

# Understanding Cooperative Finance as a New Common

A. Perilleux and M. Nyssens

Discussion Paper 2016-2

Institut de Recherches Économiques et Sociales  
de l'Université catholique de Louvain



UCL

# Understanding Cooperative Finance as a New Common\*

**Anaïs Périlleux**

Université Catholique de Louvain (UCL)  
CIRTES, IRES, CERMi, AXA Research Fellow  
[Anaïs.Perilleux@uclouvain.be](mailto:Anaïs.Perilleux@uclouvain.be)

**Marthe Nyssens**

Université Catholique de Louvain (UCL)  
CIRTES, IRES  
[Marthe.Nyssens@uclouvain.be](mailto:Marthe.Nyssens@uclouvain.be)

## Abstract

The emerging field of common good socio-economics is promising not only for the preservation of common natural resources but also for common goods created by people through collective action, the importance of which has been emphasized by the recent financial and economic crisis. Based on the case of cooperative finance, this paper's outcomes are threefold. First, it demonstrates that financial cooperatives can be understood as a human-made common. Second, it shows that while the boundaries between the nature and property regime of goods may be relatively clear for natural common goods, they appear much more interlinked for human-made goods, where commons are embedded in intergenerational reciprocity. Third, the paper proposes a new way of thinking about public policies and shows the need to recognize financial cooperatives as human-made commons so as to design adequate legislation to protect these commons from isomorphism, privatization and destruction.

**Keywords:** Common, Financial Cooperative, Property Regime, Demutualization

---

\* The authors thank the participants to the fifth EMES Conference in Helsinki for their helpful comments and suggestions. This research has been carried out through an Interuniversity Attraction Pole on Social Enterprise (SOCENT) funded by the Belgian Science Policy Office. Anaïs Périlleux has benefited from a postdoctoral grant from the AXA Research Fund.

## 1. Introduction

The world currently faces three major crises: a financial crisis with dramatic consequences for the real economy, an environmental crisis resulting from the overexploitation of natural resources and a social crisis with a general increase in inequalities. These crises call for a shift toward more sustainable ways of producing and consuming. The emerging field of common good appears auspicious as regards the preservation of the common natural goods vital to humanity, such as air, water and food, as well as goods created by people through collective action. As such, a new generation of commons has to be defined and recognized.

The Great Financial Crisis of 2007-2009 has stressed the urgency of strengthening the financial sector (Hellmann *et al.*, 2000; Miles *et al.*, 2013). Financial cooperatives are one of the earliest and most widespread forms of alternative financial institution across the world (Banerjee *et al.*, 1994; Fonteyne, 2007). Although some cooperatives suffer from strong isomorphism, they tend to play a positive role in the banking sector, focusing more on retail banking, taking lower risks and increasing systemic stability (Ayadi *et al.*, 2010; Ferri *et al.*, 2014). In December 2014, financial cooperatives served around 217 million members in 105 countries (WOCCU, 2015).<sup>1</sup>

This paper argues that financial cooperatives could be conceptualized as human-made common goods where their governance system fulfills certain conditions. As defended by Dardot and Laval (2014), we propose that human-made commons can be created by the praxis of collective governance and the self-organized institutional system supporting those practices. Mobilizing the approach developed by Ostrom (1990, 2010), we also support that it is possible to identify the common resource system at the heart of human-made commons and the resource units generated by this system.

Focusing on financial cooperatives, the outcomes of the paper are threefold. First, it demonstrates that financial cooperatives can be understood as a human-made common. Second, and based on this example, it shows that while the boundaries between the nature and property regime of goods may be relatively distinct for natural common goods, they appear much more blurred for human-made goods, where the common-property regime and the institutional design

---

<sup>1</sup> World Council of Credit Unions (WOCCU) assembles statistical information on cooperative institutions around the world on an annual basis. It partners with a number of national representative institutions in order to obtain a full overview of the state of the financial cooperative sector in a country.

of collective governance actually create the commons embedded in intergenerational reciprocity. Third, the paper proposes a new way of thinking about public policies that stresses the importance of recognizing financial cooperatives as human-made commons with a view to designing and justifying adequate and innovative mechanisms, rules and legislation to protect these commons from isomorphism, privatization and destruction.

The rest of the paper is structured as follows. Section 2 overviews the place of financial cooperatives in the banking landscape. Section 3 develops the common theory, which is based on three main concepts, and explains two central approaches, which combine these three concepts in different ways. On the basis of this common framework, section 4 demonstrates how financial cooperatives can be understood as a common and identifies the common resource system at the heart of these organizations. Section 5 examines the risks of tragedy faced by these commons, section 6 formulates proposals for protecting them, and section 7 concludes.

## **2. Financial cooperatives as a major actor in the banking landscape**

Financial cooperatives are financial institutions whose members are both the clients and the owners of the organization (Hansmann, 1996). They were developed in the 19th century to serve people lacking access to the financial services offered by the traditional banking sector. The early German financial cooperatives are among the most well-known and studied, with the Raiffeisen models having been replicated in several countries. By 1910, Germany was home to 17,620 such institutions serving 3,619,000 members (Guinnane, 2002).

In many European countries, financial cooperatives have become large cooperative banks and managed to keep significant market shares of the banking sector. The market shares of these banks as a total percentage of assets currently stand at 38.3% in France, 27.4% in the Netherlands, 19.2% in Italy and 13% in Germany (Ayadi et al., 2010). In Canada, Desjardins is the largest cooperative bank, serving more than seven million clients. In the USA, credit unions are still very present (Mook *et al.*, 2015). These institutions are generally smaller, based on a common bond shared by all their members<sup>2</sup> and, in a sense, closer to the early financial cooperatives than large cooperative banks (Frame *et al.*, 2002).

---

<sup>2</sup> All members have to share a common characteristic, such as living in the same area (geographical bond) or sharing the same professional activity (occupational bond) (Bundt *et al.*, 1989).

Cooperative financial institutions have also experienced major phases of demutualization.<sup>3</sup> In the 1990s, 10 out of 89 British mutual building societies (financial cooperatives mainly providing mortgage loans) were converted into private shareholder banks. The institutions in question were among the biggest mutual building societies, accounting for 70% of the total assets of the subsector (Michie and Llewellyn, 2010). Meanwhile, in the USA, 1,830 mutual thrifts were converted into stock thrifts between 1975 and 2004 (Wilcox, 2006).

The case in Belgium is also illustrative of this demutualization trend. Belgium used to have an important cooperative banking sector, but in the 1990s, Belgian cooperative banks began to adopt hybrid cooperative/shareholder approaches involving mergers, acquisitions and restructurings. Ultimately, the main cooperative banks were either converted into holding companies or disappeared (Defourny et al., 2002). A major argument in favor of the introduction of shareholders is the access to additional capital. But what happens with the accumulated commonly owned wealth, which should have been passed on to future generations? Recognizing financial cooperatives as human-made commons could contribute to the design of adequate legislation to prevent a “tragedy of the commons” and the expropriation of future generations through hybridization and demutualization. To demonstrate that financial cooperatives can be understood as a common, we mobilize the Common Theory.

### **3. The Common Theory**

The commons arose in Europe in the 12<sup>th</sup> and 13<sup>th</sup> centuries. At that time, pressure was being placed on the land through competing practices stemming from population growth. Part of the land was established as "commons", being jointly managed by communities (De Moor, 2011). Over time, the term has been extended to designate other natural common-pool resources.

Today, the common good can be seen as a catch-all concept, expressing a range of expectations running counter to the current wave of privatization and marketization (Bollier, 2014). Scientific contributions are emerging from different backgrounds and perspectives. Rather than forming an integrated body, today’s conceptions of commons form a cluster of

---

<sup>3</sup> Demutualization occurs when cooperative financial institutions are converted into stock companies, through the sale of 100% of the shares to depositors and insiders as part of an initial public offer. Those shares, with the associated voting rights, are then traded in the secondary market. Alternative scenarios may occur in which only a minority of shares are sold via an IPO and traded in the secondary market, and members jointly remain the main owner of the organization, leading to a hybrid form (Carow et al., 2009).

theories in which different schools of thought can be identified. For the sake of our argument, we have chosen to focus on two high-profile scientific contributions: that of Ostrom, for which she received the Nobel Prize in Economics in 2009; and that of Dardot and Laval, presented in their recent seminal book, *Commun, Essai sur la révolution au XXIe siècle*.

From this standpoint, we propose and develop three main concepts that are at the core of the debate on the commons: the nature of common goods, the common-property regime and the collective institutional design. We also distinguish between two approaches that we call the essentialist and the praxis approach. These categories will help us to compare the contribution of Ostrom with that of Dardot and Laval.

### ***Three main concepts***

The first concept is *the nature of the common good*. Samuelson (1954) and Musgrave (1959) were the first economists to classify goods. They make the distinction between two main types of goods using respectively the criterion of rivalry (what the individual consumes, no-one else can consume) and the criterion of excludability (any individual can be excluded from consuming the good). Combining those two criteria, pure private goods – such as a jacket or a sandwich – are both excludable and rivalrous. Public goods, on the other hand, are both non-excludable (those who have not paid for a good cannot be kept from consuming it) and non-rivalrous (the individual consumption of a good does not limit its consumption by others), such as public lighting or a lighthouse. In the sixties, Buchanan (1965) identified a third type of goods, club goods, as excludable and non-rivalrous. In this case, members of a small group, which can easily exclude new entrants, can simultaneously enjoy or consume a club good without reducing the consumption of the other members of the group. A theatre play is a typical example of club goods.

In 1977, Vincent Ostrom and Elinor Ostrom (1977) suggested three modifications to this classification. First, they replaced the term “rivalry of consumption” with “subtractability of use”. Then, rather than proposing a binary vision of these properties, they conceptualized them in terms of intensity. Finally, they added a fourth type of good called “common-pool resources” (CPR), which share the attribute of subtractability with private goods and the difficulty of exclusion with public goods (Ostrom, 2003). CPRs include groundwater basins, irrigation systems, fishing grounds and forests. More specifically, Elinor Ostrom defines CPRs as

“resource systems” generating “resource units” (Ostrom, 1990). The resource system is a stock variable that under favorable conditions is able to produce a maximum quantity of a flow variable without harming the stock or the resource system itself. The resource unit is the flow variable that individuals appropriate or use.

Typically, the resource system is “sufficiently large as to make it costly (but not impossible) to exclude potential beneficiaries from obtaining benefits from its use” (Ostrom, 1990: 30). Therefore, the resource system is subject to joint use or joint appropriation, while resource units are rivalrous (subtractable). Improvements to the system are simultaneously available to all appropriators (resource users), whereas one unit can only be appropriated by one appropriator.<sup>4</sup> As such, a resource system is sustainable over time as long as either the average rate of withdrawal of resource units is lower than the average rate of replenishment, or the average rate of investment is higher than the average rate of degeneration of the resource system.

Consequently, the system is subject to a social dilemma. Individuals may be tempted to follow individual strategies detrimental to the group, with each appropriator likely to appropriate as many resource units as possible and to free-ride participation in investment. Common goods are highly subject to overuse or underinvestment, which can lead to their destruction, as predicted by Hardin (1968) in his well-known paper *The Tragedy of the Commons*. Hardin recommends full privatization or nationalization of common goods, but empirical analyses have shown that appropriators can choose a third solution: retaining the resource as common property and letting the users create their own system of governance to ensure the sustainable management of the resource system. Actually, Ostrom has shown that, in various situations, the collective property regime can be a more efficient way of governing common goods than privatizing or letting the government own the resource.

However, Ostrom formed this conclusion based on the study of typical natural common-pool resources such as forests, fishing grounds or grazing areas, which are highly specific goods. At the end of her life, Ostrom however broadened the scope of her analysis, for example

---

<sup>4</sup> Appropriators may be “herders, fishers, irrigators, commuters and anyone else who appropriates resource units from some type of resource system. In many instances, appropriators use or consume the resource units they withdraw (...). Appropriators also use resource units as inputs into production processes (...). In other instances, the appropriators immediately transfer ownership of resource units to others, who are then the users of the resource units (...).” (Ostrom 1990: 31).

considering knowledge as a common.<sup>5</sup> We suggest that many “human-made” common resource systems can actually be identified.

The second main concept is the *common-property regime* and the definition of property as a bundle of rights. Ownership is generally defined in terms of the joint possession of two types of formal rights: the rights to control and the rights to residual earnings (Hansmann, 1996). The residual character refers to rights not previously assigned in a contract. Thus, residual earnings consist of the financial surpluses once all financial commitments have been honoured. The rights to residual control consist of the rights to control that have not been assigned by law or contract to other stakeholders (in particular the managers of the enterprise) and may be limited to the right to elect the board of directors and a restricted range of decisions such as transferring the enterprise to a third party or dissolving it.

Drawing on theorists who define property as a ‘bundle of rights’ that are divisible, separable and alienable (see esp. Commons (1924) and Alchian and Demsetz (1973)), Ostrom and her colleagues (Schlager and Ostrom, 1992; Ostrom, 2010) stress the separability of the right to have access to a resource, the right to appropriate the products of the resource, the right to manage the resource, the right to determine who will have an access right and how that right may be transferred, and finally, the right to sell these last two rights. The first two rights and the last one are akin to residual earnings and the others to the right to residual control (Nyssens and Petrella, 2015). According to Ostrom, property regimes are plural because these rights are independent and can be combined in different ways.

---

<sup>5</sup> More recently, some authors have analyzed knowledge, as well as other immaterial resources such as culture and education, as common goods (Boyle, 2003; Hess and Ostrom, 2003; Hess and Ostrom, 2007).

**Table 1: The Five Main Rights Composing Property**

	Owner	Proprietor	Authorized Claimant	Authorized User	Authorized Entrant
Access	X	X	X	X	X
Withdrawal	X	X	X	X	
Management	X	X	X		
Exclusion	X	X			
Alienation	X				

Source: E. Ostrom and Schlager (1996: 133).

Classical theory states that without the alienation right property is not well-defined and leads to inefficiency (Alchian and Demsetz, 1972; Jensen and Meckling, 1976; Hart, 1989). Ostrom strongly criticizes this view and stresses that when the four other rights are well-defined, the alienation right is not necessary to a clear and efficient property system (Schlager and Ostrom, 1992). She demonstrates that, in many cases, with an appropriate institutional design, local communities can successfully govern common-pool resources without an alienation right. Consequently, she goes beyond the analysis of property regimes to analyze the institutional work of the appropriators (Nyssens and Petrella, 2015).

The third principal concept is the *collective institutional design*. This analysis relates to the “instituting” capacity of organizations, i.e. their ability to collectively produce rules of decision and operation. Involving the actors in the institutional arrangements that they have created is primordial, especially in the mechanisms for monitoring the application of the rules, the aim being to prevent opportunistic behavior. Based on the analysis of hundreds of cases of common-pool resources management around the world, the meta-analysis conducted by Ostrom and her colleagues identified eight design principles shared by all successful institutional systems for the collective governance of commons (Poteete et al., 1968; Ostrom, 1990). We will take a closer look at these principles in the following sections.

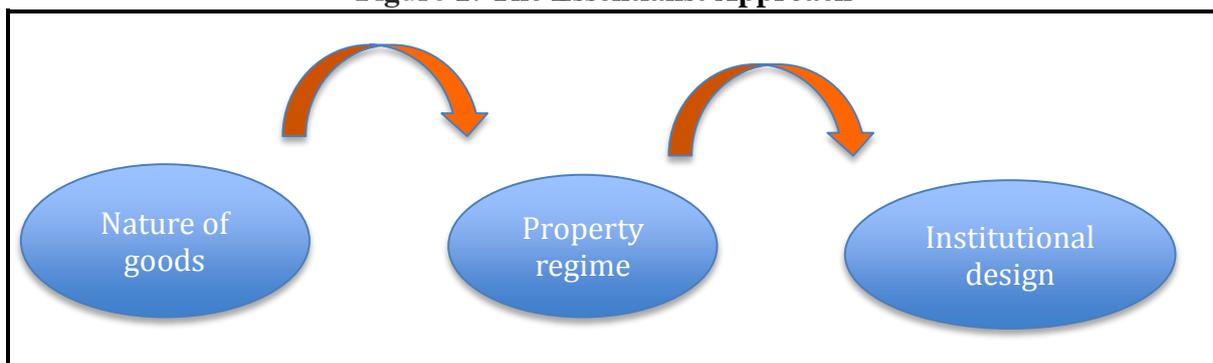
### ***Two main approaches***

Two main approaches can be identified that harness these three concepts – the nature of good, the ownership regime and the institutional design – in a different way. We refer to them respectively as the essentialist approach and the praxis approach.

The *essentialist approach* postulates that a good is characterized by intrinsic attributes. The economists who categorize goods share this point of view. Samuelson and Musgrave's objective was to identify when the market will succeed and when it will fail to provide goods. In particular, they argue that public goods are dependent on market failures and call upon State intervention (public property regime or at least public regulation), whereas private goods, which are rivalrous and excludable, can be efficiently provided by the market under a private property regime. More recently, a number of authors have discussed the private provision of public goods, showing that no automatic relationship exists between the nature of goods and property regimes (Bergstrom et al., 1986; Bagnoli and Lipman, 1989; Bagnoli and Mckee, 1991; Allouch, 2015). But the authors in question also stress the importance of making a distinction between the nature of goods and the ownership regime used to govern them, and consider that the nature of the goods can influence the adequate property regime that should be set up.

This approach has the virtue of analyzing closely the characteristics of the goods and their internal logic, such as the internal rate of regeneration of a common resource system or the difficulty of excluding potential beneficiaries. But it tends to ignore the evolutionary aspect of the attributes of goods and the impact of social norms and institutional arrangements on those attributes, and thus on the nature of goods.

**Figure 1: The Essentialist Approach**



The *praxis approach* considers that the nature of goods cannot be separated from their property regime and the governing institutional design. Authors highlight the evolutionary dimension of the attributes of goods that can change with technology, growing scarcity, or even institutional design. Public goods, for example, can become common-pool resources when they are depleting, such as air or food (De Moor, 2011; Vivero Pol, 2013). New technologies can alter

the cost of exclusion of goods. For example, information that used to be largely “free” is now increasingly being privatized, monitored, encrypted and restricted (Hess and Ostrom, 2007).

This literature focuses on social norms, practices and power relationships. Scholars argue that institutions for collective governance create the commons, and not the other way round. Dardot and Laval (2014) even stress that it is preferable to use the term “commons” instead of “common goods,” since the common dimension is not associated with a good but rather the behavior of the users.

“Each common has to be instituted by a practice, which, by defining operating rules, opens a new space. This instituting dynamic has to be maintained after the act of creation of the common, thanks to a practice authorizing the modification of the rules it has itself established. We call such a practice the *instituting praxis*” (Translated from Dardot and Laval, 2014, p. 581).<sup>6</sup>

Consequently, Dardot and Laval consider the common as an institutional construction. The attention is placed on the relationship between the collective and a physical good and not the physical good in itself. Applied for example to a fishing ground collectively governed by a group of people, this approach would not consider the fishing ground as a common in itself, but the common would be the fishing ground as being collectively governed by the collective (Laval and Dardot, 2015, p 2). As such, their concept of the commons breaks with subject-object polarity.

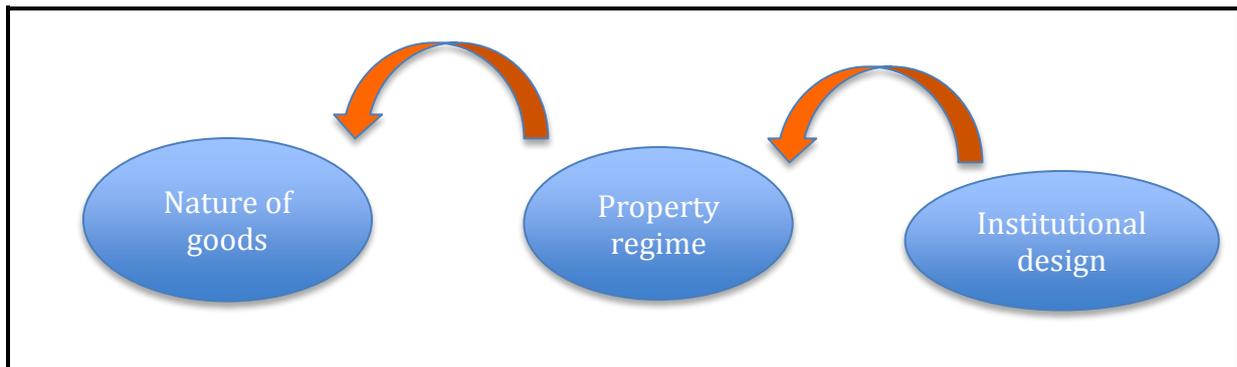
This approach also stresses the importance of power relationships. For example, Dardot and Laval explain that the large-scale enclosure movement of common lands in 18<sup>th</sup> century Britain was not driven by a sudden awareness that land could be more efficiently managed if enclosed, but by a change of power relationships in the countryside. They also consider the common as a political principle, which stipulates that everyone should take part in the deliberation, the judgment and the decision to determine collectively what is right or fair (Laval and Dardot, 2015).

---

<sup>6</sup> The praxis is a concept developed by Aristotle referring to a conscious action or practice as an end in itself involving the agents’ self-determination. The praxis is in opposition to the Poiésis, an action aimed at the production of goods for use, such as handcrafts. It is also in opposition to custom, which is an unconscious transmission of practices (uses).

A major limit of this approach is that it does not analyze the good as such beyond the institutional design. Once the institution for collective action weakens or even disappears, de facto the common also disappears, since the relationship linking the good with the collective vanishes. However, the good still exists and the risk of the tragedy described by Hardin is reinforced.

**Figure 2: The Praxis Approach**



The two approaches, essentialist and praxis, highlight different aspects of the commons and can be seen as complementary. Ostrom is at the crossroad of these two approaches. She refers to the intrinsic nature of goods, but her work mainly focuses on the institutional design favoring the successful self-governance of common goods by local communities. A central conclusion of her works with regard to economic theory is the importance of letting the actors discuss among themselves to draw up their own rules (Ostrom, 2003; Ostrom, 2010). For an agreement to be sustainable and engender trust and reciprocity among members, institutional design principles must be collectively defined and applied by the members themselves, taking account of the local conditions and the long-term preservation of the resource (Ostrom, 1990).

To demonstrate that cooperative finance could be understood as a common, the next section mobilizes the three concepts at the core of the common debate and refers to the essentialist and praxis approaches.

#### **4. Empirical demonstration**

Referring to the praxis approach, we explain how early financial cooperatives developed sustainable institutional arrangements meeting the eight design principles identified by Ostrom as common to all successful institutions for the collective governance of the commons.

Consistent with this approach, we suggest that these design principles create a common property regime and a common resource system. We then harness the essentialist approach to identify the exact nature of the common resource system and the resource units it generates. We argue that, ultimately, this system exists by itself, with its own materiality, and may result in tragedy when the common property regime and collective design principles tend to disappear.

### *Early financial cooperatives as a common emerging from the praxis*

Early 19<sup>th</sup> century financial cooperatives were created by local communities and villagers to answer an unmet need: the access to credit and saving. The organizations were born from collective praxis as local communities created institutional arrangements to sustain their collective action. Referring to the German Raiffeisen model, let us look one by one at the design principles identified by Ostrom to see how they are fulfilled. Interestingly, Hudon and Meyer (2013) have shown that these design principles are also applicable in today's collectively-governed microfinance institutions.

The first design principle is the presence of clear boundaries. Legitimate users of the resource system have to be clearly identified. The small size of early German financial cooperatives and their strong embeddedness in the local environment favored strong appropriation by the local population. In particular, the cooperatives had the right to accept or reject new members and in most cases only villagers were members (Guinnane, 2003).<sup>7</sup>

The second design principle is the appropriateness of rules in use to local needs and conditions and the proportionality between the distribution of costs and the distribution of benefits. Regarding the first aspect, each local cooperative could define its internal rules according to the local environment and the members' activities. For example, the characteristics of the products, such as the interest rates and maximum size of loans, differed from one cooperative to the next, being adapted to members' needs and preferences. The democratic governance of these organizations ensured the appropriateness of the rules, since members could express their needs. Regarding the rule on the proportionality of costs and benefits, cooperatives use the rebate principle whereby members who contribute a larger share to the activity of the

---

<sup>7</sup> Local financial cooperatives sometimes accepted outside members, but only on the basis of special stipulations. In particular, outside members were accepted if they could bring additional collateral and take larger loans, which reduced transaction costs on these loans (Guinnane, 2003).

cooperative also enjoy larger benefits.

The collective choice arrangement is the third design principle. It stipulates: “Most individuals affected by a resource regime are authorized to participate in making and modifying its rules” (Ostrom, 2010, p.13). In early financial cooperatives, at the general assembly members elected their representatives to the governance bodies under the one member-one vote rule. Guinnane (2003, p242.) explains: “Membership in the cooperative was not automatic, but once accepted into the cooperative all members could participate on an equal basis in elections for management positions and on the important policy issues put to a general vote.” The general assembly also established the bylaws and approved any changes to them (corresponding to the constitutional rules).<sup>8</sup> However, the attendance of the members was highly variable and sometimes relatively low, equivalent to one-half of the total membership (Guinnane, 2003).

The fourth design principle is members’ access to low-cost conflict resolution mechanisms. Governance bodies were able to solve conflicts among members and conflicts with the treasurer. Regional organizations also ensured an additional control and could play a buffer role. Since they were neighbors, members could easily monitor each other (Banerjee *et al.*, 1994; Armendáriz and Morduch, 2010). Financial cooperatives benefited from the high social capital characterizing the small villages in the German countryside and the reputations of the members were built through day-to-day interactions. Furthermore, thanks to their strong social and economic relationship, members were also able to practice cheap and efficient sanctions, such as exclusion from local business and social activities (Guinnane, 2001). Consequently, financial cooperatives used to meet the fifth and sixth design principles identified by Ostrom: the establishment of a system of mutual monitoring of member behavior and a system of effective sanctions to sanction opportunistic behavior.

The seventh design principle stresses the need for the recognition by an external authority of a community’s rights to organize itself the management of the common. Financial cooperatives were recognized by the external public authorities and fought for adequate legislation. The first Reich cooperative law passed in 1889 represented a historical turning point for German

---

<sup>8</sup> The governance structure of financial cooperatives was flexible and not determined by law. In most financial cooperatives though, two committees were in place: the management committee, which made the key decisions such as accepting new members or granting loans, and the supervisory committee, which monitored the treasurer’s activities and the soundness of the cooperative (Guinnane, 2003).

financial cooperatives, as it allowed cooperatives to be members of a cooperative central union on a limited liability basis. The law also obliged financial cooperatives to be audited twice a year. By doing so, it favored the development of regional central unions and auditing organizations (Guinnane, 2002). Lastly, financial cooperatives were organized in networks linked through those two types of regional organizations (Guinnane, 2003; Kotz and Nagel, 2002). This corresponds to the last design principle, whereby “among long-enduring self-governed regimes, smaller-scale organizations tend to be nested in ever larger organizations” (Ostrom, 2010, p.13).

As supported by Dardot and Laval, (2014), we argue that collective praxis actually created the common resource system at the heart of financial cooperatives. Through self-governance, the members of a community create a financial instrument for the group, which belongs to the community and has to be passed on to future generations. But what exactly is this resource system?

### ***The common resource system identified according to the essentialist approach***

To answer that question, we will refer to the essentialist approach and identify the common resource system and the units – characterized by “subtractability of use” – generated by the system. In particular, we identify the general reserve as the accumulated collectively owned retained earnings and all the material inputs and immaterial inputs (such as accumulated knowledge) that make the economic activity possible as the common resource system at the heart of financial cooperatives, except individual members’ shares, which remain private property. Every member has access to the resource system and benefit from its improvement since they can ask for credits. So the resource system is common to all members. Units of credits associated with a level of risk generated by the loan granted may be considered as the resource units. These units are rivalrous, since a loan amount provided to one member cannot be offered to another member at the same time and the reserve can only support a limited level of risk.

In what way can this resource system be recognized as a human-made commons? Because the system is a stock inherited from past generations and to be passed on to future generations, thus creating an intergenerational endowment (Fonteyne, 2007). This owes to the special nature of financial cooperatives’ capital, which is drawn from the general reserve and members’ shares.

The general reserve is built from the retained earnings accumulated over previous years and members' shares have a nominal value. Consequently, individual members do not own the total value of their financial cooperative. Contrary to stock value, which should theoretically correspond to all the actualized future benefits generated by an organization, cooperatives' shares have a constant value.

Regarding the property regime, financial cooperatives like any cooperative are common-property regimes. First, the property rights originate among members (the unit appropriators) (Schlager and Ostrom, 1992). The members have the right of residual control, which corresponds to the management and exclusion rights in Table 1. Second, there is no right of residual earning. Dividends on social shares are generally capped, and there are no alienation rights, since members cannot sell their shares in a market. Referring again to Table 1, it is a collective proprietorship rather than a collective ownership. If the management of a cooperative is taken over by shareholders, the nature of the cooperative changes. In the demutualization process, the current member cohort and other initial investors capture the value passed down by the previous generations and thus take it away from future generations, effectively destroying the common-pool resource.

Consequently, the nature of the good is closely linked with its property regime and institutional design. This calls into question the classic distinction made between the nature of the good and the property regime. The boundaries between the nature of the good and the property regime may be relatively clear for natural common goods, but for human-made ones, consistent with Dardot and Laval's thesis, one can argue that the common-property regime and the institutional design of collective governance actually create the commons, embedded in intergenerational reciprocity. The current member cohort reciprocates to future cohorts what they receive from previous cohorts.

But while early financial cooperatives, highly embedded in their locality, respected the eight design principles identified by Ostrom as common to all successful institutions for the collective governance of common-pool resources, nowadays large cooperative banks, serving thousands of clients located in different areas, no longer have clear boundaries; their ownership is extremely diluted and their members no longer control and sanction each other.

Moreover, external pressures, such as increasing competition and regulatory frameworks taking the mainstream model as a reference, have also pushed cooperative banks to adopt isomorphism

dynamics (Chaddad and Cook, 2004; Kalmi, 2014). In particular, cooperative banks have developed hybrid products such as preferred stock and non-voting common stock to attract additional capital in order to finance their growth and reach the critical mass required to compete with large commercial banks, with their economies of scale and too-big-to-fail stature. The common is still present at this point, but the risk of tragedy increases and the propensity for intergenerational reciprocity is strongly reduced.

## **5. The tragedy of the common resource system at the heart of financial cooperatives**

We identify three major types of tragedy leading to the partial or total destruction of the common resource system at the heart of the financial cooperative: the expense preferences of managers, radical demutualization and the hybridization process.

The expense preferences and inefficiency of managers are the most common criticisms levelled at cooperatives in general and financial cooperatives in particular (Hansmann 1996, Hart and Moore, 1996). Interestingly, financial cooperatives avoid the owner-depositor agency issues, but they have more difficulties in aligning the interests of members and managers. First, in large cooperatives, members' preferences are likely to be more heterogeneous (Hart and Moore, 1996). Second, the remit of cooperatives is to respond to their members' needs and maximize their satisfaction, making it more complicated to define clear-cut indicators of manager performance and design incentive mechanisms based on those indicators, contrary to commercial banks which can use stock-related compensation mechanisms (Wilcox, 2006).<sup>9</sup> Lastly, and perhaps most importantly, in large financial cooperatives, members have much less control over and involvement in the governance of the organization, due to the lack of human capital generated by the increasing complexity of products and management (Fonteyne, 2007), but especially due to free-riding behavior as predicted by Olson (1971) for very large groups.<sup>10</sup> Large financial cooperatives are thus exposed to the entrenchment and expense preferences of managers, and to the growth pressure driven by empire-building on the part of these last (Périlleux *et al.*, 2012). This represents a partial destruction of the common resource system at

---

<sup>9</sup> In contrast, commercial banks can use stock-related compensation mechanisms. In this case, managers have a strong incentive to work in the interests of shareholders and maximize profit. However, they tend to take excessive risk from a societal point of view, increasing financial systemic risk and the probability of bailouts.

<sup>10</sup> Agency costs generated by ownership dispersion can occur in any firm with highly diluted ownership. Cooperatives however are especially exposed to this issue since their ownership can not be more dispersed with the one-member one-rule.

the heart of financial cooperatives, since a part of the resources is diverted from the cooperative's objective and captured by the managers (through increasing wages and perks such as big cars and luxurious offices) instead of being passed on to future generations of members.

The second and most radical tragedy is “pure demutualization,” as witnessed in the Anglo-Saxon economy. Davis (2001, 2014) stresses that the demutualization process can be driven by two main forces: efficiency and expropriation, that he formulates as two hypotheses which are not mutually exclusive. One major motivation for demutualization is the access to external capital to finance growth (Viswanathan, 2006). We will not discuss here the potential efficiency gains from demutualization, which have been largely debated in the literature. Instead, we will focus on the wealth transfer and social costs for society as a whole it generates.

Three main wealth transfers can be identified. The first occurs among current members. Davis (2014) explains that it is very difficult to analyze how much each member has contributed to the accumulated wealth. In the demutualization process, wealth distribution is unlikely to correspond to each member's contribution. Based on different underlying conceptions, the legislation dealing with demutualization varies greatly from one country to another. Some laws favor depositors, shares being distributed proportionally to savings, whereas others support the equal treatment of each member (Wilcox, 2006).

For example, before 1974 in the USA, when a mutual thrift was converted into a stock thrift, shares of the retained earnings or an equivalent value in cash were distributed to members in pro rata to their deposits. Since 1974, members have no longer received stocks, but instead have rights to buy stocks on a priority basis (Wilcox, 2006).<sup>11</sup> Empirical studies have however shown that the transfer is likely to be in favor of “well-informed insiders,” managers and directors of the financial cooperatives who typically buy a large proportion of shares (Wilcox, 2006). In contrast, Dalmaz (2002) explains that in Great Britain, members of the converted mutual building societies have benefited from substantial gains receiving stocks of the converted institution.

---

<sup>11</sup> Wilcox (2006) explains: “If members do not purchase stock *pro rata* to their deposits, part of members' joint claims on retained earnings may be transferred to external investors or to members (including managers and directors) who buy stock in excess of their *pro rata* share of deposits.”

The second type of wealth transfer occurs between members and other initial investors if the demutualization is followed by an initial public offer (IPO), which is generally the case. Empirical studies have shown that IPOs are generally underpriced and initial investors are likely to make capital gains (Ritter and Welch, 2002). This phenomenon is even more marked for IPOs of converted mutual institutions depriving the converted institutions of the additional funds they would have attracted with a higher offer price (Viswanathan, 2006). Instead, these funds are captured by the initial investors (Cagle, and Porter, 1997; Viswanathan, 2006).

The third form of wealth transfer is an intergenerational transfer, whereby what future members would have benefitted from in the absence of demutualization is passed on to current members and initial investors, who actually steal the wealth built up by the previous generation. “Demutualization involves revoking the implicit inter-generational contract to the benefit of current members and the detriment of potential future members.” (Davis, 2014)

Merges and hybridization processes represent the third type of tragedy. Merging can actually be another way of demutualizing. According to Davis (2014), demutualization through mergers tends to avoid an excessive transfer from members to outsiders, since merged units tend to be more accurately valued. But this is not always the case. In 1998, 350 former members of CERA complained to the Brussels Commercial Court that they considered themselves wronged by the merger process (Dalmaz, 2002). CERA used to be one of the largest Belgian cooperative banks. During the 19<sup>th</sup> century, small financial cooperatives in the Flemish countryside were created based on the German Raiffeisen model and grouped under a central union called CERA. In the 1990s, CERA merged with Dutch Kredietbank and ABB Insurance to create the private bank KBC (Defourmy et al., 2002). Transferring all its operational banking activities to KBC, CERA became a cooperative holding. CERA’s former members no longer have a real impact on the group’s strategic decisions. The Commercial Court sentenced CERA Holding to compensate those members wronged by the merging process.

The hybridization process also generates wealth transfers leading to a partial private appropriation of the common. In European countries such as France and Italy, the law forbids any distribution of the retained earnings to members in the event of liquidation and demutualization. Instead, the gains generated by demutualization must be transferred to another

cooperative or a national solidarity fund, consistent with the asset lock principle<sup>12</sup> (Mottet, 2002; Borzaga et al., 2010). However, part of the portfolio of a financial cooperative can still be transferred to a listed subsidiary, which belongs to the same cooperative holding (Mottet, 2002). For example, the Banque Populaire and the Caisse d'Épargne groups have a listed subsidiary called Natixis, whereas the apex entity of Crédit Agricole is partly listed with private stockholders owning 46% of the apex's capital (Ory and Lemzeri, 2012). In this case, part of the surplus that would have been allocated to the indivisible reserve is used to remunerate private stockholders. Ory and Lemzeri (2012) explain that "(the control is) biased more and more towards the top of the organizational pyramid and to stockholders (the new stakeholders coming from the existence of listed vehicles)." Carow et al. (2004) reveal the same risk in the case of US mutual holding companies.<sup>13</sup> This corresponds to a partial privatization of the commonly owned wealth.

## **6. Towards the protection of the common resource system at the heart of cooperative finance**

This empirical demonstration has shown how financial cooperatives could be understood as a common resource system and highlighted the tragedy-of-the-commons risks currently faced by these organizations. To avoid such tragedies, adequate legislation could be developed.

One major legislative mechanism that can be used to protect the common is the asset lock principle. This principle stipulates that the resources accumulated by previous generations must remain within the cooperative movement. It determines, in a way, the common nature of cooperatives and strongly reduces incentives to demutualize. This principle is applied in European countries, such as France and Italy, but on a relatively flexible basis, since it does not forbid merger and hybridization processes, which also partly destroy the common at the heart of cooperative finance.

---

<sup>12</sup> The asset lock is a legal clause that prevents the assets of a company (income or capital) from being used for private gain rather than the stated purposes of the organization.

<sup>13</sup> Mutual holding companies result from the partial demutualization of mutual thrifts (cooperative financial institutions with a long-standing focus on mortgage loans), when a maximum of 49.9% of the shares is held by public shareholders and traded on the second market, the rest of the shares remaining jointly held by the members of the original thrifts. Carow et al. (2004) explain: "The mutual holding company structure establishes a dual-class stock that creates a unique opportunity to transfer wealth from thrift depositor-owners to new minority shareholders through the disparate payment of dividends."

A second proposal for protecting the common is to follow more closely the institutional principles that largely supported early cooperatives, and which are similar to those identified by Ostrom as common to all successful institutional systems for the collective governance of common-pool resources. In particular, the “common bond” principle could be used to specify clear boundaries, limiting the size of the organization and fostering the identification of members with the organization. This principle stipulates that all members have to share one common characteristic, such as living in the same area (geographical bond) or sharing the same professional activity (occupational bond) (Frame et al., 2002, Forker *et al.*, 2014). It can be seen as an expression of Ostrom’s first principle.

Defourny (2001) shows that the history of the social economy in general, which includes cooperatives, teaches us that it is indeed driven by a “condition of identity” in which members are unified by a collective identity. This is clearly demonstrated in the pioneering 19<sup>th</sup> century financial cooperatives created by local communities sharing the same religious, municipal and professional identity.<sup>14</sup> Today that collective identity has, on the whole, waned in financial cooperatives, which have tens if not hundreds of thousands of co-operators, while the clientele has diversified enormously and increasingly includes non-members.

However, it would appear that today’s new wave of social economy “is no longer an expression of strong collective identities but, rather, one of ‘partial’ group awareness” (Defourny, 2001). As part of new initiatives in social finance, members are brought together by a common awareness of the need for ethical or responsible finance in a context of deep-seated economic and financial crisis. Seeking for social, ecological and ethical outcomes instead of profit maximization, social banks represent a new generation of cooperative banks, most of them having adopted this specific ownership regime (Kalmi, 2014). The “communities”, constituted by members joining social banks and having a strong vision, could provide the social fabric for this new wave of cooperative finance.

Favoring the “closed membership” dimension of financial cooperatives is another policy in line with Ostrom’s principles. Contrary to open-membership cooperatives, closed-membership cooperatives can only work with members. This means that all users can take part in the

---

<sup>14</sup> In Belgium, Flemish financial cooperatives grouped small farmers, who spoke only Flemish, seeking to improve their living conditions and simultaneously assert their identity in an environment dominated by a French-speaking bourgeoisie and nobility.

collective governance of the organization, reducing the risk of domination by small groups and increasing the involvement of members. It also reduces growth opportunities, though limited growth could be seen as consistent with the model and the safeguarding of the common resource system. Small size and common bonds can be combined with economies of scale and risk diversification through decentralized networking structures ensuring significant autonomy for local financial cooperatives (Périlleux, 2013).

A third proposal would be to use ethics to protect against the isomorphism and expropriation of the common resource system. In social finance, for example, cooperatives have ethical committees and analyze the financial solvability as well as the social outcome of a project before financing it (Cornée and Szafarz, 2014). Many of them also try to stimulate the participation of members using digital resources, including the Internet. As such, these institutions may be better qualified to ensure the participation of members in governance mechanisms than traditional financial cooperatives. But social banks are still in the early stages of their development, so only history will be able to confirm this hypothesis.

More generally, it could be argued that favorable public policies can be justified by the positive externalities of financial cooperatives, with the recent financial crisis having revealed the positive contribution of financial cooperatives to the stability of the banking sector (Ayadi et al., 2010; Ferri et al., 2014). In this respect, they tend to contribute to a global public good.

Indeed, Stiglitz (2006) supports that global economic stability can be considered as a public good, since neighboring countries tend to benefit from the economic stability of a country. By extension, global financial stability could also be considered as a global public good. As Hellmann *et al.* (2000: 147) highlight, “banking crises are important not just because of the devastation that they bring to one particular sector of the economy, but because typically the shock waves affect the entire economy.”

Commercial banks tend to take too much risk from a societal point of view (Hellmann *et al.*, 2000; Miles *et al.*, 2013). In particular, with their “too big to fail” stature, large banks know they will be bailed out if they should come under financial distress. This generates a moral hazard pushing them to take higher risk. In contrast, financial cooperatives, focusing on retail banking, avoiding too much pressure from stockholders, and committed to the cooperative ethos, tend to take lower risk and contribute to financial stability. Since this contribution to this

global public good is not an explicit objective of those institutions but an externality, they can also be considered as quasi-public goods.

## **7. Conclusion**

The emerging field of common good socio-economics is promising for the preservation of natural as well as human-made common goods, which are under increasingly damaging pressure as part of the current three-fold crisis. The 2007-2009 financial crisis has destructive economic and social consequences. A number of authors have shown the positive impact of institutional diversity on the stability of the financial system (Ayadi, 2010; Ferri *et al.*, 2014). While not representing a homogeneous group, financial cooperatives tend to finance the local economy and their business involves fewer risks than that of mainstream financial institutions. However, they are under internal and external pressure to engage in hybridization and isomorphic processes, which pose a serious threat to their cooperative identity.

Using the common theory and referring to the two main approaches identified in the literature – the essentialist and praxis approaches – this paper demonstrates how financial cooperatives can be understood as a common. We support that the collective institutional design developed by early financial cooperatives has created a common resource system belonging to the community. Individual members do not own the total value of their financial cooperative and are required to pass it on to future generations. Consequently, we argue that once the common resource system is created, it exists by itself, with its own materiality, and the decline of collective institutional design threatens its survival.

This has two important implications. First of all, it shows that while the boundaries between the nature of goods and the property regime are relatively clear for natural common goods, they are much less distinct for human-made goods. Second, it has implications for public policy. Considering financial cooperatives as a common can help to design adequate legislation. In particular, a strict asset lock principle can reduce incentives for isomorphism and demutualization. The common-bond and closed-membership principles can also help to increase member involvement in governance and limit excessive growth. Lastly, the ethical dimension can also serve to protect the common resource system at the heart of financial cooperatives. And since they act as a quasi-public good, we could further argue that cooperative banks with positive externalities deserve a supportive legislation.

These policies represent some examples, whose impact has to be further investigated, but which open a new research avenue. Identifying human-made commons is crucial to developing an adequate environment for protecting them from destructive pressures. This paper is one step in that direction, proposing an innovative way of looking at financial cooperatives.

## References

Alchian, A. and Demsetz, H. (1972). Production, Information Costs and Economic Organization. *American Economic Review*, 62, 777-95.

Alchian, A. and Demsetz, H. (1973). The Property Right Paradigm . *The Journal of Economic History*, 33(1), 16-27.

Allouch, N. (2015). On the private provision of public goods on networks. *Journal of Economic Theory*, 157, 527–552.

Armendáriz, B. and Morduch, J. (2010). *The Economics of Microfinance*. Cambridge, Massachusetts, London: MIT Press.

Ayadi, R., Llewelyn, D.T., Schmidt, R.H., Arbak E. and de Groen, W.P. (2010). *Investigating Diversity in the Banking Sector in Europe: Key Developments, Performance and Role of Cooperative Banks*, Centre for European Policy Studies (CEPS), Brussels.

Bagnoli, M. and Lipman, B. L. (1989). Provision of Public Goods: Fully Implementing the Core through Private Contributions, *Review of Economic Studies*, 56(4), 583-601.

Bagnoli, M. and M. McKee. (1991). Voluntary Contribution Games: Efficient Private Provision of Public Goods. *Economic Inquiry*, 29(2), 351–366.

Banerjee, A., Besley, T., and Guinnane, T. (1994). Thy Neighbor’s Keeper the Design of a Credit Cooperative with Theory and Test. *Quarterly Journal of Economics*, 109(2), 491-515.

Bergstrom, T., L., Blume, and H. Varian. (1986). On the private provision of public goods. *Journal of Public Economics*, 29(1), 25-49.

Bollier, D. (2014). *Think Like a Commoner: A Short Introduction to the Life of the Commons*, Gabriola Island: New Society Publisher.

Borzaga, C., Depedri, S. and Tortia, E. C. (2010). Testing the distributive effects of social enterprises, the Case of Italy. In Degli Antoni G. and Sacconi L. (eds), *Social capital, corporate social responsibility, economic behaviour and performance*, Basingstoke: Palgrave MacMillan, 280-301.

Boyle, J. (2003). The Second Enclosure Movement and the Construction of the Public Domain. *Law and Contemporary Problems*, 66(1-2), 33-74.

Buchanan, J. M. (1965). An Economic Theory of Clubs. *Economica*, 32(125), 1-14.

Bundt, T., Chiesa, J.F. and Keating, B.P. (1989). Common Bond Type and Credit Union Behavior. *Review of Social Economy*, 47(1), 27-42.

Cagle, J., and Porter, G. (1997). Conversions of Mutual Savings Institutions: Do Initial Returns from these IPOs Provide Investors with Windfall Profits? *Financial Services Review*, 6, 141-150.

Carow, K. A., Cox, S. R. and Roden, D. M. (2004). Mutual Holding Companies: Evidence of Conflicts of Interest Through Disparate Dividends. *Journal of Banking & Finance*, 28, 277-298.

Carow, K. A., Cox, S. R. and Roden, D. M. (2009). Demutualization: Determinants and Consequences of the Mutual Holding Company Choice. *Journal of Banking & Finance*, 33, 1454-1463.

Chaddad, F.R. and Cook, M.L. (2004). Understanding New Cooperative Models: An Ownership–Control Rights Typology. *Review of Agricultural Economics*, 26(3), 348-360.

Commons, J. R. (1924). *Legal Foundations of Capitalism*. New York: The MacMillan Company.

Cornée, S., and Szafarz, A. (2014). Vive la Différence: Social Banks and Reciprocity in the Credit Market. *Journal of Business Ethics*, 125, 361-380.

Dalmaz, S. (2002). Les banques coopératives européennes : bilan et perspectives. *Revue d'économie financière*, 67(67), 73-84.

Dardot, P. and Laval, C. (2014). *Commun. Essai sur la révolution au XXI<sup>e</sup> siècle*. Paris: La Découverte.

Davis, K. (2001). Credit Union Governance and Survival of the Cooperative Form. *Journal of Financial Services Research*, 19(2-3), 197-210.

Davis, K. (2014). Changing Organizational Form: Demutualization and the Privatization of Communal Wealth - Australian Credit Union Experiences. WP-University of Melbourne, Australia.

De Moor, T. (2011). From Common Pastures to Global Commons: a Historical Perspective on Interdisciplinary Approaches to Commons. *Natures Sciences Sociétés*, 19 (4), 422-431.

Defourny, J. (2001). From Third Sector to Social Enterprise. In Borzaga, C. and Defourny, J. (eds). *The Emergence of Social Enterprise*. London : Routledge, 1-28.

Defourny, J., Simon, M. and Adam, S. (2002). *Les coopératives en Belgique : un mouvement d'avenir ?*, Bruxelles: Luc Pire.

Ferri, G., Kalmi, P. and Kerola, E. (2014). Does bank ownership affect lending behavior? Evidence from the Euro area. *Journal of Banking & Finance*, 48, 194-209.

Fonteyne, W. (2007). Cooperatives Banks in Europe – Policy Issues. International Monetary Fund Working Paper 07/159.

Forker, J., Grosvold, J. and Ward, A. M. (2014). Management Models and Priorities in Member Associations: Is Credit Unions' Community Involvement Crowded-Out? *Nonprofit and Voluntary Sector Quarterly*, 43(2S) 105S–123S.

Frame, S., Karels, G. and McClatchey, C. (2002). The Effect of the Common Bond and Membership Expansion on Credit Union Risk. *Financial Review*, 37(4), 613-636.

Guinnane, T. (2001). Cooperatives as Information Machines: German Rural Credit Cooperatives, 1883-1914. *Journal of Economic History*, 61(02), 366-389.

Guinnane, T. (2002). Delegated Monitors, Large and Small: Germany's Banking System, 1800-1914. *Journal of Economic Literature*, 40(1), 73-124.

Guinnane, T. (2003). A Friend and Advisor: External Auditing and Confidence in Germany's Credit Cooperatives, 1889-1914. *Business History Review*, 77(2), 235-264.

Hansmann, H. (1996). *The ownership of enterprise*. Cambridge, Massachusetts: The Belknap Press of Harvard University.

Hardin, G. (1968). The Tragedy of the Commons. *Science*, 162, 1243-1248.

Hart, O. (1989). An Economist's Perspective on the Theory of the Firm . *Columbia Law Review*, 89(7), 1757-1774

Hart, O. and Moore, J. (1996). The Governance of Exchanges: Members' Cooperatives Versus Outside Ownership. *Oxford Review of Economic Policy*. 12(4), 53-69.

Hellmann, T., Murdock, K. and Stiglitz, J. (2000). Liberalization, Moral Hazard in Banking, and Prudential Regulation: Are Capital Requirements Enough? *The American Economic Review*, 90(1), 147-165.

Hess, C. and Ostrom, E. (2003). Ideas, Artifacts, and Facilities: Information as a Common-Pool Resource. *Law and Contemporary Problems*, 66, 111-146.

Hess, C. and Ostrom, E. (2007). *Understanding Knowledge as a Commons. From Theory to Practice*. Cambridge, Massachusetts London, England: The MIT Press.

Hudon, M. and Meyer, C. (2013). Microfinance and common goods: A study of Brazilian community development banks. Université Libre de Bruxelles CEB Working Paper 13/049.

Jensen, M. and Meckling, W. (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, 3, 305-60.

Kalmi, P. (2014). Ethics, Banking and Ownership. *Safe Bank*, 2(55), 27-37.

Kotz, H., and Nagel, J. (2002). Les banques du secteur coopératif allemand sont-elles construites sur un avantage comparatif déclinant ? *Revue d'économie financière*, 67, 57-72.

Laval and Dardot, (2015). Le principe du commun, principe d'un nouveau droit d'usage. *Les Possibles*, 5, 1-3.

Michie, J. and Llewellyn, D. (2010). Converting Failed Financial Institutions into Mutual Organisations. *Journal of Social Entrepreneurship*, 1(1), 146–170.

Miles, D., Yang, Y. and Marcheggiano, G. (2013). Optimal bank capital. *The Economic Journal*, 123(567), 1-37.

Mook, L., Maiorano, J. and Quarter, J. (2015). Credit Unions: Market Niche or Market Accommodation? *Nonprofit and Voluntary Sector Quarterly*, 44(4), 814-831.

Mottet, S. (2002). La démutualisation. *Revue d'économie financière*, 67(67), 111-120.

Musgrave, R. (1959). *The Theory of Public Finance*. New York: McGraw-Hill.

Nyssens, M. and Petrella, F. (2015). The Social and Solidarity Economy and Ostrom's Approach to Common Pool Resources: Towards a Better Understanding of Institutional Diversity?. In Laville, J-L, Young, D. and Eynaud, P. (eds). *Civil Society, the Third Sector and Social Enterprise: Governance and Democracy*. Oxford: Routledge.

Olson, M. (1971). *The Logic of Collective Action, Public Goods and the Theory of Groups*. Cambridge, Massachusetts: Harvard University Press.

Ory, J-N. and Lemzeri, Y. (2012). Efficiency and Hybridization in Cooperative Banking: The French Case. *Annals of Public and Cooperative Economics*, 83(2), 215-250.

Ostrom, E. (1990). *Governing the commons. The Evolution of Institutions for Collective Action*, Cambridge (NY): Cambridge University Press.

Ostrom, E. (2003). How Types of Goods and Property Rights Jointly Affect Collective Action. *Journal of Theoretical Politics*, 15(3), 239-270.

Ostrom, E. (2010). Beyond Markets and States: Polycentric Governance of Complex Economic Systems, *American Economic Review*, 100(3), 641-72.

Ostrom, V. and Ostrom, E. (1977). Public Goods and Public Choices. In Savas, E. S. (eds). *Alternatives for Delivering Public Services: Toward Improved Performance*. Boulder (CO): Westview Press, 7-49.

Périlleux, A. (2013). Strategic Governance Lessons from History for West African Microfinance Cooperatives: a Way to Encourage Investments in Rural Areas. *Strategic Change: Briefings in Entrepreneurial Finance*, 22, 95-106.

Périlleux, A., Hudon, M., and Bloy, E. (2012). Surplus Distribution in Microfinance: Differences Among Cooperative, Nonprofit, and Shareholder Forms of Ownership. *Nonprofit and Voluntary Sector Quarterly*, 41(3), 386-404.

Poteete, A., Janssen, M. and Ostrom, E. (1968). *Working Together: Collective Action, the Commons, and Multiple Methods in Practice*, Princeton: Princeton University Press.

Ritter, J., and Welch, I. (2002). A Review of IPO Activity, Pricing, and Allocations. *Journal of Finance*, 57, 1795-1828.

Samuelson, P. A. (1954). The Pure Theory of Public Expenditure. *Review of Economics and Statistics*, 36(4), 387-89.

Schlager, E. and Ostrom, E. (1992). Property Rights Regimes and Natural Resources: A Conceptual Analysis. *Land Economics*, 68, 249-262.

Stiglitz, J. (2006). Global Public Goods and Global Finance: Does Global Governance Ensure that the Global Public Interest is Served? In Touffut, J.-P. (eds). *Advancing Public Goods*. Montpellier, Northampton: Edward Elgar Publishing, 149-164.

Viswanathan, K. (2006). The Pricing of Insurer Demutualization Initial Public Offerings. *The Journal of Risk and Insurance*, 73(3), 439-468.

Vivero Pol, J.L. (2013). Food as a commons: reframing the narrative of the food system. Université Catholique de Louvain Working Paper.

Wilcox, J.A. (2006). *Credit Union Conversions to Banks: Facts, Incentives, Issues and Reforms*. Madison (WI): Filene Research Institute, 1-104.

WOCCU – World Council of Credit Unions, 2015, [www.woccu.org](http://www.woccu.org).

Institut de Recherches Économiques et Sociales  
Université catholique de Louvain

Place Montesquieu, 3  
1348 Louvain-la-Neuve, Belgique

