissions on the savings they engender. In addition, some outside contracts also provide sources of revenue; for example, the consortium ICIE (Institute for Cooperative Innovation) receives funds from public sources to do contract innovation work.

In sum, La Lega derives its authority from a set of shared values and by providing Areal services,@ and is reinforced by organizational design.

II.2. Mondragón Cooperative Corporation (MCC)

Ralph Waldo Emerson wrote memorably that Aall history is biography,@ and if his aphorism does not seem to apply to La Lega, it surely seems borne out in the history of Mondragon. The precursors to today=s Mondragón Cooperative Corporation (MCC) were established through the efforts of an influential parish priest, José María Arizmendiarrieta, known at Mondragón as Don José María, and often referred to in the literature as Arizmendi. After more than a decade of Arizmendi=s preparatory work in community organizing and establishing a technical school on democratic principles, under his guidance in 1956 five engineering graduates of the school founded ULGOR (now known as Fagor), the first industrial coop in what became the Mondragon system.[6] Don José María suggested the original guidelines of the Mondragón cooperative enterprises, which continue to exist, in modified form. The Mondragón credit union, known as the Caja Laboral Popular (CLP), was established in 1959, which played a crucial role in the rapid development of the Mondragón system. In the decade that followed, dozens of additional industrial cooperatives were developed under the rubric of the CLP; later, most of the cooperatives, and other activities were grouped under what is now known as the Mondragón Corporación Cooperativa (MCC). As David Ellerman (1984) memorably put it, the CLP

Entrepreneurial Division functioned in these years as Aa factory factory.@ Today, following extensive consolidation and rationalization, the MCC is comprised of some 75 coops organized into financial, industrial, and distribution groups, administrative services, marketing, research and training bodies, and foreign subsidiaries, which brings the total number of entities in the group to about 120 (about equal to the maximum number of coops prior to the consolidation of the 1990s). Although the coops are independent, profit sharing takes place both MCC-wide and at the level of the industrial groupings (such as FAGOR and Donovat).

MCC employed a total workforce of 46,861 as of the end of 1999, with nearly 23,000 cooperative members in 75 core coops, and several thousand more probationary members (largely in the fast-expanding Eroski retail group), making it the largest industrial group in the Basque region, and eighth-largest in Spain. The MCC contributes about 5% of the GDP of the Basque region, excluding indirect contributions of the CLP through housing and its other non-MCC investments. Mondragón coops get their investment funds from retained earnings, membership capital fees, loans (and in the case of CLP, return from loans), and some outside contracts.

Although substantial rationalization of product lines has occurred particularly in the 1990s, MCC remains a highly diversified conglomerate. Part of this may be viewed as a strategy to mitigate worker-member risks (Smith and Ye, 1987); it may also be understood as stemming from a loan diversification strategy of the CLP itself, which made many of the initial investments in an increasingly diversified group of coops in the 1960s. However, as with La Lega, there are substantial interlinkages between MCC coops. According to Clamp (2000), AThe household goods division is treated separately but has close ties in the MCC to the components division. Ties to the automotive industry closely relate machine tools and automotive sectors as well as the components division. The division heads meet with one another on a regular basis to facilitate coordination of their activities.@

Some other coops that were once part of the Mondragon group are no longer part of the modern MCC but still thrive as cooperatives, most prominently the 7-coop ULMA group (however, this group is currently negotiating to reenter MCC). In the Mondragon system as a whole (beyond MCC), the CLP financial arm remains very important, although it no longer plays the dominant entrepreneurial and administrative role it played in the earlier years of the group.

The core administrative group MCC has now assumed some of the former explicit and implicit authority of the CLP. It is in charge of conceptualizing overall strategy, and it has at its disposal two significant funds, the Central Inter-cooperation Fund (FCI), which collects about 10% of net earnings for investment in coops, temporary subsidies, and the like, and the FEPI education, research, and coop development fund, with about 2% of net earnings. However, its real powers are limited. Its board is controlled by member coops; and except in the most egregious of cases, it cannot expel coops or replace managers. The historically central Entrepreneurial Group, which was formerly a division of MCC, and before that a division of the CLP, is now an independent coop within the network.

The Mondragon system has 10 basic Aprinciples,@ that have been adhered to since its founding, and that may to a substantial degree be taken as exogenous in any organizational adaptations to changing market conditions. These principles are an excellent way to introduce both the operating philosophy and the key organizational structures of MCC.[7] The first principle is AOpen Admission,@ which means that membership Ais open to all men and women who accept the Basic Principles and can prove themselves professionally capable...@ The only restrictions on this rule are based on Athe practical needs and business requirements@ of the coop, and the worker=s performance during the probationary period. Second, ADemocratic Organization@ is adhered to, meaning that the General Assembly is sovereign, and operates on the basis of "one member, one vote,@ and the democratic election of governing bodies, in particular the Governing Council, which receives broad delegation of powers on a day-to-day operating basis, and is responsible to the General Assembly.

Third, the so-called Sovereignty of Labor principle, meaning that ALabor is granted full sovereignty@ in the coop organization, and Athe wealth created is distributed in terms of the labor provided and there is a firm commitment to the creation of new jobs.@ Moreover, Awealth generated by the coop... is distributed among the members in proportion to their labor and not on the basis of their holding in Share Capital. The pay policy of MCC=s coops takes its inspiration from principles of... sufficient remuneration for labor on the basis of solidarity... Payment in our coops consists of two basic elements, which are the advance payments and coop dividends. Advance payments, which are received monthly and include a fixed part directly related to the structure of each post and a variable part, linked to the professional performance of each member. Dividends are each member=s share in profits or losses...@ Between 30% and 70% of the net profits available are distributed as dividends, depending on the financial situation of the coop.

Fourth, the AInstrumental and Subordinate Nature of Capital@ principle, meaning that capital receives some remuneration, but Ain accordance with the efforts involved in saving it, although not directly linked to the amount of profit made.@ This is the principle of limited interest on members= capital dating to the Rochdale pioneers. In Mondragon, this implies a maximum real rate of interest, that has been adjusted from time to time, but is currently a maximum real gross annual interest rate of 7.5%, and a limited inflation adjustment which allows for a maximum nominal rate of 11%. Even this limited return depends on the financial position of the coop.

Fifth, the principle of Participatory Management, which Aimplies the progressive development of self-management and, consequently, of the participation of the members in business management. This requires: The development of adequate mechanisms and channels for participation, transparent information with respect to ... the basic management variables of the coop; the use of methods of consultation and negotiation with the worker-members and their social representatives in those economic, organizational and labor decisions which affect them; the systematic application of social and professional training plans; and the establishment of internal promotion as a basic means of covering positions with greater professional responsibility.

The second and fifth principles together give rise to the decision making structures in MCC, and this a good point to spell them out. The General Assembly is the final authority in each coop. Its powers include: appointing and revoking members of the Governing Council and the account auditors by means of a secret vote; examining company management; approving the annual accounts and the distribution of surplus and apportioning of losses; approving the general coop policies and strategies; approving increases in share capital, and determining the rate of interest to be accrued by capital contributions and the entrance fees for new members; modifying the Company Statutes and approving everything implied by a substantial modification in the economic, organizational or functional structure of the coop.

The Governing Council, elected by all the members at the General Assembly, is the representative, management and governing body of the Coop. It consists of 3 to 12 members, with about half elected every two years for a four year term (re-election is permissible). The Governing

Council is expected to adhere to the policies and strategies set by the General Assembly but has the authority to appoint and dismiss the Managing Director (the CEO), admit members, decide on issues concerning the work and disciplinary system, and introduce other major changes required between meetings of the Assembly as well as call extraordinary sessions of that body.

In addition, the Social Council acts as an advisory and consultative body to represent members' interests as a whole before the coops' internal authorities. Its members are elected by areas of activity and their number depends on how many members the coop has. The Social Council acts much like a works council in Germany. Finally, there is also a management council, which advises the Managing Director on policy matters, which is comprised of key coop managers.

Above the level of the member coop, the Cooperative Congress is the supreme body of MCC, comprised of up to 650 delegates from all member coops. Its charter is to improve Mondragón generally, and promote unified strategic management among the MCC coops. The Congress has a Standing Committee charged with implementation of decisions of the Congress, the Standing Committee consists of 18 elected members representing the nine MCC divisions.

Overall, individual coops make internal decisions but are not fully independent; secession is rare. The prominent four-coop ULMA secession in 1992 in protest when the Mondragon Coop Group was reorganized as MCC is the exception that proves the rule; ULMA, now seven coops plus an eighth administrative coop, is currently taking the initiative to explore rejoining MCC.

Sixth, the principle of Payment Solidarity. This has three aspects. First, for many years, the ratio of payments for the coop's chief executive to the 'least qualified worker-member' was set at just 3-to-1. In recent years, with growing employment opportunities, competition, and complexity of management tasks, substantial adjustments to this principle have been made to remain competitive. Today, the principle is expressed as the provision of pay levels required to reach Arealistic market levels, with a deduction of 30% [for top managers] as a commitment to the principle of solidarity.@ Note that this level of pay sacrifice is not out of line with what employees commonly take for a more attractive workplace environment and indeed for control over one=s work and democratic decision making (all of these are factors in professors accepting a lower salary than they could receive in the business sector). A second aspect of the payment solidarity principle is that basic pay of ordinary coop members should be comparable to those of workers in conventional firms in the same sector, Aunless it is manifestly insufficient.@ Third, Aat the MCC corporate level... pay levels should be between 90% and 110% of the [MCC-wide] corporate reference. Likewise, annual working hours must be between 97% and 103% of the corporate working calendar.@

Seventh, the principle of AInter-cooperation,@ meaning cooperation between the coops of the MCC network. One of the goals is to achieve economies of scale and scope, including a sufficient scope for unemployment insurance including the transfer of workers across coops when needed, and other forms of risk pooling. According to official MCC documents, AInter-cooperation has historically been evident in the promotion of new coops, in the creation of support bodies in the financial, educational and research areas and in the carrying out of joint projects in the social and business areas.@ It is also argued to extend to cooperation with and assistance to Basque, Spanish, and international coop organizations.

Eighth, the principle of Social Transformation, a commitment to economic and social development, in the environment in which it operates, through support of creation of new coops, education and other community development initiatives, and a Social Security system (operated through Mondragon=s Lagun-Aro group). Ninth, the principle of Universality, meaning membership in and support of organizations sharing similar goals. Tenth, the principle of Education, support for continuous improvement of skills and knowledge of coop members and those of the surrounding community, of which the sponsorship of the Mondragón Eskola Politeknikoa is the most prominent example.

In sum, MCC is held together by a set of shared principles. As we will see, this is reinforced with the provision of real services and other organizational safeguards that are analogous to, but in some ways stronger than, those found in La Lega.

At this stage, however, it should also be noted that no institution is exogenous in the very long run. In particular, coops can leave the Mondragon Cooperative Corporation, and once having left, are free to reject any or all of the ten principles. At least one Mondragon coop voted to sell its shares in response to an attractive buyout offer, as the life cycle theories of coops (see below) would predict.[8] The networks must provide Areal services@ to its member coops that are sufficiently great to ensure adherence to cooperative principles. What makes this a challenging case from the perspective of social science is the extreme rarity of degeneration, not the fact that it has been somehow prohibited; we return to this issue below.

With this background, we proceed to offer some initial comparisons between La Lega and Mondragón systems, followed by a further comparison with a coop network in India that has more fragile foundations.

II.3. Some initial comparisons between La Lega and Mondragón systems.

In Section III, the paper compares details of La Lega and Mondragón across ten strategic areas of adaptation to competitive market forces. However, some initial comparisons of the network as a whole are in order first. The Mondragón and La Lega cases are very separate; they have different historical origins, many institutional features differ significantly. Mondragon grew out of the efforts of a single, highly influential individual, while La Lega grew out of a vast social movement, with many individuals contributing to its historical evolution and success. Strikingly, it appears that there has been almost no economic interaction between La Lega and Mondragón.

Philosophically, the pedigree of the Mondragón group is Roman Catholic, which may be contrasted with La Lega=s socialist background (but compared with La Lega=s largest Arival@ network in Italy, the CCI). Mondragón is somewhat more centralized, and possibly more pragmatic. In fact, the oral tradition at Mondragón claims that the five engineers who began the first coop in 1956 under Don José María=s guidance stumbled on the cooperative form by accident, and solely for its convenience, upon the recommendation of a lawyer: they had intended only a highly participatory environment that would promote human development, but within the structure of a conventional firm. Moreover, the leadership of La Lega exudes great confidence that its coop mode of organization, taking into account the substantial organizational reforms of 1992, will one day become a prevalent mode of economic organization. For example, one of the top governing officials of La Lega, Edwin Morley-Fletcher[9], has written extensively on the parallels between the new Lega system and the capital-labor partnerships proposed by James Meade (1986, 1989), and suggested in effect that La Lega may prove the pathbreaker in an emerging new economic system. In effect he suggested that in some firms, such as those in La Lega, labor might have a tiebreaking vote, in others, capital, but that by following the Meade

Agathatopia outlines, La Lega represented the future. In contrast, leading officials of MCC appear to be chronically anxious about their form of organization, feeling very much isolated and anomalous, and harboring doubts about whether it can survive in an era of global competition.

Despite the vast differences between the two networks in their outlooks, history, and institutions, one of the strongest findings of this comparative case study is the numerous parallels in their subsequent developments. As we will see in the comparisons of the networks over several issues in Section IV, both La Lega and Mondragón have undertaken organizational innovations needed to respond to similar problems, and despite some differences, the parallels in the methods undertaken to solve these problems are truly remarkable.

II.4. Reference Comparisons with Other Coop Networks.

While La Lega and Mondragon are often treated as unique, they are unusual but not without parallels even within their own countries. In Spain, the Federación Valenciana de Empresas Cooperativas de Trabajo Asociado (FVECTA) in Valencia, was organized as an explicit attempt to replicate the structures of Mondragón, but has remained fully independent of MCC. FVECTA was formally launched in 1988 but included participation of older coops. The Valencia Autonomous Community now has 1,200 cooperatives of all kinds employing about 20,000 people in all. Since 1988 the network has grown from its 87 founding coops to nearly 500 FVECTA associated coops by 2000. In Italy, again, the CCI, an historical ideological rival of Lega, is originally Catholic-based like Mondragón, appears to be much less developed as a network, and has a smaller average firm size. Like La Lega, the CCI also includes a wide range of types of coops including 694 labor coops, as well as some 3500 consumer coops, 3000 credit unions, 800 agricultural coops, and 40 fishing coops. The AGCI in Italy, another historical ideological rival of Lega is smaller and also is less articulated organizationally, but still networks hundreds of labor coops. Overall, labor coops form a larger part of the Italian economy than any other OECD country, followed in second place by Spain. However, a majority of worker coops in Italy actually belong to none of the associations, a basic fact which has to be taken into account in any explanation of coop incidence (many of these unaffiliated coops are quite small however).

France also has a significant number of labor cooperatives, which is likely third largest among OECD countries; there are about 1400 labor coops within the legal framework of SCOPs, or Sociétés Co-opératives de Production (Producer Cooperative Companies), with some 29,000 members, and sales of about 13 billion French francs. Like Mondragon and La Lega coops, they tend to be concentrated geographically (Perotin, 1987). The Confédération Générale des Scop (CG-SCOP) offers an umbrella organization,[10] but apparently does not come close to paralleling the articulation of the Mondragon and La Lega networks studied here.

We now turn to Kerala Dinesh Beedi (KDB), which is examined in some detail,[11] because it is an important developing country example of a worker coop network, yet one that suffers from a number of deficiencies that could potentially be rectified by absorbing some of the key lessons from La Lega and Mondragon experience.

For decades, Kerala state on the subtropical coast of southwestern India has been heralded as an example of the extent to which the welfare of the poor can improved even when growth is very slow. The state has high literacy, life expectancy, and other welfare conditions for its low level of income. The policies have been pursued in no small part because of the well organized union sector and community organizing. The community and union organizing background to the development of KDB is reminiscent of Mondragón and the highest-density areas of coop development in Italy such as Emilia-Romagna area prior to the establishment of their coop systems. Isaac et al (1998) show that a vibrant cooperative movement emerged as a result in Kerala (prominently including, but not limited to, the Kerala Dinesh Beedi coop network), standing in sharp contrast to the often inefficient and stagnant state-sponsored coops in other parts of India.

Beedis are small cigarettes known in India as Athe poor man=s smoke.@ The beedi workers= union went through decades of struggle with exploitative employers.[12] Finally in 1969, a few hundred desperate workers seeking a contract but faced with a lockout decided to form a labor cooperative. From these shaky beginnings emerged a decentralized, self-managed system of labor coops with over 33,000 employees. Isaac et al documents the improved incomes and working conditions for KDB members. The presence of the KDB, directly and through its strengthening of the union, seems to have forced many local firms to increase pay and make at least modest improvements in working conditions. Although evidence suggests that despite some internal opportunities, members= upward mobility is modest, the children of members are better educated in coop sponsored day care, and have a chance to escape from child labor. Thus the families of KDB members may experience greater upward mobility over the longer term.

Especially for a developing country, KDB is quite democratic. Workers elect the day-to-day management of the local coops from among their own ranks. These elected directors in turn elect the twenty-two member general body, representing KDB=s 22 constituent societies, that has ultimate policy making authority. There are also general annual meetings at which workers may exercise a direct voice. Finally, all KDB members are also members of the sponsoring trade union; and workers elect local union representatives who play a day-to-day watchdog role, that may be compared to the role of the Social Council at Mondragón.

But as Isaac et al show, partly being a victim of its own success, KDB today has serious problems in its internal structure as well as its external conditions. Internally, the coops rely heavily on moral rather than financial incentives. This approach worked remarkably well in the historical context of the long struggle with employers and to establish the cooperative as a part of that struggle. The first generation of workers was strongly motivated on ideological grounds. Today, that egalitarianism is in trouble. There is an expected daily quota, but very little bonus for production above it compared with the piece rate system that prevails elsewhere in the industry. Though work conditions are better, incomes are now not much higher than productive workers can earn outside. In the past, workers often produced well over their quotas, but this seems to be waning. One can begin to see the adverse selection of less productive workers into coops, and the moral hazard of less diligent work once in. Newer workers are more attracted by KDB=s cleaner and less strenuous work conditions, absence of punitive fines from employers, and day care and education for children. But some workers save their energy by working at a modest pace by day to fulfill their quota for the coop, then moonlighting evenings with contract work for private employers. With lagging productivity, a recent campaign of moral suasion to return to commitment to diligence in work was met with a surge in productivityB but one that faded in just two weeks. Moreover, salaries of managers and other skilled office workers have been kept to within a 6-to-1 range of workers= salaries. This has been less of a problem in the past when management was committed to the movement's social ideals, but is increasingly problematic, given alternative opportunities.

It should be noted that beedi rolling is a repetitive, boring, dirty, and uncomfortable task. There is skill involved in learning how to roll quickly, but workers' education is put to little use on the job. An appealing coop tradition has been to have someone read out loud while the others worked. But there seems to have been relatively little move to upgrade skill use in the coops, even in its new activities.

Externally, many other factors also conspire to put KDB at risk. KDB must survive in an environment in which competitors pay bribes and engage in other unethical practices to gain advantage in a climate of extensive government intervention. Moreover, as incomes rise, consumers tend to substitute out of beedis into better quality tobacco products. There have been serious attempts to diversify into the production of other intermediate technology products, but with very limited success to date.

KDB is similar to La Lega in that it grew out of an explicitly political movement; it is also structurally similar to Mondragón in a number of ways, as documented by Isaac et al. However, the network has failed to respond to its changing environment with the kinds of organizational innovations undertaken at Mondragón and La Lega, described in the next section. In particular, there has been a failure to establish the type of consortia that might facilitate breaking out of the box KDB currently finds itself in. Thus, KDB is a prime example of the type of developing country experience that is intended as the policy beneficiary of this examination of the factors for success at La Lega and Mondragón.

But worse than a network failing to quickly adapt is the absence of a network altogether; and such networks remain rare. As this study will show, isolated coops and majority employee owned firms could benefit from forming networks. Even in developing countries where some labor coops have emerged, such as Tanzania, Sri Lanka, and Fiji (Abell, 1988), coop networks were directed by government or outside interests in other parts of the cooperative movement (such as agricultural marketing cooperatives), and did not focus on the network requirements of labor coops. Despite their rarity, other regions with substantial majority employee owned firms such as transition countries, or other regions with ambitions for cooperative development, may wish to absorb lessons from the successful examples of adaptation at La Lega and Mondragón.

III. A Multiple Equilibria Theory of Coop Density: Network Externalities and Coop Leagues

The most obvious feature of both La Lega and Mondragón is their networking together large groups of labor coops. No explanation for their continued economic success through times of severe economic dislocations can overlook this obvious and striking empirical fact.

A central hypothesis of this study is that coops may benefit from being in a region with other coops, or in a sector in which there are many coops, or within a supply chain (that is, having significant forward or backward linkages) in which coops are common. In other words, there are network externalities, or complementarities of organizational type, at least when it comes to the coop organizational form. As a result, networks such as La Lega and Mondragón can serve to internalize some key externalities that could otherwise pose significant problems for individual coops operating in isolation.

The famous Amarket test@ of efficient organizational formsBthat if an organization efficient we will see it thriving in the market and not otherwiseBmust be qualified when market failures are present. The market test has been used by various authors in seeking to explain the incidence of coops, notably by Alchain and Demsetz (1972) and Hansmann (1996). The importance of this test was emphasized by Mario Nuti (2000), making use of an old Italian proverb: ASe sono rose, fioriranno@ (AIf they-re roses, they-ll bloom@). Although this metaphor is very colorful, the (metaphorical) reply proposed in this section is that a single rose may not bloom alone: it may need to be part of an ecosystem in which other roses are present, and in which supporting actors and structures (e.g. bees, soil conditions, rainfall) are present.[13]

Coordination failure can result from strong complementarities across firms (see e.g., Kremer, 1993; Murphy, Schliefer, and Vishny, 1989); and this paper argues that there are significant complementarities across firms of similar organizational types, at least for the case of coops.[14] Their presence would suggest that even if the other barriers to entry are overcome and a coop is established it may not survive, not because of intrinsic inefficiencies, but simply because of the lack of other cooperative entry, and perhaps also because of a lack of coordination among coops that do enter the market. The hypothesis of this paper is that coop leagues can help to internalize these externalities

To fix ideas, I would like to suggest ten examples of areas in which network externalities may be present in groupings of coops. Other areas are described in Section IV. First, new managers will more likely have had experience with cooperative management when they take a new managerial job at a coop. Second, employees will encounter similarly empowered counterparts in joint ventures, sales, or other market activities, maximizing the benefits of such decentralized authority.[15] Third, banks will have experience lending to such firms; lending transaction costs are always highest when a bank first lends to a borrower with a very different structure or set of internal or external governing regulations.[16] Of course, similar arguments may apply to insurance and other services. In a more general point, Mondragon officials state that private firms in the region were hostile to coops in early years, refusing in many cases to do business with them, and lobbying government to restrict them. Now, however, MCC is such a large presence that conventional firms have come to accept them, for example by doing subcontracting work with MCC coops.[17] Fourth, governments will have experience providing a legal framework and other services, as well as taxing such firms. Fifth, there are more examples of coop organizational and other relevant experiments to absorb lessons from (Alearning by watching@) in the region or sector. Sixth, in addition to pure spillovers, such as tips learned while Adoing lunch@ with counterparts at other firms, a pool of consultants in organizational development and other fields would be available with relevant coop experience: there will be a Athick market@ of suppliers to coops, improving the probability of a good match. Seventh, in the case of involuntary separations, it will be easier for coops and workers with relevant coop experience to find each other, lowering training costs.[18] Eighth, backward and forward linkages can provide additional forms of complementarities (Ray, 1998, ch. 5), and similar organizational forms across these linkages may matter; at least, as already noted, La Lega makes extensive use of such linkages across sectors among its members. Ninth, the role of trust and shared values in business arrangements is another sphere in which history matters (Adsera and Ray, 1998), and complementarities may play a role. For example, it may be no accident that coops are strong in North Central Italy where social networks are dense and weak in Il Mezzogiorno where they are thin (Putnam). Note that these advantages are separate from traditional economies of scope; the argument is not that costs of production are lower within a single organization, but rather are lower across organizations of a similar type. The argument here is that an organization such as La Lega can facilitate the internalization of such benefits. Tenth, some process innovations may fit with the organizational comparative advantage of coops, such as non-Tayloristic operations utilizing knowledge and skills impacted in the work team, that is, unobservable to management. Such innovations would be selected against when workers have an incentive to shirk; but if coops can overcome this problem, through a combination of financial incentives of ownership and the incentive for mutual peer monitoring, they may be efficiently used in coops. The more coops present, the greater the incentive to invest in such innovations.[19] Moreover, to the extent that coops are more risk-averse institutions than conventional firms, the information role of coop innovation consortia could be more significant for productive efficiency than otherwise similar consortia among conventional firms.

The latter observation may be viewed as a special case of the argument of Conte (1986), that one function of a supporting structure such as Mondragon may be to reduce subjective uncertainty about the profitability of cooperative enterprises. This uncertainty could include unfamiliarity with the institutions of cooperatives, such as their legal structures, as well as imperfect information about the applicability of a new technology as noted above, in addition to conventional income risk. If this subjective uncertainty is greater than that for, say, individual proprietorships, coops may be formed infrequently because of a simple lack of information. Beyond this, it may be conjectured that some of the functions of consortia, such as those devoted to innovation or finance as observed in Mondragon and La Lega, may be to reduce members' uncertainty about the value of existing innovations, as well as to contribute original innovations of special relevance to coops.

In sum, there may be strong complementarities across coops in a region, sector, or industry group, implying that there are increasing returns at the coop network level. When this is the case, (Pareto-ranked) multiple equilibria may be present; that is, some of the outcomes may be clearly better than others from a social welfare standpoint, but the market may be unable to get us to the better outcomes.[20] Put differently, the system as a whole may suffer from potential coordination failure; but coop leagues such as La Lega, or coop umbrella corporations, such as MCC, may represent strategies for resolving such problems.

To further fix ideas, consider the following simple model. Suppose that some coops will enter the market even if no others do so. This would follow from a very strong organizational comparative advantage for coops in some fields, which makes it privately efficient for members to form these coops, although they would gain even higher incomes (or utility) if other coops entered. This corresponds to a positive vertical intercept for privately efficient coop density, against the horizontal axis (expected) coop density, as seen in Figure 1. The Aprivately efficient coop density@ function at first exhibits increasing returns, reflecting the network externalities among coops proposed above.[21] The additional coops finding it privately efficient to enter the market only because other coops have done so have what we could term Aweak organizational comparative advantage.@ Where the function first cuts the 45-degree line from above, at D_1, a low coop density equilibrium is found. It is, however, implausible that these network externalities increase at an increasing rate until density reaches its maximum value (unity). In particular, there are likely to be sectors in which conventional firms have strong organizational comparative advantage. This will lead to diminishing returns at the network level, and eventually the Aprivately efficient coop density@ function may cross the 45-degree line from above again, as at D_2, providing a high coop density equilibrium. The intermediate point where the curves cross, labeled D_3 in the diagram, is of course an unstable equilibrium.

If these conditions are present, both low and high coop densities may be sustained as equilibria; and in this regard an economic role of the coop league is to increase coop density past the critical level D_3 at which the higher-density coop incidence can be sustained as an equilibrium. Put differently, part of the problem is solved simply with a higher density rather than by the presence of the coop league per se, although leagues may play a key role in expanding and maintaining that density.

There is, however, a second role for the league, which is to increase the privately efficient coop density for any given (expected) coop density. This is reflected by the shift of the Aprivately efficient coop density@ function as seen in Figure 2. Obviously, this shift could be achieved through rent seeking, or lobbying government for special advantages, rather than through efficiency gains. However, coops may also benefit through the active cooperation of many of them (as suggested below). If coordination failures make such cooperation difficult to achieve, the coop league may efficiently shift up the schedule through its coordination activities in consortia and other arrangements. The result would be to increase the return to members from establishing a coop, increasing the equilibrium coop density (at both high and low density equilibria). Obviously, the coop league could perform this role even if there is a single-equilibrium density, as would result when the Aprivately efficient coop density@ function exhibits diminishing returns throughout. Thus, the argument that coop leagues could play an efficiency-enhancing role does not depend upon the presence of multiple equilibria.

A potential problem emerges at this stage: the degree to which the coop league can shift the curve depends on its resources, which in turn depends on the coop density as well as the fraction of coops joining the league (paying dues and commissions). To this extent, there may be free rider problems, in addition to a coordination game.

This framework has several empirical implications. First, all else equal, successful cooperatives will be found where coop density is high. Second, successful cooperatives that originally began as isolated firms will be more likely to have developed strategies to encourage entry of similarly organized firms, than will unsuccessful coops in similar circumstances (note however that one would have to be careful to account for selection bias in empirical work on individual coops, because when network externalities are present presumably only exceptionally efficient coops would enter in an area of low coop density). Third, successful cooperatives will more likely form leagues and umbrella groups or corporations of similarly organized firms to help preserve coop density by, among other things, providing temporary support to ailing firms during restructuring (as seen in Mondragon) or support mergers structured to preserve employment and market share (La Lega).[22]

The evidence presented in the following subsections, taken as a whole, strongly suggest that these conditions hold for the cases of Mondragon and La Lega. Indeed, one of the central points of this paper is that it is the creation of these coop networks themselves that is their most important innovation and adaptation. Virtually all of the other innovations studied in this paper require the existence of the networks as a necessary condition.

As further evidence of the significance of clustering, La Lega coops are highly concentrated in its heartland of North Central Italy.[23] Emilia-Romagna, one of the 20 Regione of Italy, can be viewed almost as a coop Aindustrial district@ in itself.[24] La Lega=s coops alone account for about one-eighth of the GDP of Emilia-Romagna, and a far greater share in some cities and towns in the region.

In the case of Mondragon, the systematic development of coops in the town of Mondragon itself and then throughout the region was part of a deliberate policy to create employment in an area of high unemployment, and to encourage the spread of a set of deeply felt values; but it is also significant that the economies of scale and scope at the network level thus realized also provided substantial benefits to individual existing coops (for example, in marketing).

This framework and the evidence supporting it also leads to a clear policy/managerial implication: A league of coops would want to support coop entrepreneurship for reasons extending beyond direct financial return (and beyond any philosophical motivations), because the presence of additional coops provides external benefits to each. But one coop alone would in general be insufficient to internalize such an externality (unless very large in relation to its relevant reference markets).

For regional governments, if there are a number of coops of sufficient scale or scope to represent an important factor in the regional economy, and their survival is as at some risk, a regional development strategy emphasizing establishment of other coops may be of value. For example, the minimum efficient density may increase with certain forms of technological change.

The framework also leads to testable hypotheses for cases outside the scope of this study, and one example is offered here. La Lega has put much effort into development of new coops in Il Mezzogiorno (Southern Italy), but these have been viewed as less successful than those of North Central Italy. If so, one explanation could be that these coops have a less dense set of networked relationships, and that they are more scattered geographically. If this is confirmed, a policy implication for La Lega would be to place greater emphasis on the focused creation of many coops within concentrated local regions (such as a small city).

In concluding the section, it is worth stressing that more than coordination failure may be at work here: there are prisoners= dilemmas involved as well as travelers= dilemmas. The fact that at least some coops thrive outside the formal networks but in close geographic proximity to them, such as the ULMA group in Mondragon, and many individual smaller coops in Italy, suggests at least that not all of the externalities are internalized in the league; and that geographic and economic proximity to other coops or to the league itself embodies at least some of these benefits. Thus, there is a potential free rider problem; if many coops seceded from their networks, they might save on the payment of dues, but each individual coop might deteriorate in the long run. However, this could also suggest an alternative hypothesis that, despite the evidence presented below, the key is not the league, but the thickness of coop density; this will be an important topic for further research.

IV. Cooperative Adaptation and Organizational Innovation in Mondragón and La Lega

This section presents a systematic comparison of institutions and mechanisms that have been developed by Mondragón and La Lega to mitigate disadvantages of the typical cooperative organizational structure and market position, but without losing its critical advantages and attractive features. The section represents an application of the multiple equilibria framework outlined in the previous section to the case studies of the Mondragón and La Lega networks. Ten strategic areas selected for comparative analysis are considered in turn.

IV. 1. Entry of individual cooperatives

There is clearly a collective action problem involved in starting a cooperative firm: unlike an entrepreneur for a conventional firm, only a small share of the benefits of playing the entrepreneurial role accrue to the founder of a coop; and despite their many achievements, the administrative structures of La Lega and Mondragon may have failed thus far to fully internalize these externalities. Even in Spain and Italy, new coops represent a small fraction of newly entering firms. The conclusion that conventional firms will remain dominant is qualified but not reversed by the observation that exit rates are low or that a large fraction of entrants are individual proprietorships never intended to approach the typical scale of Mondragon and La Lega coops.

It is of interest that coop entry rates are highly uneven, and appear to be far more variable than for conventional firms. Coops seem to have brief periods of exceptionally rapid growth in both numbers of firms and of employment, followed by long periods of relative stasis or slow decline. Sometimes the periods of greatest decline are clearly attributable to exogenous political forces. Both Italy and Spain had large, vibrant coop sectors in the years preceding and following World War I, but both sectors were systematically decimated by the fascists in each country (for the case of Italy, see Ammirato 1996, and for Spain see Whyte and Whyte 1991). In the post-war era, La Lega had two periods of remarkable expansion: the mid-1940s, in the aftermath of liberation, and in the 1970s, a period of economic dislocation and rapidly rising unemployment. In the Mondragon complex, the greatest upsurge of new coops was also in the 1970s. Indeed, in Europe as a whole in the mid to late 1970s and early 1980s, a period of employment growth stagnation in Europe, coops accounted for a very high percentage of all net job creation in several European countries, including France as well as Italy and Spain (Estrin,1985).

Entry with the institutional support of a league has other potential advantages. For example, accepting a set of clear principles established by the league lowers costs of bargaining among members or potential members and makes initial decision making easier, overcoming in part the Hansmann heterogeneous voter problems.

In the 1940s and 1970s, La Lega coops were generally formed from scratch. Some new Lega coops are formed by soci of an existing coop who wish to start out into a new sector, and who tend to be committed to ideals of cooperation, even to point of taking wage cuts to make the venture a success initially (Ammirato, 1996). Some of these coops were created to take advantage of state funding for job creation programs, including the use of special unemployment insurance funds. In addition, unions have promoted some new coops; unions clearly have the incentive to expand the demand for union wage employment. The central La Lega bodies have themselves actively started up some new coops and played a key assistance role when workers in conventional firms in distress wished to buy out the firm. In fact, in the last two decades, up to half of new industrial-sector coops in La Lega have been created by conversions from failing firms. Typically, the cognizant trade union would approach the regional La Lega association with the possibility of a conversion; La Lega would perform a feasibility study, and if the project appeared promising, a conversion would be financed. Since the early 1980s La Lega:s Promosviluppo consortium has worked systematically with plant closing situations and other conversions.

As noted earlier, under 1992 coop law, for which Lega lobbied, 3% of profits of every registered coop goes to a Asolidarity fund@ to set up new coops in new sectors or in less served regions, with special emphasis on Southern Italy. Directly as a result, the number and share of coops from Il

Mezzogiorno has grown substantially in recent years, but these continue to perform less well than their Northern counterparts, and the future of many of them appears to be in some doubt.

In conclusion, the supporting networks and institutional arrangements of La Lega that are so effective in preventing cooperative deaths (see below) have so far proved of more limited success at promoting new cooperative births. However, the comparison with other countries is again important. It seems clear that far more cooperatives have been established in Southern Italy than in any other comparable country or region of the world (outside Spain and Italy).

In sum, in recent years even when coop births are recorded, the majority arise from spinoffs from existing cooperatives, with a significant additional number of recorded births deriving from purchases of existing conventional firms, often plants facing a shutdown. This represents a change from the period prior to 1980.

The coop entry profile of Mondragon is strikingly similar to that of La Lega. There was a rapid increase in coops start-ups of in the 1959-1982 period, when more than 100 sizable industrial coops were formed. If this number seems small, it is well to keep in mind that the average employment is about 300 and these are concentrated in a small geographic area; the process ultimately led to MCC becoming by far the largest employer in the Basque region and within the top eight in Spain as a whole, before even considering other Mondragon-spawned coops and other impacts of the CLP. The expansion rate was especially rapid during the 1970s.

The key role in this expansion was played by the CLP Entrepreneurial Division, now independent within the MCC, becoming the LKS coop in 1991, a kind of internal consulting firm. Sometimes this Division would respond to requests by groups of existing coop members or other community residents wishing to start a coop in a new sector, and perform feasibility studies for such groups. A prospective coop group would elect one of its own as the manager, who would then work in-house at the CLP while the project was being studied. In other cases, the original idea would come from the Division itself. The Division included in its efforts a range of services such as would be provided by a venture capitalist firm, including technical and organizational consulting services as well as financing. Its funds come from loans from the CLP, membership fees from new members, and fees for other services.

However, the expansion process slowed dramatically in the early 1980s with the severe recession and other problems coming from increased competition, as Spain=s trade barriers were lowered. Evidence suggests that since 1982, Mondragon entrants are derived primarily from spinning off parts of existing coops that have experienced rapid growth or diversified, as well as from takeovers of conventional firms, rather than from new ventures as in earlier years. Today most new additions to the complex appear to also derive from conversions of traditional firms. In recent years in Mondragón, fewer than 25% of all affiliated coops were initiated by the LKS entrepreneurial coop responsible for promoting startups. However, this pattern of growth through takeovers is typical of larger and more mature corporations generally.

It is worth exploring the impetus to coop entrepreneurial behavior more closely. Clearly, individual financial return to starting a cooperative is generally low, but it should be pointed up that these returns are not zero. If an individual lacks formal management credentials, but by organizing a coop thereby establishes a reputation among the coop members sufficient to be elected general manager, a coop entrepreneur can thereby earn a higher salary (and a more interesting job) than otherwise available. Even with credentials such as an MBA or engineering degree, the process of organizing a coop and becoming manager can, for example, be far swifter than slowly working ones way up through the ranks of a conventional firm. In addition, there are clear external rewards, such as the esteem of one=s friends, neighbors, co-parishioners, and other fellow town citizens. Moreover, interviews with nonmanagerial coop members make it clear that they greatly value their memberships, and the comradery and solidarity with their neighbors that joint membership, and the sharing of a joint destiny, engenders. This is very valuable to some people, enough so that they may help organize coops in which they expect to participate as rank and file members and despite the free rider problems.[25]

The issue, however, is to compare opportunity costs. If one has the talent to organize a coop, one could probably also organize a conventional firm, and become not only the manager, but the residual claimant on the net income of the firm as well. In fact, it is not clear that the resulting social standing and esteem thereby gained would be much smaller than from organizing a coop. The typical utility ranking may be: manager-residual claimant, followed by coop manager, followed by coop member, followed by worker in a conventional firm. As a result, there is a severe incentive problem for coop entrepreneurship.

One alternative that would allow for the capture of a much greater share of the rents would be for a private entrepreneur to organize a firm and then sell shares to the workers. Several of the U.S. plywood coops were originally organized in this way. However, there appear to be no recorded cases in the literature of a firm started by private entrepreneurs specifically to sell to La Lega or Mondragon organizations or potential members as a coop. Indeed, there is an obvious asymmetric information and adverse selection problem. If the firm is valuable, why sell it as a coop? If it is not valuable, the Mondragon and La Lega networks would discover this in their valuation exercises.[26]

In conclusion, despite their low death rates and proven long-term stability, the Mondragón and La Lega forms of organization will remain a small minority unless and until problems of new coop births are successfully resolved for the contemporary conditions of faster private sector employment growth, heightened and intensifying competition, and accelerating needs for innovation.

<u>IV.2. Possible role of government in network success.</u>

Government is another possible impetus for coop entry. Some observers have claimed the support of the Italian government has been key to coop expansion in Italy (not just through La Lega but through the other networks as well); indeed the central thesis of Ammirato (1996) is that the role of government support was a key factor in La Lega=s success. Ammirato does document the extensive lobbying that La Lega has done with government at all levels. However, Ammirato is a political scientist, and systematically focused on political science evidence more closely than economic evidence. The activities most cited by Ammirato focus on attempts to get La Lega=s philosophical values enshrined into the constitution and coop and labor law, not to lobby for subsidies or assistance with new coop creation. In addition, Ammirato=s own evidence shows that Italian government support for coops was no greater than subsidies given elsewhere in the private sector, and in absolute terms, subsidies to conventional firms dwarfed those to coops. Moreover, there was no period in which government systematically attacked conventional private enterprise, the way coops were systematically attacked under Mussolini. These attacks included not only takeovers, restrictions, refusals to allow expansion, and other red tape, but systematic destruction of machinery, arson, and personal violence against coop members by squads of Mussolini=s fascists. These attacks led many coops to leave La Lega, and others went out of business (Ammirato, 1996). Moreover, any special support, such as tax breaks, do little more than compensate for requirements and restrictions on what coops can spend their profits on; for example, various contributions to charitable causes are required of coops but not of conventional firms. What we can say is that the efforts of La Lega to lobby and cultivate ties with legislators and other officials at both national and local levels may have been a necessary factor in the success of the network on defensive gounds, given the extensive interventions of government and willingness to apply special favors to other (potentially rival) firms which curried favor. But the success of La Lega cannot be attributed in any way to government support. At most, the Italian government was re-leveling a playing field tilted toward conventional firms.

Similar comments apply to Mondragon. Briefly, there was an impressive history of cooperation in the Mondragon region, but it was suppressed, indeed largely dismantled by Franco=s forces, in aftermath of Spanish civil war in 1930s; so Mondragon was effectively starting from scratch. There was no effective support for coops that was unavailable to private industry. For example, tariffs benefitted import substitution industrialization in Mondragon but this equally favored the private conventional sector. In later years, after Mondragon had proven itself, there was more support by regional and then national government, but again only once the difficult hurdles had been crossed and its success fully demonstrated, and again no more support than for private sector agents of similar size or with significant likelihood of substantial employment generation.

IV.3. Coop Exits.

The study of exit rates of a firm type is important in general because it is only by comparing entry rates with exit rates that the steady state rate of growth or decline of an organizational form can be recorded. However, the study of exit rates among coops is particularly important because of the theoretical predictions of the labor managed firm literature that suggest life cycle processes leading to either extinction of the firm, or Adegeneration@ into conventional firms (see, e.g., Miyazaki, 1984).

To begin with, the exit rate is very low among both La Lega and Mondragon coops, indeed extraordinarily low when compared with conventional firm exits. Where the life cycle theories of labor managed firms has predicted coop exit and degeneration in bad and good market conditions over the business cycle, both networks, and firms within these networks, have maintained their cooperative character over many decades. It is thus instructive to consider how in both MCC and La Lega, coop life cycle problems have been avoided.

La Lega generally solves impending failure by merging a failing firm into another coop without job loss (however in the process workers are frequently reassigned to different tasks and or different sectors). This approach fits well with La Lega=s long-term deliberate strategy of encouraging the development of very large, what might be termed Aflagship@ coops.

Mondragon provides temporary subsidies during the period of coop distress. To avoid moral hazard, support requires that the pain is shared, with reduced wages, and reduced values of internal capital accounts; it is not uncommon to see some members temporarily transferred to other coops. Sometimes permanent transfers of socios across coops are arranged, and systematic efforts at reorganization, even changes in the product mixBindeed a switch to an entirely new product lineBare frequently seen. Eventually some coops fail and are dissolved, with workers transferring permanently to other coops. Most, but certainly not all, of those that fail were converted ailing conventional firms, in which case failure would be have to be partially discounted (though not fully discounted because MCC does feasibility studies which should themselves be subject to evaluation). Failures among new coop start-ups are relatively rare. In Mondragon=s history through 1992, there were at least 8 industrial sector coops failing out of some 120 start-ups from scratch.[27] At least some of these were attempts to start a coop in a town more distant from Mondragon where there may have been few or no coops previously. An example is the case of the Zarauz coop in an isolated coastal town where all the factories had closed, which looked promising for a few years but then failed (Whyte and Whyte, 1991, pp. 78-80). There have been a handful of failures since 1992, with most resulting in mergers with other coops.

Although conventional exit is rare in both La Lega and Mondragon, and when it occurs is more likely to be solved by a merger, the literature also focuses on exit of a different kind: degeneration into a conventional firm. While this is not exit in the conventional sense, it represents what could be termed an Aorganizational exit.@ As noted earlier, there has been a case of members of a Mondragon coop selling out their shares to an outside bidder. The issue is not whether degeneration can or does ever occur, but of identifying its frequency, and explanations for that frequency (or, as it turns out, extreme rarity).[28]

One might question, for example, whether La Lega=s new capital memberships allowing for 30% outside votes by share owners is not a form of degeneration. However, majority worker voting is maintained; the system is an innovation that allows greater access to the capital needed to survive in a changed marketplace without compromising the essential character of the coop.

It might also be asked whether the creation of consortia, in which workers are employees rather than members, is not also a form of degeneration; but once again, ultimate control is held by the member coops, which in turn are controlled by ordinary workers.

In the Mondragón case, there have been numerous reorganizations and other organizational changes since the 1980s, and critics have claimed that the changes have given MCC more of the character of a corporation (as its name implies) rather than a network of coops. However, interviewees consistently stressed the Ainverted-pyramid@ nature of the MCC during the Mondragón field visits. By this it was meant that while the official corporate chart of MCC might resemble that of an ordinary holding company, in reality all the authority was held by the individual coops, so that the apparent Abase@ of the pyramid was really its (functional) apex. The MCC directors are a committee of the coop directors; and any coop that does not find that the MCC corporate offices are adding value to their operations may secede at any time. Although there have been a handful of secessions, during the field visits the talk of Mondragon at all levels was the current negotiations with the 7-coop UMLA group, which has asked for a set of conditions under which it might return to the MCC fold (after a brief study, MCC offered a proposal, which is now being studied by ULMA).[29] Obviously, this is a clear sign that the incentives for the center to add value are working. This is another area in which the lessons of Mondragon may be much wider in scope than participatory firms. Of course, a majority of large conventional corporations have an apparently similar structure, with several enterprises grouped in a holding company and run from a corporate headquarters. It is possible that even fully conventional corporations struggling to make this model work (note for example the recent reorganization at Boeing) might learn from the incentive structure of MCC, in which the center must somehow justify its value added to the component parts, or else spin off the divisions.

There are now about 20% nonmember workers in most of the industrial coops, and one might question whether this too is a form of degeneration, or organizational exit; however, as evaluated in section III.10 below, such a conclusion cannot be supported in the Mondragon case.

In sum, although the methods of dealing with needs for economies of scale and scope in innovation, production, and marketing, have differed in some respects from that of La Lega, the problems and the responses to them may be seen as analogous.

Another feature of Mondragón is the rapidly growing number of foreign subsidiaries with nonmembers, who are simply employees of a corporation wholly owned by the MCC. Although MCC is not currently planning to reorganize these firms as coops, there is an active discussion of alternatives such as profit-sharing, that would give these workers the same profit share as members of the parent coop, but without membership rights. The anomaly of a coop owning a conventional subsidiary is acutely felt in Mondragon, and the subject of very active internal debate. While the foreign subsidiary strategy may not appeal to purists, the conclusion of this study is that it does not represent degeneration because the coops in the MCC complex itself are unaffected. Working as a major supplier to a number of multinational firms as a critical part of its business, MCC often must locate where their purchasing firms locate; indeed this is a contractual requirement under many Apreferred supplier@ agreements. Without overseas subsidiaries in production and marketing, given the realities of the competitive environment, Mondragón would have been very adversely affected; indeed, MCC might well have been unable to survive without taking these steps.

In most of the foreign countries in which these subsidiaries have been established, the coop form of organization is almost unknown; and employees would have to be educated to its benefits, procedures, risks, and responsibilities. The response of workers and managers to such changes would be highly uncertain, even after costly conversion and training was undertaken. Indeed, as coop members, MCC would have to assume high levels of responsibility for these workers, without having the opportunity to ensure that they were imbued with the coop ethos necessary to ensure that needed efforts and sacrifices are made in times of adversity. Moreover, one of the major ways of dealing with financial distress in a coop is to transfer workers across coops, an option not available in a foreign subsidiary. Finally, in Mondragon it is viewed as tragic that some jobs must be moved to their overseas subsidiaries in order to remain competitive. The explicit strategy is to return these jobs to the Basque region when technological sophistication and other features of productivity become sufficient to justify this on competitiveness grounds; and making foreign workers members is viewed as delaying this process.

Note further that if, as argued above, a single rose cannot bloom alone, converting an individual firm to a coop in a foreign country where no other such coops exist could well be putting the jobs of the workers of that firm at heightened risk. Moreover, there is no known case of workers in these noncoop subsidiaries asking to become members or move to a coop form of organization, and certainly no evidence that the MCC has ever turned down such a request. MCC has an explicit commitment to follow labor law scrupulously in each country in which it operates, and an ongoing, soul-searching process of evaluating options. In sum, there is no basis for considering these foreign noncoop subsidiaries as a form of degeneration; it is clear that they are, rather, an innovative adaptation needed for survival.

Another issue in degeneration may be the establishment of coop stores in other regions with workers being nonmembers. However, such consumer coops may be seen as a kind of hybrid between conventional consumer coops and labor coops. If so their establishment can already be seen as an innovation, that in a sense reflects no more degeneration than the traditional coop store, in which the members are the consumers and the workers are employees.

In the core coops themselves, MCC officials insist that the direction of internal organization and decision making at the basic coop level in recent years has been towards greater direct workplace participation by ordinary workers. This of course would be parallel to the management trends toward team self-management and similar developments in the U.S. economy since the 1980s.

In conclusion, whether the changes in La Lega and Mondragón represent coop degeneration may rest to some extent in the eye of the beholder. However, the interpretation offered by the evidence reviewed throughout this paper is that both networks have kept what is really special to the coop form of organizationBmajority employee ownership and control, and democratic managementBwhile making needed, even remarkable, innovative adaptations to adjust to the realities of a changing marketplace. These changes rather reflect the impressive resilience and organizational innovation made possible by the coop sector when it is organized into effective networks that can help internalize externalities and take advantage of economies of scale and scope. The conclusions then is that, in contrast to the LMF life cycle hypothesis, coops need not degenerate or exit over time, at least when they are part of an effective coop network.

IV.4. Decision making procedures/ Worker voice.

Decision making in La Lega, and particularly in the Mondragón system, has already been considered in some detail in Section II. Here, economic issues in the costs and benefits of democratic decision making are reviewed, and innovations in decision making systems are examined in light of the ways they have sought to lower these costs, without compromising on the essentially democratic character of the coops and of the networks of which they are a part.

The disadvantages of workplace democracy are perhaps obvious, especially to faculty in universities with a high level of faculty self-governance: most faculty guard their self-governance prerogatives jealously, but most also prefer to avoid committee service. Democracy requires participation in a lot of meetings, and this uses up time that could be valuably used for other purposes. With a decision by fiat, a lot of time is saved.

But the advantages should be equally clear. Tenured professors in a university have some features in common with coop members. Like coop members, they cannot divide the assets of the organization, but they benefit from guaranteed employment, control over their workplace environment, and the right to elect department chairs and play a significant role in the selection of presidents, deans and other key administrators. Decisions about the core activities of a university, teaching and research, are made by those in the best position to understand the issues. And it is no insignificant fact that almost no professor ever gives up a tenured position, unless it is to accept another tenured position at another university. This provides benefits of incentives for specific human capital formation as well as potential costs. Certainly, there are limits to this analogy. For example, the faculty generally cannot vote to remove a sitting president or dean. The point is that a democratic workplace need not be inefficient, and if it is, the benefits of innovation and decentralization may outweigh such inefficiencies. Finally, note that as a Aknowledge economy@ takes shape, comparisons of a faculty to an industrial firm become increasingly plausible.

Additional advantages of more democratic decision making include: avoiding opportunism of owners against workers with investments in firm specific human capital, better aggregation of preferences over working conditions, the adding of an additional channel of management monitoring in the face of agency problems, and better incentives for small-scale innovation.[30]

There are, then, both costs and benefits to participation and democracy in any organization. Given the foregoing, we may state as a working hypothesis, that coops will be more likely found in sectors in which democratic decision making is easier in practice (less costly), or where its benefits are large. This in turn is more likely when the voters are more homogeneous (Hansmann, 1996).

We may hypothesize that when a coop or coop group is found in sectors or groups of sectors in which the direct voters are less homogeneous, successful coops or coop groups will find it advantageous to distribute the functions to separate entities, so as to make the basic decision making groups more homogeneous. Indeed in La Lega and the MCC, highly educated professional workers, whose pay and preferences are likely to differ from unskilled workers, are often found clustered in their own coops, or else working as conventional hires (or in special membership categories) within consortia or other forms of second-level coops.

Moreover, we may further hypothesize that at higher levels of the organizational structure, representative democracy rather than direct democracy will be used, to facilitate logrolling and other processes familiar to voting theory.

The foregoing may be expressed somewhat differently as follows: The need to economize on transaction costs plays a significant role in the organizational decisions of a firm; among these are the costs of decision making. However, we may decompose decision making processes into two parts, a) the initial making of the decisions, which tends to favor conventional (ultimate) authority, and b) the practical and profitable implementation of those decisions throughout the organization, which in some important respects favors highly participatory regimes, including employee owned firms with internal democracy.

Decision making processes in La Lega may be characterized as follows: individual coops practice self-management, with the general assembly being supreme, and day to day authority delegated to managers, who serve at the pleasure of the general assembly. On the shop floor, there is much greater democracy than in conventional firms.[31] At the network level, there appears to be relatively slow decision making, taking into account democratic representation through successively higher-level cooperative bodies. Finally, it is worth reiterating that the authority of central structures ultimately comes from reputation and persuasion, not formal powers.

In MCC, workers in the individual coops hire the manager, and elect the board and social council through the general assembly. However, at the MCC corporate level, there appears to be more central authority than found in La Lega, following the 1984-85 reorganization as a cooperative group governed by a cooperative congress, and reinforced in the 1990s. This change was an explicit response to increasingly rapid technological and market change (1985 MCC internal document cited by Cheney, 1999). It is difficult to gage the extent of MCC corporate authority in practice. While interviewees insisted on the pervasive reality of the inverted-pyramid organizational schema outlined earlier, the prestige and practical influence of the MCC corporate offices among the coop groupings is also palpable.

In Mondragon, the size of the basic coop firms has historically been kept relatively small in part to encourage participation. Note that this is in at least partial contrast to La Lega, where mergers of coops have been systematically encouraged and supported so as to give the network some relatively large firms to establish a strong position in the market, facilitate exporting, provide for quantity discounts in purchasing inputs, meet the public relations goal of showing that coops can be successful large as well as small enterprises, provide a leading role in ad hoc bidding consortia, and so on.

The annual general assembly is still the highest decision making body in each MCC coop. These assemblies elect the directors council, in charge of day to day decision making, and who selects the manager. There is also a management council in moderate to large coops, consisting of top management, all of whom are appointed by the directors council. The role of the management council appears to differ in the various coops, but its recommendations are usually followed in practice.

Finally, most Mondragon coops also have a social council, which appears to be similar in purposes and tasks to works councils in Germany and elsewhere. The social council is focused on concerns of ordinary workers. The social council is at least superficially weak because it does not hold codetermination rights: directors council may treat its views as purely advisory; indeed, the social councils have less formal power than do works councils in Germany and other European countries. However, their power is ultimately rather strong in that they can influence the vote of the general assembly (which they after all represent on a day to day basis) to overturn decisions of top management and the directors council. As a practical matter, it seems that management would ignore the advice of the social council only at its own peril. The general assemblies of Mondragon coops really can fire their top managementsBand in some cases actually have done so.

Many of the most important organizational innovations at Mondragon were made, or at least initiated, in response to the very serious recession of the early 1980s. For example, Mondragon created the Cooperative Congress as a body with the standing to address controversial areas such as productivity targets and social issues, that required significant MCC-wide adjustments and that needed to be democratically legitimated. Other innovations included consolidation of management functions, spinning off the Entrepreneurial Division from the CLP, placing a temporary moratorium on creation of new coops to conserve cash flow, and the transfers of redundant socios across coops, and even unprecedented layoffs.

In sum, Mondragon has adjusted the details of its democratic decision making to respond to crises and to improve efficiency, but without sacrificing its essentially democratic character.

IV.5. The Roles of Consortia and Second Level Coops in Solving Organizational Problems.

In La Lega, many functions are delegated to consortia and second-level cooperatives.[32] Some thirty specialized institutes and consortia are affiliated with La Lega. Inforcoop coordinates these activities, and also raises funds from public sources for activities such as special training classes, seminars and workshops. SMAER is the in-house organizational development consulting group, which plays an active role in helping the large coops maintain a participatory style and cooperative labor-management relations. The large size of some of La Lega=s coops results in part from active policies of the network, so a special responsibility may be felt to keep these coops functioning smoothly and in line with La Lega traditons. Comunicazione Italia is the public relations arm of La Lega, which both promotes the image of La Lega as a whole and serves as an advertising agency for coops and consortia in the network. This also offers an additional arena for the coordination of marketing strategies. The SINNEA group focuses on training coop managers. Editrice Cooperativa is La Lega's publishing group. Their name will be familiar to anyone who even casually follows La Lega, for it appears on the back of innumerable La Lega publications, such as external promotional materials, internal studies, and congress and conference proceedings. EC also publishes the prestigious coop periodical, La Cooperazione Italiana.

Il Consorzio Nazionale Approvviggionamenti (ACAM) is primarily a purchasing consortium, oriented to lowering costs of intermediate goods through negotiation on behalf of consortium members. In addition to receiving the usual declining purchase price with larger orders, ACAM works to achieve additional discounts, in part by negotiating long-term relationships with suppliers who agree to such discounts. Part of the argument used is that ACAM saves suppliers' time interacting with individual buyers. Other quid pro quos are also arranged, including, according to Ammirato (1996), the placement of advertisements at La Lega construction sites, and earlier remittance for supplies received, in exchange for deeper discounts.

ACAM has 14 local offices throughout Italy, though its headquarters are in Bologna.

Concoop is an industrial consortium that engages in subcontracting across coops when large orders are received; it is self-supporting through its 2% commission on the value of subcontracted work. ICIE is the innovation and technology transfer group; it is only mentioned here because it is described in greater detail below in the section on innovation. Promosviluppo (which roughly means development promotion) is the second-level coop charged with starting new coops. It conducts feasibility studies on conversions of private firms to La Lega coops. It also works extensively in the less developed

Mezzogiorno regions, offering coops as development strategies in underserved areas.

La Lega consortia have paid professional staff. These professionals may be paid at a rate greater than the maximum differential within the coop. This form can be seen as a form of contracting out of some management functions. These consortium specialists however may still receive a somewhat lower salary than they could get in the private sector; many are also committed to the ideals of cooperation, and there are participatory aspects of work in such consortia, so that salary gaps may also be seen as compensating differentials.

Again, in La Lega a central role is played by the largest cooperatives; this role is explicit and has been especially strong in recent years. These large coops often play a lead role in bidding and consortium activities, and as a result they may in some respects be considered part of the specialized network organizations, despite being constituent individual coops at the same time.

At Mondragón the CLP credit union is primarily a financial intermediary today, but prior to the reorganization in the 1980s also performed many of the specialized functions undertaken by La Lega consortia, including prominently activities of La Lega's Promosviluppo new-project feasibility studies. More recently the corporate structure at the MCC level has performed many of the roles of the specialized La Lega consortia. Indeed MCC itself can be viewed as a multi-firm joint venture writ large. Mondragon has of course supported the famous technical training school (and now has played an active role in organizing and supporting the new Mondragon University[33]). Within the MCC, there is also Lagun-Aro, which operates the social insurance scheme (including unemployment insurance, the pension system, and health care). Ularco is the coop group handling legal, adminstrative and some financial functions, founded in 1965. Ikerlan undertakes research and development functions, founded in 1973; it is a coop in itself, that now provides services to conventional firms throughout Europe. In addition, Ideko provides R&D for the machine tool grouping, and now gets about 25% of its revenue from outside contracts. Lankide is the export group. The consumer durables group FAGOR grew out of Ularco, which was an early (mid-1960s) experiment in extensive inter-coop cooperation. Also significant is the role of FAGOR as a consolidated brand name, reducing marketing costs, and allowing all to benefit from joint efforts to raise qualityBan important area in which coops can take advantage of strong complementarities.[34] According to Clamp (2000), substantial strides have been made in the joint quality upgrading campaigns. She reports that all of the Mondragon coops have achieved ISO 9000 certification, and that a number of coops have received quality awards; as she rightly points out, this is exceptional progress given that many of the coops were experiencing significant quality problems in the early 1980s crisis period. Some Mondragon coops, the ULMA group as well as MCC, have been increasingly utilizing their natural comparative advantage in team- and participation-based approaches to total quality management (Cheney, 1999). However, inexplicably, there appears to be no evidence that the brand name AMondragón@ has itself been used. It is difficult to understand this, given the colossal international reputation of the group.

The nature of the coop is to be a small organization, which facilitates democratic decision making. Few worker coops grow to a large size, but this can result in a competitive disadvantage in some industries. The restructuring of Mondragon into the MCC resulted from an explicit recognition of the problems, by grouping individual coops within a larger corporate structure so as to take more systematic advantage of economies of scale and scope.

As noted earlier, La Lega has taken a different approach. There, a central policy of encouraging mergers among coops has been followed systematically over the years. The resulting large coops have been playing an increasingly important role, perhaps, ironically, at the expense of the already comparatively weak La Lega authority, the very source of encouragement for amalgamation into larger scales to begin with. Again, La Lega strategy is to achieve coordination by sector through voluntary consortia. Finally, it may be noted in passing that the presence of many coops in local regions gives them industrial district features, a general feature of Italian organizational comparative advantage in general (see, e.g., Porter 1990).

IV.6. Joint ventures and inter-firm alliances.

Firms form joint ventures to gain access to new markets, acquire technology, and realize economies of scale. This has been an increasingly important strategy employed by firms of all types, sizes, and regions, to deal with globalization of competition and requirements for accelerated innovation. In this section, attention is turned from consortia to joint ventures.

A hypothesis of the paper is that strategic alliances for innovation, research and development and or marketing are crucial to the market success of labor coops in advanced economies in the current period, with different types of potential advantages offered by alliances with other cooperatives or with conventionally organized firms. Although strategic alliances are widely considered crucial for all firms in the current period for fostering commercial innovations, they are particularly important for cooperative firms, because of their naturally smaller size and comparative advantage in smaller-scale forms of innovation (Smith, 1994a).

However, there are two reasonable working hypotheses about the type of partner which would most benefit an industrial cooperative, because there are tradeoffs between benefits of JVs with other coops, with conventional firms, and with consortia. The first view is that strategic alliances for innovation and technology transfer will be more successful when the partner company is a conventional firm. This is because other cooperatives will be more likely to have not only a similar history, but to have evolved the use of more similar technology and company strategy (including market segments) over time. Forging a strategic alliance with another cooperative would tend to limit benefits of drawing on the partner's organizational assets (which the cooperative would more likely already possess). This is especially true in networks such as La Lega and Mondragon, where knowledge is shared through consortia and in the due course of business. Alliances with noncooperatives may be especially helpful for cooperatives to establish themselves in new market segments.

However, for different reasons, there could actually be greater strategic benefits of forming an alliance with other cooperatives, especially within a cooperative league. Other coops would more likely have established the types of process and organizational innovations of greatest advantage to a cooperative, and will tend to have a more similar organizational structure and style of work, as well as have less incentive and means of behaving opportunistically toward alliance partners; there are for example explicit and implicit sanctions from La Lega and MCC for violating cooperative and league principles, up to and including expulsion. Members of coop leagues are already in effect engaged in joint ventures with league and consortia partners over a period of time. This gives them existing experience working cooperatively with other coops. This is, again, a two-edged sword: having already worked with other coops, there may be more to learn through alliances with conventional firms.

More speculatively, as interfirm alliances grow in importance, La Lega and Mondragon coops may have some advantage in the general marketplace, because their historic experiences with interfirm alliances is likely to be substantially greater than conventional firms of similar scale; and so their learning requirements for conducting such alliances effectively may be smaller. Note that these preceding observations applies to coops in networks, but not isolated coops; this is another field in which coop leagues, not merely coop density, is what matters.

In sum, the tradeoff is the greater innovation "gains from trade" possible with alliances with noncooperatives, against the potentially greater "productive relevance" of innovations generated in other cooperatives. Of course, there is nothing to exclude both types of alliance from being advantageous (or disadvantageous), depending on circumstances. To some extent, participation in new forms of consortia that group both coops and noncoops could provide some of the benefits of each strategy, while lowering costs. Nascent examples may include La Lega's ICIE and MCC's Ikerlan, both of which now work also for conventional firms as well as government, enhancing not only their profitability but also their ability to transfer productive knowledge to member coops.

Evidence in Smith (1994a) shows that La Lega coops with joint ventures have higher productivity. But there are greater productivity advantages from domestic joint ventures among non-cooperatives than cooperatives, with some evidence that coops with joint ventures with other coops have even lower productivity than coops with no joint ventures. However, it should be noted that selection bias may be present: Only the most efficient and technologically advanced coops would be selected by conventional firms for joint ventures; and it is reasonable to assume that ailing coops commonly form alliances with each other, perhaps as a precursor to merger. Unfortunately, there is no evidence explicitly relating consortia strategy to joint venture strategy; this will be a useful direction for further research. There is also the possibility of foreign joint ventures in direct foreign investment, as commonly used by the MCC, another useful direction for research as experience accumulates.

Yet another form of interfirm alliance is outsourcing. A working hypothesis is that outsourcing is conducted less by coops than in comparable conventional firms. Outsourcing is a potential threat to cooperative organization, in that it may be viewed as a disguised hiring of nonmember labor. As an increasing share of the work that was once done in-house is outsourced, job security may be lower, as unions frequently complain. However, the working hypothesis, also requiring more evidence, is that a significant amount of any domestic outsourcing is conducted through other cooperative enterprises within the league. For example, there is some sharing of orders among the coops in MCC=s Donovat machine tools group, and sharing of orders among smaller La Lega coops in the Emilia-Romagna region, but more systematic evidence is again needed.

In La Lega, strategic alliances continue to develop in Italian cooperatives, and intriguingly are now being developed in a systematic way in the social services coop sector; this experience may also provide new insights and possible implications for developing countries.

The Mondragón system is conducting a substantial amount of outsourcing internationally, including to conventionally organized wholly owned subsidiaries.

IV.7. Innovation and technology transfer strategy.

Coops may be more likely to foster Asmall@ innovations (see Vanek, 1970, pp. 294-296), but probably less likely to foster Alarge@ innovations, than are conventional firms. Small innovations are those that improve individual or group worker productivity or product quality within existing products, or generate minor product variations, while large innovations generate new products or radically different production processes. Thus, within a competitive market environment, it is hypothesized that labor cooperatives will have a comparative advantage in choosing an innovation strategy which focuses on minor innovations in which the experience and practical knowledge of production and line employees take center stage (Smith, 1994a).[35]

On the other hand, cooperatives will be reluctant to introduce innovations that might result in employment cutbacks.[36] Italian industrial cooperatives tend to employ more workers than that which would maximize income per head (Smith, 1984). The implicit weight thus placed on employment as an objective is, however, consistent with either above-median or below-median innovative activity; successful innovation in product, process or organization in an imperfectly competitive market may lead to expanded sales and employment that may more than compensate for the introduction of labor-saving techniques.

Cooperatives might be reluctant to introduce labor-skill-saving innovations, which would be one force for specialization in products of a more artistic or at least high quality, high craftsmanship nature.[37] Coops should have a comparative advantage in the production processes that require a conscientious, group effort on the part of production workers, but information is impacted in that team and it is thus difficult to monitor. Certainly production quality is more difficult to monitor than quantity of output. It more strongly benefits from a relatively high degree of personal commitment to the success of the enterprise on the part of ordinary employees. Thus, coops would tend to specialize in craft-intensive manufacturing operations, using production methods that intensively require tasks making use of experience, training, attention to detail, and conscientiousness, but not necessarily high levels of formal education. This is a testable hypothesis, supported by anecdotal evidence, but no data appear to be available to test it formally at this stage. Certainly Mondragon has been successful in its efforts to upgrade quality since the early 1980s; but of course many other firms have as well.

Coops will also find it necessary to achieve larger-scale technology transfer and innovation. Since, as argued above, individual coops probably do not have an organizational comparative advantage in these activities, it make sense that coops would contract out such work to consortia. This is exactly what we find in both La Lega and Mondragon.

The Institute for Cooperative Innovation (Istituto Cooperativo per L'Innovazione--ICIE), describes itself as the national institute for applied research and technology transfer of La Lega. It has two regional centers in addition to its headquarters in Rome. ICIE publishes an elegant quarterly periodical on innovation for coops, including information on patents that have become available through public sources. It promotes grant applications at the individual coop and consortia levels for public funds concerned with innovation and technology development. In addition to funds from La Lega and its affiliated coops, ICIE also receives funds from public sources to do contract innovation work. For example, ICIE currently has a large contract to develop innovative technology for home-bound disabled and elderly outpatients. ICIE was originally formed in the early 1970s as a research and consultancy group for the construction coops, with whom it has worked to develop improved ceramic, glass, insulating bricks, and energy efficiency innovations for housing coop complexes. It expanded its mission in the mid-1980s. Since that time it has conducted research in an astounding variety of innovative areas in fields in which La Lega coops work, including historic and artistic preservation, pollution abatement, recycling, and applied laser technologies.

In addition to engaging in original innovation and encouraging innovation in member coops, ICIE also publicizes innovations developed elsewhere by public or private institutions that it believes may be of special relevance to its member coops (Ammirato, 1996). Thus, ICIE also performs functions of improving information flows to coops, and perhaps lowering uncertainty about the applicability of innovations that coops become independently aware of. To the extent that coops are more risk-averse institutions than conventional firms, the information role of coop innovation consortia could be more significant for productive efficiency than otherwise similar consortia among conventional firms.

The construction coops now conduct some of their own research as well, through the construction coop consortium (CCC), which is one of the earliest consortia, dating to1912, and other smaller consortia.

Historically, La Lega coops have produced highly crafted products embodying considerable artisan skill. Some of these products are popular export items. However, the flip side of this is that La Lega coops have been distinctly low-tech, and only a minority can find a niche in the high craftsmanship artistic market. To compete, many more La Lega coops have found it necessary to substantially upgrade their technological levels. ICIE has performed an invaluable service in this regard, not only providing the sorely needed expertise, but also in changing attitudes toward technology among many of the stubbornly traditional industrial coops.

At Mondragon, the R&D and technology transfer functions have been largely handled by the Ikerlan group, a coop which generates an internal profit each year. Currently, Mondragon is developing, with Basque government and private enterprise support, a large research complex to be known as Garaia[38] at a greenfield site, nearby the hilltop MCC, CLP, and Ikerlan headquarters. These research establishments will support both coops and conventional firms. The Ikerlan coop will have to redefine its mission to some extent once some of the planned establishments come online.

The MCC also views its foreign direct investment strategy as a way to absorb the best foreign techniques and transfer them to their home base in the Basque region (Clamp, 2000), supplementing the group=s traditional reliance on licensing-based technology transfer strategies.

IV.8. Finance and investment instruments and institutions.

Credit market failures could mean that good quality borrowers (otherwise able and honest workers) who lack collateral cannot capitalize cooperatives, cutting off this type of entrepreneurial activity (for an applicable formal model, see Banerjee and Newman, 1993). While this can be a problem for any potential entrepreneur lacking collateral, the problem is especially acute when financial intermediaries lack experience lending to coops. This suggests an important role for financial institutions specializing in coops, especially if they also have specialized information about credit risks among coop borrowers.

Within La Lega, a major financial role is played by Fincooper, which has as its motto and mission Aefficient financial services for the cooperative firm.@ Fincooper is a finance consortium within La Lega that for thirty years since its founding it has played a central role in the financing of La Lega coops. It plays many of the roles of traditional financial intermediation, including those of conventional commercial banking, investment banking, and financial advisory services. It emphasizes the use of advanced information technology, and sophisticated financial instruments. Currently, more than 1500 worker cooperatives participate in the consortium. The advantage of Fincooper is that it has specialized human capital for working with coops. As the consortium advertises itself to new potential members, AFincooper is knowledgeable and specialized in problems of coops and their markets because it is always working side by side with member coops, and has developed a vast and structured network of relationships to carry out its work. The consortium also specializes in providing financial as well as technical support in addressing firm reorganization and consolidation in times of financial distress, as well as major development and expansion projects.@[39] Participation is voluntary so Fincooper has a strong incentive to live up to its promise of providing the most efficient possible financial services.

Another major La Lega arm, Unipol, provides all forms of insurance for cooperative enterprises. In addition, there are other specialized La Lega financial intermediaries including the merchant bank FINEC (National Cooperative Finance Company), and the retail credit union BANEC (Cooperative Movement Bank), which lends to households and small enterprises, both coop and conventional. There is, in addition, a system of locally-based La Lega financial intermediaries. In sum La Lega has had a highly articulated, and relatively sophisticated, set of financial intermediaries in virtually all fields of finance except for equity.

However, La Lega is even beginning to move into a form of quasi-equity finance, through the recent introduction of minority *soci sovventori*, literally "backer-members," but which might be better translated as "capital memberships."[40] These were permitted under the 1992 Italian cooperative legal reform lobbied for by La Lega. One class of such shares provides some minority voting rights to outside capital, while a second class has no voting rights. The latter shares by law receive 2% higher return than the voting shares. Strict accounting and disclosure requirements were also imposed for larger coops. Such a strategy might provide the opportunity for coops to raise capital more efficiently without sacrificing their internal cooperative character and without giving away decisive control. It might also facilitate strategic alliances with conventional firms. Such instruments could still be subject to moral hazard, however, so it remains to be seen how well they will be accepted by the market.

This of course raises the issue of whether new financial instruments need to be developed for coops more broadly, which I examine in a recent paper with Robert Waldmann (1999). In that paper, we propose a financial instrument, Aindustry average performance bonds,@ which pays variable funds based on the performance (value added, for example) of the industry in which the coop is situated. This allows for greater use of bond finance for two reasons. First, by carrying a variable interest rate it generates less risk to the coop; for example, payments would be reduced in recessions and increased in booms. Second, being based on industry-wide performance, it is relatively immune to moral hazard problems, and so investors should be more willing to purchase such bonds (at a lower interest rate).

Unlike La Lega, Mondragon has not publically indicated the need for new financing sources, but there may be a need for new financial instruments even if this is not perceived. Coops may have enough financing for projects they are actively considering, but they may be systematically excluding others as out of their scope or simply not even considering some opportunities out of an instinctive understanding of financial limitations. For example, one official of Mondragon stated in an interview, Athere are no projects that go wanting for funding that the members are willing to risk their own funds on,@ and that Amanagers say they do not face a shortage of capital.@[41] However, the lack of pursuing some worthy projects that members do not want to invest in may be because of workers= risk profiles; the comment may have more indicated the need for financial innovation rather than the lack of need. Indeed, one of the highest ranking MCC officials indicated that an active search is already underway for effective ways to raise outside capital. There is of course a moral hazard issue here, as would be indicated by Mondragon=s recent failed attempt to develop strategies to tap the equity markets; but some instrument, perhaps IAPBs or something like it, could potentially be helpful.

Within Mondragon, the innovative internal capital accounts system, representing the financial stake of members, is an important sources of capital and a foundation of the credible commitment of the members to the coop they join. It is returnable upon retirement or other severance provided the coop is sufficiently solvent to do so. Although the funds are fully fungible with the rest of the coop financing needs, the accounts earn interest and represent the employee investment commitment by Mondragon members to their coops. Also of great importance has been the relationship with a large financial intermediary (a credit union), the CLP, as described in more detail above. The credit union played an active management role in the group as a whole until it became sufficiently advanced to become more independent.

The decision to spin off the CLP when MCC was formed a decade ago was highly controversial at the time but from today=s perspective was a courageous and far-sighted policy. While maintaining Acaptive@ financial intermediaries, or at least the inclusion of a large bank within an industrial group, may be useful at early development stages, once a certain level of development has been achieved, this structure may slow further progress. The earlier relationship between CLP and the Mondragon coops was perhaps not so very different from the cozy finance-industry combines of Japan, that have kept the country mired in stagnation for more than a decade. In contrast, Mondragon has continued to grow, becoming the eighth largest industrial group in Spain, and maintained its position on the technology frontier. The freedom for CLP to lend where returns are highest has encouraged the further growth and development of the Basque region, which in turn has increased demand for many Mondragon products, including through its large Eroski retailing group as well as in consumer durables and other sectors. Rapid development spurred in no small part by the CLP has also led to other less tangible benefits such as the continued development of a Athick@ market for highly skilled labor.

IV.9. Institutions and Instruments for Risk Mitigation.

Workers who own the firm in which they work face potentially large, undiversified risks. Making reasonable assumptions about typical wealth portfolios of members, we hypothesize that workers in Lega and Mondragón face substantially higher retirement income risks than workers in comparable conventional firms. To some extent these risks are probably mitigated by the much lower exit rates in Lega and Mondragón; that is, there is much lower risk of job loss in cooperative firms. Decisions may be made in Lega and Mondragón coops so as to mitigate the risk of plant closure or layoffs. Fully endogenizing this effect will be an important avenue for future research. But this source of risk aversion may be another important part of the explanation for the very low death rate of these coops.

It is worth noting again that the extensive diversification in the earlier years of the Mondragon group was itself a strategy for diversifying against risk (Smith and Ye, 1987). To some extent this may have resulted from the need for portfolio diversification of the CLP credit union; but it may also have been directed to reduction of employee risk. As noted earlier, Conte (1986) argued that one function of a supporting structure such as Mondragon may be to reduce uncertainty of potential members, thus facilitating entry; as evidence Conte notes that coop entry is much more frequent in areas where supporting structures are active.

Moreover, some of the functions of consortia, such as those devoted to innovation or finance as described in previous sections, may be to reduce members= uncertainty about the value of existing innovations, as well as to contribute original innovations of special relevance to coops.

In Mondragon, all coops belonging to a regional group or sectoral subgroup allocate part of their gross surplus or all of their net dividends for the formation of a Central Fund which is redistributed among all the coops. The Lagun-Aro group operates the social insurance scheme covering unemployment insurance, pensions, and health care (note that cooperatives in Spain not covered by national social security schemes). Many coops not belonging to MCC, including the ULMA group, other individual local coops, and also coops from other regions, participate in Lagun-Aro.

Coops trade off some forms of risk for others. While layoff risk is lower, wage variability may be higher. In addition, there is more insurance against shocks to ability (Kremer, 1997).
The successful coop (league) will balance these risks while mitigating moral hazard. One way of doing so is with the probationary period before full membership. Although it is an imperfect mechanism, it may be compared with the tenure process in a university faculty. Indeed a typical private university is in some ways like a coop; the tenured faculty come as close to the group of Aowners@ as one could pinpoint. One of the risks in tenuring faculty is that even after a fairly long probationary period (6 years), a professor=s fundamental character may not be known by their colleagues. If this is a significant danger, there must be some way that a successful coop overcomes it. The hypothesis suggested by this paper is that in general most new coop members are known by some of the existing members as personal friends, fellow parishioners, club members, etc.; it is hypothesized that it is significantly more common

for new hires in a conventional firm to not know existing owners, management or employees well. The social network utilized by coops in this way may be viewed as another form of network effect. The implication is that successful coops are less likely to emerge in more anonymous cities, where social networks are less developed. Anecdotal evidence supports this hypothesis but as far as I know this has never been tested formally.

IV.10. Employment Strategy.

There is no conventional Ashort-run@ in a pure labor managed firm, in which all workers are members, because membership comes with certain property rights, even if members were indifferent (or worse) towards laying off their colleagues. Though labor is variable in the long-run through attrition, certainly it is no more variable than the capital stock. However, the use of nonmember labor reintroduces a short-run to the practical analysis of La Lega and Mondragon.

The standard theory of the labor managed firm features the view that full or majority employee ownership is inherently transitional: either the firm fails, or becomes a victim of its own success, with employees selling their shares for substantial capital gains. However, La Lega and Mondragón experiences show that neither is an inevitable outcome. In fact, these coops have prospered, successfully adapting to significant shocks, notably increased competition from national deregulation and international integration in the EU, and rapid technological change. In both La Lega and Mondragón, available information suggests that firm exits are well below comparable industry averages, although additional evidence is needed. Moreover, these complexes have maintained the cooperative employee ownership and decision making character of their member coops through decades of dramatic changes in the European economy. Thus, these firms not only stay in business, but keep their labor cooperative form, over a period of significant shocks. However, this success is not due to organizational stasis: again, in both La Lega and Mondragón significant organizational adaptations have been developed and implemented in recent years, and these are certainly important factors in the participating firms' continued success. The networks and supporting administrative structures of both La Lega and Mondragón have been critical both for keeping member firms in business and for maintaining their cooperative character. They have also played an important role in ensuring that the Ward effect, and other curiosities of the labor managed firm literature that are associated with predictions of firm deaths or transformations to conventional firms, have not played a role in practice. Coops starting other coops to benefit from network externalities, as appears to have been the case in both La Lega and Mondragon, would certainly have the incentive to put in place mechanisms to ensure the coop character of these firms. Obviously, these include features that serve to counteract the Ward effect, and otherwise protect employment in, and the viability of, the cooperative sector.

Clearly, the successful coop and coop network would have to solve the Ward effect, whereby in the theory of some forms of labor managed firms, members lay off colleagues in good times to share the surplus with as few claimants as possible (see Ward 1958, Vanek 1970). Coops not managing to avoid this effect would ultimately become extinct, either by degeneration, or by systematic loss of market share, or outright closure. There is no evidence of the Ward effect ever being observed in practice. A coop which had the practice of selecting members for layoff whenever increased salary bonuses could be obtained would exhibit so little solidarity that it would soon exit (organizationally, if not completely). The need for solidarity also helps explain relative pay equality within coops (Hansmann, 1996). However, given the preoccupation of the economic theory literature with variants of this effect, it is worth exploring why it has not been observed in La Lega or Mondragon.

Interviews with La Lega officials suggest that the Ward effect is not observed in La Lega, apparently because the system as a whole acts as if its objective were to maximize employment subject to paying union wage scales; this reflects the close relationship of the Lega to Italian unions (more evidence for this hypothesisBin particular the way it is worked out in practiceBis needed however). Some econometric evidence for the finding that the Ward effect does not apply in La Lega coops is found in Smith (1984).

For the case of Mondragon, the evidence is again clear that the Ward effect is not operative in practice (see Martin 2000), and employment generation has long been an explicit objective of the system. In fact, Martin shows that Mondragon coops actually exhibit greater flexibility than conventional firms in incomes, hours worked and output, and in the conventional (i.e., non-Wardian) direction. This is partly due to the rather rigid labor law and industrial relations practices for conventional firms in Spain. Ward effects do not appear if there is an effective membership market (Sertel, 1987). Although there is a significant membership fee to join a Mondragon coop, about the magnitude of an annual salary, it cannot be said that there is a membership market, because these fees are in proportion to firm incomes, which in turn are set in reference to prevailing market rates. Instead, the mechanisms of ensuring normal long-run supply response in Mondragon appears to be Aconstitutional,@ enshrined in the Aten principles@ (especially the open membership principle), with built-in organizational incentives to expand the number of firms and their total employment. The willingness to take temporary pay cuts is partly determined by confidence that in future these will be recouped at least in part. Of course, in the short run the flexibility in hiring and firing nonmember labor also creates the incentives for normal supply behavior.

This raises again the Adegeneration@ issues: one might ask whether the growing proportion of workers who are temporary socios, or nonmembers, is not itself a form of degeneration from the coop form. But there remain strong limits on the number of nonmembers and on the period in which they can work before attaining member status. After the wrenching reorganizations required after the dislocations of the Europe 1992 integration initiative, which required unprecedented layoffs of socios, MCC coops have been determined to avoid such a prospect again. As a result, most have recently adhered to a policy of keeping about 20% of workers in nonmember status. However, interviews showed that this policy was viewed as forced by external circumstances and was held in universal distaste; and that the goals of virtually all MCC coops are to bring as many workers as possible to member status as soon as prudently possible. There is no short-run in a labor managed enterprise in which all workers are members, because the membership level is no more easily adjusted than the capital stock. The presence of some nonmembers is viewed, probably correctly, as required by circumstance of competition with conventional firms. Indeed there are many examples of growing coops extending memberships as far as consistent with the 20% cushion policy. Our conclusion is that the evidence supports an interpretation that MCC employment policies are geared to protecting the employment status of members, not to Aexploiting@ nonmembers to increase the profits per member.

Finally, strategic alliances seen in both La Lega and Mondragon may also be viewed as offering a partial remedy for the Ward effect, as subcontracting to partner firms offers an alternative to expanding employment (Sacks, 1977).

So why has the Ward effect not been found? The reason is probably that there is no incentive to create such an animal, and if one were created by some fluke, it would very quickly either morph into something else, or become extinguished. This is not to deny that there are incentives for Ward effects, but it is just one force among many, and for structural reasons rarely likely to become dominant. Again, one reason why it might be hard to find the effect in practice is that any such firms would disappear, at least as coops, rather quickly. In sum, one observes coops without an operant Ward effect in part because there is no incentive to create Ward type firms, and perhaps in part due to their very short longevity.

We may conclude that in both MCC and La Lega, employment policy has been to expand both the number of workers, and the share of workers who are members consistent with a reasonable cushion enabling coops to avoid the trauma of laying off members at least under most circumstances. With this framework, normal supply responses may be expected in theory, and the available evidence suggests that these are found in practice as well.

V. Conclusions.

The creation of the coop networks themselves is probably the most important innovation and adaptation in La Lega and Mondragon. This innovation may be viewed as a response to the several network externalities examined in the paper, serving to internalize some of these externalities. Virtually all of the other innovations studied in this paper have the existence of the networks as a necessary condition. This is partly because the consortia, second-level coops, and administrative departments in such fields as innovation, technology transfer, marketing, finance, and insurance, all owe their very existence to the presence of La Lega's network and Mondragon's CLP and MCC central offices. Among other contributions, the consortia have introduced technological progress and quality upgrading of special relevance to coops, lowered input costs, improved coops' financial intermediation, reduced perceived risks, coordinated marketing strategies, facilitated other strategic alliances, and encouraged the development of professional services with relevant experience in the coop sector. In La Lega, the role of the large coops has also been very important; but this in turn has been encouraged and nurtured by La Lega itself. For example, La Lega has encouraged mergers where efficiency gains are apparent, and La Lega's organizational behavior consulting group has helped such coops to continue to function smoothly as participatory coops as they have grown in size.

The Mondragón and La Lega networks offer important lessons for transition and reforming developing economies for strategies to help employee owned firms to grow, diversify, protect employment, mitigate risk, and innovate; and policy should encourage the development of such supporting structures for groups of existing employee owned firms. However, these experiences offer relatively little guidance on how to promote entry of new firms, because in both countries success in growing new coops from the outside has been limited in recent years; for this, other strategies will have to be employed. Despite their low death rates, the Mondragón and Lega styles of organization will remain rare unless and until the problem of new firm births is successfully resolved. It must also be noted that both networks have benefitted from existing social capital, most importantly conditions of high trust, as well as contributed to new social capital. It will likely be much more difficult to establish such networks in areas of substantially less trust, or social capital, than had been found in the Basque region and North Central Italy prior to the establishment of Mondragon and La Lega.

In both cases supporting structures have helped buffer individual coops from short-run market forces that could have led to exit, sale, or degeneration to non-coop forms. This buffering has taken the form in both systems of risk mitigation, social insurance, innovation in financial intermediation and institutions, the encouragement of joint ventures and inter-firm alliances, and far-reaching technical innovation and technology transfer strategies. At the same time, buffering has generally not been available without viable business reorganization plans, so the support identified is not analogous to subsidies for inefficient state-owned enterprises in developing countries. Provision of similar support could be encouraged for coop networks in developing countries such as Kerala Dinesh Beedi in India, or individual coops having difficulties Ablooming alone@ elsewhere in India, in Latin America, and elsewhere. These consortia could be established with the technical assistance of those in the best position to offer guidance, namely, experts from La Lega and Mondragon itself. United Nations funds provided to contract with La Lega consortia and Mondragon groups to help coop networks develop elsewhere would potentially yield high returns. Because of network effects, and the lack of a way for entrepreneurs to get a return from financing such a system, if coops and their advocates are not already working to establish such a system, this may have to be initiated with public support. Such support could include beginning with organizing specialized consortia to help meet the most pressing needsBbinding constraints, or limiting factorsBof the typical coops.

The are several other clear lessons of this study for enterprises in transition economies with substantial employee ownership, such as Russia, and developing countries with significant cooperative systems, such as India. First and foremost is the value of establishing more formal institutions that solidify, develop, and expand the networks among cooperatives. It is significant that services offered by both the Mondragon and La Lega networks are provided by these independent and self-managed cooperative movements themselves, not by government or state-sponsored entities. This is in sharp contrast to the interventions of state-sponsored coop agencies in many developing countries. The trick will be to determine how to support the development of such networks while also ensuring their autonomy from government, but responsibility to the needs of constituent coops. Clearly, such networks should eventually become self-supported by the constituent coops themselves (and other independent contract work). All of this worked in Mondragon and La Lega because the movements were indigenous and autonomous from government.

It should also be noted that in both cases, the networks studied provided services specific to the needs of labor coops; that is, labor coops were not treated as merely a specific (and unusual) form of the more common agricultural marketing coops, consumer coops, or credit unions. Moreover, each network is entirely independent of any level of government. These observations are significant because Abell (1988) found that among the labor coops in developing countries that are linked to a network or supporting structure, these more poorly performing networks are either government run, or are run as branches of the broader cooperative organizations. The study may be viewed as offering corroboration to Abell=s conclusion from case studies in Sri Lanka, Tanzania, and Fiji that independent institutions specific to the needs of labor coops are needed to make them work more effectively. Government agencies lack incentives and expertise to develop new coops and help existing ones to thrive. And organizations centered around other forms of coops have different economic interests and incentives than labor cooperatives, that lead them to be disinterested in forming and maintaining labor coops. Moreover, the types of network services needed by labor coops differ from those of other coops, so more specialized labor coop consortia would be needed. For example, an independent labor coop has an interest in increasing its internal profitability, not those of the input suppliers. This is not to say that organizations of coops of different forms, including agricultural marketing coops and labor coops, cannot benefit from belonging to common organizations. There are clearly some network efficiencies, as they provide a larger base of organizations operating on broad cooperative principles. It is only to say that labor coops need fully independent consortia or other second-level organizations that have incentives to put the needs of labor coops first. As Abell (1988) argues, in areas that do not have a significant presence of coops, the government will have to develop and support fully independent coop umbrella groups.

Although it may be doubted whether any government has the incentive to create a genuinely independent agency, the National Cooperative Bank in the U.S. offers a partial model, in which a one-time appropriation created an endowment for an independent financial institution which has the development of new coops, including labor coops, as part of its charter. It is only a partial model, however, because by design labor coops had only a minority role in the Coop Bank (not to exceed

10% of its lending), and has been dominated by other forms of coops, particularly consumer and housing coops. In addition the Bank lacks the incentives and resources to initiate a labor coop network. These deficiencies could be rectified if government aimed from the beginning to support labor coops rather than consumer, housing or other forms of coops.

In both Mondragon and La Lega, coop networks have helped provide financing, but despite discussion of alternatives, particularly in La Lega, financial instruments have generally taken the form of conventional loans, often short-term loans. Perhaps more important, they have helped to provide financial management and training. Thus far, coop networks do not appear to have resolved the need for specialized financial instruments.

This paper has identified the main areas in which coops may benefit from cooperation, and shown the distinct but functionally parallel ways that these have been implemented in La Lega and Mondragon. It is unclear a priori which consortium areas will be best to develop first; this paper has supplied a survey of areas and illustrated them with the two case studies. In some countries, the most pressing need (binding constraint) will be in finance; in others, innovation, in still others, marketing, in yet others, resolution of labor disputes, or in others, achieving scale economies in purchasing inputs. It makes sense to start with the activities from which coops can see the greatest initial rewards with the smallest effort and upfront resource expenditure. Having seen the benefits of specialized consortia, coops will be more willing to embark on larger, riskier ventures, in which they may have to help finance the operation. After experience with consortia has been established, the creation of an umbrella group, either a looser alliance such as La Lega's networks, or somewhat more centralized systems, such as found in MCC.

As noted in the paper, coop start-ups seem to emerge in clusters in time as well as geography, often at a time of economic dislocation. Conditions in many developing and transition countries may be analogous to those in Italy in the mid-1940s and 1970s, and in Spain in the 1960s and 1970s. If so, coop development may be an effective way to rapidly expand modern sector employment, especially in regions recovering from conflict and other crises; and this process that could be facilitated by the UN in an number of ways, including technical assistance.

It is hoped that this study provides useful guidance on the fundamental economic principles involved in coop network success, and why it is so important to transfer the models of La Lega and Mondragon to coops in developing and transition countries. When it is time to begin the work of technology transfer in detail, it is recommended that La Lega and Mondragon experts be contracted as consultants. They are the ones who have made the roses bloom together, by creating cooperative networks that work in the real world; and they are in the best position to spread their achievements to the developing world.

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Figure 1

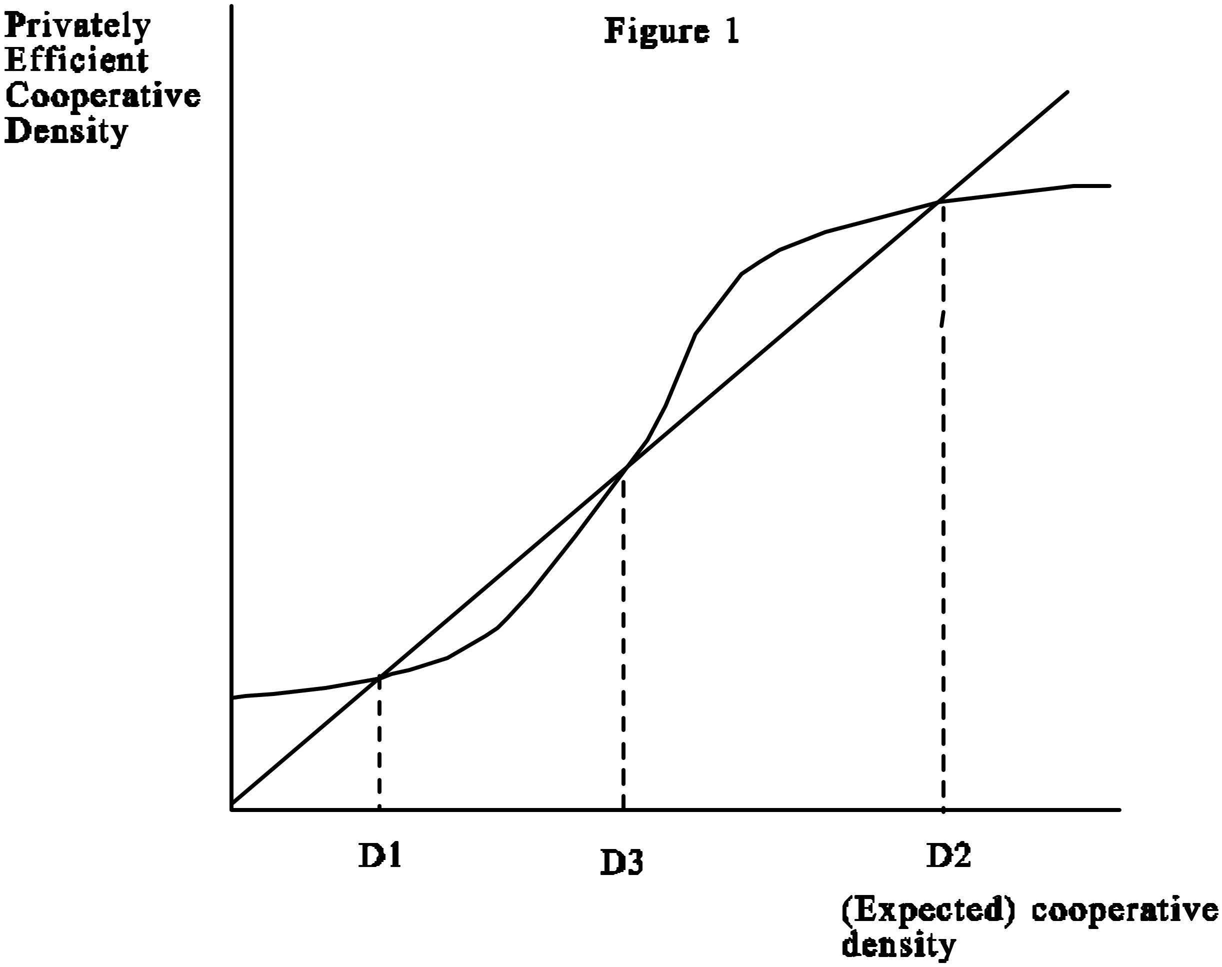
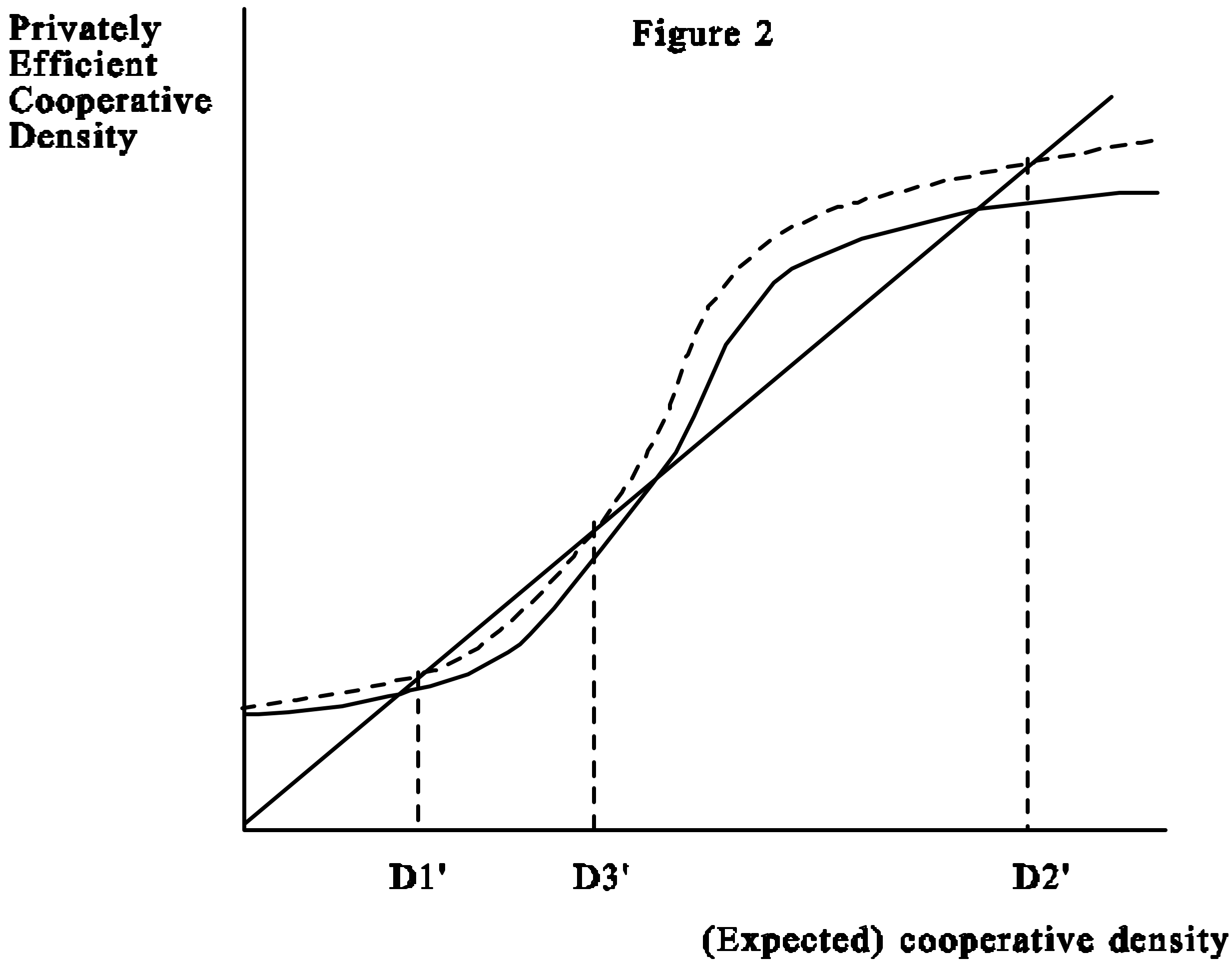

Privately Efficient Cooperative Density
D1
D3
D2
(Expected) cooperative density

Figure 2



Privately
Efficient
Cooperative
Density
D1'
D3'
D2'
(Expected) cooperative density

Endnotes.

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1. The term innovation when used broadly or without qualifiers in this paper refers both to product and process innovation, and to organizational innovation, needed to adapt to increasing market competition and pressures for higher rates of technological improvement.

2. The term coops is used in this paper as a shorthand for a broader class of firms combining majority employee ownership with employee veto power or decision making power over the long term and strategic decisions of the firm. The shorthand is used in part because the two case studies of the paper are coop groups. However the conclusions should extend to this somewhat broader class of firm.

3. A number of the hypotheses developed in the paper were derived from an Aorganizational comparative advantage@ conceptual framework (Smith, 1994a), so it may be valuable to describe it in more detail. The framework rests on two assumptions: First, organizational form is sometimes given at least temporarily by historical, social or political forces exogenous to the market, or by persistence from previous competitive conditions. Second, in many industries, product differentiation may allow two types of organizational form to be simultaneously efficient within what is conventionally seen as the same industry, but which may have a range of product qualities, including types of ancillary services. In other words, efficient organizational differentiation may go hand in hand with product differentiation. When combined with an assumption of competition between the firms in question, we may infer that firms will have a tendency to specialize in the products or subproduct qualities in which their organizational structure puts them at an advantage relative to other firms. Just as there is a tendency for individuals to specialize in the labor market according to their own comparative advantages, to the extent that organizational form has an at least temporary exogenous component, perhaps deriving from precompetitive considerations or earlier competition in other marketplaces, the pattern of later specialization may be understood in part by knowing the prior organizational characteristics of firms later competing in a new or altered marketplace.

4. A caution is in order here: statistics on La Lega are contradictory across sources, even primary La Lega sources, which are often out of date or at wide variance with each other; sometimes a single source may list different numbers. These numbers are drawn largely from Ammirato (1996), which is considered a highly authoritative source, but it should be noted that Ammirato=s numbers are higher than reported in some other sources. However, across the range of reported statistics, the imprecision problem does not change any of the broad conclusions of the study.

5. The exact formulation is as follows: ALegacoop svolge funzioni di rappresentanza, assistenza e tutela del movimento cooperativo ed è competente ad esercitare la vigilanza sulle cooperative aderenti.@ Note that the phrasing is highly nuanced and suggestive of multiple meanings: ›La Lega develops and carries out the functions/roles of acting as the representative of, assisting, and protecting (the interests of) the cooperative movement, and is a qualified expert/concerned with/ exercising/practicing

supervision/care/protection/surveillance on cooperative adherents/faithful/supporters.= Thus the words were most likely chosen with great care to convey multiple ideas to different people. But in any interpretation, the connotation of paternalism is unavoidable.

6. Author=s interview with one of the five, Jesus Larranaga, April 16, 2001. See also Whyte and Whyte (1991).

7. This section draws extensively from the Mondragon website.

8. Interviews at Mondragon Cooperative Corporation, April 18, 2001.

9. Interviews with the author, 1990, 1992, 1995.

10. For further details see the webpage of Confédération Générale des SCOP, http://www.scop-entreprises.tm.fr/; and Perotin (1987, 1997).

11. This section draws heavily on my review of T.M. Thomas Isaac, Richard W. Franke, and Pyaralal Raghavan, ADemocracy at Work in an Indian Industrial Cooperative. The Story of Kerala Dinesh Beedi,@ Journal of Comparative Economics, 27, 3, 576-579, Sept. 1999

12. The word can be overwrought, but surely applies to the abuses described in Isaac et al.

13. It is perhaps of interest to note that the Italian expression is already plural: if they are roses, they will bloom.

14. It is hoped that the present analysis will provide hints of a more generally applicable theory of network effects in organizational forms, but the focus here is exclusively on labor coops.

15. For related arguments, see Levine (1996).

16. Interview with Renee Jakobs of the National Cooperative Bank (NCB) Development Corporation, Washington DC, 2001.

17. Interview with MCC officials, April 17, 2001.

18. Such training costs may include implicit costs such as learning how to function effectively as a coop member rather than a hired worker. For an applicable formal search model, see Acemoglu (1997).

19. For an applicable formal model, see some of the works of Gregory Dow, e.g. Dow (1993).

20. For an overview of the economics literature see in particular Kremer (1993), Murphy, Schliefer, and Vishny (1989), Banerjee and Newman (1993), and for a partial survey, Ray (1998, ch. 5).

21. The relevant measure of density will depend on the particular issue; for some applications, density would simply mean the fraction of enterprises organized as coops; for others, alternative measures such as the share of value added, the share of the labor force, or the share of finance accounted for by coops will be more relevant. In some of the cases described below, the most relevant measure may be the fraction of an output (which could include an innovation) purchased for use as an input by coops.

22. Other inferences are possible but are beyond the scope of the paper. For example, as noted earlier, coop formation rates are highly uneven across time; for example there was a dramatic upsurge in coop formation across Europe in the 1970s. We might reasonably hypothesize that the successful coop network will capitalize on such periods, drawing many of the new coops into its network, providing crucial services to ensure survivalBof the coop form as well as of the individual coops.

23. This paper focuses on La Lega coops in this region, particularly Tuscany and Emilia-Romagna, not only because that is where their strongest concentration is found, but because this is the region in which the author=s first hand visits and interviews, as well as econometric/ statistical research (Smith 1984, Bartlett et al 1992, Smith 1994a) has also been concentrated.

24. Italy is known for its Marshallian industrial district organization of manufacturing production; see, for example, Porter, 1990.

25. I have elsewhere called fraternite Athe missing leg of the three legged stool@ of the French Revolution (liberte, egalite, fraternite). Certainly, to participate, as one does fully in a democratic coop, is to partake in a fraternity. Not to participate is a form of poverty. Those who are disenfranchised because they have no voice in the firm are at least partly cut off from the social body in which one needs to genuinely participate if one is to become fully actualized. Being excluded from the fraternite is a form of poverty that is as real as malnourishment. It has real effects: it makes people physically as well as mentally ill, and leads to social pathologies (for a partial survey see Smith, 1991). Professors tend to grumble about faculty meetings, but the loss of control of the working environment of teaching and research would be sorely missed if it were taken away. That is how many coop members appear to feel about their coops: the worst form of organization except for all the known alternatives.

26. In fact this may help solve the mystery how the process worked for the U.S. plywood coops; in some cases workers were possibly overcharged for their shares, as some of the literature suggests.

27. Interview with MCC officials, April 17, 2001. Note that the figure of eight failures is far higher than the single failure cited by Whyte and Whyte (1991) and often quoted in the literature, but MCC officials could find no basis for this smaller estimate.

28. It may be argued that the fact that degeneration and exits do occur on occasion, but are very rare, is more impressive than a perfect record. With a perfect record, one would have to wonder whether artificial, costly support, such as through local government subsidies, effectively precluded failure, in

which case, in effect, the theory was not put to the test at all.

29. Interviews at MCC, April 2001. The details of the discussions have been reported in the local Mondragon area press.

30. Each of these also represent arguments for works councils, as well as employee-owner voting (Smith 1991). Of course, there may be the concern that workers with codetermination rights may behave opportunistically against employers, and this effect might be greater than their positive role in providing a check against management opportunism toward shareholders as well as workers. However, in these coops the workers are effectively self-employed.

31. This is visible among the production teams, and sometimes reinforced by symbolic means. One La Lega coop visited by the author proudly displayed signs around the factory proclaiming, A40 years of self-management!@

32. This section draws on author interviews and on Ammirato (1996).

33. Interview with Prof. Fred Freundlich, Mondragon University, April 19, 2001.

34. See Kremer 1993 for a relevant formal model.

35. Vanek (1970) argues that large-scale innovation is invariant across economic systems, but individual coops at least lack the scale and expertise to make this practical for them. Certainly, some economic systems have proven more adept at innovation than others: compare Western mixed economies with the former Soviet system.

36. Interview with officials at Istituto Cooperativo per L'Innovazione (ICIE), Rome, April 12, 1990 ("Istituto Nazionale per la Ricerca Applicata ed il Trasferimento Tecnologico della Lega Nazionale delle Cooperative e Mutue").

37. It is difficult to separate these forces from historical influences (e.g., the centuries-old artisan and artistic traditions in north central Italy, where most of La Lega fieldwork was carried out).

38. Garaia has a dual meaning in Basque: Asummit,@ and Aperspective.@

39. For more details see the Lega and Fincooper webpages http://www1.legacoop.it/cap1-1.htm; http://www.fincooper.it/

40. Legge N. 59 del 1992. For discussion see for example Marco Sigiani's preface (which is available in English translation in typescript form) to <u>Liberta, Uguaglianza ed Efficienza</u> (Liberty, Equality and Efficiency), Milan: Feltrinelli, 1995; and several writings of Edwin Morley-Fletcher, especially "Questa

'piccola rivoluzione,"' Reivista della Cooperazione, March-April 1992.

41. Interview with Carmelo Urdangarin, of Mondragon's Donovat machine tool group, April 17, 2001.