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Dividend-Based Labor Remuneration and Tradable Shares in Worker Cooperatives

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Abstract: This paper analyzes the possibility of creating worker cooperatives in which members are paid not through wages but through dividends calculated on the organization's residual income, as stipulated by the economic theory of the labor-managed firm. It is shown how dividends paid to members can be linked to the value of their financial participation in the capital of the cooperative. In the presence of a financial market, cooperative shares would be issued and allocated to both members and non-member outside investors, thus addressing the problem of the under-capitalization of worker cooperatives. It is hypothesized that the strong financial incentives of this type of capital structure, together with involvement in the democratic governance of the cooperative, peer pressure, and other horizontal monitoring mechanisms, would support members' intrinsic motivation to work and help overcome the problem of free-riding in the labor process. Flexible economic and financial structure in the absence of fixed wages would promote job stability, as already observed in existing worker cooperatives.

Keywords: worker cooperative; dividends; wages; cooperative shares; employment relation; free-riding

Academic Editors: Eulália Mota Santos and Margarida Freitas Oliveira

Received: 11 November 2024
Revised: 2 December 2024
Accepted: 28 December 2024
Published: 31 December 2024

Citation: Tortia, Ermanno C. 2025. Dividend-Based Labor Remuneration and Tradable Shares in Worker Cooperatives. *Risks* 13: 5. https://doi.org/10.3390/risks13010005

> "...reorganization of labor in the form of association to replace the current wage system will, we believe, be the basis of the future economic world." (Giuseppe Mazzini 1861)

1. Introduction

This paper aims to show how a different interpretation of labor remuneration for worker members of worker cooperatives in terms of dividends from net enterprise income rather than wages may allow the development of new financial instruments, or cooperative shares, that can enable this kind of mutualistic organization, at least in principle, to achieve efficient capitalization and competitive effectiveness, as demanded in the seminal contributions of Vanek (1970, 1977), Furubotn and Pejovich (1970), Furubotn (1976), Jensen and Meckling (1979), and Pejovich (1990). This paper is developed as a thought experiment since, to the author's best knowledge, the proposed financial instruments have not yet been introduced in any worker cooperative. Some examples of similar capital structures and financial instruments, however, do exist in other cooperative forms (worker and non-worker). They are introduced in the reminder of the article for explanatory purposes.

The theoretical argument starts from Ward's (1958), Vanek's (1970), and Meade's (1972) neoclassical model of the labor-managed firm (Bonin et al. 1993; Uvalic 2010; Pérotin 2013). In this model, designed to analyze the ownership rights of productive organizations in the former Republic of Yugoslavia, members of worker cooperatives are remunerated through dividends of the enterprise net income (EBIT or Earning Before Taxes, that is

value added net of the cost of capital, depreciation, and amortization), and not through wages, which instead represent the cost of labor in investor-owned, or capitalist, companies. While in capitalist companies the dividend is usually defined as a sum of money paid by a company to its shareholders from net profits, in cooperative enterprises the dividend paid to members is defined as a refund or rebate. As it discusses the possibility of introducing tradable cooperative shares, this paper also uses the concept of dividend in cooperatives (Mikami 2016).

Dividend-based compensation is consistent with worker cooperatives' economic and institutional nature, since worker members are not employees but have membership or control rights over it. On the other hand, it is well known that the historical and institutional evolution of worker cooperatives in market economies, especially in Western countries, led them to pay members as salaried employees, just like in capitalist firms. In most countries, for example, in Italy, members are salaried workers. At the same time, an additional associational relationship is established with the worker cooperative, which confers rights of membership or control over it (Fici 2016). In some cases, such as the Mondragón group in Spain, worker members receive, in addition to wages, rebates as shares in the net earnings at the end of each accounting period. This discrepancy between economic theory and institutional evolution creates a case for new theoretical elaboration to consider the economic and financial implications of distributive models that replace wages with dividend-based compensation.

This paper is organized as follows: Section 2 discusses the economic nature of the employment relationship in capitalist enterprises and shows how dividends can substitute for wages in worker cooperatives. Section 3 proposes a new model of worker cooperatives in which cooperative shares are introduced in the hands of worker members and also (potentially) outside investors and remunerated through value-added distribution (dividends), including the issuance and pricing of shares to members, new entrants, and outside investors. Section 4 addresses some relevant organizational consequences of introducing cooperative shares having to do with labor productivity, free-riding, worker livelihood, and layoffs. Section 5 concludes the paper.

2. Overcoming the Employment Relation

In recent years, some authors, both from the Marxist and radical liberal traditions, have developed a series of microeconomic and organizational theoretical and philosophical arguments that demand the overcoming, in worker cooperatives, of the hierarchical relation between employer and salaried workers or employees (Ellerman 1984, 2005, 2016, 2021; Screpanti 2001). Underlying these arguments is the idea that the labor contract is the instrument through which capitalist enterprises establish the subordination of wage earners to investors through the imposition of a hierarchical relationship. This implies the use of the productive capacities of workers in a relationship of authority (Screpanti 2017), as also affirmed by neo-institutionalist classics (Coase 1937; Simon 1951).

The imposition of hierarchy results from the payment of a wage—the equilibrium price of labor as a factor of production in the labor market—by the employer in exchange for the worker ceding the right to use her/his labor services. The creation of democratic worker-led enterprises based on the "one head or one member, one vote" rule of governance, i.e., the worker cooperative or labor-managed firm (Vanek 1970, 1977), would require overcoming both hierarchy (the employment relation) and the remuneration form inherent in that relation, that is the wage as fixed payment for labor services (see also Ellerman 1984, 2005; Dow 2003; Cheney et al. 2014; Screpanti 2017). To these are added some other observations typical of the radical neoliberal tradition that spread in recent decades, which emphatically evidence the importance of remunerating entrepreneurial work activity based

on the dimension of the enterprise residual and not in terms of a fixed contractual wage (Kiyosaki 2017).

Philosophical arguments have also been proposed as a basis for overcoming the employment relation since the transfer of labor services from the employee to the employer would imply the transfer of subjective responsibility for the decisions made by the worker. This transfer is incompatible with the Western tradition of both natural rights in Locke's (1690) labor theory of property and also the theory of subjective rights as inalienable and non-transferable or duplicable personal rights, analogous to civil and political rights (Ellerman 2005, 2016, 2021). In Locke's (1690) labor theory of property, natural rights require that all the product of labor be appropriated by those who produced it.

In this paper, such economic and philosophical propositions enter as necessary premises into the proposal of financial instruments that deny both the hierarchy between employer and employee and the payment of a fixed salary for labor services. On the other hand, members' control rights in the cooperative enterprise are interpreted as personal rights that cannot be alienated, duplicated, or transferred. The delegation (*concessio*) of decision-making responsibility to elected representatives in a mutualistic and democratic governance structure in cooperatives replaces the transfer (*translatio*) or alienation of responsibility that characterizes capitalist companies (Ellerman 2005, 2016, 2021; Cheney et al. 2014).

2.1. Dividends in Worker Cooperatives as Payment of Labor Contributions and Remuneration of Capital Shares

The thought experiment envisaged in this paper begins by considering the simplest possible form of labor remuneration. It then makes it more complex and realistic as new elements of the functioning of labor markets, financial markets, and organization are added to the initial picture.

The simplest form of remuneration for work is the (self-)payment of residual income to a self-employed or independent worker, such as a professional or artisan. Radical liberal and socialist traditions in political economy, for example, Mazzini (1860) in Italy and Mill (1871) in the UK, interpreted worker cooperatives simply as associative and mutualistic business forms, in which the members are independent or self-employed workers who join together to establish a mutually beneficial, non-hierarchical, and democratic economic venture. The same interpretation formed the legal basis for the creation of the consumer cooperatives of the Rochdale equitable pioneers in England in 1844 and the Mondragón group of workers' cooperatives in the 1950s in the Basque region of Spain (Whyte and Whyte 1991; Morrison 1989; Marcuello 2023). In the Basque context, the military regime of Francisco Franco did not prohibit the formation of worker cooperatives but considered them to be associations of self-employed workers. Still today, in Mondragón, the monthly remuneration of worker-members is not considered a real salary, but an "advance" on residual net income. It is supplemented at the end of the year by rebates on the company's overall economic result (Whyte and Whyte 1991; Morrison 1989). In this tradition, this paper considers worker cooperatives as self-employed associations in which labor compensation is equivalent to a self-employed worker's labor income when calculated as part of the collective net income earned by the cooperative. Taken literally, in the absence of wage labor, this implies that the cost of labor or wage bill in this kind of organization is zero.

In financial terms, on the other hand, the dividend is interpreted as the return on the financial investment in the equity capital of a company. The apparent incompatibility between these two definitions lies in considering dividend-based labor compensation as a share of the net economic residual *in the absence of labor costs* (wages). In the financial definition, on the other hand, dividend refers to a share of net income or profit *after subtracting labor costs*. The two definitions can be reconciled if the dividend in its financial

definition coincides with the remuneration of labor. This can happen when workers control the firm and are paid a share of the net residual. This paper illustrates how dividend-based compensation corresponds to the economic value of members' financial participation in the cooperative's capital. It will be performed in conceptual terms, using simple calculations and discussing real cases of employee financial participation in employee-owned companies and member-owned cooperatives (not necessarily worker cooperatives).

2.2. In the Absence of Capital Markets: The Capital Structure in the Mondragón System and the Slovenian Proposal of European ESOP

When worker cooperatives or worker-owned enterprises are characterized by collective or individual ownership, but workers cannot exchange their membership or financial positions in a market, the value of those positions remains implicit, since the only measurable parts of value added are labor income paid to members and the cost of capital. Paid labor income may correspond to some market value of workers' financial participation, but this is indeterminate in the absence of supply and demand for financial positions. In fact, some well-known worker financial participation schemes and capital structures of worker cooperatives, such as the Mondragón group in Spain or the generality of worker cooperatives in Italy, do not take into account the market valuation of cooperatives' assets, and do not link it to the position of individual members, preferring instead to use other accounting measures, such as book value or net asset value (NAV). In these cases, members' financial positions are valued and repaid at their nominal value (plus interest), as in Mondragon's system of internal capital accounts (Ellerman 1986). This solution has the advantage of referring to true accounting records such as the balance sheet, economic statement, and cash flow statement that do not suffer from high valuation volatility in financial markets. However, it may not provide a realistic representation of the real value of these assets in terms of expected earnings.

In systems similar to Mondragon's, members accumulate their rebates annually in internal capital accounts proportional to the dimension of realized profits (Whyte and Whyte 1991; Morrison 1989). Rebates are automatically capitalized to increase the net worth of the enterprise and to finance investment projects (Tortia 2007). As a general rule, capitalized rebates cannot be cashed out by members before the termination of the membership status, i.e., before voluntary resignation, dismissal, or retirement (Ellerman 1986).

As a different example, it is possible to consider ESOPs (Employee Stock Ownership Plans; Kelso and Adler 1958). While ESOPs have been common in the United States since the pension fund reform of 1974 (ERISA, Employee Retirement Income Security Act, which included defined-benefit plans and defined-contribution plans, such as 401(k) plans, 403(b) plans, and profit-sharing plans), ESOP-type financial participation is much rarer in Europe. A recent reform project of the Slovenian government, in cooperation with the Institute for Economic Democracy in Ljubljana, has introduced an ESOP-like financial participation scheme that mixes the Mondragón internal capital account system and the U.S. ESOP scheme (Ellerman et al. 2022a, 2022b). This proposal foresees the transformation of capitalist companies into worker cooperatives based on the allocation of company shares to workers and their payment to investor-owners according to the NAV valuation. The workers' shares would be held in a trust fund and would not be attributed to members until the debt issued to purchase the company is repaid (the trust fund would serve as collateral for the purchase). Once the transition process is completed, members' shares would not be exchanged in the market, but their value would increase with realized profits (not expected future profits) in the form of rebates or year-end dividends.

In contrast to the Mondragón system and the U.S. ESOP scheme, in Slovenian ESOPs the distribution of accumulated value in individual accounts can be collected by members before retirement, based on a predetermined schedule or rollover mechanism, which would

depend on the amount of net profits earned by the cooperative, the amount of reinvestment of realized profits needed to finance investment programs, and the speed with which new incoming members are able to replace the amounts of financial interest paid out to incumbent members. This way, members' financial positions could be partially liquidated, usually within a few years (Ellerman et al. 2022a, 2022b). While this mechanism can reduce or eliminate the problem of undercapitalization in some cases, it may not be able to fully account for the future economic performance of the organization and may not provide sufficient guidance for members to invest and innovate because it is based on the accumulation of realized profits, not prospective profit (Tortia 2007, 2021; Galor 2015; Galor and Sofer 2019).

2.3. U.S. ESOPs and the Presence of a Market for Employee Equity Shares

In systems where employee shares can be traded based on supply and demand, such as ESOPs in the United States, there is a market valuation for these securities. In the U.S., employee shares in ESOP companies can be bought back by the company on the market or issued anew and then awarded to workers. ESOP shares are held in a trust, which collectively represents workers at the company's shareholder meetings. Rather than replacing wages, employee shares are an addition to fixed wages in compensation packages in the form of a supplementary private pension plan. ESOP shares are redeemed at the current market price at the time of retirement (partially also at the time of voluntary resignation; Rosen 2023). This form of financial participation has shown important potential in increasing labor productivity and competitiveness ESOP companies. Several empirical studies measure an increase in labor productivity of close to 5 percent or more in the presence of an ESOP plan (Rosen and Quarrey 1987; Kumbhakar and Dunbar 1993; Blasi et al. 2013; O'Boyle et al. 2016; Kruse 2022) and also high firm longevity and job stability in ESOP firms compared to non-ESOP firms (Blair et al. 2000). In the United States, although in most cases exchanges take place on private markets, a significant number of companies that have adopted an ESOP (about a thousand) are publicly traded. In ESOP plans, holding employees' shares in a trust and limiting or blocking their capacity to sell (in some cases temporarily, in others permanently) eliminates the risk of workers' shares being sold to outside investors. Similar patrimonial solutions (holding employee shares in a trust) are followed by many (not all) U.K. and U.S. employee-owned companies, although these solutions can vary substantially from company to company (e.g., in some cases shares are redeemable, in others not; Erdal 2012). Among the best-known cases of employee-owned companies is the John Lewis Partnership in England, which began the process of converting to employee co-ownership in 1929 and completed the conversion in 1950 (Storey et al. 2014; Salaman and Storey 2016).

As the percentage of total shares held by employees increases, there is less room for the establishment of a real market for the company's shares due to the thinness of these markets, in which the financial and strategic decisions of employees prevail over outside investors. When the percentage of shares held by workers is high enough to control the company, market share prices may be an imperfect and distorted signal of company's value (Ang 1992). For this reason, the share price of ESOPs is usually defined by specialized professionals using various valuation methods, such as capitalization by discounted cash flows, EBITDA multiples, and the NAV (net asset value).

2.4. Example of Cooperative Enterprises Exchanging Shares on the Market

To the author's knowledge, examples of cooperatives selling tradable shares to outside investors are rare and none are found among worker cooperatives. However, a few recorded examples of the issuance of shares or share-like securities are found among other types of

cooperatives, particularly financial, consumer, and producer cooperatives and also in some large worker cooperatives. At the theoretical level, Mikami (2016) discusses introducing transferable shares in the main types of cooperatives, workers, producers, and consumers, proposing specific changes to corporate law that would allow cooperatives to exchange shares in a manner similar to investor-owned companies. Under this approach, the market for cooperative shares is limited to members. Ridley-Duff (2009), on the other hand, explores the trade-off between collective reserves and individual ownership in worker cooperatives and discusses the possible impact of individual ownership, without delving into the issue of shares marketability (Cfr. also Tortia 2007, 2021).

Other theoretical contributions deal with ownership and capital structure in specific cooperative types, especially agricultural producer cooperatives, a very common phenomenon in both developed and developing countries. Chaddad and Cook (2004) discuss the so-called "New Generation Cooperatives" (NGCs) and propose the introduction of tradable shares. The authors outline a continuum from traditional cooperatives that capitalize their self-financing (positive residuals) through collective reserves and members' non-tradable shares to classic capitalist corporations owned by investors, which trade most of their shares on the market. NGCs are characterized by transferability of residual rights, providing liquidity and capital appreciation through secondary market valuation. Ownership rights are limited to patron members, membership is closed, and members are required to make initial investments in delivery rights in proportion to patronage. With the same contribution, the model of "Investor-Share Cooperatives" can acquire third-party equity capital without converting to an IOF. It usually issues separate classes of shares in addition to traditional member ownership rights. Investor shares can bundle different ownership rights in terms of return, risk bearing, control, redeemability, and transferability and include preferred shares, non-voting common shares, and participation certificates. In the remainder of the paper, a proposal similar to that for investor-share cooperatives will be made in the case of worker cooperatives, contemplating the same type of shares for both worker members with control rights and non-member investors.

Regarding empirical contributions, Fulton and Larson (2009) discuss the introduction of marketable shares in the Saskatchewan Wheat Pool (SWP), a Canadian grain marketing and input supply cooperative, in 1996. This capital restructuring led to financial difficulties in the early 2000s and complete demutualization in 2007. The SWP converted its members' capital into non-voting common shares, which were first offered to members and then traded on the Toronto Stock Exchange. Ordinary shares held by outside investors had no voting rights, while voting common shares (A Shares) held by cooperative members were not transferable and not appreciable (Chaddad and Cook 2004). The roots of the negative outcome of capital conversion have been identified in agency problems combined with management overconfidence and hubris (Fulton and Larson 2009). It should be noted, however, that in the SWP, members' A shares were not transferable and were not appreciable. In other words, the A-shares had no market valuation that took into account expected future earnings, and could not be sold to outside investors, giving members little incentive to monitor managers (reducing agency costs) and implement industrial strategies effectively.

Among worker cooperatives, Eroski is a large multi-stakeholder cooperative in which both employees and customers are members. It is part of the Mondragón group of worker cooperatives and the largest Spanish-owned retail chain in Spain. In 2009, Eroski had 48,000 employees, 2367 stores in Spain and abroad, 661,000 members, and sales of nearly EUR 8500 million. To increase its capitalization, between 2002 and 2007 it issued 660 million euros in perpetual non-redeemable bonds, which paid a fixed dividend. These bonds were listed on the Spanish stock exchange. The price of perpetual bonds can fluctuate widely,

similar to the price of stocks, due to the strong influence of long-term earnings expectations. After the 2009 economic crisis, the price of Eroski perpetual bonds fell significantly, losing more than 50 percent of their par value. The economic and financial crisis forced Eroski to restructure, and the perpetual bonds were repurchased in 2014 with a total loss to investors of 30 percent of their face value, ending this financial experiment, which, however, allowed Eorski to survive a difficult decade (EFE: Agro 2014; Medina-Albaladejo 2017).

Finally, Volksbanks are credit institutions established in the form of joint-stock cooperative societies, following the tradition started by Franz Hermann Schulze-Delitzsch in Germany in 1850. *Banca Popolare di Milano* (BPM), one of Italy's largest Volksbanks, was listed on the Italian stock exchange in May 1994 and continued to be a cooperative bank issuing marketable shares until 2016. Being a cooperative bank, only members, who owned varying amounts of shares in the bank, had voting rights under the "one member, one vote" mutualistic rule. Following the financial difficulties caused by the 2011 Italian sovereign debt crisis, in 2015 the Italian government passed a law reforming popular banks (d.l. 3/15). The largest *banche popolari* (with a net worth of more than EUR 8 billion) had to demutualize and convert to investor ownership. In March 2016, BPM merged with Banco Popolare to form Banco BPM, an investor-owned commercial bank (Romani 2005).

3. A New Proposal for Cooperative Shares in Worker Cooperatives

A new proposal regarding the possibility and implementation of new forms of share ownership for worker members of worker cooperatives starts, at the theoretical level, from the agency relationship between employer and employee in capitalist companies. The agency model proposed by Jensen and Meckling in 1976 stipulates that the relationship between shareholder owners and managers is characterized by conflicting interests. By extension, the existence of conflicting interests can also be easily demonstrated in the employer/employee relationship in capitalist companies because of the inverse relationship between wages, which are a cost, and the net earnings of the firm. As wages increase, profits decrease, and vice versa (cfr. Sraffa 1960). The contractual relationship between employer and employee requires the latter to agree to perform the production operations specified in the contract in exchange for a fixed wage. The employee will then choose his or her optimal level of effort based on the labor income (wage) received and the structure of economic incentives and penalties for noncompliance with the contract (Prendergast 1999; Handy 2022; Angus 2023). In the presence of information asymmetries, the employer/employee agency relationship gives rise to agency costs, i.e., costs of controlling and incentivizing employees' work effort. These costs can be reduced by introducing appropriate monetary incentives and control mechanisms, but never eliminated, resulting in a second-best solution that deviates from the socially optimal solution (Prendergast 1999; Tortia 2022). This contract structure is characterized by wage rigidity, which is a dominant and stable feature of all capitalist market economies and can exacerbate business cycle fluctuations at the macro level (Keynes 1936; Weitzman 1986; Screpanti 2001; Albanese et al. 2019).

This paper applies the same tools and arguments that the agency literature has been applying to the conflict of interest and agency costs in the capitalist corporation (both between managers and shareholders and between employers and employees; Prendergast 1999) to address the serious negative impact that agency costs can have on the efficiency of the relation between worker members as investor-owners and external, non-member investors in worker cooperatives. The objective is to align, economically and financially, the objectives of worker members with those of non-member investors.

In a dividend-based labor remuneration scheme, members' remuneration can be equated to that of the shares held by non-member investors. When the remuneration of the shares owned by the two categories is exactly the same, the contrast of interests

between worker members and investors can be limited or eliminated, since both will have the dividends they receive and the value of the shares they own as their dominant objective. The possibility of this type of alignment had already been pointed out in the best-known work of Jensen and Meckling (1976), in which the authors hypothesized that competing interests between shareholder owners and managers or directors can be reduced by introducing appropriate financial incentives—e.g., shares and/or stock options—for top executives (cf. Berle and Means 1932, on the separation of ownership and control in capitalist corporations), as these instruments can encourage managers' focus on performance, productivity, and profitability rather than on their own income and leisure (Jensen and Meckling 1976; Jensen and Smith 1985; Hill and Snell 2017).

3.1. The Introduction of Worker Shareholding

In purely economic terms, consistent with Meade's (1972, 1986, 1989) work on the capital/labor partnership, labor services are a flow, while human capital is a stock that grows with work experience, training, and investment in education, while it depreciates with age (Schultz 1961; Becker 1993). Similarly, financial capital is a stock that is remunerated by a stream of dividends or net income paid-out (Lintner 1962; Farsio et al. 2004; Skinner and Soltes 2009). Members of worker cooperatives invest their human capital and are remunerated in the same way as an investor. In this sense, worker members can be called "internal investors", while investors who only contribute financial capital without using their labor services in the cooperative should be defined as "external investors" or "financial investors".

To align the financial objectives of internal and external investors and eliminate potential conflicts of interest, in the proposal of this paper both categories hold the same financial security, which can be defined "common cooperative stock". However, the right to elect representatives to organizational bodies is considered a personal, inalienable, and non-duplicable right that belongs exclusively to worker members on a per capita basis, rather than according to the number of shares held (Cheney et al. 2014). In addition to conceiving of rights as personal and inalienable, this solution is also functional in avoiding the possible reemergence of conflicting interests between two different stakeholder groups within governing bodies (Ellerman 2005, 2016, 2021).

The difference between the cooperative's common stock held by working members and non-member investors can be likened to Class A and Class B shares in capitalist corporations, which means that the issuance and allotment of Class A shares would be limited to working members, while Class B shares would be issued to and saleable by non-member investors (Class A and Class B common shares in capitalist corporations may be limited to founders and/or managers). For example, specific issues of new shares (either as IPOs for Class B shares or as secondary offerings) may be restricted to Class A or Class B shares. Apart from limited allocations, outside investors would hold the same common shares as working members, featuring the same value and dividends. All classes of shares would have no voting rights, as voting rights would be given according to the "one member, one vote" rule.

In fact, corporate governance scholars and financial analysts increasingly view the issuance of non-voting shares as beneficial or non-harmful even for capitalist corporations, as non-voting shares can make corporate governance more efficient by lowering the cost of capital (reducing agency and transaction costs). They distribute voting power among informed shareholders who value their voting rights, while uninformed and "weakly motivated" shareholders need not vote (Lund 2019). In this paper, the issuance of non-voting common stock sold to outside investors helps increase the capitalization of worker cooperatives, which historically have often been plagued by underinvestment and under-

capitalization, production efficiency, and financial performance, because it forces voting members of the cooperative to implement more transparent and effective financial and production policies, with the goal of increasing the value of all classes of common stock.

Excessive concentration of share ownership in the hands of outside investors could lead to the formation of an unbalanced capital structure, with worker owners owning too small a share of the total, insufficient, for example, to provide adequate collateral to obtain financial support (loans and mortgages) from banking intermediaries (McCain 1977). For this reason, it may be advisable for worker members to hold a minimum percentage of the total share capital. Above this minimum, they may be allowed to sell their shares on the market, thus collecting the market valuation, a transaction that would be equivalent to an insider share sale (Jeng et al. 2003).

As already observed in existing worker cooperatives, members' dividend income is expected to be more volatile than wages. However, since the entire organizational system and financial structure is built around providing a stable livelihood and job security for worker members, these types of cooperatives are expected to make decisions to limit income volatility, in some cases at the cost of increasing share price volatility, and to establish labor income for their members first. Of course, the trade-off between risk and reward in financial markets requires that higher share price volatility is matched by higher dividend payouts, so members in cooperatives will have to strike a reasonable balance between labor income volatility and share price volatility (McCain 1977). On the other hand, it should also be considered that the cost structure in this type of organization is more flexible than that of capitalist enterprises and traditional cooperatives, as members' wage costs are absent, making it easier to stabilize income and jobs.

3.2. Market Valuation of Cooperative Shares

When introducing tradable shares, it is necessary to make explicit the mechanisms through which such securities would be issued and allocated to members, and how it would be possible to calculate their nominal value. This calculation can be, in the first instance, simple and made through an example. Assuming, for simplicity, that each worker member receives the same labor income and owns a single share of the cooperative capital, if the member's dividend in the net income of the cooperative is equal to x (for example, EUR 30 thousand per year) and the average shareholder dividend paid in the financial markets by companies with similar characteristics is equal to some percentage d of the market value of the shares (for example, an average of 10%), the presumed nominal value of the single member's financial stake is x/d (30,000/0.1 = EUR 300,000 in the example). Cooperative shares could be issued on the market at this nominal or par value. Fractional shares could be sold to outside investors at, say, 1/30,000 of their par value, or EUR 10. Obviously, market prices of shares can differ significantly from par value because share prices are influenced by a wide array of organizational and macroeconomic circumstances, primarily the expected future profitability of the company.

Although capitalist enterprises and cooperatives may deal with share valuation and marketability problems in partially different ways, the financial nature of these problems can be considered equivalent. The residual income of the cooperative would be allocated to all existing shares held by both members and outside investors following the same proportionality rule, since uncertainty about these quantitative dimensions would imply that outside investors could not be involved. In addition, cooperatives, like capitalist companies, can issue shares to outside investors at a premium or discount (Koller et al. 2020).

In the initial phase of issuing cooperative shares, before shares are traded on the market (private or public), specialized professionals and consulting companies such as the Baxi Partnership in Scotland (Erdal 2012) can calculate the nominal price, based on the

dimension of the dividends paid to members, the balance (assets, liabilities, and equity), the income and cash flow statements, and the average dimension of dividends paid or retained in similar companies in the same sector.

The price of shares held by both members and non-member investors can move in either direction for several reasons. Increases can occur either because of an increase in expected future profitability, which could cause the exchange price of shares to rise, even in the absence of an increase in income (dividends) paid to members, or because of an increase in income paid to members, when the net realized profits of the cooperative increase. In the latter case, other things being equal (e.g., average dividends in percentage points paid by stocks in the same industry), an increase in dividends paid to members and outside investors implies a proportional increase in the implied share price due to higher profitability. In the above example, an increase in labor income from EUR 30,000 to EUR 40,000 would imply the same proportional increase in dividends paid to outside investors and also a proportional increase in the implied value of shares held by members from EUR 300,000 to EUR 400,000. Since the vast majority of cooperative enterprises issuing shares to non-member investors will not be quoted on a stock exchange, in most cases, exchanges and valuations will take place in private equity markets. Being controlled by worker members, these organizations are expected to set first the value of dividend-based labor incomes to provide for members' livelihood.

Attribution of shares to incoming and quitting members. Shares can be attributed to incoming members for free, at a discount, or at full price depending on the internal policy of the cooperative, the financial constraints undergone by the new member, his/her abilities (human capital), and the financial health of the cooperative (e.g., owned cash liquidity and reserves of retained earnings). When a market price for cooperative shares exists, shares can be attributed (and their number calculated) or sold to incoming members at their market price or at their par value depending on the cooperative's policy (share market price can be higher or lower than par value). Shares can be allocated to new entrants through new issues, market repurchases, and allocation of existing treasury stock. This type of common cooperative shares would be nonredeemable, like all common shares, so as not to put financial pressure on the organization, especially in times of crisis (Tortia 2018, 2021).

Setting the nominal price of the cooperative's shares is very important in the absence of a market price, since, for example, it would signal to incoming members the presumed value of their financial stake in the cooperative. If a new member receives entry income equal to, say, 50 percent of the income received by existing members, he or she will be allocated exactly 50 percent of the number of shares held by existing members, valued at their par price.

Quitting members (resigning or retiring members) would be registered as external shareholders, would receive the same dividends as incumbents, and would be able to sell their shares on the secondary market to other (private and/or institutional) investors or also to the cooperative itself. In this way, incumbent members would have the greatest incentive to increase the competitive potential and market value of the cooperative and recruit new, highly qualified members since they would only sell their shares when they resign or retire based on market assessments of future profitability at exit. The cooperative can increase the amount of dividend income paid out to members at will, but this type of transaction will likewise increase the dividends distributed to outside investors. This may reduce the market value of cooperative shares due to increased dividend outflows.

Attribution of shares to incumbent members and outside investors. Within the organization, shares can be allocated to current members by issuing them from scratch, buybacks, or treasury stock. As is already the practice in capitalist companies, repurchased or new shares can be used as part of an additional compensation package for members or to implement

stock option plans (Song 2002; Bens et al. 2003). The issuance of new shares to members (both new and incumbent) may cause outside investors to sell their holdings because of an increase in the total number of shares outstanding, or dilution, to avoid capital losses. For this reason, the issuance of new shares must be carefully considered and usually occurs when there are significant increases in the firm's productivity and profitability prospects, an eventuality that, when it materializes, can counteract or reverse dilution and share price declines (e.g., when the returns to scale of the technology used by the firm are increasing; Larrain and Urzúa 2013).

Shares issued to outside investors can be sold in private equity markets for unlisted companies but, in principle, can also be publicly traded. Since the market price of shares issued by listed and unlisted companies is very difficult for investors to predict, specialized intermediaries such as venture capitalists, business angels, or crowdfunding can finance new and emerging cooperatives that might also seek to move from private to public status through an IPO (Capizzi and Carluccio 2016; Blackburn et al. 2017; Bonini and Capizzi 2019).

3.3. Disparity in Share Value Due to Voting Right

The proposal in this paper features a productive organization that is a pure workers' cooperative, in which share ownership does not coincide with voting rights also in the case of worker members, not just outside investors. Share ownership, on the other hand, would be a kind of pure financial ownership, linked only qualitatively but not quantitatively to the personal rights of control.

The introduction of different types of shares (e.g., voting and non-voting; common and preferred) for working members and outside investors would imply different pricing mechanisms and lead investors, who are not in control of the organization, to be skeptical about buying shares in the cooperative, fearing that the price of the shares they buy is unduly skewed downward and thus perceiving a negative price difference as a violation of distributive equity. If investors gave up buying shares in the cooperative, underinvestment and undercapitalization would likely result again (Vanek 1970, 1977). Indeed, voting shares held by corporate owners are generally traded at a higher price than non-voting shares held by investors because voting rights confer additional benefits, such as influence over corporate governance and strategic decisions. The need to align the interests and goals of members and investors as closely as possible and to avoid the danger of undervaluing investors' shares confirms the requirement that the shares held by worker members and external investors be exactly the same.

Equalizing the characteristics of members' and investors' shares would force members to be as transparent and effective as possible in both the management of the production organization and their financial policies (e.g., the issuing of new shares, stock option plans, etc.), as non-transparent and ineffective policies would inevitably cause investors not to invest or to sell, lowering the share price for both categories. On the other hand, if members and investors owned different types of shares, there would be no true market for the members' shares, as they could only sell their holdings to other members (Mikami 2016). The absence of a true open market for common shares would cripple and distort financial incentives, eventually damaging production processes as well, as inefficient valuation of shares would result in the inability to pursue optimal investment plans. This is one of the main reasons why the share issue experiment initiated in 1996 by the Saskatchewan Wheat Pool probably proved deficient and failed as early as 2003, causing demutualization in 2007. Outside investors owned a different type of shares than the voting shares held by members, which were non-transferable and non-appreciable (Chaddad and Cook 2004; Fulton and Larson 2009).

Worker members may be required by law to own a minimum percentage of the total net worth (equity) of the organization, to create capital stability and collateral guarantees, and to avoid the danger of violating the law of increasing risk (McCain 1977), which in this case implies that insufficient equity held by members induces the market to demand higher average returns, i.e., a lower market value of the shares. Special emissions of new shares and stock options could be granted only to members, in much the same way that they are granted to particular types of employees (e.g., top executives) in capitalist corporations.

This capital structure leaves open the possibility of issuing other equity and non-equity asset classes. For example, preferred shares and perpetual bonds. As it is well known, preferred shares are part of equity, i.e., they are not redeemable but issued at a par value that is usually not much different from their market value because they pay a (non-mandatory) dividend to shareholders and do not have voting rights. They are more similar to bonds than to actual equity. Perpetual bonds can also be issued, as in the case of Eroski in Spain. Perpetual bonds resemble preferred shares because they have no voting rights, are not redeemable, and pay a fixed yield. However, they are not part of equity because they can be repurchased at any time by the issuing entity, and payment of a dividend is mandatory.

4. Organizational Issues: Labor Productivity, Free-Riding, Workers' Livelihoods, and Dismissal

The introduction of cooperative shares would have important organizational consequences, mainly having to do members' livelihood, including the risk of free-riding in the labor process and layoffs, through its ability to achieve adequate labor productivity. These issues are addressed in turn in this section.

4.1. The Organization of Work, Motivation, and the Problem of Free-Riding

When hierarchy is replaced by horizontal coordination and self-organization, so-called "collective action failures", are likely to be generated, as in the foundational contributions of Commons (1950), Olson (1965), Hardin (1968), and Ostrom (1990). In a mutualistic organizational structure, managerial control and entrepreneurial action can be considered collective (Cook and Plunkett 2006; Bijman and Doorneweert 2010; Lomuscio 2024), while decision-making power is delegated from members to their representatives (Ellerman 2005, 2016).

Severe criticism has been raised against the possibility of achieving adequate productive efficiency through collective self-organization of labor because of collective action failures, especially free-riding. Workers would reduce average work effort in an attempt to opportunistically take advantage of the work effort of other workers, since effort is a cost that the worker wants to minimize, while joint production is a (semi-)public good that can be enjoyed by all workers in the collective enterprise. Indeed, the value added produced and capital in worker cooperatives can be considered commons in that they are rivals, but not excludable (Ostrom 1990; Tortia 2018). In the presence of nonexcludability and rivalry, free-riding leads to sub-optimal production efficiency that negatively deviates from the social optimum for the organization (Alchian and Demsetz 1972; cfr. Bowles and Gintis 1993; Putterman 1988 for a favorable response to democratic firms). In capitalist enterprises, instead, the owner's goal is to maximize the enterprise net profitability or market valuation. The owner, therefore, will put in place those control mechanisms over the labor process that can ensure an optimal (efficient) allocation of work effort, resulting in the second-best solution net of agency costs (Alchian and Demsetz 1972; Jensen and Meckling 1976).

Because free-riding always afflicts collective action and cooperation, it has been in the spotlight of theoretical and empirical research since Alchian and Demsetz (1972) and Jensen and Meckling (1979) and other well-known contributors (see Holmstrom 1982). Advocates of worker cooperatives have defended the possibility of democracy in the workplace,

seeking to explain how free-riding can be overcome or appropriately limited (e.g., Ben-Ner 1988; Ben-Ner and Jones 1995; Putterman 1988; Bowles and Gintis 1993).

Real-world cooperatives have developed control tools and monitoring processes that can control free-riding, ranging from peer pressure to financial incentives to involvement in decision-making processes to sanctions proportional to the severity of the breaches perpetrated by free-riding members (Ostrom 1990; Malleson 2013; Tortia 2022). The introduction of financial incentives, such as a market for member rights, has been shown to effectively combat free-riding, as in plywood worker cooperatives in the U.S. Pacific Northwest (Craig and Pencavel 1992, 1994; Pencavel 2001). The presence of a market for membership rights in these cooperatives implied that members could realize the market value of productivity gains in terms of higher prices for their membership positions, supporting the achievement of high levels of labor productivity (Craig and Pencavel 1992, 1994; Pencavel 2001; Dow 1986, 2003; Tortia 2022).

Some recent empirical results, however, seem to confirm the existence of fairly relevant phenomena of productivity reduction and free-riding concerning members of worker cooperatives in Uruguay (Blanchard et al. 2024). The evidence on wages lower than in capitalist firms also seems to point in the same direction, although free-riding is certainly not the only determinant of negative wage differentials between capitalistic enterprises and cooperatives. Worker member characteristics, such as educational level, and the level of capitalization of the firm, also play a key role (Pencavel et al. 2006; Clemente et al. 2012).

In this study, it is hypothesized that financial participation through member ownership of cooperative shares can exert a direct positive impact on job performance, including helping to combat free-riding in team production, as confirmed by empirical studies on the effects of the ESOPs on labor productivity in the United States (Blasi et al. 2013; Kruse 2022). The proposed ownership and organizational model sees financial incentives as directly linked to members' labor income as a means of workers' livelihood. These incentives are the main tools that can be effective in combating the free-riding problem, as financial losses in terms of cooperative share valuation resulting from members' opportunistic behavior directly affect members' livelihoods. Furthermore, the cooperative would be forced to implement effective control mechanisms, the specifics of which should be delegated to the decisions of individual organizations (e.g., increasing supervisory staff, increasing or reducing smart working, implementing workplace control, etc.).

The backbone of this approach lies in the conjugation of the market valuation of members' financial holdings and the involvement processes that characterize the governance and management of worker cooperatives (Rosen and Quarrey 1987; Winther and Marens 1997; Logue et al. 2001). The feedback mechanism to reduce or eliminate free-riding would occur through involvement in cooperative governance and collective recognition that behavioral outcomes in the production process are directly reflected in the value of financial holdings, mediated by collective productivity. This feedback mechanism has a strong cognitive and motivational dimension that depends on collective impacts within a unifying organizational framework, which can be termed "proactive collective rationality." In turn, maintaining or strengthening workers' intrinsic motivation to work will likely foster organizational resilience and reduce the need for supervision.

The role of collective rationality. Collective rationality refers to the rational ways of solving collective action problems and the framing effects induced by coordination mechanisms in governance. Framing is understood as a cognitive process in which individuals identify relevant organizational dimensions that support their decision-making by linking motivations (goals) and expected behavioral outcomes. Bacharach (2006) introduces the concept of "we frame", as a collective process that supports the pursuit of common goals. For Schoemaker and Russo (2016), rationality as a collective phenomenon requires fram-

ing, that is, anchoring decision-making to simple cues in the organizational environment. Framing is also crucial in the production of shared knowledge in terms of shared conceptualization that facilitates sensemaking, understanding, and collective action (Hecker 2012). Socialization processes within organizations enable concerted practices and a partial overcoming of bounded rationality, as individuals can see themselves as part of a common venture in which they can coordinate cognitively and express common productive motivations (Shulman and Carey 1984; Lindenberg and Foss 2011). In the evolutionary literature, the collective side of rationality dynamically emerges and crystallizes from the development of rules and routines in inter- and intra-organizational interactions through institutionalization or "structuration" (DiMaggio and Powell 1983).

Free-riding, productivity, and intrinsic motivation. The cognitive aspects of organizational processes and financial incentives must be combined with worker motivation, especially intrinsic motivation. Classical studies have shown that control mechanisms, punishment, and extrinsic incentives can crowd out intrinsic motivation to work (Frey 1997; Frey and Jegen 2001). In the approach followed in this paper, financial participation can increase the economic performance of worker cooperatives, but only when combined with member involvement in a nonhierarchical organizational environment and governance, since participation and commitment, which support intrinsic motivation to work, maintain a crucial role in achieving higher productivity and long-term resilience (Tortia et al. 2021).

Herzberg et al. (1959) and Herzberg (1987) introduced the two-factor model to explain workplace motivation and job satisfaction. Hygiene factors, such as salary, supervision, and job security, do not lead to satisfaction but prevent dissatisfaction. Motivating factors refer to intrinsic motivators, such as the job itself and recognition. In worker-managed systems, hygiene factors such as procedural fairness, governance, and cooperative structures are critical. However, intrinsic motivators such as autonomy, decision-making involvement, and transparency in governance often drive worker engagement, as democratic decision-making processes improve procedural fairness, fostering job satisfaction and a sense of inclusion and trust (Tortia 2008; Tortia et al. 2021). Monitoring is necessary for efficiency, but it should be in line with inclusive cooperative governance, as too much monitoring can undermine intrinsic motivation. When applied to democratic governance, Herzberg's (1987) two-factor model shows that worker empowerment and accountability can foster creativity and innovation (Sacchetti 2015). On the other hand, hygiene factors such as clear communication of rules, predictable schedules, and a sense of job security are essential to minimize dissatisfaction and transaction costs. It can be hypothesized that inclusive, noncontrolling governance, characterized by low degrees of monitoring and supervision, may foster or otherwise not harm intrinsic motivation and play a positive mediating role between financial participation and work performance. Instead, the relationship between monitoring and job performance is likely complex and nonlinear. The recent contribution of Mugerman et al. (2024) shows that too little monitoring may lead to detrimental effects on collective productivity due to the prevalence of free-riding, while, in contrast, too tight supervision does not lead to higher productivity but to disengagement and crowding out due to the displacement of intrinsic motivation. In fact, monitoring and supervision appear to be particularly low in worker cooperatives, as shown by Bartlett et al. (1992), who found smaller supervisory staff in Italian industrial cooperatives, as compared to similar capitalistic firms in the same sectors (cf. also Jones and Svejnar 1985).

Recent HRM results from Chinese data show that financial stress (which is an indicator of financial involvement) is positively related to job performance, while work engagement, which results from worker involvement in decision making, mediates the positive relationship between financial stress and job performance. Emotional exhaustion, which can be a negative indicator of intrinsic motivation, negatively moderates the mediation relationship

between financial stress, work engagement, and job performance. In other words, low levels of intrinsic motivation weaken the positive relationship between financial participation and performance through lower engagement (Wei et al. 2024; Miao et al. 2024). The positive impact of financial incentives on productivity and motivation works through cooperative governance to reduce the need for monitoring mechanisms (supervision and sanctions), which would generate additional agency costs, thus improving overall organizational efficiency (Barnard 1938).

4.2. Risks to Worker Livelihoods in Dividend-Based Compensation

In dividend-based compensation, workers' income is directly linked to the residual earnings of the enterprise. If earnings are too low, workers' livelihoods are at risk. This problem is common to worker cooperatives and capitalist enterprises alike, as the former may not be able to pay sufficient incomes, while the latter may be prone to resort to layoffs when going through economic or financial difficulties. In the scheme of the present work, the absence of wage labor implies the absence of labor cost, which would reduce total costs substantially, weakening the constraints that the cooperative must meet to remain economically solvent and viable, compared to other enterprise forms (Weitzman 1986; Meade 1989). Dividends as labor income would certainly be more volatile than wages, but on average they should be higher, although this specific question (whether dividend income is on average higher or lower than wages) will require further analysis and empirical testing. Certainly, dividend-based compensation serves the same economic function as wages in securing livelihoods.

In addition, this type of cooperative is not prevented from establishing reserves, either divisible or indivisible (collective), which can be used to supplement members' incomes in times of crisis. Losses can be absorbed through retained earnings, debt financing, or collective reserves, as in more traditional cooperative forms (for example, all Italian cooperatives, not only worker cooperatives, are required by law to reinvest at least 30% of their net earnings in indivisibles reserves). The introduction of collective reserves can have a significant negative impact on financial incentives and share value of the cooperative. However, indivisible reserves have the advantage of stabilizing capital ownership and creating an insurance fund that ensures job stability during economic crises, something of central importance in worker cooperatives (Navarra 2011, 2016; Tortia 2018, 2021). In addition, this type of organization may not increase paid-out labor income too much, lest it increase the risk of bankruptcy and job loss (Miyazaki and Neary 1983; Craig and Pencavel 1995; Burdín and Dean 2012). Indeed, it has been repeatedly shown that worker cooperatives are more risk-averse than capitalist enterprises in their investment policies, and one of the main reasons lies precisely in the need to avoid job losses for members (Hansmann 1996; Dow 2003; Holmstrom 1982; Ben-Ner and Jones 1995; Bonin et al. 1993; Craig and Pencavel 1995; Pérotin 2013).

In case of economic problems and financial difficulties, the cooperative form studied in this paper would have to pay at least a minimum income to all members to support their livelihood. In many circumstances, there would be no economic rationale for laying off members, even during an economic crisis, since layoffs of members do not reduce the dividends that must be paid to investors (laid-off members would become external investors).

Crises can be absorbed in the short to medium term through the use of debt and reserves, but not in the medium to long term. If the cooperative is no longer economically or financially viable, it must be liquidated or acquired by stronger organizations. During economic crises, skilled workers are likely to leave first because of better outside options in the labor market, although leaving the cooperative implies giving up quasi-rents and

other returns on specific human capital investments made in the past (Williamson 2000). When the crisis becomes very severe and the income guaranteed by the cooperative falls below some critical threshold (the participation constraint in the external labor market), the economic rationale for this type of organization evaporates as well. Finally, when marketable shares perform poorly and the economic conditions of the organization are negative, members may choose to demutualize and return to the capitalist form, or buy back the cooperative's shares at much lower prices to sustain their valuation and restart the capitalization process.

4.3. The Dismissal of Worker Members

While in investor-owned enterprises dismissal for economic reasons is considered a routine and necessary practice due to wage rigidity (the enterprise is forced to dismiss workers with fixed incomes, when worsening profitability may harm its development prospects or engender bankruptcy), several theoretical and empirical contributions have shown that cooperative enterprises, not only worker cooperatives, can be able to significantly reduce dismissals compared to their capitalist counterparts, even during negative economic phases (Weitzman 1986; Meade 1989). The main reason is that cooperatives are created to provide a stable flow of goods and services to their members, in a logic similar to that of clubs, and thus to the production of collective goods (Ben-Ner and van Hoomissen 1991; Pérotin 2013). Since the cooperative will tend to keep the supply of goods and services to members stable even during a crisis, employment in the cooperative will also be stable (Borzaga et al. 2022).

The tendency of worker cooperatives not to lay off workers even during a crisis can also be explained by the provision of employment services to members, as worker cooperatives will continue to provide employment opportunities on better terms than in the open labor market and save jobs even in adverse economic conditions, that is, even when profitability is low or negative (Bartlett et al. 1992; Craig and Pencavel 1992, 1994; Pencavel et al. 2006; Berman and Berman 1989; Burdín and Dean 2009; Delbono and Reggiani 2013). During recessions, members will take a range of actions to minimize the likelihood of job losses, from reducing hourly wages and hours worked to using reserves to offset declines in demand and output (Miyazaki and Neary 1983; Craig and Pencavel 1993; Navarra 2011, 2016; Navarra and Tortia 2014; Albanese et al. 2019; Tortia 2022).

In the cooperative model presented in this paper, the nature and economic relevance of employment termination change substantially. Even if the associative relationship between the member and the cooperative is terminated through voluntary resignation or involuntary layoff, the ex-member becomes an outside investor and remains in possession of his or her financial stake, which continues to receive the corresponding dividends. Termination of membership eliminates membership rights, including any additional benefits, such as receiving additional shares or stock option plans. On the other hand, from the organization's perspective, in terms of existing financial positions, layoffs result in no cost gain, unlike in capitalist enterprises. In other words, fixed wages as an economic rationale for laying off workers would be overcome. Reducing layoffs would also forestall negative macroeconomic implications, such as decreases in aggregate consumption (Pérotin 2013; Tortia 2022).

5. Conclusions

As already hypothesized by Ward in his 1958 foundational model of the labor-managed firm, the present paper hypothesizes the creation of worker cooperatives in which members' earned income is not a fixed contractual wage, as in an employer/employee agency relation-

ship, but a dividend-based remuneration scheme consisting of shares in the organization's net income in the absence of wage costs.

Paying dividends instead of wages would uniquely link the labor income of cooperative members to the par value of their financial participation in the enterprise's capital. In the absence of a capital market, the par value of the cooperative's shares corresponds to the value of the members' financial interest in the enterprise's net worth. If there is a capital market, instead, shares can be sold on a private equity market or even on a public stock exchange. The cooperative's shares could be issued and traded on the same terms of value and remuneration not only for cooperative members but also for non-member outside investors.

A number of existing examples of cooperative capital structures or employee ownership that include the issuance of shares or other share-like securities (e.g., perpetual bonds) were presented and discussed, covering not only worker cooperatives and employee ownership but also other cooperative forms (production, consumer and credit cooperatives). In worker-owned enterprises, for example, members own at least part of the company's capital, although there may or may not be shares and capital markets. The case of Mondragon cooperatives, the ESOP scheme in the United States, and worker cooperatives in the U.S. Pacific Northwest were brought up for discussion, showing the attempts that have been made to date to introduce employee and member financial participation in equity in a structured way. The presence of a market for member rights and ESOPs have been identified as among the most refined examples of tradable worker ownership, along with employee ownership in the John Lewis Partnership tradition.

Finally, it was pointed out that in the worker-owned cooperative model proposed in this paper, dividends as members' labor income and also the value of cooperative shares could have a relatively stable and increasing trend over time, in line with members' livelihood needs and their productivity improvements. They have also been found to be effective in counteracting free-riding and other collective action problems in the entrepreneurial action. On the other hand, cooperative governance has been shown to have the potential to increase productivity and performance by sustaining intrinsic work motivation. Only in the event of economic or financial difficulties in the enterprise would one expect labor income to undergo significant (downward) adjustments, while positive economic performance would lead to a steady increase in members' labor compensation.

Funding: This research received no external funding.

Data Availability Statement: No new data were created or analyzed in this study. Data sharing is not applicable to this article.

Acknowledgments: The author would like to thank Alberto Zevi, former director of the LegaCoop research center in Rome, for very important suggestions and precious comments on earlier versions of this article. The usual disclaimers apply.

Conflicts of Interest: The authors declare no conflict of interest.

References

Albanese, Marina, Cecilia Navarra, and Ermanno C. Tortia. 2019. Equilibrium Unemployment as a Worker Insurance Device: Wage Setting in Worker-Owned Enterprises. *Economia Politica: Journal of Analytical and Institutional Economics* 36: 653–71. [CrossRef]

Alchian, Armen A., and Harold Demsetz. 1972. Production, Information Costs, and Economic Organization. *The American Economic Review* 62: 777–95.

Ang, James S. 1992. On the Theory of Finance for Privately Held Firms. *Journal of Small Business Finance* 1: 185–203. [CrossRef]

Angus, Ian. 2023. *The War Against the Commons: Dispossession and Resistance in the Making of Capitalism*. New York: Monthly Review.

Bacharach, Michael. 2006. *Beyond Individual Choice: Teams and Frames in Game Theory*. Princeton: Princeton University Press.

Barnard, Chester. 1938. *The Functions of the Executive*. Cambridge, MA: Harvard University Press.

Bartlett, Will, John Cable, Saul Estrin, Derek C. Jones, and Stephen C. Smith. 1992. Labor-Managed Cooperatives and Private Firms in North Central Italy: An Empirical Comparison. *ILR Review* 46: 103–18. [CrossRef]

Becker, Gary S. 1993. *Human Capital*, 3rd ed. Chicago: Chicago UP.

Ben-Ner, Avner. 1988. The Life Cycle of Worker-Owned Firms in Market Economies. *Journal of Economic Behaviour and Organization* 10: 287–313. [CrossRef]

Ben-Ner, Avner, and Derek C. Jones. 1995. Employee Participation, Ownership, and Productivity: A Theoretical Framework. *Industrial Relations* 34: 532–54. [CrossRef]

Ben-Ner, Avner, and Theresa van Hoomissen. 1991. Nonprofit Organizations in the Mixed Economy: A Demand and Supply Analysis. *Annals of Public and Cooperative Economics* 62: 519–50. [CrossRef]

Bens, Daniel A., Venky Nagar, Douglas J. Skinner, and M. H. Franco Wong. 2003. Employee Stock Options, EPS Dilution, and Stock Repurchases. *Journal of Accounting and Economics* 36: 51–90. [CrossRef]

Berle, Adolf A., and Gardiner C. Means. 1932. *The Modern Corporation and Private Property*. New Brunswick: Transaction.

Berman, Katrina V., and Matthew D. Berman. 1989. An Empirical Test of the Theory of the Labour-Managed Firm. *Journal of Comparative Economics* 13: 281–300. [CrossRef]

Bijman, Jos, and Bart Doorneweert. 2010. Collective Entrepreneurship and the Producer-Owned Co-operative. *Journal of Co-operative Studies* 43: 5–16.

Blair, Margaret M., Dougles L. Kruse, and J. Joseph Blasi. 2000. Employee Ownership: An Unstable Form or a Stabilizing Force? *SSRN Electronic Journal*. Available online: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=142146 (accessed on 17 December 2024).

Blanchard, Pablo, Gabriel Burdin, and Andrés Dean. 2024. Property Rights, Sick Pay and Effort Supply. *Leeds University Business School WP.* Available online: https://ssrn.com/abstract=4839474 (accessed on 22 October 2024).

Blackburn, Robert, Dirk De Clercq, and Jarna Heinonen. 2017. *The SAGE Handbook of Small Business and Entrepreneurship*. Thousand Oaks: Sage.

Blasi, Joseph, Douglas Kruse, and Dan Weltmann. 2013. Firm Survival and Performance in Privately Held ESOP Companies. *Advances in the Economic Analysis of Participatory & Labor-Managed Firms* 14: 109–24. [CrossRef]

Bonin, John, Derek C. Jones, and Louis Putterman. 1993. Theoretical and empirical Studies of Producer Cooperatives: Will the Twain Ever Meet? *Journal of Economic Literature* 31: 1290–320.

Bonini, Stefano, and Vincenzo Capizzi. 2019. The Role of Venture Capital in the Emerging Entrepreneurial Finance Ecosystem. Venture Capital. *International Journal of Entrepreneurial Finance* 21: 137–75. [CrossRef]

Borzaga, Carlo, Chiara Carini, and Ermanno C. Tortia. 2022. Co-operative enterprise anti-cyclicality and the economic crisis: A comparative analysis of employment dynamics in Italy. *Annals of Public Cooperative Economics* 93: 551–77. [CrossRef]

Bowles, Samuel, and Herbert Gintis. 1993. A Political and Economic Case for the Democratic Enterprise. *Economics and Philosophy* 9: 75–100. [CrossRef]

Burdín, Gabriel, and Andrés Dean. 2009. New evidence on wages and employment in worker cooperatives compared with capitalist firms. *Journal of Comparative Economics* 37: 517–33. [CrossRef]

Burdín, Gabriel, and Andrés Dean. 2012. Revisiting the Objectives of Worker-managed Firms: An Empirical Assessment. *Economic Systems* 36: 158–71. [CrossRef]

Capizzi, Vincenzo, and Emanuele M. Carluccio. 2016. Competitive Frontiers in Equity Crowdfunding: The Role of Venture Capitalists and Business Angels in the Early-Stage Financing Industry. In *Crowdfunding for SMEs. A European Perspective*. Edited by Roberto Bottiglia and Flavio Pichler. London: Palgrave, pp. 117–54.

Chaddad, Fabio R., and Michael L. Cook. 2004. Understanding New Cooperative Models: An Ownership-Control Rights Typology. *Review of Agricultural Economics* 26: 348–60. [CrossRef]

Cheney, George, Iñaki Santa Cruz, Ana M. Peredo, and Elías Nazareno. 2014. Worker Cooperatives as an Organizational Alternative. *Organization* 21: 591–756. [CrossRef]

Clemente, Jesús, Millán Diaz-Fonsea, Carmen Marcuello, and Marcos Sanso-Navarro. 2012. The Wage Gap Between Cooperative and Capitalist Firms: Evidence from Spain. *Annals of Public and Cooperative Economics* 83: 337–56. [CrossRef]

Coase, Ronald H. 1937. The Nature of the Firm. *Economica* 4: 386–405. [CrossRef]

Commons, John R. 1950. *The Economics of Collective Action*. New York: Macmillan.

Cook, Michael L., and Brad Plunkett. 2006. Collective Entrepreneurship: An Emerging Phenomenon in Producer-Owned Organisations. *Journal of Agricultural and Applied Economics* 38: 421–28. [CrossRef]

Craig, Ben, and John Pencavel. 1992. The Behaviour of Worker Cooperatives: The Plywood Companies of Pacific Northwest. *The American Economic Review* 82: 1083–105.

Craig, Ben, and John Pencavel. 1993. The Objectives of Worker Cooperatives. *Journal of Comparative Economics* 17: 288–308. [CrossRef]

Craig, Ben, and John Pencavel. 1994. The Empirical Performance of Orthodox Models of the Firm: Conventional Firms and Worker Cooperatives. *Journal of Political Economy* 102: 718–44. [CrossRef]

Craig, Ben, and John Pencavel. 1995. Participation and Productivity: A Comparison of Worker Cooperatives and Conventional Firms in the Plywood Industry. *Brookings Papers on Economic Activity. Microeconomics* 1995: 121–74. [CrossRef]
Delbono, Flavio, and Carlo Reggiani. 2013. Cooperative Firms and the Crisis: Evidence from some Italian Mixed Oligopolies. *Annals of Public and Cooperative Economics* 84: 383–97. [CrossRef]
DiMaggio, Paul J., and Walter W. Powell. 1983. The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review* 48: 147–60. [CrossRef]
Dow, Gregory K. 1986. Control Rights, Competitive Markets, and the Labor Management Debate. *Journal of Comparative Economics* 10: 48–61. [CrossRef]
Dow, Gregory K. 2003. *Governing the Firm. Workers' Control in Theory and Practice*. Cambridge, MA: Cambridge UP.
EFE: Agro. 2014. Eroski Cambia la Deuda Perpetua Por una Quita del 30% a 12 años. Available online: https://efeagro.com/eroski-cambia-la-deuda-perpetua-por-una-quita-del-30-a-12-anos/ (accessed on 28 November 2024).
Ellerman, David P. 1984. Theory of Legal Structure: Worker Cooperatives. *Journal of Economic Issues* 18: 861–91. [CrossRef]
Ellerman, David P. 1986. Horizon Problems and Property Rights in Llabor-Managed Firms. *Journal of Comparative Economics* 10: 62–78. [CrossRef]
Ellerman, David P. 2005. Translatio versus Concessio: Retrieving the Debate about Contracts of Alienation with an Application to Today's Employment Contract. *Politics & Society* 33: 449–80. [CrossRef]
Ellerman, David P. 2016. Worker cooperatives as based on first principles. *JEOD, Journal of Entrepreneurial and Organizational Diversity* 5: 20–32. [CrossRef]
Ellerman, David P. 2021. *Neo-Abolitionism. Abolishing Human Rentals in Favor of Workplace Democracy*. Heidelberg: Springer.
Ellerman, David P., Tej Gonza, and Gregor Berkopec. 2022a. European Employee Stock Ownership Plan (ESOP): The Main Structural Features and Pilot Implementation in Slovenia. *SN Business Economics* 2: 186. [CrossRef]
Ellerman, David P., Tej Gonza, and Gregor Berkopec. 2022b. European ESOP: The Main Structural Features and Pilot Implementation in Slovenia. Inštitutza Ekonomsko Demokracijo. Ljubljana, SI. Available online: https://mfgren.org/wp-content/uploads/2022/07/ellerman-piece-on-esops-060722.pdf (accessed on 22 October 2024).
Erdal, David. 2012. *Beyond the Corporation: Humanity Working*. London: Bodley Head.
Farsio, Farzad, Amanda Geary, and Justin Moser. 2004. The Relationship Between Dividends and Earnings. *Journal for Economic Educators* 4: 1–5.
Fici, Antonio. 2016. Governance and Member Participation in Worker Cooperatives. Euricse Working Papers, No. 86|16. Available online: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2777513 (accessed on 9 December 2024).
Frey, Bruno. 1997. *Not Just for the Money: An Economic Theory of Personal Motivation*. Cheltenham: Elgar.
Frey, Bruno, and Reto Jegen. 2001. Motivation Crowding Theory. *Journal of Economic Surveys* 15: 589–700. [CrossRef]
Fulton, Murray E., and Kathy A. Larson. 2009. The Restructuring of the Saskatchewan Wheat Pool: Overconfidence and Agency. *Journal of Cooperatives* 23: 1–19.
Furubotn, Eirik G. 1976. The Long-Run analysis of the Labor-Managed Firm: An Alternative Iinterpretation. *The American Economic Review* 66: 104–23.
Furubotn, Eirik G., and Svetozar Pejovich. 1970. Property Rights and the Behavior of the Firm in Socialist State: The Example of Yugoslavia. *Zeitschrift für Nationalökonomie* 30: 431–54. [CrossRef]
Galor, Zvi. 2015. Equity in Service at Cost: The Case of the Classic Moshav. *Journal of Co-operative Studies* 48: 28–37.
Galor, Zvi, and Michael Sofer. 2019. The Reserve Fund: Is it a Necessary Anchor for a Successful Cooperative? *Journal of Co-operative Organization and Management* 7: 100089. [CrossRef]
Handy, Jim. 2022. *Apostles of Inequality: Rural Poverty, and the Economist, 1760–1860*. Toronto: Toronto UP, p. 58.
Hansmann, Henry. 1996. *The Ownership of the Enterprise*. Harvard: Harvard UP.
Hardin, Garret. 1968. The tragedy of the commons. *Science* 162: 1243–48. [CrossRef] [PubMed]
Hecker, Achim. 2012. Knowledge Beyond the Individual? Making Sense of a Notion of Collective Knowledge in Organization Theory Organization Studies. *Organization Studies* 33: 423–45. [CrossRef]
Herzberg, Frederick, Bernard Mausner, and Barbara B. Snyderman. 1959. *The Motivation to Work*. New York: John Wiley.
Herzberg, Frederick. 1987. One More Time: How Do You Motivate Employees? *Harvard Business Review* 81: 87–96.
Hill, Charles W.L., and Scott A. Snell. 2017. Effects of Ownership Structure and Control on Corporate Productivity. *Academy of Management Journal* 32: 25–46. [CrossRef]
Holmstrom, Bengt. 1982. Moral Hazard in Teams. *The Bell Journal of Economics* 13: 324–40. [CrossRef]
Jeng, Leslie A., Andrew Metrick, and Richard Zeckhauser. 2003. Estimating the Returns to Insider Trading: A Performance-Evaluation Perspective. *The Review of Economics and Statistics* 85: 453–71. [CrossRef]
Jensen, Michael C., and William H. Meckling. 1976. Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure. *Journal of Financial Economics* 3: 305–60. [CrossRef]

Jensen, Michael C., and William H. Meckling. 1979. Rights and Production Functions: An Application to Labor-Managed Firms and Codetermination. *The Journal of Business* 52: 469–506. [CrossRef]
Jensen, Michael C., and Clifford W. Smith. 1985. Stockholder, Manager, and Creditor Interests: Applications of Agency Theory. In *Recent Advances in Corporate Finance*. Edited by Edward I. Altman and Marti G. Subrahmanyam. Homewood: Irwin.
Jones, Derek C., and Jan Svejnar. 1985. Participation, Profit Sharing, Worker Ownership and Efficiency in Italian Producer Cooperatives. *Economica* 52: 449–65. [CrossRef]
Kelso, Louis O., and Mortimer J. Adler. 1958. *The Capitalist Manifesto*. New York: Random House.
Keynes, John M. 1936. *The General Theory of Employment, Interest and Money*. London: Macmillan.
Kiyosaki, Robert T. 2017. Rich Dad Poor Dad: What the Rich Teach Their Kids About Money That the Poor and Middle Class Do Not! 2nd ed.New York: Plata Publishing.
Koller, Tim, Marc Goedhart, and David Wessels. 2020. *Valuation: Measuring and Managing the Value of Companies*, 7th ed. New York: Wiley.
Kruse, Douglas. 2022. Does Employee Ownership Improve Performance? *IZA World of Labor* 311: 1–14. [CrossRef]
Kumbhakar, Subal C., and Amy E. Dunbar. 1993. The Elusive ESOP-Productivity Link. Evidence from U.S. Firm-Level Data. *Journal of Public Economics* 52: 273–83. [CrossRef]
Larrain, Borja, and Francisco Urzúa. 2013. Controlling Shareholders and Market Timing in Share Issuance. *Journal of Financial Economics* 109: 661–81. [CrossRef]
Lindenberg, Siegwart M., and Nicolai J. Foss. 2011. Managing Joint Production Motivation: The Role of Goal Framing and Governance Mechanisms. *Academy of Management Review* 36: 500–25. [CrossRef]
Lintner, John. 1962. Dividends, Earnings, Leverage, Stock Prices and the Supply of Capital to Corporations. *Review of Economics and Statistics* 44: 243–69. [CrossRef]
Locke, John. 1690. *Second Treatise on Government*. Indianapolis: Hackett.
Logue, John, Jacquelyn Yates, and William Greider. 2001. *The Real World of Employee Ownership*. Ithaca: Cornell University Press.
Lomuscio, Marco. 2024. Going collective: Worker Takeovers, Entrepreneurship, and Collective Actions. *Scandinavian Journal of Management* 40: 101368. [CrossRef]
Lund, Dorothy S. 2019. Nonvoting Shares and Efficient Corporate Governance. *Stanford Law Review* 71: 687–745. [CrossRef]
Malleson, Tom. 2013. What Does Mondragon Teach Us About Workplace Democracy? *Advances in the Economic Analysis of Participatory & Labor-Managed Firms* 14: 127–57. [CrossRef]
Marcuello, Carmen. 2023. Employee Ownership in Spain: Worker Cooperatives and Sociedades Laborales. *Journal of Participation and Employee Ownership* 6: 149–65. [CrossRef]
Mazzini, Giuseppe. 1860. *Doveri dell'Uomo*. Rome: Editori Riuniti.
Mazzini, Giuseppe. 1861. *Scritti Politici*. Milan: Daelli.
McCain, Roger A. 1977. On the Optimum Financial Environment for Worker Cooperatives. *Zeitschrift für Nationalökonomie* 37: 355–84. [CrossRef]
Meade, James E. 1972. The Theory of Labour-Managed Firms and of Profit Sharing. *Economic Journal* 82: 402–28. [CrossRef]
Meade, James E. 1986. *Alternative Systems of Business Organisation and Workers' Remuneration*. London: Allen and Unwin.
Meade, James E. 1989. *Agathotopia: The Economics of Partnership*. Aberdeen: Aberdeen UP.
Medina-Albaladejo, Francisco J. 2017. Consumer Co-operatives in Spain, 1860–2010. In *A Global History of Consumer Co-Operation Since 1850*. Edited by Mary Hilson, Silke Neunsinger and Greg Patmore. Leiden: Brill, pp. 326–52.
Miao, Qing, Hui Yin, Gary Schwarz, and Muhammad Ali Hussain. 2024. Disentangling the Impact of Perceived Electronic Performance Monitoring on Employee Burnout in the Public Sector. *Public Management Review Early View*. [CrossRef]
Mikami, Kazuhiko. 2016. Cooperatives, Transferable Shares, And A Unified Business Law. *Annals of Public and Cooperative Economics* 87: 365–90. [CrossRef]
Mill, John S. 1871. *Principles of Political Economy with Some of their Applications to Social Philosophy*. London: Longmans.
Miyazaki, Hajime, and Hugh M. Neary. 1983. The Illyrian Firm Revisited. *Bell Journal of Economics* 14: 259–70. [CrossRef]
Morrison, Roy. 1989. *We Build the Road As We Travel*. Gabriola: New Society.
Mugerman, Yevgeny, Eyal Winter, and Tomer Yafeh. 2024. Performance Monitoring and the Incentives for Exertion of Effort. *The Quarterly Journal of Finance* 14: 2440005. [CrossRef]
Navarra, Cecilia. 2011. Profit reinvestment in Italian worker co-operatives as a contribution to a common good: An empirical analysis on workers' perception and motivation. *Advances in the Economic Analysis of Participatory and Labor-Managed Firms* 12: 199–229. [CrossRef]
Navarra, C. 2016. Employment stabilization inside firms: An empirical investigation on worker cooperatives. *Annals of Public and Cooperative Economics* 87: 563–85. [CrossRef]
Navarra, Cecilia, and Ermanno C. Tortia. 2014. Employer Moral Hazard, Wage Rigidity, and Worker Cooperatives: A Theoretical Appraisal. *Journal Economic Issues* 48: 707–26. [CrossRef]

O'Boyle, Ernest H., Pankaj C. Patel, and Erik Gonzalez-Mulé. 2016. Employee Ownership and Firm Performance: A Meta-Analysis. *Human Resource Management Journal* 26: 425–48. [CrossRef]
Olson, Mancur. 1965. *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge, MA: Harvard UP.
Ostrom, Elinor. 1990. *Governing the Commons. The Evolution of Institutions for Collective Action*. Cambridge, MA: Cambridge UP.
Pejovich, Svetozar. 1990. *The Economics of Property Rights. Towards a Theory of Comparative Systems*. Heidelberg: Springer.
Pencavel, John. 2001. *Worker Participation: Lessons from Worker Co-ops of the Pacific Northwest*. Thousand Oaks: Sage.
Pencavel, John, Luigi Pistaferri, and Fabiano Schivardi. 2006. Wages, Employment, and Capital in Capitalist and Worker-Owned Firms. *ILR Review* 60: 23–44. [CrossRef]
Pérotin, Virginie. 2013. Worker Cooperatives: Good, Sustainable Jobs in the Community. *JEOD, Journal of Entrepreneurial and Organizational Diversity* 2: 34–47. [CrossRef]
Prendergast, Canice. 1999. The Provision of Incentives in Firms. *Journal of Economic Literature* 37: 7–63. [CrossRef]
Putterman, Louis. 1988. The Firm as Association versus the Firm as Commodity. Efficiency, Rights and Ownership. *Economics and Philosophy* 4: 243–66. [CrossRef]
Ridley-Duff, Rory. 2009. Co-operative Social Enterprises: Company Rules, Access to Finance and Management Practice. *Social Enterprise Journal* 5: 50–68. [CrossRef]
Romani, Marzio A. 2005. *La Banca dei Milanesi. Storia della Banca Popolare di Milano*. Bologna: Laterza.
Rosen, Corey. 2023. Employee Ownership in the USA: Lessons to Consider in Creating More Inclusive Capitalism. *Journal of Participation and Employee Ownership* 6: 215–29. [CrossRef]
Rosen, Corey, and Michael Quarrey. 1987. How Well Is Employee Ownership Working? *Harvard Business Review* 65: 126–32.
Sacchetti, Silvia. 2015. Inclusive and Exclusive Social Preferences: A Deweyan Framework to Explain Governance Heterogeneity. *Journal of Business Ethics* 126: 473–85. [CrossRef]
Salaman, Graeme, and John Storey. 2016. *A Better Way of Doing Business? Lessons from The John Lewis Partnership*. Oxford: Oxford University Press.
Schoemaker, Paul J. H., and J. Edward Russo. 2016. Decision-Making. In *The Palgrave Encyclopedia of Strategic Management*. Edited by Mie Augier and David J. Teece. London: Palgrave Macmillan, pp. 397–401. [CrossRef]
Schultz, Theodore W. 1961. Investment in Human Capital. *The American Economic Review* 51: 1–17.
Screpanti, Ernesto. 2001. *The Fundamental Institutions of Capitalism*. Abingdon: Routledge.
Screpanti, Ernesto. 2017. Karl Marx on Wage Labor: From Natural Abstraction to Formal Subsumption. *Rethinking Marxism* 29: 511–37. [CrossRef]
Shulman, Lee S., and Neil B. Carey. 1984. Psychology and the Limitations of Individual Rationality: Implications for the Study of Reasoning and Civility. *Review of Educational Research* 54: 501–24. [CrossRef]
Simon, Herbert A. 1951. A Formal Theory of the Employment Relationship. *Econometrica* 19: 293–305. [CrossRef]
Skinner, Douglas S., and Eugene Soltes. 2009. What Do Dividends Tell us About Earnings Quality? *Review of Accounting Studies* 16: 1–28. [CrossRef]
Song, Ok-Rial. 2002. Hidden Social Costs of Open Market Share Repurchase. *Journal of Corporate Law* 27: 425–77.
Sraffa, Piero. 1960. *Production of Commodities by Means of Commodities. Prelude to a Critique of Economic Theory*. Cambridge: Cambridge UP.
Storey, John, Imanol Basterretxea, and Graeme Salaman. 2014. Managing and Resisting 'Degeneration' in Employee-Owned Businesses: A Comparative Study of Two Large Retailers in Spain and the United Kingdom. *Organization* 21: 626–44. [CrossRef]
Tortia, Ermanno C. 2007. Self-Financing in Labor-Managed Firms: Individual Capital Accounts and Bonds. *Advances in the Economic Analysis of Participatory & Labor-Managed Firms* 10: 233–61. [CrossRef]
Tortia, Ermanno C. 2008. Worker Well-being and Perceived Fairness: Survey-based Findings from Italy. *Journal of Socio-Economics* 37: 2080–94. [CrossRef]
Tortia, Ermanno C. 2018. The Firm as a Common. Non-Divided Ownership, Patrimonial Stability and Longevity of Co-Operative Enterprises. *Sustainability* 10: 1023. [CrossRef]
Tortia, Ermanno C. 2021. Capital as Common-Pool Resource: Horizon Problem, Financial Sustainability and Reserves in Worker Cooperatives. *Journal of Co-operative Organization and Management* 9: 100137. [CrossRef]
Tortia, Ermanno C. 2022. Employment Protection Regimes and Dismissal of Members in Worker Cooperatives. *Scandinavian Journal of Management* 38: 101213. [CrossRef]
Tortia, Ermanno C., Silvia Sacchetti, and Vladislav Valentinov. 2021. The 'protective function' of social enterprises: Understanding the renewal of multiple sets of motivations. *Review of Social Economy* 78: 373–410. [CrossRef]
Uvalic, Milica. 2010. *Investment and Property Rights in Yugoslavia. The Long Transition to a Market Economy*. Cambridge: Cambridge UP.
Vanek, Jaroslav. 1970. *The General Theory of Labour Managed Market Economies*. Ithaca: Cornell UP.
Vanek, Jaroslav. 1977. *The Labor-managed Economy: Essays*. Ithaca: Cornell UP.
Ward, Benjamin. 1958. The Firm in Illyria: Market Syndicalism. *The American Economic Review* 48: 566–89.

Wei, Xing, Xinyi Wei, Xiaotong Yu, and Feifei Ren. 2024. The Relationship Between Financial Stress and Job Performance in China: The Role of Work Engagement and Emotional Exhaustion. *Psychology Research and Behavior Management* 2: 2905–17. [CrossRef] [PubMed]

Weitzman, Martin L. 1986. *The Share Economy. Conquering Stagflation*. Cambridge: Cambridge University Press.

Whyte, William F., and Kathleen K. Whyte. 1991. *Making Mondragon. The Growth and Dynamics of the Worker Cooperative Complex*. Ithaca: Cornell UP.

Williamson, Oliver E. 2000. The New Institutional Economics: Taking Stock, Looking Ahead. *Journal of Economic Literature* 38: 595–613. [CrossRef]

Winther, Gorm, and Richard Marens. 1997. Participatory Democracy May Go a Long Way: Comparative Growth Performance of Employee Ownership Firms in New York and Washington States. *Economic and Industrial Democracy* 18: 393–422. [CrossRef]