Review of Economics and Economic Methodology
Volume I, Issue 1
Spring 2016, pp. 9-37

From Paucity to Inefficiency: The Case of Democratic Economic Governance

Tej Gonza

Abstract

The participatory governance on the workplace remains rare. Control does not follow ownership by logical necessity; why, then, is the capitalist enterprise so prevalent? Oliver Williamson, Michael Jensen, Henry Hansmann and some other scholars take the paucity of labour-managed firms (*i.e.* the prevalence of capitalist firm) as the evidence for the inefficiency of democratic governance. For support to this proposition, they turn to the early characterization of the evolutionary dynamics on competitive markets by Armen Alchian (1950). He argues that firms are selected for according to their relative profits, and that the relatively profitable production behaviour prevails on the markets. Similarly, the Efficiency Branch argues that it is the relatively efficient organizational form that prevails on the markets. Thus; if we observe an organizational form to be rare, this means that it is relatively inefficient. In my thesis, I show that the evolutionary argument employed in support of this proposition is incomplete. Prevalence consists of both differential survival and differential birth, therefore, we should also be able to explain how different organizational modes enter the markets. I introduce the appropriation hypothesis that suggests that capitalist enterprise is formed more often because it allows easier appropriation of benefits for certain groups, and not necessarily because it is technologically superior. As long as we define inefficiency in the terms of technological inefficiency, we cannot take the paucity of labour-managed firms as the evidence for their inefficiency.

Keywords: participatory governance, evolutionary theory of firm, efficiency, cooperative enterprises

JEL classification: A11, B13, B15, B21, B52, L23, P13

1. Introduction

"Jesus Christ, the monkeys are going to run the zoo?" A reply from a financier to a loan application by workers, who wanted to buy the Vermont Asbestos Group (in Doucouliagos, 1990).

The democratic ideal has not yet found its place into the workplace, at least not to the extent it is accepted in the political sphere. A timocracy – one share one vote – rather than democracy – one person one vote – enjoys the status quo. It is the capital owners that enjoy the control over the decisions about production, allocation and distribution, and not workers, to whom the decisions actually apply.[1] Only half a million of the workers participated in the decision making some two decades ago in the European Union (Bonin et. al. 1993).[2] Given that there is more than 200 million people in the labour force (source: *Eurostat*), this was roughly 0.2 percent of the labour force. Today, the degree of workers' participation has not increased much. The numbers vary from country to country (Italy has the highest presence of workers' participation with 2.5 percent of non-agricultural labour force involved), however we can safely conclude that LMFs are rare.[3] This leaves the following and very relevant question open: Why is the democratic economic governance so rare?[4]

Many argue that the efficiency considerations are the essential element in understanding the organizational demography – the way frequency of organizational forms change in the population of firms. Some even go so far to say that the efficiency being the main case, one can infer relative efficiency from relative prevalence of different organizational forms. "If we *observe* that a particular form of ownership is dominant in a given industry, this is a *strong indication* that the form is less costly than other forms of ownership would be in that industry." (Hansmann, 1996: 22, my emphasis). Hansmann here proposes that the low prevalence of LMFs implies their

---

[1] See Appendix 1 for some preliminary conceptual work on the control dimension, which delimits labour and capital management. Labour managed enterprise is designated as LMF, and capital managed firm as CMF. Other terms employed in the paper are used as synonyms.
[2] Profit sharing, for example, is relatively prevalent form of workers' engagement. In the United States, Employee Stock Ownership (contribution plans where the contributions are typically shares of stock in the company) employs over 15 million people, which is roughly 10% of the all employment in 2015 (Bernstein, 2016). This is a large part of the labour force, and we could hardly classify profit sharing enterprise as a marginal organizational form.
[3] For similar conclusions, see Fakhfakh *et. al.* (2009), Artz and Kim (2011), Schwartz (2012), Zanotti (2012) and Groot and Linde (2015).
[4] That is, why is capital enterprise so pervasive form of economic governance. The paucity of LMFs and the prevalence of CMFs are two sides of the same coin. This is so because I define an organizational form alongside the control; if control is in the hands of capital, it is a CMF, if control is in the hands of the labour, it is a LMF. This is discussed in section 1.2.

relative inefficiency.[5] I call this the efficiency inference thesis (henceforth, the Thesis). The more visible scholars that share this position are Oliver Williamson, Michael Jensen, William Meckling, Armen Alchian, Harold Demsetz, Scott Arnold, and Henry Hansmann. Following Williamson (1985: 26), I call this group the 'Efficiency Branch'. The Thesis is used in order to support the theoretical framework proposed by the Efficiency Branch that suggests that LMFs are less efficient than LMFs. It supposedly provides operational content that alternative theories lack – because there is no theoretical consensus about the efficiency of democratic governance, the prevalence of capitalist structures supposedly grants authority to the Efficiency Branch in this open scholarly debate with immense practical implications.

The main aim of this paper is to question the proposition that the paucity of self-management implies its relative inefficiency, and so to undermine the authority of the Efficiency Branch on this issue. I defend my claim with the following structure. In the second section, I introduce the Thesis and trace its origins back to the evolutionary argument by Armen Alchian (1950) and Milton Friedman (1953). In the third section, I show why the evolutionary argument that underlines the thesis is incomplete. Theoretical speculations that both emergence and survival of organizational forms should be considered are supported with some empirical qualifications, which indicate that the main difference between LMFs and CMFs is that the latter are formed much more often. In the last section I introduce Williamson's explanation of this along the lines of boundedly rational intentionality. I argue for an alternative explanation that breaks the ties between emergence and efficiency by speculating that CMFs emerge more often because they allow appropriation of higher individual benefits for agents who have vested interests in the capitalist enterprise.

2. The Efficiency Inference Thesis

Competitive markets select more efficient institutions of production from less efficient ones. Whether an economic organization is efficient or not is ultimately decided on the markets, and the superior organizational form will eventually prevail in the population. The organizational forms that we generally observe are the organizational forms that outcompeted the alternatives and, therefore, must in one way or another be more efficient.

[5] See Appendix 2 for the discussion on the concept of efficiency as employed in this paper.

Or so the story goes. The story told by the Efficiency Branch, which tries to support their theoretical framework that indicates the inefficiency of democratic enterprise with its paucity. Before going any further, I need to delimit the concept of efficiency in order to make justice to the claim I am making. The Efficiency Branch looks at the paucity of LMFs in order to defend their theoretical territory, within which they develop reasons for the inefficiency of LMFs. The two main arguments relate to workers' effort (free riding problem) and costs of decision making. So when the Efficiency Branch argues that CMFs are more efficient, what they really mean is that workers free ride less and that there are lower costs of the decision making. The concept of efficiency as I use it in this paper thus relates to these two dimensions, which is part of what Williamson (1981) calls the third level of organizational efficiency – the efficiency of internal organization of labour and authority. The efficiency of an organizational structure is not assessed in relation to some global category (such as Pareto efficiency), but in the comparative institutional terms (Coase, 1964; Williamson, 1975, 1981, 1985, 1989, 1991; Alchian and Demsetz, 1976, 1979; Demsetz, 1991; Jensen and Meckling, 1976, 1983; Fama and Jensen; 1983). In a nutshell; LMFs are relatively inefficient if the authority structure within LMFs discourages the efforts of workers more than the structure in CMFs, and/or if the democratic decision making process incurs higher costs than the top-down authoritative process.[6] The Efficiency Branch insists that the paucity of LMFs supports this propositions.

In this section I show that the theoretical link between the efficiency and prevalence has its beginnings in Alchian's (1950) seminal paper *Uncertainty, Evolution, and Economic Theory*. Alchian established the evolutionary link between profitability and prevalence to show that predictions about economy can be made within the neoclassical framework. I show that this argument was later rather uncritically adopted by the Efficiency Branch to establish the correspondence between the paucity of LMFs and their relative inefficiency.

[6] These claims have already been widely disputed on both theoretical (Dow and Putterman, 2000; Dow, 2003; Weitzman and Kruse, 1990; Bonin, Jones and Putterman, 1993; Zusman, 1992; Pencavel, 1992; Schwartz, 2012) and the empirical grounds (Baker, 1988; Bonin et. al., 1993; Wagner, 1994). For the case of this paper I assume (an assumption that seems to be strongly supported in the literature) that no consensus is yet established around the debate about the efficiency of self-managed enterprise, and there are no conclusive arguments that it is inefficient. However, a brief look at the literature indicates that the situation might even be the opposite of what the Efficiency Branch suggests. Some suggest that LMFs are actually more efficient than CMFs (Hodgson, 1982; Bowles and Gintis, 1993; Dow and Putterman, 2000; Dow, 2003; Schwartz, 2012).

2.1 Alchian's and Friedman's Hypothesis

"The realization of profits is the criterion according to which successful and surviving firms are selected," so that "if all firms are slightly different [...], those who have their fixed internal conditions closer to [...] the optimum position [in a given environment] will have a greater probability of survival. They will grow relative to other firms and become the prevailing type [...]" In general, in a competitive environment "the force of competitive survival [will] eliminate higher cost firms." (Alchian, 1950).

Alchian (1950) proposed an evolutionary solution to the marginal controversy in the 1930s and 1940s. He argued that the entrepreneurial intentions are irrelevant in order to predict the macroeconomic dynamics. The criterion of viability of a firm – and so the production decisions of the firms on industry level, and ultimately the behaviour of businessmen itself – is determined in relation to the viability of other firms. Profits that are necessary for firms' survival and reproduction are scarce, and so those firms that *better* comply with the profit maximization criteria can only realize positive profits. On competitive markets the impersonal forces seek to it that "those who realize positive profits are survivors; those who suffer losses disappear" (Alchian, 1950: 213). To paraphrase Alchian, even in the world of fools there would still be profits for those who are a bit less foolish, or just lucky. This position is clearly one of the comparative kind – survival of a firm depends on the *relative* foolishness of the firm. The prevalent behaviour, Alchian argues, will be the one that best complies with the marginalist criterion.

This insight is essential for the purpose at hand and worthy of more nuanced consideration. It suggests that the relative profitability determines the tendencies on the markets and ultimately determines the outcome, that is, the prevalence of the production behaviour on competitive markets. Alchian made this point in order defend the position that one may predict the direction of the change in an economy using the framework of the neoclassical theory of firm - by looking at the relative profitability of the behaviour between the competing firms, we can predict which behaviour will prevail. For example, when the real wages rise, *ceteris absentibus,* labour/capital ratio decreases. It is important to note here that the *ceteris absentibus* clause must also manifest in the open system for the actual phenomena that is the object of our analysis. The firms that employ more labour will become less profitable, therefore they will disappear from the markets, *other things being absent*[7]. While Alchian aimed to provide a reason for successful predictions in the face of uncertainty, he indirectly defended the view that the prevalent firm behaviour is relatively profitable solution to the requirements of the competitive markets. The argument along these lines was also developed by Milton Friedman (1953). They both made the knowledge about the motives of businessmen redundant by employing the evolutionary metaphor, however they disagree about the qualitative outcome of the evolutionary processes on the competitive markets. In order to defend the profit maximizing hypothesis, Friedman (1953: 22) cites the process of "natural selection [that] helps to validate the hypothesis or, rather, given natural selection, acceptance of the hypothesis can be based largely on the judgement that it summarizes appropriately the conditions for survival." [8] The competition favours firms that manage to secure maximum positive profits, while others will eventually be eliminated from the markets. The prevalent firms will be the efficient firms, because inefficient firms are "unlikely [to] remain in business for long" (*ibid.*).

I showed that the early evolutionary argument by Alchian (1950) and Friedman (1953) defends the proposition that the prevalence of firm's behaviour indicates its relative profitability. It must be noted that such evidence is not empirical (or factual as Friedman calls its) nor analytical, because there is neither an empirical nor a definitional link between the prevalence and the profitability. The link is established on theoretical level that follows the natural selection argument (Vromen, 1996: 37). While for the purpose of Alchian's and Friedman's papers the validity of such 'evidence' is not actually relevant, it serves a paramount function in the debate surrounding the paucity of LMFs.

2.2 Does Paucity of LMFs Justify Our Belief in Their Relative Inefficiency?

"Those organizations survive that are able to deliver the activities or products at the lowest price while covering costs." "In [a competitive] environment, *observed* behaviour

[7] For example, the assumption *ceteris paribus* prevent the speculation that higher wages might lead to higher productivity of workers that may compensate for higher costs of production.
[8] This is an obvious point of departure between Friedman and Alchian. Friedman (1953) insisted that profit maximization results from the competition among the firms, while Alchian was careful to argue that positive profits are *sufficient* for survival, and that the globally optimal equilibrium might not result. This disagreement is irrelevant for the point of this chapter.

and institutions will tend toward the optimal because those far from it will continually tend toward extinction." (Jensen, 1983: 322, 331-2, my emphasis)

The proposition that the prevalent organizational forms are more efficient than their competing alternatives is the core proposition of the Efficiency Branch.[9] The adherents of the Efficiency Branch distance from the neoclassical methodology – all of the scholars are part of the New Institutional School (NIE), while it should be noted that not all proponents of the NIE are part of the Efficiency Branch - and study the internal structure of economic enterprise with a focus on ownership and control aspects of the firm. Instead of profitability, as was the case with Alchian (1950) and Friedman (1953), they discuss the efficiency of different structural arrangements. They cease to talk about the competition among 'black-boxes', but rather assume that there is selection for more efficient organizational forms.

Scholars within the Efficiency Branch believe that "widely *observed* organization forms are efficient because they are selected for" (Vromen, 1996: 79, my emphasis). The competition on the markets ensures survival of the organizational form that "delivers the product demanded by customers at the lowest price while covering costs. Variation in costs stems from a variation in contract structure, which varies from firm to firm" (Jensen and Meckling, 1976). Oliver Williamson takes a similar position. He relies on the "efficacy of competition to preserve a sort between more and less efficient modes and to shift resources in favour of the former" (1985: 22), while he is careful to note that it is *more* and not *the most* efficient organizational form that is selected for (ibid.: 35). Williamson and Ouchi maintain that over time "those integrations move that have better rationality properties [*i.e.* are more efficient] tend to have better survival properties" (Williamson and Ouchi, 1983: 389).[10] What all of them seem to assume (and only rarely expose in greater detail) is that the more efficient organizational form attains higher profits in relation to the less efficient form. The more efficient form spreads in the population of firms because other forms either imitate the efficient one by restructuring appropriately, or because less efficient forms die out by the means of bankruptcy. Differential efficiency of organizational forms causes their differential

[9] See Vromen (1996: 51-82) for a more detailed exposition of this position.
[10] Others within the Branch (Alchian, Demsetz, Hansmann and Arnold) take similar position.

survival, and while efficiency is not the *only* case that is relevant for the prevalence of an organizational form, it is the *main* case.[11]

The Efficiency Branch studies the dynamics on competitive markets through the 'efficiency-lenses' alone. This allows them to say that the dominant economic enterprise must continuously outperform, in efficiency terms, the marginal enterprise. If relatively prevalent, then relatively efficiency. In the light of the Thesis, if a theoretical framework predicts one form to be more efficient than the other, the prevalence of the first grants the empirical support to the hypothesis. As was briefly exposed in the introduction, the labour managed firms have historically been only a marginal phenomenon. And "it is no accident that hierarchy is ubiquitous within all organizations of any size" (Williamson, 1980: 35) because "simple hierarchy can do everything the peer group [LMF] can do and more" (Williamson, 1975: 54). Scarcity of LMFs implies their relative inefficiency. It should again be noted that there is no direct empirical or definitional link, while Williamson (and others) also do not predict novel facts *in this case*[12], which makes the notion of evidence somehow loose. It is established theoretically and is grounded on the evolutionary argument developed by Alchian and Friedman.

Arnold (1995) and Hansmann (1996) provide more contemporary attempts to link the paucity of LMFs with their relative inefficiency. Like his forerunners, Arnold (1995: ix, my emphasis) relies on the evolutionary hypothesis to show that "the policies, procedures, and organizational forms that are found in free enterprise systems *exist* or *persist*[13] because they are efficient". The paucity of democratic governance, he concludes, implies that it must be an inefficient response to the economic environment. Hansmann similarly argues that due to "market selection", "higher-cost forms of organization tend to be driven out of business by their lower-cost competitors" (Hansmann, 1996: 22). Hansmann argues that the inefficiencies of the participatory economic governance are reduced in situations where not many workers

[11] The point that efficiency is »the main case« is repeated by Williamson over and over again. See for example Williamson (1975, 1980, 1985, 1991).
[12] I do not claim that this is true for Transaction Costs Economics in general. Williamson (1985: 130; 1999) has repeatedly cited an example of the successful predictions of novel facts. The prediction of the change from U-form to M-form organization is supposedly an example of a success story (Williamson, 1991). If this is true, the general framework is granted the empirical support, which then supports TCE in the case of workers' management as well. These claims have, however, come under scrutiny. The empirical evidence has indicated some contradiction with the predictions of Williamson's framework (see Robert David and Shin-Kap Han, 2004; Carter and Hodgson, 2006).
[13] As will be clear later, the distinction between *exist* and *persist* is very important if not crucial. I can already tease the reader by saying that *existence* of an institution implies (at the very least) *persistence* and *emergence*.

have to take the decision making positions, or where there is not much disagreement among them. Hansmann (1996: 91-2) says that "the most striking *evidence* of the high costs of collective decision making is the scarcity of employee-owned firms", and concludes that "if costs associated with collective self-governance were not a problem, employee ownership would be far more widespread than it is".[14] Because Hansmann defines the circumstances where we should expect more labour management, this allows for more nuanced predictions,[15] but the general point stands. Prevalence is taken to indicate relative efficiency. And because the nature of this link is theoretical, the strength of such evidence is conditioned by the validity of the evolutionary hypothesis. Efficient structures must necessarily prevail in the population of organizational forms.

2.3 Concluding Remarks

Organizational forms compete for prevalence on competitive markets. Jensen, Meckling, Williamson, Alchian, Demsetz, Arnold and Hansmann employ this logic in order to take prevalence of capital managed firms as the evidence for their relative efficiency against self-managed enterprises. In order to do so, they have to operate within the boundaries of *ceteris absentibus* and assume that all other potential intervening factors are absent (or negligible) that might explain prevalence independently of efficiency considerations.

But we do not live in the world of 'everything else being absent'. If there are other causal factors that are relevant for organizational demography, the Thesis comes under attack. In the next section I illustrate that it follows from the evolutionary theory that the efficiency-explanation should account for *both* survival and emergence of enterprises.

[14] From what Hansmann is saying it is clear that the concept of efficiency in the Thesis (if relatively prevalent, then relatively efficient) is very narrow – Hansmann suggests that paucity of LMFs implies higher costs of democratic decision making!

[15] Williamson's framework does not allow such predictions, because it predicts a universal inefficiency of LMFs. Hansmann's hypothesis is more easily checked against the data, and so potentially refuted. The problem is, however, that the predictions of his framework are not fully compatible with empirical data. The success of Mondragon and the workers' buyouts of financially troubled capitalist enterprises counter his predictions (see section 3.2.2). Thus it would be difficult to claim that his framework complies with Lakatosian or even Popperian ideal.

3. The Evolutionary Argument Reconsidered: An Incomplete Conception of Evolution

The theoretical discussion on labour management is not anywhere near consensus. One side advocates it on the basis of both, the normative and the efficiency applications. The Efficiency Branch on the other hand claims its inferior efficiency in relation to CMFs. If we suppose that LMFs may be at least as efficient as CMFs, it remains to be explained why are there so few of them.

"The basic dilemma is this: If producer cooperatives mitigate the disabilities that many social scientists and social commentators associate with Authority Relation, why is the record of producer cooperatives so weak?" (Williamson, 1985: 265)

Taking the paucity of LMFs as factual, the dilemma may be solved in many different ways. One way to solve it would be to establish a consensus on the theoretical and empirical level. If LMFs are somehow proven to be relatively inefficient, there is no dilemma - the Thesis stands. If LMFs are somehow proven to be relatively efficient, however, this resolves the dilemma because it indirectly undermines the validity of the Thesis. The lack of consensus in the literature on the issue, and the fact that I am in no position to claim or defend one, I will rather try to solve the dilemma by going directly after the theoretical support for the Thesis. I will be interested, therefore, whether the prevalent organizational modes must necessarily be more efficient solutions.

In this section I argue that the Thesis is the result of the misconception of evolutionary dynamics. In most arguments developed, the Efficiency Branch assumes that relative prevalence is reducible to relative survival of an organizational form. I show that this misconception has its roots in the adaptationist programme of the early evolutionary biology. Next, I show that the natural selection operates through both, differential survival and differential birth. In this section I also consider the empirical data on organizational demography, to see where to search for an explanation of differential prevalence between LMFs and CMFs.

3.1. The Efficiency Branch and the Adaptationism

The Efficiency Branch adopted Alchian's evolutionary argument in order to account for the prevalence of the capitalist enterprise. But they have done so in a rather careless way. "The operation of alleged selection pressures is […] neither an object of study nor even a falsifiable proposition but rather an article of faith" (Granovetter, 1985: 503). The idea that evolution favours CMFs because they are efficient (adapted) solutions to the requirements of the markets (environment) has its origins in the so called adaptationist programme of the evolutionary biology in the early 19th century. Some of the early attempts explained the prevalent traits in a population by deviating from strictly Darwinian understanding of the evolutionary process. Some of these attempts resulted in the infamous 'adaptationist programme'. Adaptationists consider natural selection as the most important *cause* of the evolution, a cause that shapes a population continuously towards the state of global or local optimality. They do not necessarily deny other evolutionary forces. The essential characteristic for the purpose of this paper is that the predictions according to natural selection under the *ceteris absentibus* clause yield predictions that are good enough approximations of the evolutionary outcomes in the open systems (Sober, 1987).

The Thesis proposed by the Efficiency Branch is characterized with the adaptationist flavour. The prevalence of the hierarchical mode of economic governance supposedly indicates better adaptation – adaptation to the requirements of the competitive markets. They insist that the efficiency is not the only factor of prevalence, but that it is the main factor, and as such sufficient to understand the organizational demography on the long run. A relatively efficient organizational form necessarily prevails. Therefore, *if a prediction on the basis of the efficiency framework complies with the actual prevalence of an organizational form, this supports the hypothesis that the prediction is derived from.* The following may illustrate this point. Williamson (1980: 35) maintains that "historical evidence [i.e. *enduring paucity*] disclose that nonhierarchical modes are mainly of ephemeral duration [i.e. *have low survival rate*]"; thus assuming that the survival of an organizational form determines the relative prevalence of a form. Survival is, in turn, reduced to efficiency; "those organizations *survive* that are able to deliver the activities and products at the lowest price while covering costs [*i.e.* the efficient organizations]" (Jensen, 1983: 331). The differential efficiency supposedly drives the evolution of organizational forms. It is this proposition that resembles the adaptationist programme, and it is this proposition that allows them to infer relative efficiency from relative prevalence. The evolutionary argument in support of the Thesis is, however, incomplete.

In 1979, Stephen Jay Gould and Richard Lewontin wrote the paper *The Spandrels of San Marco and the Panglossian Paradigm: A Critique of the Adaptationist Programme* and opened a serious contemporary debate on the issue of adaptationism. They have reminded us that *natural selection itself* does not necessarily promote organisms with efficiently adapted traits.[16] For example, if the birth rate of a relatively ill-adapted individual sufficiently exceeds the birth rate of a relatively well-adapted individual, the former will prevail in the population. Elliot Sober (1993) also deals extensively with the explanation of the prevalence of a trait in a population, and similarly insists that both differential survival and differential reproduction rate *jointly* contribute to differential prevalence of a trait. He argues that, contrary to what the adaptationist maintained, different causal factors are relevant for the prevalence of a trait, which makes it very difficult to infer one hypothesized – even if the main – factor from the prevalence itself. That is, if one trait prevails, it does not necessarily prevail because it has a higher biological fitness. The following example may help to illustrate this point. Through mutation, trait X is introduced in the population of traits Y. We develop a theory that argues that X makes an animal faster, thus helping it escape the predator. (Assume for the purpose at hand that death from a predator is the only possible cause of dying.) Through time, we observe that X is spreading relative to Y, until gradually most of the animals are endowed with X. Can we infer higher survival rate (greater speed) from the prevalence of trait X? Even if we neglect the influence of drift, pleiotropy, or other possible causes of evolution outside natural selection, this inference is problematic. Say that X - in addition to its influence, whatever it may be, on the survival rate - *doubles the fecundity* of the individuals endowed with X. Since natural selection always favours higher birth rate, the mutated trait could prevail in a population despite the neutral or even *detrimental* effect of X on the speed of an animal. We cannot infer survival rate from prevalence, simply because there is an alternative cause of prevalence than the differential survival.

3.2 Some Empirical Qualifications

"The number of LMFs at any point in time […] depends on past rates of creation and destruction as well as past rates at which KMFs have become LMFs, and vice versa.

[16] In addition to this, they also disputed the idea that evolution can be reduced to natural selection itself. Evolution, as emphasized by Darwin himself, is much more than natural selection, and we should not presuppose that the observed trait is the outcome of the gradual adaptation to the requirements of the environment. Pleiotropy, mutation, drift and migration are only few examples of the evolution of a trait without natural selection.

[…] Understanding these processes is therefore an important objective in explaining why LMFs remain rare." (Dow, 2003: 207)

By analogy to the discussion on adaptationism above, similar concerns arise with the evolutionary argument that underlies the Thesis. The empirical data about the organizational demography – namely the populational dynamics of the democratic and capitalist enterprise - help us to see that survival rate is not by itself sufficient to understand the paucity of LMFs and prevalence of CMFs. I introduce limited yet telling data on (i) the emergence and (ii) disappearance in this subsection.

(i) The birth rate serves the analogy for the unequal rate by which capitalist and democratic enterprises are formed, that is, how often they emerge. Economic enterprises can be created *de novo*, through novel assemblage of technologies and inputs that were previously not combined. The novel creation of workers' managed firms has been far below the creation of capital managed firms. Aldrich and Stern (1983) show that throughout the history, the creation of workers managed firms has represented only a small fraction of the total number of economic enterprises that are created. The birth *rate* is increasing - total number of formations divided by the number of enterprises already in existence increased at the end of 20th century, and even overcome the birth *rate* of CMFs (Ben-Ner, 1988). However, the *absolute* discrepancies of birth between LMFs and CMFs remain large. In the past and today, LMFs are much less often created than CMFs (Dow, 2003; Perotin, 2006; Podivinsky and Stewart, 2007; Arando *et. al,* 2009). Podivinsky and Steward (2007) find out that on every LMFs that was created in the period between 1976 and 1985, 1000 CMFs were created. The empirical evidence thus indicates that "the creation of new KMFs far outpaces the creation of new LMFs in all years and in all Western economies", thus labour managed firms "are rare because in absolute numbers they are created much less often than KMFs" (Dow, 2003: 208,227).

An economic enterprise can also come in existence with transformation; an existing form may be transformed in a different type of organizational mode when the source of authority, the objectives, or the internal organization are altered (Ben-Ner, 1988). Transformation is the other side of the degeneration coin – degeneration of LMF is its transformation into a CMF. Empirical evidence (Ben-Ner, 1988, 1988b) shows that LMFs often degenerate into CMFs – CMFs often emerge from LMFs. The opposite, however, is not true (Dow, 2003: 213). The transformation of LMFs into CMFs was found to be significant especially in taxi-driving cooperatives, plywood cooperatives, and barrel-making cooperatives (Bonin et. al., 1993). LMFs degenerate in CMFs often, which implies that CMFs are created often through transfer or transformation from LMFs. The reverse is not true. While some LMFs are formed from unprofitable CMFs, "the majority of [LMFs] in existence were created from scratch" (Bonin et. al. 1993). Overall, LMFs more often degenerate into CMFs than vice versa (Ben-Ner, 1988, 1988b; Bonin et. al., 1993; Dow, 2003). Thus, transformation and transfer both contribute to the relative paucity of LMFs.

(ii) The survival rate serves the analogy for the disappearance of organizational forms *that were already in existence*. An economic enterprise may disappear through transformation. This was already taken in consideration above. An organizational form may also die out for the financial reasons. This is commonly designated as the survival of a firm and is one of the more reliable indicators of the efficiency of an organizational structure. The evidence that is available about the survival of labour managed firms suggests that they survive more commonly than capital managed firms (Bonin *et. al.* 1993; Ben-Ner, 1988; Staber, 1993; Perotin, 1997; Dow, 2003 Zanotti, 2012). The self-managed enterprises within the Mondragon group, for example, have excellent survival record with practically no demise (Whyte and Whyte, 1989). Long-established LMFs have usually much greater survival than comparable CMFs (Bonin et. al., 1993), while this also applies to the young LMFs (Cornforth, 1983). Dow (2003: 227) concludes that "LMFs are not rare because they fail disproportionately often. Once created, they appear robust".

The data suggests that LMFs have higher (or at the very least equal) survival rates, while they are more often degenerated into CMFs. CMFs are also more often created from the scratch. This leaves us with the following empirical proposition: CMFs and LMFs go bankrupt to a largely similar degree, while the first are formed much more often than the second. Thus, to explain the differential prevalence, we should find the explanation for the difference in the emergence between LMFs and CMFs.

3.3 Concluding Remarks

I have argued that the evolutionary argument underlining the Thesis resembles the adaptationist ideas. The criticism of the adaptationist programme extends to the Thesis employed by the Efficiency Branch. A brief look at the empirical data reveals a complicated story behind the organizational demography, and suggests that we should find the explanation of the differential formation rates. Do the incentive scheme and the costs of decision making explain the lower emergence rate of LMFs?

4. An Attempt to Solve the Dilemma: Is Differential Formation Independent of Efficiency?

From the evolutionary metaphor, it follows that the differential formation between LMFs and CMFs is relevant factor of their relative prevalence, while the empirical data shows that it may even be the crucial facto to understand the paucity of LMFs. Now if we assume, for the sake of the argument, that differential survival implies differences in efficiency of an organizational structure, we should also provide a hypothesis that explains higher formation of CMFs in terms of their superior efficiency, if we are to accept the validity of the thesis.

While the Efficiency Branch is largely quiet on the emergence side of the story, Williamson (1975, 1985, 1991) explains higher formation rate of CMFs. In this section, I argue that his explanation does not do justice to the behavioural and environmental assumptions of his own theoretical framework. I argue that when individuals contract in the opportunist manner, this does not necessarily promote more efficient organizational structure. The reason is that certain interest groups (owners of the capital, highly qualified workers, and the existing members of workers' cooperatives) can appropriate higher individual profits – higher *personal efficiency* - in the capitalist enterprise independently of its potential lower technological efficiency.

4.1 Formation of Efficient Forms: Williamson's Hypothesis

Alchian's (1950) evolutionary argument does not need the visible hand to promote profitable firms in the circumstances of uncertainty. Alchian (*ibid.*: 220, my emphasis) is careful in saying that "the *observed prevalence* of a type of behaviour depends upon both [the] probability of viability [survival] and the probability of the different types being submitted to the economic system", but goes on to disregard this point as potentially problematic by saying that "there is much evidence for believing that these two probabilities are interrelated", and that even if the probabilities are not highly correlated, the aggregate behaviour would shift in a predictable way towards the more efficient solutions. His account of evolution on competitive markets ultimately relies on the selection pressures to promote profitable firms in the population. The

Efficiency Branch largely followed Alchian's reliance on the selection forces of competitive markets. On few occasions, however, one can find statements that indicate that "the fact that [the workers' controlled enterprise] *seldom arises* out of voluntary arrangements among individuals strongly suggests that co-determination or industrial democracy is less efficient than the alternatives which grow up and survive in a competitive environment" (Jensen and Meckling, 1979: 473, my emphasis).

Williamson provides a causal link between emergence and efficiency, and maintains that the intentional explanation helps to explain how more efficient organizations arise.[17] "The ultimate choice of governance structures requires balancing the costs and benefits of these alternative governance systems" (Joskow, 1991: 125). Governance structures are chosen on the basis of their relative efficiency. Thus, the differences in the formation rates of LMFs and CMFs can and should be explained by the choice of boundedly rational individuals who are able to recognize relative efficiency of different organizational forms. The full argument in support of the Thesis would in this case be the following. Efficient organizational forms are more often introduced in the population of firms that the less efficient forms, and the less efficient forms that find a way into the markets are sooner or later eliminated by the more efficient forms.

Criticism was raised against the argument that boundedly rational individuals can infallibly recognize relative efficiency of an economic enterprises. "If agents cannot cope with contracts featuring complex contingencies […], it is doubtful that they can select in advance an efficient decision making procedure to use in adapting to future circumstances" (Dow, 1987: 23). Information impediments, constraints on rationality, and complexity of the environment are some of the core pillars of the New Institutional Economics framework and do not allow an infallible prediction about what organizational structure is more efficient in future environmental contingencies.

If one thinks about setting up businesses, how do individuals actually choose the form of business, presumably that they try to choose the more efficient one? That is, how do they *know* that workers will invest more effort and that the decision making is cheaper in CMFs? They may learn this from studying the organizational theory. The

[17] These attempts are scattered in the literature (see for example Williamson 1975, 1981: 574, 1986, 1987, 1991). Governance structures are conceived as implicit or explicit contractual relationships (Williamson, 1979); the choice for relatively efficient governance structure by opportunist individuals results in preferable contractual relationship, or the more beneficial contractual relationship manifests in relative efficient enterprise. Williamson (1975, 1985) remains unclear about what is the actually the case.

emergence of an organizational form would in this case not be the evidence for the theory that CMFs are more efficient, but rather the manifestation of the hypothesis in a performative sense – theory would not explain, but breach the epistemological boundaries and *create* the higher emergence of CMFs.[18] Contracting individuals could also look at the empirical records and decide for the capitalist enterprise on the basis that is simply more prevalent than the labour-managed enterprise.[19] Such explanation obviously begs the question; it assumes that prevalence indicates efficiency, while Williamson is actually trying to *explain* why prevalence indicates efficiency. He is trying to explain differential formation of organizational forms with the deliberate choice of the more efficient structures, but would have to assume that the prevalent organizational structure is the more efficient organizational structure. This would reintroduce the initial question: Does selection on the markets eliminate the inefficient, and promote the efficient forms? Last but not least, the question opens whether individuals are actually interested in more efficient organizational form, or do they engage with the enterprise that promotes their personal interests better? The appropriability hypothesis argues that it is the former, and suggests that opportunist contracting is independent of the technological efficiency of the organizational structure that is manifested by the contract.

4.2 Formation of Inefficient Forms: The Appropriation Hypothesis

"[A] method of production does not have to be [more efficient] to be *adopted*; innovation depends as much on economic and social institutions." (Marglin, 1974: 64, my emphasis)

"While transaction cost economics admit to the need for a more fully developed theory of the selection process, it asks that selection arguments be applied symmetrically. If efficiency outcomes are purportedly defeated, what is the selection process by which this defeat is realized?" (Williamson, 1987: 623)

---

[18] See MacKenzie (2008) on the performativity of economic theory.

[19] Many scholars have argued that agents adjust their preferences in favour of the capitalist enterprise because of the mere familiarity with this form of economic enterprise (Damachi and Seibel, 1982; Gamson and Levin, 1984; Elster, 1989; Doucouliagos, 1990; George, 1997; Schwartz, 2012). The 'familiarity principle' implies that preferences can be reinforced and even acquired by a repeated exposure to stimuli (Zajonc, 2001). It may help to explain reluctance - especially of workers - to join labour managed firm, which enduring paucity makes it a rather marginal phenomenon. This has some empirical support. In his extensive empirical study of American plywood cooperatives, Roeber's (1974) found out that at first adverse workers had re-adapted their preferences through experience of working for a cooperative.

Marglin insists that emergence may depend on social as well as the economic institutions, implying that the efficiency can be defeated. Williamson asks what the selection process that promotes (potentially) less efficient organizational forms is? The main aim of this section is to show that higher formation of capitalist enterprise is independent of its technological efficiency. The appropriability hypothesis provides an explanation that helps me in defending this claim. The benefits of an organizational structure flows, at least proximately, to those in control. Thus, control in itself is desirable (Marglin, 1974). CMFs make possible appropriation of higher benefits for specific interest groups that prefer CMFs *independently of their technological efficiency*. I introduce two ways in which the appropriation hypothesis helps to explain the empirical qualifications from the section 3.2. The hypothesis (i) provides a plausible explanation of why CMFs are created more frequently from the scratch, and (ii) suggests why LMFs often degenerate into CFMs. These are two plausible reasons why CMFs prevail on the markets, while LMFs remain a marginal phenomenon (Marglin, 1974, 1984; Bowles and Gintis, 1976; Putterman, 1982; Horvat, 1982; Ben-Ner, 1988; Dow, 1993, 2003).

4.2.1 Novel Creation: Access to Finance and Labour

"The formation of a new firm requires *premeditation and planning by entrepreneurs*, the assumption of the risk of losses, *the provision of capital*, and the *bearing of set-up costs*." (Ben-Ner, 1988b: 289, my emphasis)

'*Premeditation and planning*' demands qualified labour, which is in limited supply for LMFs. '*The provision of capital*' and '*bearing of set-up costs*' requires either workers' own assets, which are limited due to their low endowments, or investors' willingness to invest into democratic enterprise, which is similarly limited. I argue that the appropriability hypothesis helps to explain qualified labour and start-up capital are in shortage for a self-managed enterprise, but not for the capitalist firm. Because both are necessary for the novel creation of a firm (Ben-Ner, 1988b; Dow, 2003), this helps to explain differential emergence between two forms of economic governance. I start with the access to financial capital, and continue with the access to skilled-labour.

Workers face limited wealth and liquidity constraints (Bowles and Gintis, 1996: 95) and are generally averse to risks; they prefer small wages with lower variance to higher wages with higher variance (Ben-Ner, 1988b). They must thus access the capital by external sources - leasing, debt finance, or equity finance. While the "access to finance is crucial to firm formation" (Dow, 2003: 236), LMFs cannot rely on leasing only, and have problems in accessing both debt and equity finance. In the literature, the area of finance has been recognized as one of the most promising places to search for the explanation of low novel creation of labour managed firms (Bonin et. al., 1993; Bowles and Gintis, 1994, 1996; Putterman, 2006; Dow and Putterman, 2000; Dreze, 1993; Dow, 2003). I will pass over in silence the problems with leasing in debt finance, and show why capitalist enterprise has an easier access to equity finance.[20]

Equity financing is raising capital by selling the shares of an enterprise. Workers within self-managed enterprise could finance their activity and reallocate risks by selling non-voting equity shares, and retain their control over the company. Investors would buy a share of the company and profit from its increase in value (or loose from its decrease in value) – like with voting shares, they would receive the dividends. The efficiency of an economic enterprise does not depend on the control of the capital providers. The equity holders within the prevalent capitalist enterprise usually do not have any real interests to participate in the decision making, because their shares are often small and stakes relatively insignificant. The position in the literature is that shareholders do not require to exercise control in the firm for the firm to be efficiently governed (Putterman, 1988). Non-voting equity is thus an alternative that would not radically change the way economic organizations are conventionally governed.

Despite this, the data shows that "there are few documented cases in which workers' cooperatives have used non-voting equity" (Dow, 2003: 248; see also Bonin et. al, 1993). The explanation that was proposed in the literature is that this is so because workers will not abide to the interests of the shareholders like the managers do in a capitalist enterprise. Non-voting equity owners have no control over the decision process within a LMF, and so no control over the distribution of the revenue stream. Workers may manipulate the residual so to benefit themselves and not the owners of the non-voting shares. Dividends may be substantially lowered by workers, who may rather invest into high wages, good working conditions, and other perks that benefit themselves, but lower the benefits of the investors.

[20] In order to defend my claim, it is sufficient to show that one of the three is limited for LMFs independently of their efficiency.

Investors' interests are better served in a capitalist enterprise, despite its *potential* technological inefficiency. Marglin (1974, 1984) provides an explanation along these lines. He argues that bosses in the capitalist enterprise distribute and appropriate larger share of the revenue stream than a capitalist in the workers' controlled enterprise could, which is the main reason why the former flourish in relation to the later. The reason is that in the capitalist corporation, owners incentivize managers to increase the dividends by other means than increasing the efficiency of the enterprise. Managers may reduce wages, outsource low-skilled labour, automatize production and substitute less skilled workers, intensify the discipline with more intrusive inspection etc. He suggests that even if workers' participation increases the productivity of an economic enterprise, the investors may appropriate *higher* benefits in the less productive enterprise, because the fruits of potential technological improvements in LMFs go to workers.

This argument has been developed further in a more contemporary literature. Dow (2003) provides an example of how rent-appropriability hypothesis prevents the creation of LMFs. Consider a non-contractible relationship-specific investment that workers try to access in order to start their business. The necessary investment is not redeployable to the alternative use, making leasing infeasible. Say that workers are unable to raise the capital from personal savings, or simply unwilling to do so because of their risk aversion. Assume further that debt finance is costly because workers lack collateral to secure their investment. Workers may turn to non-voting equity finance. Dow argues that workers would face difficulty in accessing this tapping this financial resource, if a comparable project is available for the investors in the capitalist-hierarchical enterprise. The reason is that capital managed firms "are an attractive vehicle for the appropriation of entrepreneurial rents, while LMFs are not" (Dow, 2003: 210). The argument is, again, that the rents are much more easily appropriable in CMFs, where the ultimate control right resides on owners of the capital. The investors will not be willing to invest their resources in workers' controlled firms, because the *ex post* distribution of quasi-rents cannot be known prior to the investment and cannot be specified in the incomplete contracts. Workers, in their right to control over the residual, will probably withhold greater share of the revenues and leave less for the investors. Therefore, LMFs as "organizations in which ex ante participation constraint is violated will not flourish in the long run regardless of their potential ex post productivity" (Dow, 1993a: 119).[21]

The appropriability hypothesis ultimately depends on the values that investors hold. Assuming, quite reasonably, that in general the pecuniary interests prevail over the democratic values, we can conclude that investors will not be interested in buying non-voting equities in order to provide start-up capital to workers when a viable alternative investment in a CMF is available. The empirical data supports the hypothesis (Ben-Ner, 1988b; Bonin, Jones and Putterman, 1993; Dow; 2003). I follow Bonin, Jones, and Putterman (1993: 1316) in their conclusion that "the weight of theoretical reasoning and [empirical] evidence convinces us that the explanation of the relative scarcity of [LMFs] lies in the nexus between decision making and financial support." The rent appropriation hypothesis is an important explanation of the low novel creation of LMFs. Importantly, this explanation is independent of the technological efficiency of an organizational form (see for similar conclusions Marglin, 1974; Dow, 1993, 2003; Bonin et. al. 1993; Ben-Ner, 1988b).

The novel creation of an organizational forms does not depend only on access to finance but is conditioned by another factor of production. "What must happen in order for an LMF to be created? Most obviously, a number of labor suppliers who agree on the merits of a common project must be assembled" (Dow, 2003: 208). Labour is necessary to start the business enterprise, and as such conditions the emergence on an economic enterprise. Mixed labour-coalitions are necessary for the novel creation of LMFs (Margin, 1974; Ben-Ner, 1988; George, 1997). The reason is that in today's highly specialized and technologically advanced economy, manual and low-skilled workers often lack the necessary skills, and diverse profile of labour is necessary within the LMF coalition in order to efficiently deal with the aforementioned areas of business. The appropriation hypothesis provides a viable explanation why "self-interested [professionals and highly-skilled labour] will not choose to establish a worker-owned firm and share entrepreneurial profits with others, if the establishment of a capitalist firm is a viable alternative." (Ben-Ner, 1988b: 290).

[21] See Olson (1965), Ben-Ner (1988b) and Rosenberg and Birdzell (1986) for their version of the appropriability argument. They point out that despite the potential efficiency gains of workers' cooperatives, investor-managed firms are more likely to attract the start-up capital because of easier appropriability of rents. Rosenberg and Birdzell (1986: 316) conclude that one might expect more CMFs because far more of them are likely to be born, and that more are born because the rent is more readily appropriable.

Marglin's (1974) argument extends, if pushed, to explain why managers are likely to favour the employment in a capitalist firm. The reason is that they can appropriate larger share of the pecuniary and status pie there than in a LMF. In a capitalist enterprise, managers receive the control rights and authority from the absentee owners. Owners appropriately incentivize managers in order to make unpopular decisions, which increase profits – and so dividends -, but do not necessarily lead to higher technological efficiency of the enterprise; for those in control (capitalists and managers), the situation is often a win-win situation. Fiat might be exploited to increase the residual by decreasing wages, imposing higher production quotas, neglecting health issues, lowering the employment etc.

In the workers-manged firms, managers face two-dimensional loss; higher wages and higher status are more easily appropriated in CMFs. The first reason why managers are largely reluctant to form LMF coalitions because their remuneration decreases substantially. Wage differentials are usually set to a maximum ratio, which decisively limits the managerial pay. Wage differentials are usually around 3:1, in biggest and labour-wise more diverse corporations this ratio raises. For example, in Mondragon group, this ratio is 6:1 (Morris, 1992). In capitalist enterprises, these numbers raise up to 500:1 (source: PayScale). In addition to loss of income, managers also lose professional and social status by working in LMFs. There are two sides to managerial status in CMFs. First is the status on the workplace; workers' managed enterprise largely undermines the traditional authoritative function of managers and "dramatically alters the role and status of professional managers" (George, 1997). True, management is given control rights in order to efficiently govern the enterprise, but LMFs usually establish supervisory committees made up of worker representatives to control for the abuse of power (Horvat, 1982). Managers are directly responsible to workers, and cannot make opportunist decisions that would benefit them individually, but harm the workers. If they do, they are promptly removed. Managers become agents of the workers, which undermines the traditional class distinction and takes away their status within the workplace. Second is the status outside the workplace. As was suggested above, the wages of professionals in CMFs skyrocket relative to manual workers' wages, and allow the former high ceremonial standard of living. In addition to the fact that managers can afford less 'things', they can afford less 'status'. Social status is a positional good that can be built through - what Veblen (1899) called - 'conspicuous consumption'. Conspicuous consumption relates to spending money on luxury goods and services of which the 'unserviceability' functions to signal wealth and economic power. Often, signalling and economic power are valued in itself, and not for the instrumental functions. Thus, LMFs decrease the material and the ceremonial standard of living.

Marglin's early account of the rent-appropriability hypothesis focuses on managers and investors, but the same applies to other professionals. Highly payed labourers are disincentivized to join LMFS because the low-wage differentials affect them in a similar way they affect managers. So long as they are primarily motivated by the pecuniary rewards and status, which they derive from position in the workplace and acquired wealth, they will prefer to join CMFs. One example of highly-skilled labour being reluctant to join a LMF coalition was when the Mondragon group established its own cooperative hospital. The cooperative hospital had difficulties forming coalitions with doctors that would be willing to adjust to the wage-differential ceilings (Gilman, 1983).

Low-skilled workers have most to benefit by becoming members of LMFs. But it is also true that they may perceive high opportunity costs in forming LMF coalitions. This, however, does not imply that there *actually* are such costs. Costs may arise if manual workers are expected to get familiar with the necessary institutional and technological requirements. But this should not be expected from them; different profiles of labour should form LMF coalitions and each should have a role that is suitable to his or her profession. The problem is that these highly-skilled labourers are often reluctant to involve in a novel creation of a LMF, or even join an existing LMF. One could push the argument and claim that some opportunity costs remain for the workers; regardless of whether the coalition consists of diverse profiles of labour, setting up an economic enterprise requires time that could be productively employed for wages in CMFs. While there may actually be immediate costs for the delayed wages by workers – and while this may actually play a role in their decision not to start a LMF -, this does not imply that the formation of LMFs actually incurs net costs (inefficiencies) on workers. Costs are compensated with the benefits for workers as the members of LMFs (Ben-Ner, 1988).

In a nutshell, non-voting equity capital and highly skilled labour may be limited for LMFs because CMFs serve better the interests of the suppliers of these production factors, which are necessary to start the business enterprise. This may help to explain the discrepancies in the novel creation between LMFs and CMFs. Another means of organizational emergence has to be considered – transformation of LMFs into CMFs.

4.2.2 Transformation: Members' Opportunism

Beatrice Potter (1890) long ago asserted that workers' managed firms, once in existence, would inevitably degenerate by putting on restrictions to membership and by hiring wage-labour instead of new members of the cooperative. Until today, this remains a widely discussed issue. Indeed, empirical evidence suggests that LMFs frequently transform into CMFs. Degeneration is an important factor of the organizational demise, and is relevant in our exploration of the populational demography. The appropriability hypothesis suggests that in pursuit of the expected fruits of future success of a LMF, *members of LMFs hire wage-workers, or replace retired members with wage-workers instead of hiring new members*. Doing so, they secure higher share of the residual, which otherwise they would have to divide among new members. The possibility to hire wage-workers provides a possible explanation of the degeneration of LMFs into CMFs.

I have defined a worker-owned firm as an organization in which the ultimate right to decision-making rests primarily in the hands of the workers. The workers that have control rights in a LMF, are *members* of the LMF. They can hire new members of the cooperative, or wage-labourers without control rights. Members, like owners of the capitalist enterprise, share profits and losses of the enterprise, whereas hired workers only receive fixed wages and are not entitled to the residual. Ben-Ner (1988b) develops a comprehensive theoretical framework that studies life-cycles of labour-managed firms. Members of a LMF have, at any point in time, the right to hire new members or new fixed-wage earners. Ben-Ner develops an account that shows why an increase in the profitability of workers' managed firms leads to the expansion by employing wage labourers rather than employing new members of the cooperative. The reason is that for the *existing* number of members, their income is maximized by behaving the same as capitalist who maximize profits. Income of a member consists of revenues minus competitive returns paid to the production factors that are not owned by the firm, which includes the wages of members and fixed wage earners. If they would hire another member, she would be entitled to the remuneration that is above the market wage, that is, above her opportunity costs of accepting a job at another enterprise. For this reason, the members may prefer to pay her the market wage – hire her for a fixed-wage – and enjoy the distributed fruits of her labour. The same holds when member retire or quit their jobs; if new members are hired, the expected future profits will be distributed among more people, decreasing the expected net for existing workers. Thus, the decision to hire another member is a decision to distribute the net – that is, the difference between the income and the wage - among more members. This net may either be positive or negative, dependent on future prospects of the firm; thus the expectations of future business and the technological efficiency of an enterprise play an important role in this explanation.

Workers-managers of the profitable enterprises are thus incentivized to hire wage labourers instead of new members with control rights. The argument applies for the firm that is expanding and looking for new employees, or to the situation in which one of the existing members of a LMF retires or quits the job, and the replacement is sought. As a consequence, a worker-managed firm may experience a gradual demise; membership will decrease and limit to only few individuals when most of the previous members will retire or quit their job. Because of turnouts and retirements only few initial members will eventually remain in control "until a complete transformation into a capitalist firm has occurred" (Ben-Ner, 1988b: 300). Then workers' manged firm "will become a KMF in all but name" (Dow, 2003: 222).

Empirical evidence provides support to the hypothesis. Craig, Ben and Pencavel (1992) provided data on membership as a percentage of the employment in plywood cooperatives. They found a statistically significant trend that indicates the increasing employment of wage-workers. Berman (1982: 84-5) similarly finds that the plywood companies, once established as worker-managed, have rarely expanded by hiring new members; rather, wage-labour was employed in order to address for the demands of the markets. Finally, Ben-Ner (1988) observes that wage-workers occupy a large fraction of the workforce in the European self-managed enterprises. The appropriability hypothesis yet again provides a plausible account of the higher formation of CMFs, and may thus help to explain the relative paucity of democratic governance. Unlike the previous two explanations, the efficiency of self-managed enterprise plays a role in the explanation of LMF degeneration; but the opposite role that the Efficiency Branch would suggest - more efficient LMFs have higher chances of degeneration (Dow, 2003: 221).

4.3 Concluding Remarks

I have argued that the rational design hypothesis proposed by Williamson does not provide a strong enough account to explain the higher emergence of CMFs in terms of their superior efficiency. While the problems already arise in granting the proposition that individuals infallibly recognize the contractual relationship that leads to more efficient organizational forms, the main argument that I have proposed is that the opportunist contracting does not necessarily lead to technologically more efficient enterprises. It must be the case that the beneficial factors exceed the impediments that the formation of an organizational mode implies, if the mode is to be created (Ben-Ner, 1988b; Bonin et. al., 1933). When it comes to self-managed enterprises, we can find the setbacks in the reluctance of investors to invest into non-voting equity, in the aversion of professional labour to form LMF coalitions, and in members' opportunist hiring of the wage labour. CMFs enjoy higher formation rates because they enable opportunism for some powerful groups with vested interests in the capitalist enterprise. Ben-Ner (1988b: 289) argues that "strategic collections of self-interested individuals [….] design and redesign their organizations to best meet their interests". He shows that the efficient structures have higher formation rates *as long* as efficiency is "defined relative to members' goals" (1988b: 298), but maintains that this does not mean that efficiency is linked to the organizational form *per se*. "The nexus between [organizational] efficiency and selection forces is broken by appropriation obstacles" (Dow, 1987: 33). I do not claim to have provided *the* explanation of the paucity of LMFs. Other factors contribute to their lower formation relative to CMFs. Many remain unaddressed. But the appropriability hypothesis provides a plausible solution to the bewildering dilemma; LMFs do not have to be inefficient to be rare.

5. Conclusion

Organizational form with the capital owner on the top of the hierarchical pyramid, the so called hierarchical command structures have been, roughly since the end of 19th century, the prevalent institutional arrangement of economic production. But we should always try to keep our heads safely away from the Hume's guillotine. Whatever is, is not necessarily legitimized in being. Is paucity of LMFs justified? There are at least two ways in which we can try to justify the prevalence of an economic enterprise - economically and philosophically.

Economically, the paucity of democratic governance would be justified if capitalist firm would better employ resources in order to produce things that we humans strive for in order to meet our biological needs, or to satisfy our desire for ceremonial reasons. One way to argue that CMFs are more efficient is to develop theoretical arguments for inefficiency of LMFs. For the lack of such consensus in the literature, an alternative has been proposed by Oliver Williamson, Armen Alchian, Michael Jensen, William Meckling, Harold Demsetz, Scott Arnold and Henry Hansmann: the mere fact that LMFs are rare (and CMFs prevalent) indicates inferior efficiency of the LMFs (superior efficiency of CMFs). If true, *the paucity of LMFs would legitimize itself on the economic grounds*.

In this paper, I have questioned the proposition along these lines. I have argued that the fact that CMFs are prevalent does not necessarily imply that they are efficient. Again, it is important to be conceptually clear about what is meant by efficiency. If the Efficiency Branch is to defend their theory with the paucity of LMFs, hey have to show that the paucity implies lower efforts by workers-members and higher costs of the democratic decision making. The empirical data about the organizational demography indicates that we should focus on the differential emergence in order to explain the paucity of LMFs. Their lower emergence can be explained with the appropriability hypothesis, which suggests that the capitalist enterprise makes possible an easier appropriation of benefits for specific groups of agents. The explanation along these lines is independent of the efficiency of LMFs - *potentially* less efficient CMFs may allow higher rents and status for some agents than *potentially* more efficient LMFs. This provides a solution to the dilemma showing that the Thesis is false. Relative prevalence does not necessarily imply relative inefficiency.

Another way to justify the paucity of LMFs is to provide philosophical arguments for capitalist enterprise. I have avoided this path in this paper, but a brief look to the literature reveals strong arguments that argue for ethical superiority of LMFs over CMFs. Self-managed enterprise was defended on the grounds of equality (Miller, 1989; Plant, 1989), democracy (Dahl, 1970; Archer, 1996), inalienability (Elleman, 1992), human dignity (Skalicky, 1975; Elleman, 1992), and community (Walzer, 1983). Oliver Williamson (1985: 271) admits himself that the capitalist firm falls short of the Kantian imperative in that it treats workers as the means to the ends of the capital owners. I will pass over these relevant arguments, which together with the main claim defended in this paper point me to the final remarks.

The '*what is, ought to be corollary'* that has been employed in the debate about the democratic governance has, in addition to purely intellectual relevance, imperative political implications also. If true, it would imply that CMFs prevail because they should prevail, competitive markets tend to promote the better adapted solution to the economic problem, and thus justify a conservative political attitude regarding this issue. If the claim of my paper holds, however, the political action *is* called for. The prevalence does not indicate organizational efficiency, and if LMFs turn out to be more efficient, they should be pursued by political means. Subsidies that provide the necessary start-up capital, raising awareness about the benefits of LMFs among the workers, educating citizens in order to overcome the present stigma on the self-management, changing the way workers are taught their profession, and other measures might all be justified. At the very least, the paucity of LMFs does not suggest that these measures are not justified.

1. Appendix 1

The early accounts on the labour and capital management discussed the firm from a perspective of the neoclassical methodology. Ownership and control had no relevance in the theory of firm; the main difference between workers' cooperatives and capitalist firms was that the first maximized the income per worker, and the second maximized profits. The quantity of production was the only variable, and efficiency was assessed in relation to the global optimal of Pareto optimality. The relevant question was: Will labour managed firm produce a quantity that makes it efficient? This changed with the rise of the New Institutional Economics (NIE). The firm was no longer a simple production function, but a bundle of ownership and control rights. The following four properties define a firm (Dow and Putterman, 2000):

• The right to appropriate the residual claims of the firm

• The property right over the net value of physical assets of the firm

• The right to transfer the bundle of rights

• The right to control the production decisions of the firm

The first three bundles are ownership rights. The right to appropriate the residual claims is the property right defined over profits. Profits are the net value of the revenues earned by selling a commodity with the costs of the capital (interests), land (rent) and labour (wage) deducted. The property rights over the net value of physical assets imply the right to the value of the factory, equipment and machinery, which are depreciated in the production process. The right to transfer the bundle of rights is the ability to transfer the bundle on mutually agreeable terms. NIE holds that an economic enterprise can only be efficient if the ownership rights are accompanied with the control rights (Alchian and Demsetz, 1972; Klein, Crawford, and Alchian 1978; Williamson 1985).

The fourth dimension are the control rights. Control rights must be defined in order to remedy the necessary incompleteness of the contractual relationship; to avoid exploitation of this incompleteness in self-favourable ways. There are different methods of control, but only two are relevant for the purpose at hand. One is the authoritative relationship or centralized monitoring set up by the owners of the capital, and usually executed by hired managers (Coase, 1937, 1989; Alchian and Demsetz, 1972; Jensen and Meckling, 1979; Williamson, 1975). Another way is to implement a democratic mechanism of control (Dow and Putterman, 2000; Dow, 2003; Putterman, 2006). Doing so, an equal control is guaranteed over the issues that arise within the contractually unspecified domain either by the means of direct participation or representative democracy. When the participation is direct, workers have opportunity to personally influence decision making, by suggesting changes in the operation of the enterprise, or voting on the issues suggested by other employees. The representative system implies that workers influence decision-making indirectly, through an elected or appointed representative. The important point is that ownership does not imply control, or *vice versa*. The ability to disentangle the two introduces the possibility for workers to control the firm without their ownership over all the assets. Although some have proposed that the separation incurs costs (this is examined in the third chapter), there is nothing that logically links ownership and control.

There are roughly three main characteristics that define a workers' cooperative: (i) participation in decisions of the firm, (ii) profit sharing, and (iii) employee ownership (Bonin, Jones and Putterman, 1993). I take that participation in the decision making conditions the LMF. That is, as long as workers are in full control over the objectives of an enterprise and the distribution of its revenue stream, the enterprise classifies as workers' governed. The broad definition of workers' control implies equal decision-making rights about the decision made within the firms, independently of workers' skill, post, or capital contribution (Vanek, 1975; Bonin and Putterman, 1987). What are control rights? On one level, control refers to determining the objectives of the firm, the positions of the people within the firm (including the appointment of management), and their functions. On another level, control implies decisions about the conditions of work, the quality and price of the output, and the distribution of revenue stream among wages, funds and other investments. (Ben-Ner and Jones, 1995). While additional defining taxonomies were made in order to further classify different forms of control within the self-manged firms, it is not necessary to dwell into deeper conceptual issues that arise around the matter of control. Simply, labour managed firms (LMFs) are firms where control rights are held by suppliers of labour, while capital managed firms (CMFs) are firms where suppliers of financial capital have the control rights. Whenever I will use the terms 'workers' cooperative', 'workers' managed', 'workers' controlled', 'labour managed' or 'labour controlled' firm, and the like, the reader should take these as synonyms. Similarly, whenever I refer to 'capitalist firm', 'hierarchical enterprise', 'modern corporation' and the like, I have in mind an economic organization with hierarchical control structure.

2. Bibliography

1. Alchian, A. A. (1950). Uncertainty, evolution, and economic theory. The journal of political economy, 211-221.
2. Alchian, Armen A. and Harold Demsetz, 1972, Production, information costs, and economic organization, American Economic Review 62(5), December, 777–795.
3. Aldrich, Howard and Robert Stern, 1983, Resource mobilization and the creation of U.S. producer's cooperatives, 1835-1935, Economic and Industrial Democracy 4, August, 371-406.
4. Arando, S., Peña, I., & Verheul, I. (2009). Market entry of firms with different legal forms: an empirical test of the influence of institutional factors. International Entrepreneurship and Management Journal, 5(1), 77-95.
5. Archer R. (1996). The Philosophical Case for Economic Democracy. in Pagano, U., & Rowthorn, R. (1996). The competitive selection of democratic firms. Democracy and Efficiency in the Economic Enterprise, Routledge.
6. Arnold, N. S. (1994). The philosophy and economics of Market Socialism: A critical study. Oxford University Press.
7. Artz, G. and Kim. Y. (2009). Business Ownership by Workers: Are Worker Cooperatives a Viable Option?. Iowa State University, Department of Economics, Working Paper No. 11020.
8. Baker, G. P., Jensen, M. C., & Murphy, K. J. (1988). Compensation and incentives: Practice vs. theory.The journal of Finance, 43(3), 593-616.
9. Ben-Ner, A. (1988). Comparative empirical observations on worker-owned and capitalist firms. International Journal of Industrial Organization, 6(1), 7-31.
10. Ben-Ner, A. (1988b). The life cycle of worker-owned firms in market economies: A theoretical analysis. Journal of Economic Behavior & Organization, 10(3), 287-313.
11. Ben-Ner, A. & Jones, D.C. (1995). Employee Participation, Ownership, and Productivity: A Theoretical Framework. Industrial Relations, Vol. 34, No. 4, pp. 532–554.
12. Berman, Katrina V., 1982, The United States of America: A co-operative model for worker management, ch. 4 in Frank H. Stephen, ed., The Performance of Labour-Managed Firms, London, Macmillan Press, 74-98.
13. Bernstein, Jared (2016). Employee Ownership, ESOPs, Wealth, And Wages.

14. Bonin, J. P., Jones, D. C., & Putterman, L. (1993). Theoretical and empirical studies of producer cooperatives: will ever the twain meet?. Journal of Economic Literature, 31(3), 1290-1320.
15. Bowles, S., & Gintis, H. (1976). Schooling in capitalist America (Vol. 57). New York: Basic Books.
16. Bowles, S., & Gintis, H. (1993). Markets and democracy: participation, accountability and efficiency. Cambridge University Press.
17. Bowles, Samuel and Herbert Gintis, (1994). Credit market imperfections and the incidence of worker-owned firms, Metroeconomica 45(3), October, 209-223.
18. Bowles, Samuel and Herbert Gintis, (1996), The distribution of wealth and the viability of the democratic firm, ch. 5 in Ugo Pagano and Robert Rowthorn, eds., Democracy and Efficiency in the Economic Enterprise, New York, Routledge, 82-97.
19. Bowles, S., & Gintis, H. (2002). Schooling in capitalist America revisited. Sociology of education, 1-18.
20. Coase, R. H. (1937). The nature of the firm. Economica, 4(16), 386-405.
21. Coase, R. H. (1989). The firm, the market, and the law. University of Chicago press.
22. Cornforth, C. (1983). Some factors affecting the success or failure of worker co-operatives: a review of empirical research in the United Kingdom. Economic and Industrial Democracy, 4(2), 163-190.
23. Craig, Ben and John Pencavel, 1992, The behavior of worker cooperatives: The plywood companies of the Pacific Northwest, American Economic Review 82(5), December, 1083-1105.
24. Dahl, R. A. 1970. "Power to the workers?" New York Reviey'Of Books, November 19, p. 20-24.
25. Damachi, U. G., Seibel, H. D., & Scheerder, J. (1982). Self-management in Yugoslavia and the Developing World. Springer.
26. David, Robert J. and Shin-Kap Han (2004), 'A Systematic Assessment of the Empirical
27. Support for Transaction Cost Economics', *Strategic Management Journal*, 25(1), January, pp.
28. 39-58.
29. Doucouliagos, C. (1990). Why capitalist firms outnumber labor-managed firms. Review of radical political economics, 22(4), 44-66.

30. Dow, G. K. (1993). Democracy versus Appropriability: Can Labour-Managed Firms Flourish in a Capitalist World? In Bowles, S., & Gintis, H. (1993). Markets and democracy: participation, accountability and efficiency. Cambridge University Press.
31. Dow, G. K. (1996). Replicating Walrasian equilibria using markets for membership in labor-managed firms. Economic Design, 2(1), 147-162.
32. Dow, G. 2003. Governing the Firm: Workers' Control in Theory and Practice. New York: Cambridge University Press.
33. Dow, Gregory K. and Louis Putterman, 2000, Why capital suppliers (usually) hire workers: What we know and what we need to know, Journal of Economic Behavior and Organization 43(3), November, 319-336.
34. Dreze, Jacques H. (1993). Self-management and economic theory: Efficiency, funding, and employment, 253-265. in Pranab K. Bardhan and John E. Roemer, eds., *Market Socialism: The Current Debat*e, New York, Oxford University Press
35. Elster, J. (1989). From here to there; or, If cooperative ownership is so desirable, why are there so few Cooperatives?. Social Philosophy and Policy, 6(02), 93-111.
36. Fakhfakh F., Perotin V. & Gago, M. (2012). Productivity, Capital, and Labor in Labor-Managed and Conventional Firms: An investigation on French data. ILRReview, 65(4), 847-879.
37. Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. The Journal of Law & Economics, 26(2), 301-325.
38. Friedman, M. (1953). The methodology of positive economics.
39. Gamson, Z. F., & Levin, H. M. (1984). Obstacles to the survival of democratic workplaces. Worker cooperatives in America, 219-274.
40. Gaertner, W. C. (2016). Wickedness in social choice. Journal of Economic Surveys
41. George, D. A. (1997). Self-management and ideology. Review of Political Economy, 9(1), 51-62.
42. Gintis, H. (1989). Financial markets and the democratic enterprise. Microeconomic Issues in Labour Economics: New Approaches, Harvester Wheatsheaf, New York, 155-176.
43. Gilman, R. (1983). Mondragon: the remarkable achievement. Economics in an Intelligent Universe, 8, 44-57.
44. Gould, S.J. (1982) 'The Meaning of Punctuated Equilibrium and its Role in Validating a Hierarchical Approach to Macroevolution', in R.Milkman (ed.) (1982) Perspectives on Evolution (Sunderland, MA: Sinauer Associates), pp. 83-104

45. Gould, S.J. and Lewontin, R.C. (1979) 'The Spandrels of San Marco and the Panglossian Paradigm: A Critique of the Adaptationist Programme', Proceedings of the Royal Society of London, Series B, 205: 581–98. Reprinted in Sober (1984).
46. Granovetter, M. (1985). Economic action and social structure: The problem of embeddedness. American journal of sociology, 481-510.
47. Groot, L. F. M., & van der Linde, D. E. (2015). The Labor Managed Firm: Permanent or Start Subsidies?. Discussion paper series/Tjalling C. Koopmans Research Institute, 15(04).
48. Hansmann, Henry, 1996, The Ownership of Enterprise, Cambridge, MA, The Belknap Press of Harvard University Press.
49. Horvat, B. (1982). *The Political Economy of Socialism*. New York: M. E. Sharpe.
50. Hodgson, G. M. (1982). Worker participation and macroeconomic efficiency. Journal of Post Keynesian Economics, 5(2), 266-275.
51. Hodgson G. M. (1996). Organizational Form and Economic Evolution: A Critique of the Williamsonian Hypothesis. in Pagano, U., & Rowthorn, R. (1996). The competitive selection of democratic firms. Democracy and Efficiency in the Economic Enterprise, Routledge.
52. Jensen, M. C., & Ruback, R. S. (1983). The market for corporate control: The scientific evidence. Journal of Financial economics, 11(1), 5-50.
53. Jensen, Michael C. and William Meckling, 1979, Rights and production functions: An application to labor-managed firms and codetermination, Journal of Business 52(4), October, 469–506
54. Jensen, Michael C. and William Meckling, 1976, Theory of the firm: Managerial behavior, agency costs and ownership structure, Journal of Financial Economics 3(4), October, 305–360.
55. Joskow, P. (1991) Asset Specificity and the Structure of Vertical Relationships: Empirical Evidence Williamson, O. E., & Winter, S. G. (1991). The nature of the firm: origins, evolution, and development. Oxford University Press, USA.
56. Kennan, John and Robert Wilson, 1993, Bargaining with private information, Journal of Economic Literature 31(1), March, 45-104.
57. Klein, B., Crawford, R. G., & Alchian, A. A. (1978). Vertical integration, appropriable rents, and the competitive contracting process. The Journal of law & economics, 21(2), 297-326.

58. Lewontin, R. C. (1979). Sociobiology as an adaptationist program. Behavioral science, 24(1), 5-14.
59. MacKenzie, D. (2008). An engine, not a camera: How financial models shape markets. Mit Press.
60. Marglin, Stephen A., 1974, What do bosses do? The origins and functions of hierarchy in capitalist production, Review of Radical Political Economics 6(2), Summer, 60-112.
61. Marglin, Stephen A., 1984, Knowledge and power, ch. 9 in Frank H. Stephen, ed., Firms, Organization and Labour: Approaches to the Economics of Work Organization, London, Macmillan, 146-164.
62. Miller, D. (1989). In what sense must socialism be communitarian?. Social Philosophy and Policy,6(02), 51-73.
63. Morris David, J. (1992). The Mondragon system: Cooperation at work. Institute for Local Self-Reliance.
64. Orzack, S. H., and E. Sober (1994). "Optimality models and the test of adaptationism," The American Naturalist, 143: 361–380.
65. Olson Jr, M. (1965) *The Logic of Collective Action* (Cambridge, MA: Harvard University Press).
66. Pencavel, J. (2002). Worker Participation: Lessons from Worker Co-ops of the Pacific Northwest. Russell Sage Foundation.
67. Pérotin, Virginie A., 1997, What makes coops work? Institutional viability, firm creation, survival and closure among workers' cooperatives in France, unpublished Ph.D. thesis, Ithaca, NY, Cornell University.
68. Pérotin, V. (2006). Entry, exit, and the business cycle: Are cooperatives different?. Journal of Comparative Economics, 34(2), 295-316.
69. Plant, J. (1989). Healing the Wounds the Promise of Ecofeminism.
70. Putterman, Louis, 1984, On some recent explanations of why capital hires labor, Economic Inquiry 22(2), April, 171-187.
71. Putterman, Louis, (1988). The firm as association versus the firm as commodity: Efficiency, rights, and ownership, Economics and Philosophy 4(2), October, 243-266
72. Putterman, L. 1993. Ownership and the nature of the firm. Journal of Comparative Economics 17, 243-263.
73. Reich, M., & Devine, J. (1981). The microeconomics of conflict and hierarchy in capitalist production. Review of Radical Political Economics, 12(4), 27-45.

74. Roeber, R. J. (1973). The organization in a changing environment (Vol. 6501). Addison Wesley Publishing Company.
75. Rosenberg, N. and Birdzell, Jr, L.E. (1986) *How the West Grew Rich: The Economic Transformation of the Industrial World* (New York: Basic Books).
76. Schwartz, J. (2012). Where Did Mill Go Wrong: Why the Capital-Managed Firm Rather than the Labor-Managed Enterprise is the Predominant Organizational Form in Market Economies. Ohio St. LJ, 73, 219.
77. Skalicky, K., 1975, The Catholic Church and workers' participation, ch. 8 in Jaroslav Vanek, ed., Self-Management: Economic Liberation of Man, Baltimore, MD, Penguin Books, 110-126.
78. Sober, Elliot (1987). What is Adaptationism? In *The Latest on the Best,* edited by John Dupre. The MIT Press, 1987. Pp. 105-118
79. Sober, E. (1993). The nature of selection: evolutionary theory in philosophical focus. University of Chicago Press.
80. Staber, U. (1993). Worker cooperatives and the business cycle. Are cooperatives the answer to unemployment? American Journal of Economics and Sociology, 52(2), 129–143.
81. Vanek, Jaroslav, ed., 1975, Self-Management: Economic Liberation of Man, Baltimore, MD, Penguin Books.
82. Veblen, T. (1899 [2005]). The theory of the leisure class; an economic study of institutions. Aakar Books.
83. Vromen, J. J. (1996). Evolution and Efficiency: An Inquiry Into the Foundations of'new Institutional Economics'. Eburon.
84. Wagner, J. A. (1994). Participation's effects on performance and satisfaction: A reconsideration of research evidence. Academy of management Review, 19(2), 312-330.
85. Walzer, Michael (1983), Spheres of Justice, Oxford: Martin Robertson.
86. Weitzman, M., & Kruse, D. (1990). Profit sharing and productivity. 1990, 95-142.
87. Williamson, O. E. (1979). Transaction-cost economics: the governance of contractual relations. The journal of law & economics, 22(2), 233-261.
88. Williamson, O. E. (1981). The Economics of Organization: The Transaction Cost Approach. American Journal of Sociology. Volume 87, Issue 3, 548-577
89. Williamson, O. E. (1988). The Logic of Economic Organization. Journal of Law, Economics, & Organization, Vol. 4, No. 1 (Spring, 1988), pp. 65-93

90. Williamson, O. E. (1990). A Comparison of Alternative Approaches to Economic Organization Journal of Institutional and Theoretical Economics (JITE). Vol. 146, No. 1 pp. 61-71
91. Williamson, O. E. (1991). Economic institutions: Spontaneous and intentional governance. Journal of Law, Economics, & Organization, 7, 159-187.
92. Williamson, O.E. and Ouchi, W.G. (1983) 'The Markets and Hierarchies Programme of Research: Origins, Implications, Prospects', in Francis, A., Turk, J., and Willman, P. (eds), *Power, Efficiency and Institutions: A Critical Appraisal of the 'Markets and Hierarchies' Paradigm* (London: Heinemann).
93. Zajonc, R. B. (2001). Mere exposure: A gateway to the subliminal. Current directions in psychological science, 10(6), 224-228.
94. Zanotti, A. (2012). The Strength of an Intersectorial Network, in Zevi, A., Zanotti, A. & A. Zelaia (Eds.), Beyond the Crisis: Cooperatives, Work, Finance. CECOP, Brussels.
95. Zusman, P. (1992). Constitutional selection of collective-choice rules in a cooperative enterprise. Journal of Economic Behavior & Organization, 17(3), 353-36