

Cooperatives Working For Financial Inclusion

An essential role in the Collective and General Interest

Summary of the Work

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Introduction

The United Nations General Assembly has declared the year 2012 as “The International Year of Cooperatives”. The Overseas Cooperative Development Council stresses: “*This honor recognizes the contributions of cooperatives to global economic development, and the impact of that work in reducing poverty and creating new opportunities. The General Assembly voiced special appreciation for the role of cooperatives in improving the quality of life in rural communities and among indigenous peoples.*” (Rob Nooter, OCDC, 2012)

Cooperatives are one of the oldest organizations working for financial inclusion. In developing countries, they still play a crucial role in that issue, especially by serving rural areas that other types of microfinance institutions are not willing or not able to serve. Indeed, reaching rural areas is one of the main challenges of microfinance and COOPs could represent an efficient way to overcome this challenge, however they remain neglected in the microfinance literature and practitioners’ debates.

COOPs are based on the values of self-help, democracy and solidarity. International institutions representing these organizations, such as the World Council of Credit Unions, reaffirm their role in supporting the general interest and the development of the whole community: “their [Credit Unions’] decisions should be taken with full regard for the interest of the broad community within which the credit union and its members reside » (WOCCU, 2005).

The work presented for *the Edgard Milhaud Prize 2012* is especially based on my Ph.D. thesis *Governance and Growth of Cooperatives in Microfinance* and new research carried on since January 2011.

Cooperatives have been working for financial inclusion for more than a century. They are the oldest and in some areas, like West Africa, the most common form of microfinance institutions (MFIs). COOPs have some major specific capacities such as serving remote rural areas, mobilizing local resources through savings products and favoring the implication of the beneficiaries in a self-help dynamic. However, one of their main weaknesses is their governance (Branch & Baker, 2000; Cornforth, 2004; Cuevas & Fischer, 2006; Hirschland *et al.*, 2008). Indeed, well-governed COOPs can play a substantial role in the development of their community through a democratic process involving the beneficiaries. But, the equilibrium ensuring good governance is fragile and these organizations can easily become subject to opportunistic behaviors such as elite captures, preferential allocations or nepotism. Governance issues are critical, especially in growth periods. Changes drive structural evolutions and modify bargaining powers within organizations. This is especially true for COOPs, due to their extremely dispersed ownership structure (based on one-member – one-vote) which favors free-riding behaviors (CGAP, 2005 ; Desrochers *et al.*, 2003) and the relatively low capacities of their members (Cuevas & Fischer, 2006). Indeed, since their members often do not have easy access to educational services, especially in developing countries rural areas, a main challenge regarding capacitating members to control the organization emerges, especially when the organization becomes more sophisticated. My research, structured in four main studies, focuses on these two crucial issues: growth and governance of COOPs in microfinance.

Study 1 - The Global Productivity Surplus: An Innovative Instrument for COOPs' Governance (*Ph.D. first and second chapters and new studies*)

The first study, conducted with two colleagues, Marek Hudon (ULB) and Eddy Bloy (Université Lyon-2), analyzes a major governance issue that has not been tackled yet in COOPs working for financial inclusion, and more generally in microfinance: How is the value created by a microfinance institution distributed between its stakeholders? Furthermore, does this distribution significantly differ in function of the ownership structure? To proceed, we adapt the global productivity surplus (GPS) methodology to microfinance institutions (MFIs) and we come up with the following equation¹:

$$GPS_t = \underbrace{[\Delta OL_t \times i_{t-1} - \Delta OL_t \times pr_{t-1}]}_{\Delta \text{Output (O)}} - \underbrace{[\Delta DE_t \times i''_{t-1} + \Delta D_t \times i'_{t-1} + \Delta N_t \times s_{t-1}]}_{\Delta \text{Input (I)}} = S_t^1 + S_t^2 + S_t^3$$

S_t^1 is the surplus allocated to borrowers, S_t^2 is the surplus received by the inputs suppliers (lending institutions, savers, employees and goods suppliers) and S_t^3 is the surplus allocated to the self-financial margin (SFM): in reserve accounts, for future investments and capital growth, or assigned to the enrichment of the company's shareholders, if any.

In this study, we apply the surplus methodology to a database including 460 observations of 230 MFIs. The dataset is made of financial statements contained in the reports of two leading microfinance rating agencies: Microfinanza and PlaNet Rating. We investigate if the surplus distribution significantly differs across ownership structure, with a special focus on COOPs and using a *difference of means* test to assess the validity of our results. First, we analyze the initial situation of each stakeholder according to the MFI's status. Second, we calculate the surplus (S_t) of the MFIs. Third, we examine its distribution and make out the gains and losses of the different stakeholders in the distribution process.

Our main results pinpoint cooperatives specificities on surplus distribution. They stress that the surplus allocation process weakly varies between non-profit organizations (NPOs) and shareholders firms (SHFs), but shows that COOPs allocate their surplus in a significantly different manner. Indeed, NPOs and SHFs tend to keep a larger part of their surplus within the organization, as self-financing margin (reserve accounts, future investments, and capital increase) rather than transferring it to their clients (decrease in interest rates) and their employees (salary increase), whereas the surplus distribution in COOPs is more in favor of providers and employees. COOPs keep a significantly lower part of their surplus in self-financial margin. This analysis gives new food for thought to policy makers and shows that

¹ Where, GPS_t is the productivity gain. The output variation (O) is the outstanding loan portfolio variation ΔOL_t at the previous year interest rate on credits (i_{t-1}), minus the bad debts ($\Delta OL_t \times pr_{t-1}$, where pr_{t-1} is the provision rate for clients who are suspected of repayment default). The input variation (I) is composed of the deposits expenses: $\Delta DE_t \times i''_{t-1}$, the variation of the deposit amount at the previous year's deposit interest rate (i''_{t-1}), the external funding expenses: $\Delta D_t \times i'_{t-1}$, the variation of the funding amount at the previous year's external lending interest rate (i'_{t-1}), and the human resources expenses: $\Delta N_t \times s_{t-1}$, the variation in the number of employees multiplied by the previous year's average salary. Finally, concerning other suppliers (the providers according to the accounting definition), it is impossible to make a differentiation between price and quantity variations. Due to this impossibility, these suppliers are not integrated in the calculation of surplus formation but are only considered in terms of value variation in the surplus distribution analysis.

the GPS method could be used as an additional methodology to assess the social impact in the microfinance sector.

A second study deepens this investigation and, through econometric multivariate analysis, tries to identify variables explaining the surplus allocation. First, we define the hypotheses to be tested, based on the size, the subsidies and, obviously, the ownership structure (governance dimension), to see how these variables affect the surplus allocation. Then, we specify a set of models having respectively the different stakeholders' surplus as dependent variable.²

$$Spl_{i,t+1} = \alpha + \beta_1 \times SIZE_{it} + \beta_2 \times GOV_i + \beta_3 \times SUB_{it} + \beta_4 \times GEO_i + \beta_5 \times AGE_{it} + \beta_6 \times ALS_{it} + \beta_7 \times GNI_{it} + \beta_8 \times YEAR_t + \mu_i + u_{i,t}$$

We estimate the parameters of these models thanks to a panel data analysis. We use a database of 758 observations from 225 MFIs, which gives 529 surpluses. We apply a robust clustering method to correct for cross-sectional heteroskedasticity and serial correlation. It is thus a within-panel correlation across multiple observations from a same MFI. We opt for a random effects model. One of the main advantages of the random effects method is its ability to estimate time-invariant variables (Hausman and Taylor, 1981). Our model contains strategic dummy variables such as the ownership structure, as this option better fit with the analysis' objectives. The random effects model is often used to conduct analyses on MFIs' behaviors and performances (Lensink and Mersland, 2009; Hartarska, 2005; Vanroose and D'Espallier, 2009).

Our results show that the size of the institutions is a main element to explain the increase of MFI productivity, but also the surplus allocated to three key stakeholders: clients, staff, and the self-financial margin (SFM). Subsidies also have a significant, positive impact on the surplus allocated to these three key stakeholders, but in a higher proportion for the SFM. Interestingly, subsidies do not influence the productivity of the MFI. Also, they do not benefit "outsiders", as they influence negatively, at a significant level, the surplus allocated to lenders and providers. In line with the findings of the *difference of means* analysis conducted in the first study, cooperatives keep a significantly lower part of their surplus for future growth, reserve, or distribution to investors. Moreover, larger, more subsidized MFIs, and particularly cooperatives, tend to allocate a greater part of their surplus to their employees. Finally, as for clients, our results show that institutions decreasing their interest rates are mainly larger but also older and relatively more subsidized. These results are in line with surveys on other social indicators, such as Copestake (2007) or Bédécarrats *et al.* (2009), who also highlight that the size is an important driver of social performance.

These results bring new suggestions in terms of public policies. In particular, while many advocated that size and scale economies could be instrumental in being more efficient and profitable, it could also be useful to decrease interest rates and give better salaries, which

² Where $Spl_{i,t+1}$ is the part of the total gained surplus of the MFI "i" at time "t+1" respectively allocated to the different stakeholders. $SIZE$ = total number of borrowers served, GOV = status dummies that shows differences between NPOs, COOPs, and SHFs. SUB = total amount of subsidies divided by its outstanding loans portfolio. GEO = regional dummies that capture the regional differences. AGE = age of the institution. ALS = average loan size divided by the GNI per capita. GNI = GNI per capita which captures the standard of living of the MFI's country. $YEAR$ = dummies, which control for year-specific, μ is the institution-specific effect that captures all unobservable institution-specific variations, and u is the random error term.

could be linked to the social responsibility of MFIs. Moreover, the GPS represents an additional tool complementing other existing indicators of social and financial performances.

Finally, this tool can be used by the institutions themselves to become aware of the stakeholders they favor in their surplus distribution. Indeed, in the first two studies, we analyze the sector trend and we provide general observations useful for policy orientations. However, the GPS methodology is also very useful to analyze the social responsibility of some specific MFIs. We demonstrate this relevance in two case studies on Peruvian and Mexican MFIs. Regarding the Peruvian case, our results show that the Peruvian NPO favors its clients and its self-financing margin, which will help it to grow more rapidly and keep some reserves. Whereas, the cooperative prefers to better remunerate savings. The Mexican case focuses one of the most famous MFIs worldwide: Banco Compartamos. Our findings suggest that productivity gains generated by the institution have been primarily kept as gross self-financing margin for future investments or dividends for investors, the social mission being disregarded.

Study 2 - An Historical Approach of COOPs' Governance Issues (*Ph.D. Third chapter*)

Having shown that the governance of COOPs differs from that of other types of MFIs regarding their specific surplus allocation, in this study, I use an historical approach to tackle the main limit of rural microfinance and its consequences: the lack of long-term loan supply and the governance issues this supply generates for COOPs.

Microfinance is not a new concept and past experiences of northern COOPs can be enriching for younger COOPs (Hollis and Sweetman, 1998; Guinnane, 2003). More precisely, this study analyzes what lessons from the Raiffeisen model can be for today's West African microfinance COOPs in order to increase the long-term loan supply in rural areas. Mid-term and long-term loans are essential to support rural area development (Wampfler, 2002; Christen and Pearce, 2005). They enable financing for agricultural machineries and equipment as well as the replacement of production tools. Long-term loans favor investments, which increase economy of scale and productivity of farming operations, and favor adaptive farming strategies (new plantation, transformation, synergies with other activities, etc.) and exploitation of new market opportunities.

However, the lack of mid-term and long-term loans supply remains the main limit of rural microfinance (Hollinger (FAO/GTZ), 2004; Lolila-Ramin (CGAP), 2005; Wampfler *et al.*, 2007; 4th *Pan-African Microfinance Conference*, July 2009). Being member-owned organizations, COOPs are more sensitive to their client-members' needs. Thus, through their democratic structure, they may offer an efficient way to circumvent the drawbacks of MFIs. However, COOPs have short-term internal resources, mainly composed of their members' savings. Thus, providing long-term loans without relying more heavily on external funds requires dealing with a maturity mismatch, which in turns leads to governance issues. Adapted governance designs are therefore needed to allow for fruitful delivering of long-term loans. Past Northern experience can provide guidelines in this way. Indeed, there is *no need to reinvent the wheel*.

The 19th century German financial cooperatives provided long-term loans (ten years and more) (Guinnane, 2001) thanks to two mechanisms: the liquidity facilities from regional centrals and an efficient corporate governance system based on cooperative auditing

associations. This study discusses the implementation of those mechanisms in today's West African institutions.

Regarding the first mechanism, grouping of liquidity management facilities through a regional centrals system, West-African networks could increase their capacities by developing alliances through federations. The “*Confédération des Institutions Financières*” (CIF), which brings together six large West African COOPs' networks,³ represents a young and successful experience of this type. More can be done in the same direction. Furthermore, the German model was more decentralized, which can better suit local specificities. Therefore, West African COOPs could set up regional centrals (coop status) or banks in parallel with their networking dynamics. These structures could be organized on a contractual basis for COOPs that would like to keep their autonomy, and could eventually include non-financial coops as well. The bank structure could facilitate access to the financial market. For instance, the CIF is currently examining the creation of a bank of which it would be the dominant shareholder. Finally, synergies with the banking sector could be further exploited, as the Schulze-Delitzsch urban COOPs did in Germany. Using existing private banks as centrals does not seem to fit with the West African reality and banks have no special commitment to COOPs. However, both isolated COOPs and networks generally have bank accounts to secure their resources, thus synergies are possible. Indeed, thanks to their bank accounts, COOPs could broaden their offer with services such as salaries domiciliation or remittances transfers (Evans and Klaehn, 2004; Sukadi Mata, 2009). These services are relevant to address the maturity mismatch issue because they represent a potential source of longer-term resources.

The second mechanism at work in Germany was an efficient corporate governance system based on cooperative auditing associations. In West Africa, the external supervision should be strengthened. As this control is mainly conducted by the State, international aid strategies could focus on improving the capacities of the State supervisory institutions. Also, the creation of education programs centered on cooperatives' management and auditing are recommended. In addition, autonomous supervision could be launched. A model similar to the German one is likely too ambitious, but some innovations could be introduced. For COOPs linked to a farmers' organization affiliated with a farmers' movement, the movement could offer a “semi-external” supervision (as experienced by the FONGS, a Senegalese network of farmer organizations with associated COOPs). Also, cross-supervision could be implemented between large networks belonging to a confederation, as currently tested by the CIF.

In the 19th century, the German legislation was flexible and allowed huge asset-liability maturity mismatch. In microfinance, the importance of having a specific legislation that differs from banks seems largely shared. Following this view, the *Parmec* Law defines rules and ratios adapted to the COOPs. Globally well-adapted, this law however is too rigid regarding maturity mismatch. Therefore, this study suggests amending the *Parmec* Law on that issue. The strict asset-liability management rule should be relaxed by adapting the *maturity ratio* for different COOPs' categories created in function of their size and their financial soundness. However, to avoid liquidity trap, such relaxation should be performed progressively with great caution and only after having strengthened the governance system and the supervisory framework. This proposition must be seen not as a call for deregulation

³ These six Networks are located in five countries: RCPB (Burkina Faso), Pamecas (Senegal), Fucec (Togo), Fececam (Benin), and Kafo Jiginew and Nyesigiso (Mali). In 2004, in the WAEMU, CIF served 38% of the microfinance clients, collected 42% of all savings, and provided 32% of all credits (Ouédraogo and Gentil, 2008)

per se but rather as a call for a more efficient –but still regulated– system that takes full benefit from the past German experience.

Study 3 - COOPs Growth and Synergies with the Banking Sector (*Ph.D. fourth chapter*)

COOPs in microfinance have experienced an important expansion. This growth favors financial inclusion and thus, should be encouraged. Different studies have shown that macro-environment factors influence the development of the microfinance sector (Vanroose, 2008; Ahlin *et al.*, forthcoming) and, in particular, the banking sector (Hermes *et al.*, 2009; Vanroose and D’Espallier, 2009; Cull *et al.*, 2009). However, none of these papers have focused on COOPs. In this study, using an original database, I analyze the impact of domestic banking sector development on the expansion of COOPs and focus on the following question: Do financial cooperatives and banks complement or substitute each other?

Imperfect information in the financial market leads to adverse selection and moral hazard, subsequently causing credit rationing and market failures (Stiglitz and Weiss, 1981). In the 19th century, in northern countries, a large part of the population did not have access to financial services, especially in rural areas (Hollis and Sweetman, 1998; IRU, 2005). In such a context, financial cooperatives were created to provide financial services to those financially excluded people (Fonteyne, 2007). These organizations were able to overcome information asymmetry due to their comparative advantages in terms of information gathering and their ability to mobilize cheap and efficient reimbursement incentive mechanisms based on economic and social sanctions exerted by peers (Banerjee *et al.*, 1994; Guinnane, 2001; Armendáriz and Morduch, 2005).

Slowly, a high majority of northern COOPs have progressed toward big structures functioning on a similar base as classical commercial banks and serving similar clients (Côté, 2001). However, in the South, COOPs continue to fill a gap left by the banking sector and serve mostly financially excluded people (Rogaly, 1998; Cuevas and Fischer, 2006; WOCCU-Branch and Grace, 2008). Therefore, in the South, COOPs continue to play a role of solution to the banking market failure.

But, COOPs are not totally disconnected from the banking sector. Thus, what are their links with banks? Historically, if we look at the German experience, Raiffeisen and Haas rural COOPs were relatively disconnected from the banking system, having created their own cooperative regional centrals. Nevertheless, Guinnane (forthcoming) stresses that German COOPs took advantage from the development of the banking sector. The Schulze-Delitzsch urban COOPs had already started to develop some synergies with banks. As an example, they used the Dresdner Bank as their central. This bank was a large professional institution able to provide a huge variety of services, but with no special commitment to COOPs, unlike Haas or Raiffeisen rural centrals.

Today, COOPs have also built multiple synergies with the banking sector. Three main types of synergies can be stressed. The first one is the savings security. The protection of members’ savings is crucial, but many small COOPs, as well as big networks, cannot afford, unlike banks, to invest in safe infrastructures in order to keep their financial resources protected. Thus, they all have a bank account to secure their members’ savings surplus. Andersen and Malchow-Moller (2006) stress the comparative advantages, savings cost versus information cost, existing between more formal and informal sector. This is typically the case for COOPs:

they have lower information costs on their members than banks, due to their ownership structure. But they have higher deposit costs than banks, the latter having large and secure infrastructure. Each of them could use the other's advantage through an adequate cooperation. A second important synergy for COOPs' networks is the liquidity transfer facilities. They can use the banking system to transfer liquidities from one affiliated COOP to another. Obviously, banks do not have an agency in every working areas of the network (especially for remote rural areas) but still, it can greatly facilitate the circulation of liquidities inside the network (as pinpointed by the director of the Pamecas, June 2010). Finally, links with the banking system enable COOPs to broaden the scope of services they offer, with products such as salaries domiciliation or remittances transfers (Evans and Klaehn, 2004; Sukadi Mata, 2009). These products require COOPs to have bank accounts or to work as bank subcontractors.

Consequently, the relationship between banks and microfinance cooperatives is complex: are COOPs more developed where the banking sector is weaker, being more spread where the gap left by the financial sector is bigger? Or are synergies so important that domestic banking sector development favors the expansion of COOPs? Are COOPs affected by the competition in the banking sector? Or, do COOPs work with a totally different population?

To test these questions, I specify a panel data model with a dependent variable measuring COOPs' expansion through the degree of penetration at the country level (*outreach*). This model analyzes the impact of the domestic financial sector development on this dependent variable, while controlling for different parameters to isolate this impact. I opt for a fixed effects model and conduct a Hausman test to validate this option, vis-à-vis the random one. The fixed effects model is generally better suited for databases with many years and few individuals, in particular when individuals are countries (Baltagi, 1995). It allows control for unobservable, stable characteristics of the individuals (countries in this case). The general specification of the model is presented as follows⁴:

$$Outreach_{it} = \alpha + \beta_1 finsyst_{it} + \beta_2 \ln Inflation_{it} + \beta_3 \ln GNI_{it} + \beta_4 density_{it} + \beta_5 rural_{it} \\ + \beta_6 \ln AID_{it} + \beta_7 FDI_{it} + \beta_8 \ln size_{it} + \beta_9 year_t + \mu_i + u_{it}$$

The COOPS panel database is made of information provided by WOCCU's annual statistical reports. The sample is composed of 73 southern countries for the period from 1980 to 2008. Regarding geography repartition, the database includes 27 African Countries (out of 54), 18 Central and Latin American Countries (out of 19), 12 Asian Countries (out of 51) including some of the most important such as India and Bangladesh, but not China, and finally 16 Caribbean Countries (out of 35).

The empirical results show that a higher banking sector development tends to favor the expansion of COOPs. This finding indicates that synergies with banks could dominate the role of COOPs as a solution to market failure. These results differ from those found by Vanroose

⁴ The explained variables of the model are composed of the variables of interest named *finsyst*, measuring financial system development, and a set of control variables. I respectively control for the macroeconomic environment: inflation and GNI per capita; for the population features: the population density (*density* is the population per square km) and the rural percentage (*rural* is the rural population in percentage of the total population); for the external funds: aid per capita (*AID*) and foreign direct investment in GDP percentage (*FDI*); and for the average COOP size per country (the *size* proxy is calculated by dividing the total number of members by the number of national COOPs). Finally, *year_t* is a set of year dummies, μ_i is a dummy variable for each country – it captures the time-invariant unobserved country characteristics – and u_{it} is the error term.

and D'Espallier (2009), who show that MFIs generally seem to have a higher outreach where the financial market is weaker. This difference could be explained by higher synergies existing between COOPs and banks than between other types of MFIs and the banking sector, probably due to the savings security dimension, which does not exist for MFIs with an NPO status, as they are usually not allowed to collect savings. The analysis also pinpoints that the outreach of COOPs is not affected by the competition in the banking sector, as they tend to serve a different type of population. It concludes with public policy considerations and argues for policies favoring synergies with banks in order to encourage the expansion of COOPs and to promote financial inclusion.

Study 4 - COOPs Growth and Governance mechanisms evolution (*Ph.D. fifth chapter and new studies*)

While COOPs growth increases financial inclusion, it also generates new challenges in terms of governance. The adaptation of these organizations' governance mechanisms is crucial to ensure positive growth and to avoid opportunistic behaviors, such as the expense-preference phenomenon. In this study, I analyze this issue through the case of West African microfinance COOPs.

Although this study stresses the crucial role of the COOPs' governance bodies and the specificities of the issues they have to tackle (Rock *et al.*, 1998; Branch and Baker, 2000; Cornforth, 2004), it argues for a larger view of the governance concept. Inspired by the Charreaux (1997) theory, it considers the governance of COOPs as a system including four types of interacting governance mechanisms. This classification is defined thanks to two characteristics: first, whether the mechanism is intentionally set up to control the organization or whether it works spontaneously; second, whether the mechanism is specific, working for one organization in particular, or non-specific, working for the whole sector.

The study is based on the literature and on two main field studies gathering 48 semi-structured interviews. It shows that the member-ownership structure of COOPs favors specific spontaneous mechanisms, such as the social capital (Guinnane, 2001), the role of savings favoring social control (Banerjee *et al.*, 1994; Armendáriz and Morduch, 2010), and the mutual monitoring between employees. However, when the COOPs become larger and belong to big networks, these types of mechanisms tend to be weaker. The increase in the number of members makes peer monitoring more difficult, and other types of mechanisms have to be strengthened. Indeed, at that stage, intentional mechanisms become crucial. First, the network will reinforce the specific governance mechanisms. More precisely, a supervisory team composed of specialists employed by the union will ensure the supervision of the whole network. A new equilibrium between technicians and elected members also has to be found with the implementation of governance bodies at the union level. An adequate degree of decentralization should be defined with a balanced power relationship between the COOPs constituting the network. Second, the non-specific intentional mechanisms become crucial. At that stage, an efficient supervision by the state institutions supported by an adequate regulation should be implemented to ensure the protection of savers-members and to control the viability of the organization. Encouraging the state supervisory institutions seems an especially appropriate angle for international cooperation support.

This study concludes with the crucial necessity to acknowledge the diversity of mechanisms in order to define public policies adequately. A systemic vision of governance is essential to ensure the success of these policies.

Conclusion: societal relevance and spin-off effects

As stressed by Ban Ki-moon, the United Nations Secretary-General, “*Cooperatives are a reminder to the international community that it is possible to pursue both economic viability and social responsibility*” (IYC, 2012). Microfinancial cooperatives (COOPs) in developing countries work for a higher financial inclusion and are able to reach remote rural areas ignored by classical microfinance. These organizations promote a self-help dynamic and the development of the whole community of their members, working for the general interest. These organizations contribute to a social model that includes all stakeholders and places humans at the center.

In terms of societal relevance and spin-off effects, one of my major contributions is the adaptation of the global productivity surplus method as a tool to analyze the governance and social responsibility of COOPs. This tool allows examination of a key social question for microfinance institutions in general, and COOPs in particular: how is the value created by these organizations distributed between the main stakeholders? It thus allows evaluating the extent to which these organizations contribute to the collective interest. This tool can be used by the organizations themselves to identify the stakeholders they favor in their surplus allocation process. They could use it as a management instrument to readjust their policies in order to maintain their mission.

I bring other contributions that have societal relevance through public policy suggestions. First, I analyzed what could be learned from history in order to increase investment loans in rural areas today. Although, they represent a main limit of microfinance, long-term loans play a major role in rural development. But, there is *no need to reinvent the wheel*: COOPs in the 19th century were able to provide long-term loans in rural areas. The study shows how the mechanisms at work in 19th century could be adapted to help West-African COOPs to develop their offer of long-term products.

Then, I investigated the environmental factors favoring the development of COOPs on a large scale, through a macro-econometric analysis. I stressed that some minimal presence of banks is especially necessary for COOPs to develop and I argued for policies which promote synergies with banks and COOPs. Finally, I undertook a qualitative study to analyze the evolution of governance mechanisms in relation to COOPs' growth. This study shows the crucial need for adaptation of governance devices to avoid, as much as possible, new opportunistic behaviors when COOPs grow. It stresses the multi-dimensionality of public policy design required to adequately support the development of young cooperative networks and concludes that a systemic view on governance is crucial to address the challenges of sustainable growth.

COOPs contribute to achieving a more equitable society. My research tries to bring helpful contributions to favor a sustainable development of these organizations which, well-governed, can efficiently promote local democratic development.