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# **Employment protection regimes in worker co-operatives: dismissal of worker members and distributive fairness**

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## **Abstract**

This paper discusses the possibility of strong employment protection in co-operatives (exclusion of dismissal) and of the imposition of a minimum wage equal for all worker members in worker co-operatives. It maintains that the worker co-operative has unique features in its ability to reach employment stabilization. It shows, both theoretically and with reference to existing empirical evidence, why and how worker co-operatives are able to overcome the lay-off of workers, strongly reducing employment fluctuation when compared to other organizational forms. The development of more thorough and radical regimes of employment protection and distributive justice fulfil satisfaction of basic needs, workers' right to work and to keep the job position. While stricter constraints on layoffs can cause inefficiencies (e.g. make it more difficult to dismiss under-performing workers), they also serve an insurance function against unemployment, favor the accumulation of firm-specific human, relational and social capital, and can increase performance in the medium to long run. Voluntary resignation, not involuntary layoff would be the dominant mechanism allowing allocation of labor resources to the most productive occupations.

**Key words:** worker co-operatives; membership rights; dismissal; minimum wage; distributive fairness

**JEL codes:** J31, J41; J54; J83

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# **Employment protection regimes in worker co-operatives: dismissal of worker members and distributive fairness**

## **1. Introduction**

This paper starts from the premise that the very concept of dismissal is problematic in worker co-operatives, and may be incompatible with their associative nature. If members are worker-owners with equal duties and rights, dismissal is expulsion of a member by other members. Several arguments have been put forward, which show the difficulties that a worker co-op would encounter in trying and dismiss its own members. These arguments discuss the possible criteria used to dismiss redundant worker (e.g. seniority or last in first out; typology of contract; contractual position etc...). When dismissals are discretionary, the position of who is in charge to select workers to be dismissed is again problematic (selected on the basis of what criteria? By what coalitions? etc...). Also solidarity and positive reciprocity among workers (or the fear of possible future dismissal) do not advise dismissal (Jossa and Cuomo 1997). Moreover, the very existence of the possibility of dismissal is likely to engender contrasts between individual and groups of members, and organizational costs (losses of efficiency). Even if all these arguments are fairly aligned in pointing out the difficulties encountered by dismissal procedures in workers co-operatives, none of them goes as far as stating that dismissals could or should be altogether banned. In this paper endeavored to take this further step starting from existing premises and literature.

Coherently, this paper studies employment protection and minimum labor remuneration in worker co-operatives, understood as mutual benefit, membership based organizations (Birchall, 2010; Borzaga and Tortia, 2017). Since worker cooperatives are reported by theory and by several empirical studies to have job stability and job protection against the risk of layoff as one of their dominant objectives, sharply differentiating them from investor owned companies, the study of the working rules supporting employment protection in this kind of organization is particularly important. Literature put emphasis on employment insurance vis à vis income insurance as one of the main objectives in worker co-operatives. While capitalist enterprises would ensure workers against the risk of income fluctuation by stabilizing wages, worker co-ops would be able to proceed one step further by guaranteeing not only income, but also employment to their members

(Myhazaki and Neary, 1983; Wong, 1983; Kahana and Nitzan, 1989; Albanese, Navarra and Tortia, 2019). This evidence shows lower propensity of cooperatives than investor owned companies to lay-off workers also during periods of crisis (Bartlett et al., 1992; Craig and Pencavel 1992, 1995; Bonin, Jones and Putterman, 1993; Pencavel Pistaferri and Schivardi, 2006; Burdin and Dean, 2009). Empirical evidence and tests show that employment stabilization is mainly achieved through stronger fluctuation of labor income and hours worked in cooperatives (Navarra and Tortia, 2014; Navarra, 2016; Albanese et al., 2015, 2019).

The pronounced tendency of worker co-ops to stabilize employment can favor an evolutionary pattern underpinning the emergence of Employment Protection (EP) regimes that are peculiar to the control rights and governance of this organizational form. EP can be achieved in the absence of legal constraints, as the result of implicit contracting between members and the organization. Members may accept lower and fluctuating wages in exchange for heightened job stability (Navarra and Tortia, 2014, Albanese, Navarra and Tortia, 2015). Alternatively, EP can be progressively made explicit and institutionalized, by working out rules that limit the possibility of layoff. This kind of regulation is found also in investor owned companies (IOFs), in cases in which layoffs are allowed only in specific circumstances (e.g. financial or economic crisis of the organization), or when they are subject to arbitrage or bilateral bargaining between firms and unions (Commons, 1950). In worker cooperatives, given the overlapping of roles between the employer (the organization) and employed workers (members), rules need to be tailored and adapted to the specific institutional set up. Also, the motivation underlining the emergence and development of EP regimes can be different in different organizational forms. In investor owned companies, EP is usually justified by the risk of unfair treatment, or discriminatory dismissal. In this case, EP is based on the necessity to protect workers from unfair and discriminatory decisions. EP has also been based on the argument that it favors the accumulation of human capital, since stability increases the incentives for both workers and employers to invest in training and long term adaptation of the workers' competencies to organizational objectives. This way, job stability can match increased productivity of labor. Given the dual role of workers as members and employees in worker co-ops, the risk of unfair dismissal is expected to be comparatively lower in co-operatives than in IOFs. On the other hand, the accumulation of firm specific human capital is expected to be crucial in co-operatives too. Since worker members have a say in the strategies and employment policies of the organization, they are likely to favor policies that guarantee job stability. To support this preference, as job stability requires increased productivity, members are expected to invest in training and development of firm specific skills.

On the negative side, news concerning instances of exploitation, abuse of power and bad working conditions are, unluckily, not alien to worker co-operatives too. These facts point to the necessity to increase protection of workers' rights and to better regulate managerial discretionary decisions. This paper introduces and discusses the possibility of strong employment protection in co-operatives (exclusion of dismissal) and of the imposition of a minimum wage equal for all worker members in worker co-operatives.

The main arguments in this paper starts from the observation that, in IOFs, employment protection may lead to exacerbating contrasting interests and inefficient outcomes, since excessive protection may lead to decrease effort contribution by workers and productivity. This problem is shown by the principal agent literature and in the efficiency wage literature, since control costs may increase when the possibility of dismissal is constrained by legislation (Jensen and Meckling, 1976; Shapiro and Stiglitz, 1984). In co-operatives there is no distinction between the employing organization and its members, that is there is no distinction between principals and agents (Ostrom, 1990). In principle, this fact can forestall the increase of control costs even in the presence of employment protection, while, on the other hand, triggering a virtuous circle supporting heightened involvement, accumulation of human capital through practice and training and, eventually, increased productivity.

Capitalistic enterprises cannot reach the same result, given the existence of contractual rigidities (especially wage rigidity), and contractual failures (due to abuse of power, asymmetric information, and contrasting interests). Wage rigidity is a dominant feature of labor contracts in capitalist enterprises, its reported negative consequences on efficiency notwithstanding. Among the several theories striving to explain wage rigidity in capitalistic enterprises, especially relevant in this paper are: (i) implicit contracting. Risk neutral employer would insure risk averse workers by guaranteeing fixed wages in exchange for control rights over the labour process, implying control over the workers' labour power. Knight (1921) introduced the idea of worker risk aversion, while implicit contract theory connected risk aversion to wage rigidity (Azariadis 1975; Azariadis and Stiglitz 1983; Baily 1974). By the same token, in Stiglitz (1975) worker risk aversion explains wage rigidity in the principal agent framework; (ii) in the presence of asymmetric information and contrasting interests in the agency relation between employer and employee, if wages were flexible and state dependent, the employer could behave opportunistically by exploiting information advantages and contractual power in order to lower wages, intensify work effort, and make the worker bear the negative consequences of his/her choices (Commons, 1950; Ben-Ner 1988; Screpanti 2001; Dow 2003, 2018; Navarra and Tortia, 2014; Albanese et al., 2015, 2019). In turn,

wage rigidity prevents the implementation of strong EP regimes in capitalistic enterprises, since costs cannot be adequately reduced during downturns. More on this in the following sections.

In regulatory terms, several solutions can be envisaged to manage redundancies in cooperatives, of which three appear to be the most prominent: (i) the cooperative accounts for members' preferences concerning job stability, and then unilaterally and discretionally takes decisions concerning layoffs. This is the most widespread solution observed to date; (ii) a process of arbitration in which the organization and its membership (or their representatives) interact, either alone or in the presence of a third independent party (e.g. government officials) to decide about layoffs; (iii) employment protection regulation, which externally regulates layoffs, as it happens in the case investor owned companies in several countries.

After discussing some relevant examples, especially layoffs in the Mondragon group of worker co-operatives in the Basque regions of Spain, and the Italian employment protection legislation, this paper focuses on a fourth, more radical, possibility. Indeed a purely hypothetical one, since it is not detected to date in any existing or existed worker co-operative or group of co-operatives. This solution is embodied in the exclusion of involuntary layoff in worker co-operatives, with the exclusion of disciplinary cases (misbehavior). In other words, in this hypothetical solution, only voluntary resignation, but not involuntary dismissal is allowed in worker co-operatives.<sup>1</sup> Less radical solutions (partial exclusion of layoffs) can be envisaged as intermediate solutions between the complete exclusion of layoffs and absence or regulation.

The importance of such a radical EP regime rests with its potential to fully protect worker-members' rights, and with the possibility to evaluate its consequences on the efficiency and performance of cooperatives. It also makes it possible to compare the potential of employment protection in cooperatives with existing EP regimes both in cooperatives and in investor owned companies. While the radical nature of the solutions proposed pose important and difficult (maybe unmanageable) challenges, its simplicity favors accuracy of analysis and the possibility to clearly derive and discuss expected outcomes. It can also serve as benchmark for mixed and intermediate solutions. Furthermore, its clear cut implications can serve as the starting point for further research.

The reminder of the paper is organized as follows: after the introduction, Section 2 introduces two relevant examples of employment stabilization solutions in worker co-operatives and in investor

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<sup>1</sup> This paper does not deal with employment protection regimes in other co-operative typologies (consumer, credit, user, producer co-operatives etc...).

owned companies. In Section 3, the central argument of the paper discusses the consequences on labor productivity and wage dynamics of restrictive employment protection regimes in worker co-ops. Section 4 discusses the economic nature and contractual position of self-employed workers *vis à vis* worker members in co-operatives. Section 5 deals with the main theoretical implications of the new legal constraints. Section 6 hosts the discussion of the main arguments, especially concerning the nature of the new legal constraints, and the differences between members and self-employed workers. Section 7 concludes.

## **2. Examples: Mondragon in Spain and the Italian Employment protection legislation**

Two relevant examples of employment stabilization solutions in worker co-ops and in capitalistic enterprises are discussed in this section. The first deals with the Mondragon group of worker co-operatives in the Basque regions of Spain, the second with the Italian labor legislation in the period spanning from 1970 (year in which the so called “Statute of the Workers” was passed) to 2015 (year in which this EP regime was largely dismantled).

In Mondragon, the well-known group of worker co-ops was created from scratch in the 50ies of last century and grew first nationally, then internationally and globally to the present day dimension of about 80 thousand employed workers, most of whom are members of the co-operatives. The number of layoffs of members since the inception of the initial co-operatives in 1954 has been close to zero, and extremely limited also during the severe economic and financial crisis that hit Spain over the last decade (between 2008 and 2014) (White and White, 1991; Arando et al., 2010). Spanish legislation, however, does not prevent co-ops from laying-off workers. Hence, this result has to be considered as the outcome of implicit contracting between workers and the co-operative, in which workers can accept lower and more fluctuating wages in exchange for guaranteed lifelong employment. In this case, the success of implicit contracting in stabilizing employment is supported by the convergence of objectives between members and the organization, since members’ demand for stable employment is compensated by the benefits accruing to the organization in terms of accumulation of firm specific human capital and competencies and by increased productivity. During downturns of demand, wages can be reduced and reserves of capital used as insurance funds to guarantee employment stability for members (Arando et al., 2010).

The importance of EP regimes is testified by the dedicated and detailed legislation that regulates workers' rights and dismissals in conventional enterprises in most all countries. Italy introduced in 1970 strict legal rules constraining the possibilities for employers to layoff workers (law 300/1970, the so called "Statute of the Workers"). The Statute is still in force today, but was largely amended by successive reforms in 1997, 2001, 2012 and 2015, resulting in the liberalization of the labor market between 2012 and 2015. Most constraints limiting layoff have now be lifted. Between 1970 and 2012, unrestricted and discretionary dismissal was outlawed, while the law regulated the possibility of layoff for all firms employing more than 15 workers. Restrictions concerned unfair dismissals, layoffs for economic reasons, severance payments, minimum notice periods, administrative authorization for dismissals and prior discussion with representatives of unions and/or labor market administrations. Employees could be laid off only for "fair cause" and "justified motivation" (Spataro, 2018). Discriminatory layoffs (for gender, ethnic, political, religious reasons) were outlawed and would have led to reinstatement of the worker in his/her job position by the Court of Labor. On the other hand, layoffs for economic reasons were allowed, but only after the employer had produced suitable accounting evidence concerning the negative state of the organization, and agreed on the terms and conditions of layoffs with workers' representatives. Finally, disciplinary layoffs were allowed only based on the capacity of the employer to produce suitable objective evidence concerning the worker's misbehavior, and the Court of Labor could have and indeed often would reinstate the worker in his/her job position, were this evidence considered insufficient or flawed.

This kind of strong job protection resulted in stabilization of employment for most workers, reducing both inflows and outflows from employment and from the labor market. It further resulted in reduced turnover and stabilization of job positions over the lifetime of workers at the micro level. On the negative side, it resulted in the emergence of a dual labor market in which the category of the protected workers was counterbalances by a growing layer of unprotected workers employed on fixed term contracts, occasional work, part time and other "atypical" contractual forms. The system of EP created by the Statute was repeatedly accused to have lowered productivity (Ichino and Riphahn, 2005; Vindigni, Scotti, and Tealdi, 2013), and to have represented an obstacle to lowering unemployment, especially among the young and women, by dampening incentives for firms to hire additional workers (Bertola, Boeri and Cazes, 1999, 2000). In this case, not implicit contracting, but legal constraints represented crucial premises of the working of the EP regime in conventional enterprises.

### **3. Working rules: economic effects of employment protection in worker co-operatives**

The main premise for the complete exclusion of involuntary dismissal of members in worker co-operatives is that members hold control rights (are owners). Membership rights as control rights over the co-operative are understood as subjective (non-saleable) rights of the individual worker (Ellerman, 2016). They imply the right to keep one's own job position (the impossibility to separate the owner of the right to manage from his/her job position) in all but a restricted number of cases (that have to do with worker proven misbehavior).

This proposed constraint guaranteeing members against discontinuation of their job position can also be seen in relation to a similar right that accrues to the position of stockholders as owners of capitalist enterprises. In much the same way in which stockholders cannot be forced to sell their stock against their own will, worker members in co-operatives could not be forced to leave their job position against their own will. As no owner of any economic asset can be forced to abandon or sell it against his/her will, the prohibition to forcefully oblige stockholders to relinquish or sell their shares in corporations is meant to protect their ownership rights. So would be meant the prohibition to force worker members to abandon their work position in worker co-ops.

From a different viewpoint, a job position in a worker co-operative is aimed at fulfilling workers' needs, especially survival and reproduction needs, which are satisfied by the payment of a wage, and also security needs, which would be satisfied by securing the stability of the job position to the worker. This perspective is clearly coherent with Maslow (1943) human psychology, and the theory of the hierarchy of needs, in which survival and security needs occupy the two most fundamental layers and represent the most "prepotent" needs.

#### ***3.1. Consequences on productivity***

Radical solutions concerning the EP regimes of the kind proposed in this paper are likely to be countered by severe criticism, which calls for deep scrutiny and discussion. The acceptance of restrictive EP regimes is clearly problematic in capitalism entrepreneurs because of a long list of reasons. Such regimes are perceived as: (i) crippling business freedom and independence; (ii) leading to inefficient production due to reduced control over workers and lower productivity; (iii) impeding efficient allocation of the labor input (workers freely moving from less to more productive occupations); (iv) implying weaker incentives for employers to hire workers; (v) implying cost increases and rigidities (limitation of dismissal would increase workers' contractual

and pressure power over the employer; (vi) making cost reduction during negative economic times more difficult. Consequently, at no time and in any place has the strict prohibition of dismissal been considered a viable option in capitalist systems.

The crucial next step in the argument would ask if similar problems are encountered in worker cooperatives and if this organizational form may be able to overcome such problems differently from capitalist enterprises. In co-operatives, the strict prohibition of lay-off can appear appealing in view of guaranteeing workers' rights, and co-operatives can get closer than capitalist corporations to the possibility to restrict layoffs when it is considered that they are characterized by stronger flexibility in wages and our worked, and that they show stronger spontaneous tendency not to lay-off workers even during economic crisis (Craig and Pencavel, 1992, 1994; Bartlett et al., 1992; Bonin, Jones and Putterman, 1993; Pencavel, Pistaferri and Schivardi, 2006; Burdin and Dean, 2009; Navarra and Tortia, 2014; Albanese, Navarra and Tortia, 2015, 2019). These two fundamental features favor the possibility of stronger EP in co-operatives, and the possibility of detecting an evolutionary pattern specific to worker co-operatives that would further differentiate them from capitalist companies. Besides guaranteeing workers' rights, stricter employment protection can strengthen incentives to accumulate human capital, since the additional remuneration (quasi rents) derived from additional investments would be less likely to be dissipated by layoffs. Expected losses would only be due to the risk of bankruptcy of the organization and to voluntary turnover (e.g. retirement), and not to involuntary dismissal.

On the positive side, trial and error, cumulative process can emerge in which increased employment protection is paid-off in the medium to long run by increased productivity. On the negative side, strong employment protection can be criticized on the ground that the ban on dismissal would reduce labor productivity as it would eliminate the expected cost of dismissal, hence the deterrence effect or disincentive to not engage in morally hazardous behaviors (inefficiently low effort contribution, misalignment of individual behavior with organizational objectives etc...). The answer to this accusation includes several elements.

First, even in the absence of high expected costs of dismissal, the expected cost of bankruptcy or in any case of the economic crisis of the organization would still be clearly perceived by worker members. If workers engage sub-optimally in the production process, the performance of the company deteriorates. Given the close link between wages and company results in work co-ops (wages in worker coops are not contractual remuneration, but shares of residual earnings), the worsening of performance would imply a reduction in labor income, leaving workers' demands

unsatisfied. In extreme cases, decreased productivity implies insolvency and loss of employment. Loss of efficiency in collective action is clearly a prisoner's dilemma like situation (Olson, 1965; Alchian and Demsetz, 1972; Ostrom, 1990). However, worker co-ops replace the vertical control with the horizontal control in terms of peer pressure, and co-operative governance evolves in ways that are coherent with sustaining adequate efficiency in collective action (Bowles and Gintis, 1987, 1993, 1998). In order to prevent losses in income and employment, rational workers would strive to achieve an adequate degree of coordination, implying adequate monitoring and sanctions (Ostrom, 1990; Borzaga and Tortia, 2017; Tortia, 2018). The creation and development of working rules and governance structures is crucial in guaranteeing the achievement of efficient and effective production (Commons, 1950; Ostrom, 1990; Hansmann, 2013; Borzaga and Tortia, 2017).

Second, also the expected economic value of the job itself to workers can favor increased active participation in the production process and increased productivity. This value would increase following the longer expected stay in the organization, and lower expected costs of layoff. The exclusion of dismissal would entail the maximum possible incentive to invest in training (on and off-the-job) and in human capital accumulation. Relatedly, social capital and trust can contribute to further lower transaction costs, improve expectations, and support the development of the organization. Workers would also have the maximum possible incentive to get actively involved in the production process and to be loyal to the organization. Indeed, studies in human resource management clearly show the job security is ranked very high among preferred objectives of workers and among contractual features (Guest 2007; Depedri, Carpita, Tortia, 2012).

Criticisms concerning costs are crucial as well, since strong EP regimes can prevent cost reduction and restructuring during downturns. Wage flexibility represents one first answer to this criticism, which proved to be affective in many co-operative crises (Roelants et al., 2012). As the severity of the crisis increases, as better explained in the following section, voluntary resignation (due to too low wages) would intervene as dominant mechanism restoring organizational equilibrium and favoring the reallocation of resources (human and non-human) from less productive to more productive occupations).

### **3.2. *Wage dynamics***

The strong link between wages and company results in worker co-ops, on the one hand, and the fact that dismissal is excluded, on the other, would have a radical impact on wage and turnover dynamics. In general terms, wages are pro-cyclical in worker co-ops (increase and fall following demand and cost shocks) more than in capitalistic enterprises. This general feature of co-operatives

can be and is often attenuated by set a minimum wage for all workers. Co-ops can, and indeed do often choose to stabilize the level of wages in normal economic conditions by setting quasi-fixed wages, while end of the year results and reserves of capital are left to absorb cyclical shocks.<sup>2</sup> In the framework developed in this paper, a minimum wage level equal for all workers would have the function of satisfying workers' basic needs in the same way for each individual worker. On the other hand, co-operatives can also decide to differentiate wages above the minimum in order to align income with productivity. This way, co-operatives can be able to achieve at one and the same time two fundamental objectives: workers' right to a fair income satisfying their needs, and remuneration on the basis of desert. Economic mechanisms, in the absence of dismissal of workers, need to guarantee stability, especially during negative economic phases. In such negatives instances, if the organization is forced to reduce labor costs, all wages can be cut down proportionally to the minimum level, later to return to the initial level when the economic conditions of the organization improve.<sup>3</sup> Even when all wages are reduced to the minimum level, only voluntary resignation would be allowed. When available resources do not even allow to pay the minimum wage, co-ops, before chasing operation, can still reduce the minimum level of the wage itself, this way favoring employment reduction through voluntary exit. Wage reductions lead more experienced and talented workers (who have better outside options) to voluntarily quit the co-operative. Other workers may quit voluntarily when the wage paid goes below their participation constraint (reserve wage), because of the existence of unemployment subsidies, or of preference given to self-employment, self-production and consumption, or other economic or financial resources. This way, the dimension of enterprises in bad economic conditions would shrink without the need to resort to involuntary layoffs and labor would be reallocated from less to more productive occupations. This process would to the disappearance of less productive organizations even in the absence of involuntary layoffs.

In the absence of dismissals, negative economic phases can imply that the co-operative is required to paying a wage to all worker members even in the presence of redundancies. This can lead to inefficient allocation of wage funds. On the other hand, paying redundant workers shows that the co-operative works also as an insurance fund in which all workers, upon becoming members and

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<sup>2</sup> Wage stabilization appears to be the dominant solution in most countries. Italian co-operatives are reported to set constant wages, and to use end-of-the year residual and collective capital reserves, to absorb negative shocks (Euricse, 2015).

<sup>3</sup> Reserves of capital (locked assets) can be used to prevent the minimum wage from falling too much. To this hand, the organization can run temporary losses

subscribing the co-operative social contract, accept to subsidize redundant colleagues during periods of crisis. This choice is made under the veil of ignorance, since at the moment of subscribing the co-operative social contract members have limited or no information concerning the future conditions of the organization and the probability (expected costs) of becoming redundant. Consequently, it may be rational for each worker to accept this subsidization constraint (Sacconi and Tortia, 2019). Subsidization of redundant workers can also have virtuous macroeconomic effects: by preventing layoff and by distributing fairly the resources that are left over during crisis, this mechanism would prevent aggregate consumption to fall and to aggravate the negative side of the business cycle. Macroeconomic fluctuations are exacerbated by job losses and increased unemployment, which are common outcomes when workers can be laid off without restraints.

Following the above, we can state that co-operatives would be able to achieve at one and the same time two fundamental objectives. On the one hand, they can be able to guarantee (except in the case of bankruptcy) the fulfilment of the basic needs of the whole workforce. On the other hand, they can remunerate properly better educated and productive workers through the implementation of suitable incentive scheme including wage increases and career progress. The working of incentives can be tight and mimic the working of markets (especially the labor market), without violating internal constraints guaranteeing minimum remuneration to all workers. Wage dynamics would change dramatically when compared to the present day situation, since employment and minimum wage are not guaranteed at one and the same time in investor owned companies.

To conclude this section, it is important to underline that the criticism stating that the exclusion of dismissal would reduce the incentive to invest in professional growth and human capital has been shown to be misplaced. Workers with high skills, experience and competence would enjoy much better opportunities for professional growth inside the organization, and better outside options for new occupations in the event of a crisis and plummeting wages. Less qualified workers would face decreasing wages without the possibility to find alternative occupation, the more so as the more qualified workers quit. Professional level, training and human capital would be all the more important in guaranteeing the efficient working of organizations and markets, and incentives to accumulate human capital and retrain would not be reduced.

#### **4. Self-employed workers**

Not all workers can or want to be members of a cooperative. Some workers may simply prefer to remain independent rather than become partners. Professionals are an example, but there are several other types. On the other hand, cooperatives cannot be forced to associate a worker if they do not want. The process of associating a new worker is entirely voluntary and bilateral. It cannot be imposed on one of the two parties. In presence of strong employment protection constraints, the cooperative may simply lack sufficient resources to associate a worker in a medium to long run perspective. Or, a specific worker can have characteristics and expertise that are not aligned with the objectives of the organization. Members' heterogeneity has been reported to be one of the main sources of inflated organizational costs. This fact may induce co-operatives to privilege the association of workers similar to the incumbent ones, and to limit intra-organizational heterogeneity (Hansmann, 1996, 1999).

Consequently, the idea has to be accepted that part of the workforce may not be part of the membership, and would need to interact with the co-operative on different contractual premises. Non-member workers represent a widespread phenomenon in existing co-operatives, and they are usually likened to workers employed on fixed term contracts, but also open-ended positions do exist. Such workers are usually paid a fixed salary. The empirical literature shows that contractual (not associated) workers are laid-off more often than co-op members, and can share some, but usually not all the prerogatives attached to membership positions (Gago et al, 2012).

Less traditional solutions can be imagined, though. Non-member workers can be likened to the "self-employed", or independent workers that interact with the firm on the basis of bilateral contracting. (Screpanti, 2001; Jossa, 2014). The weaker contractual party (the self-employed worker) may need to be granted contractual guarantees (e.g. imposition of a minimum wage paid to the self-employed), but the basic principle of independent parties freely interacting on contractual basis would hold. In our framework, the most important and specific difference between associated and self-employed workers is that, while associated workers cannot be laid-off, contracts with independent workers can be discontinued or terminated (unilaterally or bilaterally by both parties) at any time. This follows directly from the definition of the two categories.

Not only disadvantages (possibility of termination of the contract), but also advantages can be envisaged for the self-employed category. First, the salary of self-employed workers is not constrained by internal distributive dynamics, and can exceed the wages of associated workers. Quite clearly, stronger uncertainty of employment stability and variability of income streams can be monetized in terms of higher average wages for the self-employed. Independence would imply that

a company would have lesser control over self-employed workers than it has over employees. In turn, limited control over the self-employed would strengthen the incentive for co-ops to associate new workers in order to increase their integration into the production process and governance, this way reducing likely-to-emerge contractual costs with the self-employed. Independence implies that self-employed workers would no longer be tied, in terms of economic dependence and exclusivity, to one specific company like employees in capitalist companies, but could (but would not need to) operate as independent entities and, for example, work with more than one company at one and the same time. Many SE workers would choose to work for a single company because of the need to specialize and create firm specific human and relational capital, but this would not be an obligation any more. The possibility to work for more than one organization at one and the same time would represent an indirect incentive for co-operatives to associate as many workers as possible to increase their loyalty to the organization. For example, incentivizing investments in firm-specific human capital and competencies would be likely to require the conversion of an independent worker into a member.

Another potentially important implication is that, being independent producers, the self-employed could create at any time new co-ops among themselves. New co-ops created would be start-ups that may not have, in the initial phases of their existence, fixed capital and a patrimony. They would exclusively rely on labor power. Disadvantages deriving from under-capitalization may be counter-balanced by stronger contractual power in bargaining with the parent co-operative. The possibility for the self-employed to create new co-operatives by simply associating while their contractual relation with the parent co-op is still in force could, again, create an incentive for the parent co-op to associate new members and reduce the numbers of the self-employed. That is, in order to avoid the danger that the SEs create a new co-op, which can have strong bargaining power, the parent co-op would be induced to reduce as much as possible the incidence of the self-employed present in its premises. This incidence would be different in each co-op, depending on several dimensions, on both the demand and supply sides, but different contractual forms for the self-employed could differently impact on it.

Finally, the category of the self-employed would also have the function of representing a "benchmark" for cooperative members, that is, it would represent the relevant "outside option". Members in co-ops could at any time compare their position with that of non-members in occupations with similar characteristics. Higher wages for the self-employed could be compared with stronger job protection, income stability and involvement in decision making for members, implying the choice to stay or opt out of the membership position. In general terms, the SE have a

systemic regulatory role, because they represent the fundamental pre-social (atomized) condition from which all members arrive and to which they can go back. The implicit or explicit comparison between the condition of the SE and that of the member would exert pressure on members to improve self-organization and internal governance, since internal organization must be able to guarantee a level of well-being at least equal to the SE condition.

The presence of SE workers does not diminish the importance of the association of workers in co-operatives. In fact, scale economies, transactional advantages and integrated production technologies represent sufficient conditions for making the membership condition a better alternative to working as a self-employed worker in a wide range of occupations.

## **5. Theoretical implications**

This proposal is addressed to worker cooperatives only, not to other forms of business, because only in worker co-ops the worker-members have full control over the management and governance of the company and are therefore in the best position to modulate wage dynamic optimally with respect to the company's economic results. They are also accountable for their choices concerning wage dynamics. Different choices can lead to higher or lower wage dispersion, to higher or lower turnover, and to higher or lower probability of bankruptcy (e.g. a too high minimum wage for the whole membership implies higher risk of default). Since there are no conflicting interests between property and workers (the enterprise does not maximize profits by lowering wages), the problems coming from information asymmetry and abuse of power are dampened (Navarra and Tortia, 2014; Albanese, Navarra and Tortia, 2015, 2019). Strong wage fluctuation, as observed in worker co-ops, is not applicable to capital companies. In capitalism, moderate and intermediate forms of worker representation, like German co-determination, can be observed, but not radical forms like in co-ops. Such radical differences imply that dedicated legislation can be developed to regulate co-ops differently from capitalist companies. This work goes in this direction, by submitting that labor relations and contracts can be regulated in radically different ways in the two organizational forms.

### **5.1. *Isomorphism***

However, the regulation of wage and employment dynamics in co-operatives and capitalist companies did not follow the route of differentiation over the last decades in most countries. On the contrary, legal regulation has tailored to the features and needs of capitalist companies while, in

most cases, regulation of co-operatives followed an isomorphic pattern, with minimal differentiation relative to capitalist companies. Regulation appears to have accepted the logic of structural isomorphism, which makes organizations similar, but not necessarily more efficient, under competitive pressure and bureaucratization, (Di Maggio and Powell, 1983). Organizational isomorphism can be contrasted by evolutionary forces supporting institutional evolution in the direction of differentiating the institutional structure of different organizational forms. In most cases, however, dedicated co-operative legislation has not counteracted isomorphism derived from bureaucratization and competitive pressure.

Di Maggio and Powell (1983: 157) state: “Examination of the diffusion of similar organizational strategies and structures should be a productive means for assessing the influence of elite interests.” However, when considering institutional evolution and variety, they also state (ibid, 158): “An understanding of the manner in which fields become more homogeneous would prevent policy makers and analysts from confusing the disappearance of an organizational form with its substantive failure. Current efforts to encourage diversity tend to be conducted in an organizational vacuum. Policy makers concerned with pluralism should consider the impact of their programs on the structure of organizational fields as a whole, and not simply on the programs of individual organizations. ... Our approach seeks to study incremental change as well as selection. ... The foci and motive forces of bureaucratization ... have, as we argued, changed since Weber's time. But, the importance of understanding the trends to which he called attention has never been more immediate.” In regard to workers’ co-ops, Di Maggio and Powell’s remarks can imply that their limited diffusion is not necessarily the outcome of inefficiency, but of strong isomorphic pressure (including cultural and institutional marginalization) and of insufficient reformist action. As maintained in this paper, dedicated legislation and reform has the potential to uncover and exalt the positive potential of co-operative organization, while controlling for its weaknesses.

The main outcome of this paper is based on the widespread empirical evidence showing that worker co-operative layoff much less than capitalist companies in both positive and negative economic conditions (among the most recent reports, Arando et al., 2010; Roelants et al., 2012; Borzaga, Carini, Tortia, 2019). The arguments developed lead to the consideration that, while in capitalist companies the possibility of the dismissal of the worker can never be excluded, the worker co-operative has the potential to overcome this condition and to reach effective job protection for all worker members, up to the most extreme case in which dismissal is altogether excluded.

## **5.2. *Workers’ pressure power***

One implication of the exclusion of members' dismissal that has not been considered so far is that it is expected to increase worker members' (the owners') pressure on management compared to what observed in capitalist companies and in present day worker co-operatives. Not fearing dismissal, worker could feel comfortable with demanding excessively high wages and perquisites, inducing managers to concede too much in bilateral or collective bargaining, thus endangering the firm ability to invest and prosper. In general terms, since managers in worker co-ops are appointed by workers' representatives, members' pressure power can be expected to be all the more strong in this organization form. However, members' job position and professional growth depend on the prosperity of the enterprise, which could be damaged by excessive concessions. Because of this, members' demands and managers' concessions are not expected to be excessive. Policies of financial sustainability (not necessarily of wage minimization) are expected instead.<sup>4</sup>

### **5.3. *Distributive fairness***

Additional crucial implications are distributive in nature. Historically, the need to keep labor income as egalitarian as possible across members and between members and managers pushed both individual co-operatives and groups of co-operatives to introduce caps on maximum wages, or caps on the ratio between maximum and minimum wage. Among the best known cases, the plywood co-ops of US Pacific Northwest used to pay equal wages to all workers. The labor process was organized on the basis of job rotation schemes, and managerial positions were constrained to external, non-member workers (Craig and Pencavel, 1992, 1995). In the Mondragon group of co-operatives in the Basque regions of Spain, right from its creation during the '50ies of last century, statutory bylaws have set the maximum attainable ratio between highest and lowest wage levels. The original ratio indeed one-to-three, but is has been modified overtime (Whyte and Whyte, 1991; Arando et al., 2012). Such provisions are understandable on the ground of the pursuit of equity and inclusion.

The proposal in this paper is itself characterized by strong egalitarian connotation. Distributive equity is guaranteed by the two main rules that have been discussed so far: exclusion of involuntary

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<sup>4</sup> Stakeholder theory of capital structure maintains that privileged and firm specific relations with stakeholders (in our case workers) can lead the organization to concede better contractual terms to a specific stakeholder (in our case higher wages, and better on-the-job conditions), but, at the same time, is also likely to reduce expected cost of financing the organization (Titman, 1984; Titman and Wessels, 1988). That is, in order not to endanger job stability and working conditions for members, stakeholder oriented enterprises like worker co-ops would choose lower leverage, this way minimizing financial costs and expected costs of bankruptcy (Bae, Kang and Wang; 2011).

layoff, and minimum wage guaranteed to all worker members. All wage levels would need to be adjusted to account for the need to pay all workers (also the redundant ones), and to pay the minimum wage to all members. These rules imply strong egalitarian constraints, but do not exclude the possibility to increase remuneration above the minimum for the best performing and more experienced workers. It is submitted that the presence of strong distributive constraints, even in the presence of freedom to adapt wages to desert and experience, would be sufficient guarantee of equitable distributive outcomes, and may not require additional constraints on the maximum ratio of the highest to the lowest wage level.

This distributive solution can also be considered a close application of the Rawlsian maximin criterion (Rawls, 1971; 2001). Wages for the best performing workers can be increased only after the minimum wage is guaranteed to all workers, and wage increases can be interpreted, as in Rawls' theory as being functional to guarantee the ability of the organization to at least satisfy the basic needs of all workers, and especially of those workers that would not find equivalent occupations in case the organization were closed and liquidated. To this end, the organization needs to survive and be competitive. That is, it needs to be able to recruit and retain high skilled workers by paying them adequately high wages. Efficient production would be guaranteed by remuneration of workers on the basis of desert.

In Rawls theory, the maximin criterion of distribution is based on the difference principle, which states that inequality can be accepted only if it represents a necessary condition for furthering the position of the least well-off. This implies that inequality can be justified also in terms of efficiency, since only unequal distribution may result in maximum social welfare. The criterion is chosen by participating parties (in a contractarian perspective) in the original position, that is under the veil of ignorance, when these parties do not know their future wealth and position in society. This is the reason why the difference principle is chosen rationally, since in the presence of decreasing marginal utility to wealth, this principle minimizes the risk of the most negative outcomes for each and every individual in society. The application of the difference principle is subjected to the fulfillment of basic civil rights of freedom for everybody and fair equality of opportunity. In our application to worker cooperatives, the associative pact that underpins the creation of the cooperative can be equated Rawls' original position, in which members of the cooperative have to define distributive patterns on the basis of procedural fairness criteria before actual distribution of takes place. It can be expected that members, whose preferences are informed by loss aversion, would minimize the risk of lay-off and would require that the co-operative satisfies at least their basic needs. To this end, they would restrict as much as possible the possibility of lay-off, or

exclude it altogether, and would require the co-operative to pay a minimum wage to all workers. The proposed solutions are also coherent with Maslow's (1943) theory of the hierarchy of needs, since the payment of a minimum wage to all workers would satisfy the most basic set of needs (survival), while the exclusion of layoffs would satisfy the second most basic needs layer (security), in the Maslowian scale.

The setting of a minimum wage, beside guaranteeing the whole membership in times of crisis, would also allow overcoming the risk that any individual member or group of members is discriminated against in both positive and negative economic contingencies (cfr. the concept of a social minimum in Rawls and Altham, 1973, on the impossibility to adopt the lexicographic difference principle). Finally, the proposed solutions are not in contrast with the guarantee of the basic liberties to all workers, since each worker would freely choose to become an associate of a co-operative and would retain the right to quit or switch to a different occupation.

Several other competing explanations can be put forward to explain wage differentials in worker co-operatives (individual liberty, since workers choose the occupation that pays them the most; efficient allocation of the labor input; remuneration of desert). However, the Rawlsian maximin criterion and difference principle as distributive principles appear to be applicable only to the social contracts underpinning associative forms of enterprise such as the worker co-operative.

## **6. Discussion**

Critical remarks on the proposals of this paper can consider the fact that prohibitions (including prohibition of dismissal) carry with them the risk of inefficiencies and can give rise to elusive behaviors: if compressed by prohibitions and regulatory rigidity, economic forces take their revenge by bringing out under-the-counter agreements, black market and the like.

The answer to this crucial critical arguments starts from observing that the main goal of the arguments in this paper is protect and increase workers' rights. The arguments highlight that rights in organizations can imply, besides the evident risk of inefficiencies, also relevant benefits in terms of increased welfare, and increased incentives to invest in human and organizational capital (e.g. firm specific social capital). Capitalistic enterprises need dismissals to maximize profit and shareholder value. Employment stability and maximization of shareholder value are two mutually exclusive objectives. Also, the contrasts of interest between property and workers require dismissal

as a threat against misbehavior (Shapiro and Stiglitz, 1984; Navarra and Tortia, 2014; Albanese et al., 2015, 2016). In the absence of the possibility to dismiss, worker would acquire too much contractual power, implying inefficiently low effort contribution, or to high demands for wage increases, which would reduce profits. On the contrary, the overcoming of dismissals may be compatible with the nature and institutional structure of worker co-ops, because in their case workers are also owners, contrasting interests between ownership and workforce are absent, and the organization does not maximize profits. Bilateral opportunism is not fueled by contrasting interests and abuse of contractual. Asymmetric information can be more easily overcome (Ben-Ner, 1988; Ben-Ner and Jones, 1995). Co-operatives do not maximize shareholder value and can use their reserves (locked assets) not only to make investments, but also as insurance funds to ensure job and income stability. In capitalism, profit stabilization contrasts with job and income stabilization.

The proposal in this paper can be interpreted as the elaboration of a new "social technology" (Nelson and Sampat, 2000).<sup>5</sup> The premise of this proposal is the incompatibility of an owner's position with involuntary separation from his/her own job position in workers' co-operatives. However, in reality layoffs are common practice in many worker co-ops in most countries. Labor contracts and labor relations in co-ops are similar in most respects to capitalist enterprises. Indeed, the expert jurists state that, in Italy, worker members of a co-op can undergo less employment protection than employees in capitalist firms (Jaeger, Denozza and Toffoletto, 2010), because the partner is interpreted as an entrepreneur, an independent worker, and therefore he or she can be considered dismissable at any time. Employees in capitalist companies, instead, benefit from union protection clauses. This way, systems of co-operative legislation appear to have reached a balance, trading-off easier dismissability with some additional managerial and control rights, which, however, in the presence of dismissal risk not to be effectively actualized. This balance risks to nullify the advantage that co-ops should enjoy over capitalist companies in terms of effective enforcement of workers' rights and protection. At the same time the weaknesses of co-operative organization (e.g. limited access to financial markets; high organizational costs etc...) appear to cripple their development.

Empirically, the data clearly show that worker co-ops layoff less than capital firms (Bartlett et al., 1992; Craig and Pencavel, 1992, 1993; Bonin, Jones and Putterman, 1993; Pencavel, Pistaferri and

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<sup>5</sup> Cfr. also the concept of an institutions as habits of thought, in Veblen (1998), and as humanly devised collective action in control and liberation of individual action in Commons (1931, 1950). That is, constraints not only limit and guide individual action, but also allow its expansion and liberation.

Schiverdi, 2006; Burdin and Dean, 2009). However, this outcome is left to implicit contracting between firms and workers, not to legal or statutory enforcement. Members are dismissed less often than employees because the co-ops' governance structure and worker involvement allows to preserve jobs better. The proposal in this paper is to be interpreted as a form of bolstering and institutionalization of already existing practice and would serve to definitively exclude the possibility of abuses against any co-op member, expanding workers' rights and degree of liberty in the workplace.

In broader terms, this kind of solution would go in the direction of reconciling socialist and liberal doctrines, conjugating freedom of exchange with workers' rights inside organizations. The proposal is also coherent with constructivist streams in the social-liberal tradition, for example referring to well-known meanings of positive freedom, that is freedom that depends on the evolution of institutions and culture in liberal societies, as first initiated by Immanuel Kant and Isaiah Berlin (1969), and by Abraham Maslow (1943). In this sense, contrary to Robert Nozick (1974) and John Locke (1998) conception of negative freedom, liberty is a social, not natural construct, which depends on the rational deployment of human institutions with the aim of fulfilling human aspirations and needs.

Risks of inefficiencies and distorted allocation of resources would be real. For example, incumbent members may induce newcomers to trade-off the constraints on dismissal with higher wages. Some workers may prefer to be paid more, than retaining the right not to be fired and be paid lower wages. However, if workers value job stability and the possibility to invest in the development of their human capital within the organization, the price of keeping workers dismissable in terms of higher labor costs may be exceedingly for the incumbents. Furthermore, cultural evolution can lead workers to consider the right to retain their job position as a personal and not alienable right, and to consider as unjust ideas and contractual solutions that violate the right of members to keep their jobs (Ellerman, 2016). Consequently, they would not accept to stay self-employed and work with the same firm for very long spans of time. Turnover costs would increase for the incumbents if the self-employed are not turned into members of the co-operative. That is, the monetization of dismissability in exchange for higher wages would be rejected at its very root in most cases.

In this, the category of SEs may be interpreted as a residual category, but it can also be interpreted as simply that category of non-associated workers. The category of the SE fully accounts for those workers, who do not want or do not need job protection and seek to be independent (not to engage co-operative membership).

Other critical remarks highlight that dismissal must be admitted if decided by the majority of members, to counter breach of contractual duties (e.g. sabotage), low commitment or productivity. In the opposite case, it would not possible to discourage misbehavior and free riding. In the framework presented in this paper, the risk of misbehavior and free riding are not underscored. Taking free riding as paradigmatic example of misbehavior, the solution to this problem represents a necessary premise in any argument dealing with collective action in production and teamwork (Alchian and Demsetz, 1972; Putterman, 1988, 1993). The development of suitable working rules in control and sanctioning of defection, involvement in the governance and management of the organization, horizontal monitoring (e.g. peer pressure) and the economic incentive represented the need of the organization to be efficient in order to survive represent key elements for the overcoming of free riding in collective action. In the residual and proven cases of free riding, not committed workers can undergo closer scrutiny and, in the most extreme cases, dismissed. Also in this case, as stated, the absence of contrasting interests and of contractual power can favor cultural evolution in the direction of more collaborative and mutually beneficial attitudes, both on the side of workers and on the side of organizations, thus reducing the rate of misbehavior among workers and of abuse of power on the side of organizations.

### **6.1. *Employed and self-employed workers***

Several accounts of worker co-operative in the economic literature require that the incidence of employed workers is to be reduced to the minimum to prevent the possibility that an elite of worker owners controls and exploits large numbers of employed workers, leading to well-known phenomena of co-operative degeneration (Vanek, 1977; Screpanti, 2001, 2011). Some authors require that, in principle, a labor cooperative should takes on no employees, because this would be a situation in which the members behave as exploitative owners towards them; only mandate contracts with self-employed workers (lawyers, consultants etc.) who work voluntarily with different companies can be admitted. In this way, the employment relation would be definitely overcome (Screpanti, 2001, 2011).<sup>6</sup>

This paper does not focus on the problem of the existence or non-existence of employed (non-member) workers in worker co-operatives per se. However, given the strong constraints that the exclusion of dismissal would pose on incumbent members, one dominant consequence of the imposition of a strong EP would be that the co-operative restricts admission of new members by resorting to employed (non-member) workers. Either these workers are allowed to sign employment

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<sup>6</sup> The mandate contract is not an instance of the employment contract and does not generate an authority relation.

contracts as it happens in capitalist enterprises, or the employment relation is altogether overcome and these workers become self-employed under special contractual guarantees. Again, the creation of a wide category of self-employed workers may be a necessary outcome if the employment relation is to be overcome as proposed by some authors (Screpanti 2001, 2011).<sup>7</sup>

The self-employed (SE) are interpreted as a category of workers that are neither members nor employees, who work on contracts that can also be open-ended (do not need to be short term). However, in the case of the self-employed, dismissal cannot be ruled out. Co-ops themselves cannot be forced to turn all workers into partners. Forcing them to do so would violate their freedom of choice. Also, producing stable jobs requires investment and accumulation of capital. Co-ops do not escape these constraints, they only interpret them differently. It may not be possible to know how many stable jobs, bestowed with full membership rights, co-ops can produce at any moment in time. The risk that some worker remains on the side-lines and has to be contented with a more limited economic role cannot be underscored. Regulation and subsidies would be in charge of limiting the negative effects of contractual and market imperfections.

The possibility of higher wages paid to the workers unwilling to be associated has already been discussed. As about those workers that are refused membership rights by co-operatives, this category can be constrained and limited by labor market regulation in several ways. It can be also granted additional contractual guarantees to eschew the risk of exploitation and abuse of power. However, it is unlikely to be completely eliminated.

Protection offered by state labor legislation and unionization are obvious answers, together with the setting of a minimum wage. As highlighted in previous sections, a less obvious solution would be the liberalization of SE contractual relations, allowing the SE to work with different organizations at one and the same time. A second non-standard solution would be to allow the SE to associate and create new and independent worker co-ops while their contractual relation with existing co-ops are still in force. This latter right would contrast with the contractual position of employed workers in capitalist enterprises who, instead, are not allowed to create new organizations within the organization employing them. To do so, they first have to resign and then, as not-employed workers, create a new company. Increasing the width and depth of the SE's contractual rights would

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<sup>7</sup> The features of the employment relation are well-known, starting at least from Coase (1937), and Simon (1959; cfr. Screpanti 2001, 2011). On the other hand, Theoretical and empirical research in law and economics are in charge of better defining the contractual nature and features of the category of the SE, and to measure relevant outcomes.

create indirect incentives for co-operatives to associate as many workers as possible and to turn the self-employed into members.

As a final remark to this section, it is important to stress that, given the radical nature of the institutional mechanisms proposed in this paper, they are probably not applicable to all existing worker co-operatives, which were born and developed on very different institutional premises. The governance structure of existing co-ops may not be compatible with stringent EP regimes, especially concerning the exclusion of dismissal. Consequently, in the present stage of institutional evolution, the proposals in this paper can be endorsed on a voluntary basis by individual co-operatives, especially by startups, but not imposed by law on all worker co-operatives. The law may not exclude the solution proposed, and may allow their introduction in statutory bylaws in individual co-operatives and groups, which would be in charge of endorsing such solutions. That is, we are dealing with one further legally backed option and with no legal obligation.

## **7. Conclusion**

News concerning instances of exploitation, abuse of power and bad working conditions are, unluckily, not alien to worker co-operatives too. These facts point to the necessity to increase protection of workers' rights and to better regulate managerial discretionary decisions.

The exclusion of dismissal and the imposition of a minimum wage equal for all workers would radically change distributive patterns relative to what is observed in capitalist enterprises. Workers can be guaranteed a minimum wage equal for all to satisfy basic needs. The existence of a minimum wage does not exclude the possibility that the co-operative pays higher wages to more productive and experienced workers. In negative economic times, all wage levels in the coop can be reduced proportionally down to the level of the minimum wage. No member would be dismissed, but each member would be free to quit voluntarily when the wage falls below some critical subjective threshold. The ratio of the highest to the lowest wage cannot be defined ex-ante, since it depends on a long list of intervening causes, such as individual workers' innate ability, effort contribution, the availability of outside options, firm dimension, sector of operation etc... Workers would quit the firm on a voluntary basis only, either because they have better opportunities (in other organizations or as self-employed) or because their wage becomes so low as to violate workers' participation constraint. Predictably, wage dispersion would be much lower in co-operatives adopting the solutions proposed in this paper than in other co-ops not adopting them, and in capitalist enterprises.

Limited wage dispersion at the organizational level would imply lower economic inequality in society (Piketty, 2013).

The radical configuration of these proposals (exclusion of dismissal and imposition of a minimum wage equal for all worker members) may not advise their application to all existing worker co-operatives (different co-operatives can be characterized by substantially different managerial styles, governance settings, and path-dependent histories), but instead be opted for on a voluntary basis in statutory bylaws either by existing co-ops or by start-ups that choose retention of worker-members and job protection as one of their dominant values and objectives.

Future research will be in charge of singling out in refined terms the (restrictive) conditions under which dismissal can still be applied to worker co-operatives, and the contractual regulation of the emerging category of the self-employed.

## References

- Albanese, M., Navarra, C., Tortia, E.C., 2015. Employer moral hazard and wage rigidity. The case of worker owned and investor owned firms. *Int. Rev. Law Econ.* 43, 227–237.  
<https://doi.org/10.1016/j.irl.2014.08.006>
- Albanese, M., Navarra, C., Tortia, E., 2019. Equilibrium unemployment as a worker insurance device: wage setting in worker owned enterprises. *Econ. Polit. First Online*, 3 January  
<https://doi.org/10.1007/s40888-018-00139-z>
- Alchian, A. A., & Demsetz, H. (1972). Production, information costs, and economic organization. *The American Economic Review*, 62(5), 777–795.
- Altham, J.E.J. (1973). Rawls's Difference Principle. *Philosophy*, Vol. 48, No. 183, pp. 75-78.
- Arando, S., Freundlich, F., Gago, M., Jones, & D.C. Kato, T. (2010). Assessing Mondragon: Stability & managed change in the face of globalization. Working Paper No. 1003, University of Michigan, William Davidson Institute.
- Azariadis, Costas. (1975) "Implicit Contracts and Underemployment Equilibria." *Journal of Political Economy* 83, 6: 1183-1202.
- Azariadis, Costas and Joseph E. Stiglitz. (1983), "Implicit Contracts and Fixed Price Equilibria." *Quarterly Journal of Economics* 98, 3 (supplement): 1-22.
- Bae, Kee-Hong, Kang, Jun-Koo, and Wang, Jin (2011). Employee treatment and firm leverage: A test of the stakeholder theory. *Journal of Financial Economics* 100(1): 130–153.
- Bartlett, W., Cable, J., Estrin, S., Jones, D., & Smith, S. (1992). Labor managed cooperatives and private firms in North Central Italy: an empirical comparison, *Industrial and Labor Relations Review*, 46(1), 03–118.
- Baily, Martin N. (1974) "Wages and Employment Under Uncertain Demand." *Review of Economic Studies* 41: 37-50.
- Ben-Ner, A. (1988). The life cycle of worker-owned firms in market economies. *Journal of Economic Behaviour and Organization*, 10(3), 287–313.
- Ben-Ner, Avner, and Derek Jones. 1995. "Employee Participation, Ownership, and Productivity: A Theoretical Framework." *Industrial Relations* 34: 532-554.
- Berlin, Isaiah, (1969) "Two Concepts of Liberty" in *Four Essays on Liberty*, London: Oxford University Press.
- Bertola, Giuseppe, Boeri, Tito and Cazes, Sandrine (1999). Employment protection and labour market adjustment in some OECD countries: Evolving institutions and variable enforcement. Online: <file:///C:/Users/ermannio.tortia/Downloads/empadj.pdf> [Accessed 4 June, 2019]
- Bertola, Giuseppe, Boeri, Tito and Cazes, Sandrine (2000). Employment protection in industrialized countries: The case for new indicators. *International Labour Review*, 139(1): 57-72.
- Bonin, J. P., Jones, D., & Putterman L. (1993). Theoretical and empirical studies of producer cooperatives: Will the twain ever meet? *Journal of Economic Literature*, 31(3), 1290-1320.

- Borzaga, C., Carini, C. and Tortia, E.C. (2019). Co-operative enterprise anti-cyclicality and the recent economic crisis: Comparative analysis of employment dynamics in Italy. University of Trento, *mimeo*.
- Borzaga, C., & Tortia, E. C. (2017). Cooperation as coordination mechanism: A new approach to the economics of cooperative enterprises. In J. Michie, J. R. Blasi, & C. Borzaga (Eds.), *The Oxford handbook of mutual, cooperative, and co-owned business* (pp. 55–75). Oxford: Oxford University Press.
- Bowles, S., & Gintis, H. (1987). *Democracy and capitalism: Property, community, and the contradictions of modern social thought*. New York, NY: Basic Books.
- Bowles, S., & Gintis, H. (1993). A political and economic case for the democratic enterprise. *Economics and Philosophy*, 9(1), 75–100.
- Bowles, S., & Gintis, H. (1998). Mutual monitoring in teams: The effects of residual claimancy and reciprocity. Working Paper No. 98-08-074e. Santa Fe: Santa Fe Institute.
- Burdín, G., & Dean, A. (2009). New evidence on wages and employment in worker cooperatives compared with capitalist firms. *Journal of Comparative Economics*, 37(4), 517–533.
- Coase, Ronald H. (1937) “The Nature of the Firm.” *Economica* 4(16): 386-405.
- Commons, John R. (1931) “Institutional Economics”. *American Economic Review*, vol. 21, pp. 648-657.
- Commons, John R. (1950). *The Economics of Collective Action*. New York: Macmillan.
- Craig, B., & Pencavel, J. (1992). The behavior of workers cooperatives: the plywood companies of the Pacific Northwest. *American Economic Review*, 82(5), 1083–1105.
- Craig, B., Pencavel, J., Farber, H., & Krueger, A. (1995). Participation and productivity: A comparison of worker cooperatives and conventional firms in the plywood industry. *Brookings Papers on Economic Activity. Microeconomics*, 1995, 121-174.
- Di Maggio, Paul J. and Powell, Walter W. (Apr., 1983), *The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields*. *American Sociological Review*, 48(2): 147-160.
- Dow, G. K. (2003). *Governing the firm. Workers’ control in theory and practice*. Cambridge, MA: Cambridge University Press.
- Dow, G. K. (2018). *The labor-managed firm: Theoretical foundations*. Cambridge, MA: Cambridge University Press.
- Ellerman, David (2016). Worker Cooperatives as Based on First Principles. *JEOD, Journal of Entrepreneurial and Organizational Diversity*, 5(1): 20-32. Online: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2920631](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2920631) [Accessed 10 June 2019]
- Euricse. (2015). *Terzo rapporto Euricse sull’economia cooperativa*. Trento: European Research Institute on Cooperatives and Social Enterprises. Online: <http://www.euricse.eu/wp-content/uploads/2015/09/00-ECONOMIA-COOPERATIVA.pdf>. [Accessed 6 Aug 2018]
- Guest, D. (2002). Human resource management, corporate performance and employee wellbeing: Building the worker into HRM. *The Journal of Industrial Relations*, 44(3), 335–358.

- Jaeger, P. Giusto, Denozza, Francesco, and Toffoletto, Alberto (2010). *Appunti di diritto commerciale*. Impresa e società. Milano: Giuffrè.
- Jensen, M., & Meckling, W. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.
- Jossa, B. and Cuomo, G. (1997). *The Economic Theory of Socialism and the Labour-Managed Firm*. Cheltenham and Brookfield: Edward Elgar.
- Kahana, N., Nitzan, S., 1989. More on alternative objectives of labor-managed firms. *J. Comp. Econ.* 13, 527–538. [https://doi.org/10.1016/0147-5967\(89\)90025-5](https://doi.org/10.1016/0147-5967(89)90025-5)
- Locke, John (1689) [1998]. *An Essay Concerning Human Understanding*. New York, NY: Penguin.
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370-396.
- Miyazaki, H., & Neary, H. M. (1983). The Illyrian firm revisited. *Bell Journal of Economics*, 14 (1), 259-270.
- Navarra, C (2016). Employment stabilization inside firms: an empirical investigation on worker cooperatives. *Annals of Public and Cooperative Economics*, 87(4), 1-23.
- Navarra, C., Tortia, E., 2014. Employer Moral Hazard, Wage Rigidity, and Worker Cooperatives: A Theoretical Appraisal. *Journal Economic Issues* 48, 707–726. <https://doi.org/10.2753/JEI0021-3624480306>
- Nelson, R. R. and Sampat, B. N. (2001). Making Sense of Institutions as a Factor Shaping Economic Performance. *Journal of Economic Behaviour and Organisation*, 44(1): 31-54.
- Robert Nozick, Robert (1974), *Anarchy, State, and Utopia*. New York, NY: Basic Books.
- Olson, M. (1965). *The logic of collective action. Public goods and the theory of the groups*. Cambridge, MA: Harvard University Press.
- Ostrom, E. (1990). *Governing the Commons. The Evolution of Institutions for Collective Action*; Cambridge, UK. Cambridge University Press.
- Pencavel, J., Pistaferri, L., & Schivardi, F. (2006). Wages, employment, and capital in capitalist and worker-owned firms. *Industrial and Labor Relations Review*, 60(1), 23–44.
- Piketty, T. (2013). *Le capital au XXIe siècle*, collection « Les Livres du nouveau monde ». Paris, Le Seuil.
- Putterman L. (1988). The Firm as Association versus the Firm as Commodity. *Efficiency, Rights and Ownership*. *Economics and Philosophy*, 4(2): 243-266.
- Putterman L. (1993). Ownership and the Nature of the Firm. *Journal of Comparative Economics*, 17(2): 243-263.
- Roelants, B., Dovgan, D, Eum, H., & Terrasi, E. (2012). The resilience of the cooperative model: How worker cooperatives, social cooperatives and other worker-owned enterprises respond to the crisis and its consequences. CECOP, Bruxelles. Online: [http://www.cecop.coop/IMG/pdf/repor\\_t\\_cecop\\_2012\\_en\\_web.pdf](http://www.cecop.coop/IMG/pdf/repor_t_cecop_2012_en_web.pdf). [Accessed 31 July 2018]
- Screpanti, E. (2001). *The Fundamental Institutions of Capitalism*. London: Routledge.

- Screpanti, E. (2011). Freedom of Choice in the Production Sphere: The Capitalist and the Self-managed Firm. *Review of Political Economy* 23(2): 267-279.
- Simon, Herbert A. (1951) "A Formal Theory of the Employment Relationship." *Econometrica* 19(3): 293- 305.
- Spataro, Giuseppe (2018), *Deregulation and Beyond: Labor Market Reforms and Effects on Employment in Germany, Spain, and Italy*. LUISS University Rome. Master Dissertation. Online:  
[https://tesi.luiss.it/21700/1/079712\\_SPATARO\\_GIUSEPPE\\_Deregulation%20and%20beyond.pdf](https://tesi.luiss.it/21700/1/079712_SPATARO_GIUSEPPE_Deregulation%20and%20beyond.pdf) [Accessed 04 June 2019]
- Rawls, John (1971). *A Theory of Justice*. London: Oxford University Press.
- Rawls, John (2001). *Justice as Fairness: A Restatement*. Cambridge (MA): The Belknap Press of Harvard University Press.
- Sacconi, Lorenzo and Tortia, Ermanno (2019). *The Emergence of Co-operative Governance. A psychological game theory approach*. University of Trento and Milan, *mimeo*
- Shapiro, C., & Stiglitz, J.E. (1984). Equilibrium unemployment as a worker discipline device. *American Economic Review*, 74(3), 433–444.
- Titman, Sheridan, 1984, The effect of capital structure on a firm's liquidation decision. *Journal of Financial Economics*, 13(1): 137-151.
- Titman, Sheridan and Wessels, Roberto (1988). The Determinants of Capital Structure Choice. *The Journal of Finance*, 43(1): 1-19.
- Tortia, E. C. (2003). Distribution of value added, and accumulation of capital in labour-managed firms. *Economia Politica*, 19(2), 251–286.
- Tortia, E. C. (2018). The firm as a common. Non-divided ownership, patrimonial stability and longevity of cooperative enterprises. *Sustainability*, 10, 1023.
- Veblen, Thorstein B. (1898), 'Why is economics not an evolutionary science?' *Quarterly Journal of Economics*, 12(3), 373-397.
- Vindigni, Andrea, Scotti, Simone, and Tealdi, Cristina (2013). *Uncertainty and the Politics of Employment Protection*, Collegio Carlo Alberto WP 298/13. Online:  
<https://www.carloalberto.org/wp-content/uploads/2018/11/no.298.pdf> [Accessed 4 June 2019]
- Whyte, William Foote, and Whyte, Kathleen King (1991). *Making Mondragón: The Growth and Dynamics of the Worker Cooperative Complex*. Ithaca, NY: ILR Press.
- Wong, David C. (1983). A two-period model of the competitive socialist labor-managed firm. *Journal of Comparative Economics*, 10(3), 313-324.