

# Maturity Mismatch and Governance of Microfinance Cooperatives: Lessons from History

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**Abstract:** This article shows how today's West African microfinance cooperatives could learn from the experience of 19<sup>th</sup> century German financial cooperatives (FCs) to address their members' need for long-term loans, especially in rural areas. FCs have short-term internal resources, consisting mainly of members' savings. Thus, providing long-term loans requires dealing with a maturity mismatch, which in turns leads to governance issues. The 19<sup>th</sup> century German FCs provided long-term loans (10 years and more) thanks to two mechanisms: the liquidity facilities provided by regional centrals and an efficient corporate governance system based on cooperative auditing associations. We discuss the feasibility of implementing those mechanisms in today's West African microfinance cooperatives and come up with practical policy-oriented recommendations.

**JEL codes:** G2, G3, L3, N2

**Keywords:** Microfinance, Cooperative, Governance, long-term loan, maturity mismatch

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## 1. Introduction

The current financial crisis has stressed the importance of savers' protection. The traditional view on banking activities opposes savers to shareholders (Jensen and Meckling, 1976; Diamond 1984). Interestingly, in financial cooperatives (FCs), there is no such opposition as FCs members are simultaneously owners and clients (be they savers or borrowers). As a consequence, the classical profit-maximizing approach falls short and the stakeholders' approach turns out to be more adequate (Freeman and Reed, 1983; Hill and Jones, 1992; Cuevas and Fischer 2006). This paper is about the corporate governance designs that help tackling the mismatch issue in microfinance FCs. Building on the 19<sup>th</sup> century German experience, it draws lessons for the current microfinance FCs that have experienced a fruitful development in West Africa.

In FCs, several conflicts of interest arise, notably among members such as the one that opposes short-term savers to long-term borrowers. FCs are characterized by short-term savings, which act as a governance mechanism by encouraging monitoring by savers. Indeed, quickly demandable savings enable savers to directly "vote with their feet" (opt out) and leave the organization if they lose trust in the managers (Calomiris and Kahn, 1991). However, FCs face demand for long-term financing and are pushed to lend on the long term with short-term resources. The resulting maturity mismatch, acts as an incentive to recover credits on time, but increases the liquidity risk, like in the classical banking industry.

As a matter of fact, the rural sector requires credits of different durations: typically short-term loans to finance crops, animals fattening, storage of agricultural goods, or first transformation process; mid-term loans to finance agricultural machineries and equipments or to replace

production tools such as plows or draft animals; and long-term loans to finance heavy equipments, plantation of sustainable crops, or to buy lands (Wampfler, 2002; Christen and Pearce, 2005). Unfortunately, in southern countries microfinance institutions (MFIs) scarcely provide long-term loans, because these loans are more risky and less profitable. While this limitation is only mildly restrictive for small businesses in urban areas, it strongly hampers microfinance's capacity to finance agricultural activities. Being members-owned organizations, FCs are more sensitive to their clients-members needs. Thus, through their democratic structure, they may offer a privileged way to circumvent this drawback of MFIs.

FCs lack internal long-term resources, because their members are poor and require quick access to their funds in case of shocks. Adapted governance designs are therefore needed to allow for fruitful delivering of long-term loans. The 19<sup>th</sup> century German experience provides guidelines in this way. Indeed, the rural FC movement set up in the 1850s in Germany was successful in reducing market failures and offering long-term loans to non-bankable population with resources mainly available on the short term (Guinnane, 2001). Two main mechanisms were at work that could be valued in the West African microfinance context.

First liquidity management facilities were provided by regional centrals to which most German FCs were linked on a contractual base. This architecture preserved small-size local FCs with low information asymmetry, while provided them with liquidity capacities. In West Africa, networking exists, but with higher integration implying less local autonomy. Also, many FCs are still isolated. We therefore argue for the implementation of cooperative centrals (or banks) allowing isolated FCs to beneficiate from additional services. Following the German experience, this could be done on a contractual basis and with centrals which are diversified by grouping financial and non-financial cooperatives. The second mechanism at

work in Germany was an efficient corporate governance system based on cooperative auditing associations. The system was autonomous and included a re-auditing process and specific schools for cooperatives auditors. In West Africa, the State-based external governance mechanisms are rather weak. International aid could strengthen this supervision and help the national supervisory institutions to achieve their mission. Besides, external independent supervision could be put in place through cross-inspections inside confederations (like the “*Confédération des Institutions Financières*” experience), and through synergies between FCs and farmers’ organizations. Finally, specific trainings could make auditors aware of the cooperatives’ needs.

This article stresses the necessity to amend the *Parmec* Law, which regulates the West African microfinance sector and forbids maturity mismatch. Indeed, this rule could be relaxed under some conditions in order to increase the possibilities for FCs to provide long-term loans to their members.

The paper is organized as follows. Section 2 theorizes the governance issues generated by FCs’ long-term credits supplying and assets-liabilities management (ALM). Section 3 presents the 19<sup>th</sup> century German FCs’ experience. Section 4 analyses the situation of today’s microfinance cooperatives through the case of West Africa. Building on a comparison with the German experience, Section 5 makes recommendations for African MFIs’ governance. Section 6 concludes.

## **2. ALM: Long-term credits and governance risk**

In order to facilitate financial intermediation and promote growth, the assets and liabilities management (ALM) is recognized as a key factor to ensure efficiency and deal with maturity mismatch (Berthélemy and Varoudakis, 1994). Indeed, financial institutions transform short-term into longer-term resources, but this transformation has to be controlled to avoid excessive liquidity risk exposure. This trade-off is especially relevant for FCs, as they are characterized by very short-term resources and members' long-term credit needs.

In FCs, members are split into net-savers and net-borrowers with different interests. Concerned by the safety of their savings, net savers tend to promote a too restrictive credit policy. Conversely, net borrowers push the cooperative to adopt loan interest reduction. For the FC viability, the optimal situation is a balance between the two categories (Branch and Baker, 2000).

To finance long-term credits, FCs face two options, both leading to specific governance issues. The first option is to use external long-term financing. While avoiding maturity mismatch, this strategy changes the members' proportion of net-savers and net-borrowers. A high proportion of external funding leads to a net borrowers' domination, which represents a threat to the FC's viability. Also, external funds reduce the members' feeling of "borrowing from their neighbors" (Krahn and Schmidt, 1999) and lower their motivation to reimburse. Indeed, members' savings favor peer monitoring and represent vital governance mechanism (Banerjee *et al.*, 1994; Armendariz et Morduch, 2005). For instance, Guinnane (1994) explains the poor results of the German model transplant to Ireland especially by the lack of savings in the FCs.

The second option is using internal resources, coming from members' savings, to provide long-term credits and limit the needs for external funding. This practice avoids a net borrowers-members' domination but drives a higher liquidity risk that compromises the FC's viability and requires management liquidities facilities such as emergency loans in critical situations.<sup>2</sup>

As both options for supplying long-term credits are risky, they require good governance and efficient control mechanisms. In the 19<sup>th</sup> century, when they first appeared in rural Germany, FCs were very concerned to bring solutions to their members' needs and, therefore, to provide long-term loans and put in place satisfactory governance mechanisms to support the system.

### **3. The 19<sup>th</sup> century German FCs**

The 19<sup>th</sup> century German FCs<sup>3</sup> took up the challenge of providing long-term credits with short-term resources. Even if the context was different, their experience reveals relevant for microfinance cooperatives. This section examines the German FCs' balance sheets and explains how these institutions managed to reduce the risk linked to maturity mismatch.

The first Reich cooperative law was edited in 1889 and represented a historical turning point for the German FCs, as it allowed coops to have limited liability and to be members one of another. Also, it forced FCs to be audited twice a year. In that way, this law favored the

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<sup>2</sup> This second option's risk is the most important for the FCs' members. Indeed, the collapse of a FC financed by external funds compromises its future access to credits whereas the collapse of a FC financed by internal resources induces losses of members' savings.

<sup>3</sup> Developed in the 1850s, the German FCs grew rapidly and, in 1910, reached 17,620 institutions serving 3,619,000 members. In 1913, they were holding 6.8% of all German banking assets. The sector was split into three main cooperative movements: a) starting in the 1840s and conducted by Schulze-Delitzsch, the first wave was mostly urban; b) in 1864, Raiffeisen promoted rural FCs; and c) the later Haas movement overtook the Raiffeisen's one and became dominant in rural areas. For more information, see Guinnane (2002).

development of regional centrals and auditing associations (Guinnane, 1997; Emmons and Mueller, 1997).<sup>4</sup>

Centrals did not prevent local FCs from keeping a high degree of autonomy, following a decentralized model<sup>5</sup>. Actually, the FCs' internal structure was flexible and differed across institutions. In most FCs though, two committees were in place: the management committee (MC), that took the main decisions such as accepting new members or granting loans, and the supervision committee (SC), that monitored the treasurer's activities and the soundness of the cooperative (Guinnane, 2003). The division of tasks between these two committees and the treasurer was only loosely defined, so that some overlaps did occur.

The human environment is also worth mentioning. The FCs' members benefited from basic knowledge thanks to universal primary education. Also, membership was rather diversified in terms of skills: management committees were often composed of local businessmen and farming leaders, while supervisory committees tended to include local nobles or clergymen (Guinnane, 2003). In addition, weak rotation allowed elected members to accumulate knowledge on their cooperative. Finally, although the treasurers were generally schoolteachers or farmers with no specific management skills, they were well paid, which motivated them for doing a good job.<sup>6</sup>

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<sup>4</sup> The law permitted Centrals to have the cooperative status, whereas before, they had to be a corporation. Thanks to this law, Centrals could be cooperatives with limited-liability having, as members, limited or unlimited-liability coops. Also the law recognized auditing associations as legal auditors.

<sup>5</sup> As stated by Guinnane (2001, p370), "*By joining a Central or an auditing association a cooperative agreed to abide by certain rules. But each credit cooperative retained authority over interest rates, maximum loan sizes, and most other policy matters.*"

<sup>6</sup> The treasurer's salary could represent an important part of the cooperatives' expenses. According to Guinnane (2001, p. 12), "*given this person's role, cooperatives recognized the importance of paying a salary high enough to attract and retain a treasurer with the right qualities.*"

### 3.1. Balance Sheet Issues

Globally, the German FCs offered adequate savings products and had little trouble collecting savings<sup>7</sup>. Their “open-coop” structure<sup>8</sup> helped collecting savings from wealthier people who could have been reluctant to become FC’s members (Emmons and Mueller, 1997). Mersland (forthcoming) confirms that serving wealthier people was instrumental for the viability of historical northern microfinance institutions such as Savings Banks.

In Germany, savings were mostly on the short-term but not demandable. The waiting time for receiving savings back was at least three months and could reach up to six months (Guinnane, forthcoming). Funding came also from equity and debts, but to a much lower extent<sup>9</sup>. In order to preserve their social capital and informational advantages, the FCs limited membership to small communities<sup>10</sup> (with possible links at second and third level (Caprio and Vittas, 1997, Kotz and Nagel, 2002)). German FCs did not provide credits to outsiders from the village, except for very profitable loans (Guinnane, 2001). In contrast, they offered very-long-term credits to their members, sometimes over 10 years<sup>11</sup>.

German FCs were characterized by a high mismatch between their liabilities and assets maturity. They met their members’ long-term financial needs with their short-term internal resources, therefore avoiding net-borrowers’ domination. Although rural FCs were “*especially*

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<sup>7</sup> Their main competitors were the *Sparkassen*, that were public savings banks for poor people.

<sup>8</sup> The “open-coop” structure means that FCs could collect savings from both members and non-members.

<sup>9</sup> FCs had few external funds and generally a very high leverage, especially the Raiffeisen rural FCs.

<sup>10</sup> Small size is often put forward as a factor of success as it reduces informational asymmetries. For instance, in current mutual guarantee institutions, as Columba, Gambacorta and Mistrulli (2009) has shown: bigger size could lead to poor screening and reduce monitoring incentive.

<sup>11</sup> According to Guinnane (2001, p. 379): “*Long-term loans were in fact an important reason for having cooperatives. [...] Commercial banks typically relied on 90-day loans*”. *Long-term loans represented a huge proportion of the FCs’ portfolios: Analysis of the Raiffeisen federation’s annual reports shows [...] [that] the preponderance of loans were made for one year or longer, with nearly half made for ten years or longer.*”

*ill-liquid*" (Guinnane, 1997)<sup>12</sup>, two elements tempered their liquidity risk. First, even if they were short-term, their members' savings were very stable. Second, cooperatives' leaders set up a special mechanism described by Prinz (2002, p. 13) as: "*the cooperative should reserve the right to call back any long-term loan on short-term notice*".<sup>13</sup> Besides, the coop regional institutions further contributed to reduce the maturity mismatch risk.

### 3.2. Regional Mechanisms to Manage Maturity Mismatch

German FCs were structured at the regional level through centrals and auditing associations. Regional centrals had objectives such as facilitating local FCs' liquidity management, smoothing seasonal fluctuations, acting as a "lender of last resort" and helping FCs find outlets for investment (Guinnane, 1997, Kotz and Nagel, 2002). A bottom-up relation linked FCs to their centrals: local FCs were member-owners of the central and benefited from on-demand services. This contractual and exclusive relation favored a decentralized functioning letting the FCs be locally autonomous. German centrals were diversified bringing together all kinds of cooperatives, not only financial ones. Consequently, FCs' surpluses were made available to other cooperatives, keeping the resources within the cooperative sector. Also, it is worth mentioning that contrary to the rural experience, Schulze-Delitzsch urban FCs 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.

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<sup>12</sup> This means FCs belonging to the Raiffeisen and Haas movement, S-D FCs provided especially short-term loans.

<sup>13</sup> While reducing the danger from mismatch, this mechanism was criticized as unfair. Nevertheless, according to Prinz (2002), it was justified by the Raiffeisen's cooperative ideology based on a solidarity principle.

Auditing associations, set up by coops' leaders as independent supervisory system, avoided dependence from the State. As the auditors worked only with cooperatives, they were specialists. Moreover, they had incentives to act as controllers and advisers (Guinnane, 1997). They efficiently helped FCs to tackle mismanagement from –often less-skilled– managers and treasurers, as a scandal in one FC would affect the image of the whole movement. Embezzlement was rare but potentially detrimental. To strengthen the system, special schools were created for cooperative auditors as well as a re-auditing process with “*super-auditors*” (Guinnane, 2003).<sup>14</sup>

Maturity mismatch was thus addressed in two ways. Firstly, centrals provided “emergency loans”, “liquidity facilities”, and other services including smoothing seasonal fluctuations and “last resort” lending. Secondly, auditing associations brought financially skilled agents to the FCs for control and counseling. This virtuous combination favored strong confidence from the members.<sup>15</sup>

#### **4. The Current Situation of West African FCs**

The microfinance sector in West Africa is dynamic and characterized by a high domination of the cooperative status. According to the BCEAO statistics, in 2006, with 2,083 services points, FCs served 3,688,185 members, had collected a total of 280,536 million FCFA<sup>16</sup> and

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<sup>14</sup> This auditing system was very efficient. Local FCs could resort to private auditors and were not obliged to deal with cooperative auditing associations, but they were encouraged to resort to these associations as they brought consequent additional advantages.

<sup>15</sup> Again, this observation goes beyond the German FCs case. For instance, Caprio and Vittas (1997, p15) state that: “*Thrift deposit institutions were stronger in countries where they developed a three-tier structure that combined the local character and autonomy of individual entities with the geographic diversification, liquidity management, and auditing and control services of central regional and national institutions.*”

<sup>16</sup> It is equal to approximately 427.6 million €

provided credit for a total of 266,494 million FCFA<sup>17</sup>. West Africa is mainly rural. In 2005, the agricultural sector represented 37.5% of the GDP and employed 37.3% of the population (World Bank Statistics).<sup>18</sup> While farmers need long-term financing to improve and replace their production tools, the offer of mid-term and long-term loans remains weak, from traditional banks as well as from MFIs (Wampfler, 2002).

The West-African microfinance sector is regulated by the *Parmec* Law (edited in 1993 and reviewed in 2008), which favors the cooperative status for MFIs<sup>19</sup> and introduces strict regulation. It imposes minimal prudential ratios and an interest rate ceiling of 27%. It defines the FCs internal structure as including three governance bodies in addition to the General Assembly: the administration committee (AC), the credit committee (CC), and the supervisory committee (SC)<sup>20</sup>. Most importantly, the *Parmec* Law forbids high maturity mismatch: “long-term expenses must be strictly covered by long-term resources” (BCEAO, Statuts Types, 1994, our translation from French).

The functioning of West African FCs faces several difficulties associated to, e.g., voluntary dimension of administrators’ work, time-consuming meetings, and practical difficulties to attend meetings (due to long distances, bad roads, and vehicle availability). Among those problems, the worse seems to be the members’ lack of skills (Branch and Baker, 2000;

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<sup>17</sup> It is equal to approximately 406.2 million €

<sup>18</sup> The figures given here are mean values for the UEMOA countries (“Economic and Monetary Union of West Africa”): Benin, Burkina Faso, Senegal, Togo, Cote d’Ivoire, Niger, Mali, Guinea-Bissau (website: <http://ddp-ext.worldbank.org/ext/DDPQQ/member.do?method=getMembers&userid=1&queryId=135>).

<sup>19</sup> But in a much lower extent in the new law: it represents one of the main recent changes in the legislation.

<sup>20</sup> The AC implements the General Assembly’s decisions, defines the resources management policies and the big orientations of the FC. The CC is in charge of the lending procedure: it analyzes the members’ demands for credits and manages arrears recovery. Finally, the SC supervises all the FC’s activities and the loan policy (BCEAO, Condense n°12, 1995). The CC, which generally did not exist in German FCs, is considered necessary by West African legislation. To avoid tasks overlapping, the role of each committee has to be well-defined

Ouedraogo and Gentil, 2008), attributable to low education (Pearce, 2009)<sup>21</sup>. In particular, the SC should include members with some basic accounting notions to be able to control the staff, but unfortunately, in small rural FCs, this is generally not the case. Also, the staff is often only composed of two workers (a “manager” and a “cashier”) with a low salary, which prevents FCs from attracting qualified staff (Branch and Baker, 2000). Slowly though, the hiring policy starts changing with growth, at that time an important part of the wealth created by the organization goes to employees (Périlleux, Bloy and Hudon, 2009).

#### 4.1. Balance Sheet Issues

West African FCs provide intermediation: their savings services are one of their main comparative advantages over the MFIs with a NGO status (Robinson, 2001; Ouedraogo, 2008).<sup>22</sup> Moreover, members’ savings drive an essential governance mechanism for FCs, (Banerjee *et al.*,1994; Armendariz and Morduch, 2005).<sup>23</sup> In 2006, West-African savings represented on average 74% of the total FCs’ liabilities (split between: short-term savings for 57%, long-term savings for 8%, and other savings for 9%)<sup>24</sup>. External debt and subsidies reached respectively 10% and 2%, and equity 14% of total liabilities. (see Appendix Table 1).<sup>25</sup>

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<sup>21</sup> On average for the UEMOA, only 58% of the adults, between 15 and 49 years old, are literate. The literacy rate does not even reach 30% in four countries of the area (Mali, Burkina Faso, Guinea and Niger). Finally, at the world level, seven out of the ten countries having the lowest literacy rate are located in West Africa (Pearce, 2009).

<sup>22</sup> Indeed, in most countries, the latter are not allowed to collect savings, although savings are now recognized as an important service especially for poor people.

<sup>23</sup> The lack of savings as a major funding source leads to net-borrowers domination in membership and weak monitoring by members. Thus, FCs must limit external financing, which reduces the borrowers’ feeling to borrow from their neighbors (Krahn and Schmidt, 1999).

<sup>24</sup> Other savings include compulsory savings.

<sup>25</sup> However these statistics are globalized and contain a bias in favor of large FCs. Therefore, we take a closer look at the Senegalese microfinance sector in order to break down the results in function of the FC’s size. We find that, on average, small autonomous FCs tend to finance themselves, in a lower extent, with internal resources, than networks (see Appendix Table 2).

West-African FCs are “closed-coops”: only members have access to services (BCEAO Condense, 1995). This reduces the number and diversity of potential depositors. However, being a member is not very demanding.<sup>26</sup> The cooperative’s assets are composed of credits to members mainly. According to the *Parmec* Law, the AC defines the lending policy and the CC is in charge of the day-to-day lending decisions. Also, credit is usually linked to compulsory savings, fixed as a percentage of the credit. As maturity mismatch is forbidden and short-term resources (current savings accounts) are predominant, FCs’ portfolios principally include short-term loans.<sup>27</sup> Therefore, credits for investment remain rare (Christen and Pearce, 2005). To increase them without maturity mismatch, FCs need to either attract long-term deposits, or contact external debts, both being difficult challenges for African MFIs.

## 4.2. Regional Structure

The West African FC sector is structured in networks composed of local units optionally affiliated with a central union. At the upper level, unions may be affiliated with a federation and then with a confederation. In 2005, BCEAO recorded in West-Africa: 8 federations, 68 unions, 1,599 local FCs linked to a union, and 735 unaffiliated FCs.

Although local FCs legally keep their independence, networks are considered as single organizations and have to produce consolidated annual accounts (BCEAO, Condense n°17, 1995). The relation between the network’s levels is regulated by the “subsidiarity” principle (Desrochers and Fischer 2005): tasks are transferred to the upper level only if either local FCs

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<sup>26</sup> Members’ fees are low and liability is limited. Therefore, compulsory membership is less discouraging than in German FCs where unlimited liability was the rule.

<sup>27</sup> Even if this trend is currently improving (see Appendix Tables 3, 4 and 5). In 2005, 58% of the West African FCs portfolios have an average duration of under a year, while 42% have an average duration of over a year (BCEAO stat), but do not reach very long-term such as 10 years or more.

cannot fulfill them, or if large economies of scale are at stake. Most large networks add a second principle, justified by the group interconnection, according to which centrals may take the full control of FCs facing serious troubles threatening their viability (Ouedraogo, 1997). Networks' dimensions are extremely variable. Starting from a group of a few tiny FCs', networks can also reach large groups like the "*Confédération des Institutions Financières*" (CIF), which brings together six large FC networks.<sup>28</sup> In 2004, in UEMOA<sup>29</sup>, CIF was serving 38% of the microfinance clients, collecting 42% of all savings and provided 32% of all credits.

As far as supervision is concerned, in West Africa the external control of FCs is ensured by each State, through its Microfinance Ministerial Department (MMD) with the support of their Central Bank (BCEAO, Condense n°17, 1995). However, these institutions lack human and financial resources to achieve their mission. For example, in 2007, the Senegalese MMD had 878 FCs<sup>30</sup> under its supervision, but it is able to conduct around 40 inspections per year only.<sup>31</sup> When affiliated to a network, the FCs benefit from an additional yearly "semi-external" control conducted by qualified technicians employed by the union (BCEAO Condense n°17, 1995).

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<sup>28</sup> These six Networks located in five countries are: RCPB (Burkina Faso), Pamecas (Senegal), Fucec (Togo), Fececam (Benin), and Kafo Jiginew and Nyesigiso (Mali).

<sup>29</sup> The UEMOA (Union Économique et Monétaire de l'Ouest Africaine) is the Economic and Monetary Union of most of the West African Countries (Benin, Burkina Faso, the Republic of Côte d'Ivoire, Guinea Bissau, Mali, Niger, Senegal and Togo). It represents the largest part of the West Africa. All of these countries use the West African CFA franc.

<sup>30</sup> 12 Unions, 501 recognized local FCs, 377 semi-formal local FCs (which will not be allowed anymore) and 6 NGOs (MFIs without a coop status: "convention cadre").

<sup>31</sup> Information from a MMD employee's interview, conducted by myself in June 2009.

## 5. Lessons from the 19<sup>th</sup>-century German FCs

Building on the previous sections, Table 1 summarizes the comparison between the 19th-century German experience and the current situation in West Africa. First, the context differences are important. To some respects, FCs' activities were harder to develop in 19<sup>th</sup>-century Germany than in today's West Africa. The lack of communication technology made exchanges more difficult, both nationally and internationally. All documents were handwritten.<sup>32</sup> However, from another angle, 19<sup>th</sup>-century Germany was more favorable to FCs' activities. The regulation was flexible. The schooling system was better, thanks to universal primary education. Also, the farmers' situation was more stable.<sup>33</sup> Finally, GDP per capita was higher in Germany.<sup>34</sup> The emergence of FCs was also different: in Germany, the cooperative movement emerged endogenously<sup>35</sup>, whereas in West Africa, it was pushed forward by Northern NGOs and international aid in such a way that, in many cases, FCs' creation can be considered as relatively exogenous.

The German model was decentralized. Voluntarily limiting their size, the autonomous local FCs included around 100 members (Guinnane, 2003)<sup>36</sup>, but their contractual relation with a central increased their financial capacity.<sup>37</sup>

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<sup>32</sup> Even if it is also the case in many small FCs in West Africa, ICTs (Information and Communication Technologies) are an essential management tool for big networks.

<sup>33</sup> Nowadays, globalization exposes the farmers to the world agricultural market fluctuations, and global warming changes the agriculture conditions of southern countries.

<sup>34</sup> In 1914, the GDP per capita for Germany was \$3,100 (1990 Geary-Khamis dollars) (Guinnane, forthcoming). Although not fully comparable, the present GDPs per capita (current US dollars) of West African countries are significantly lower. In 2008, GDPs per capita for Benin, Burkina Faso, Mali, Senegal and Togo reached respectively \$771, \$523, \$688, \$1,082, and \$437.

<sup>35</sup> Even if local leaders did not come from the same social class than FCs' members and had a higher level of education.

<sup>36</sup> We focus on rural FCs from the Raiffeisen and Haas movements. The urban FCs were generally highly bigger.

<sup>37</sup> Centrals had, on average, 442 coop members, including financial as well as non-financial coops.

In West Africa, small autonomous FCs coexist with the large integrated networks that dominate the sector (Ouedraogo and Gentil, 2008). The West African network model exploits economies of scale, decreases costs, and reduces time-demanding governance bodies, though local FCs' mergers and service points.<sup>38</sup> But, getting bigger, FCs are more exposed to free-riding and poor peer-monitoring.

The German supervisory system acted as a substitute for the State's control. Inside West-African networks, the technicians' supervisory teams strengthen the governance of local FCs and provide comparable advantages to those of German coops auditors such as acting as controllers and advisors. However, the German auditing scheme was external and more independent, avoiding divergent objectives between promoting and monitoring roles (Hirschland *and al.*, 2008).

Unfortunately, this efficient supervisory system, covering the whole sector and including specific schools for auditors, does not seem globally exportable as such. Therefore, we concentrate on some specific German designs, which may bring useful lessons for West African MFIs.

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<sup>38</sup> As an example the networks in the "Confédération des Institutions Financières" (one of the main actor) are on average composed by 74 local FCs with around 4,000 members (rural FCs are smaller with around 1,300 members) (Ouedraogo and Gentil, 2008).

**Table 1: comparison between German and West African model**

	<i>Germany: Haas and Raiffeisen</i>	<i>West Africa: CIF Networks<sup>39</sup></i>
<b>Local FCs</b>		
Size (number of members)	<ul style="list-style-type: none"> <li>• Around 100 members per local FC</li> </ul>	<ul style="list-style-type: none"> <li>• Around 4,083 members per local FC</li> <li>• Around 1,291 members per local rural FC (<i>Stat average from Kafo Jiginew and RCPB rural FCs</i>)</li> </ul>
Type	<ul style="list-style-type: none"> <li>• Open-coops (<i>with non-member clients</i>)</li> <li>• Often unlimited liabilities for members</li> </ul>	<ul style="list-style-type: none"> <li>• Closed-coops (<i>only member clients</i>)</li> <li>• Always limited members' liabilities</li> </ul>
Services	<ul style="list-style-type: none"> <li>• Short, mid and very long-term credits (<i>investment</i>)</li> </ul>	<ul style="list-style-type: none"> <li>• Short and mid-term credits (<i>very few credits for investment</i>)</li> </ul>
<b>Centrals</b>		
Size	<ul style="list-style-type: none"> <li>• Around 442 local FCs per Central</li> </ul>	<ul style="list-style-type: none"> <li>• Around 74 local FCs per network</li> </ul>
Types of members	<ul style="list-style-type: none"> <li>• FCs and non-financial coops</li> </ul>	<ul style="list-style-type: none"> <li>• Only FCs</li> </ul>
Services	<ul style="list-style-type: none"> <li>• Only financial</li> </ul>	<ul style="list-style-type: none"> <li>• Financial + formation + HRM + economies of scale (ICT, others)</li> </ul>
Nature of link	<ul style="list-style-type: none"> <li>• Weak - Contractual – sporadically</li> <li>• Bottom-up: the local FCs are the Central owners</li> </ul>	<ul style="list-style-type: none"> <li>• Strong - highly integrated - Sharing identity</li> <li>• Bottom-up and top-down</li> </ul>
FCs autonomy with regard to the central	<ul style="list-style-type: none"> <li>• Strong – decide all their policies (savings - loans conditions, methodologies)</li> <li>• Separated from the Central</li> </ul>	<ul style="list-style-type: none"> <li>• Weak – network harmonization</li> <li>• Juridical recognition but considered as same organization: networks consolidate annual report</li> </ul>
Principles	<ul style="list-style-type: none"> <li>• Contractual</li> </ul>	<ul style="list-style-type: none"> <li>• Subsidiary and power repatriation</li> </ul>
<b>Legislation</b>		
Law	<ul style="list-style-type: none"> <li>• 1889 First Reich Coop Law, very flexible</li> </ul>	<ul style="list-style-type: none"> <li>• 1993 Parmec Law, strict</li> </ul>
Prudential ratios	<ul style="list-style-type: none"> <li>• No prudential ratio – no maturity mismatch restriction</li> </ul>	<ul style="list-style-type: none"> <li>• Many prudential ratio – maturity mismatch restriction</li> </ul>
<b>Supervision</b>		
Local supervision (SC)	<ul style="list-style-type: none"> <li>• Relatively efficient: with local nobles/clergymen + universal education</li> </ul>	<ul style="list-style-type: none"> <li>• Relatively inefficient, high illiteracy</li> </ul>
State Supervision	<ul style="list-style-type: none"> <li>• None, autonomous system</li> </ul>	<ul style="list-style-type: none"> <li>• Yes, but weak - lack of resources</li> </ul>
Other supervision	<ul style="list-style-type: none"> <li>• Coop auditing associations</li> <li>• External efficient system</li> <li>• Specific school</li> <li>• Re-auditing process</li> </ul>	<ul style="list-style-type: none"> <li>• In network - additional control by the technician team</li> <li>• No specific school</li> </ul>

<sup>39</sup> We base this comparison on the FCs networks belonging to the “Confédération des Institutions Financières”, one of the more important actor in the West African Microfinance sector.

The two mechanisms that helped German FCs offer long-term loans could be valued in the West African context. The first one is the grouping of liquidity management facilities thanks to the regional centrals system. Following this example, West-African networks should increase their capacities by developing alliances through federations. The “Confédération des Institutions Financières” represents a young and successful experience of this type. More could be done in the same direction.

However, the high level of integration observed in West-African networks<sup>40</sup> deserves further discussion. Are those integrated networks efficient or would exclusive contractual relationships be more adequate? What is better to preserve the FCs’ information advantages and avoid members’ disinvestments? In our opinion, the German model is more flexible and adapts well to local specificities. Therefore, we argue that West African FCs should set up regional centrals (coop status) or banks in parallel with their networking dynamics. These structures could be organized on a more contractual base for FCs that would like to keep their autonomy, and could eventually include non-financial coops as well. The bank structure could facilitate access to financial market. For instance, CIF is currently examining the creation of a commercial bank of which it would be the dominant shareholder.<sup>41</sup>

Finally, synergies with the banking sector can be exploited, as the Schulze-Delitzsch urban FCs did in Germany. Using commercial banks as centrals does not seem to fit with the West African reality. Also, banks have no special commitment to FCs. However, both isolated FCs

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<sup>40</sup> Although higher networking (e.g., at a sub-regional level) will permit to increase diversification and services capacities of central structure, but it reduces local FCs’ independence and generates new governance challenges induced by growth. The number of members increases and free-riding behaviors are expected to increase as well. The members could not understand the more complex network’s structure. According to Charo-Beroff *and al.* (2000), members’ control on second and upper-levels is likely to be very low.

<sup>41</sup> In that case, networks have decided not to be direct shareholder, but through the confederation.

and networks generally have bank accounts to secure their resources, thus synergies are possible. Indeed, thanks to their bank accounts, FCs could broaden their offer with services such as salaries domiciliation or remittances transfers (some FCs are yet starting to provide these services, such as the Pamecas, a Senegalese FC network). These services are especially 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, we recommend the creation of education programs centered on cooperatives' management and auditing.

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 FCs linked to a farmers' organization affiliated to a farmer movement<sup>42</sup>, the movement could offer a "semi-external" supervision. Also, cross-supervision could be implemented between large networks belonging to a confederation, as currently tested by the CIF.<sup>43</sup>

In the 19<sup>th</sup>-century, the German legislation was flexible and allowed huge asset-liability maturity mismatch. In Microfinance, the importance to have a specific legislation differing from banks seems largely shared. Following this view, the *Parmec* Law defines rules and ratios adapted to the FCs. Globally well-adapted, this law has however revealed too rigid

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<sup>42</sup> Such as the « Fédération des Organisations Non-Gouvernementales » (FONGS).

<sup>43</sup> Inside the confederation, the supervisory team of each network operates a yearly inspection in another network.

regarding maturity mismatch. Therefore, we suggest amending the *Parmec* Law on that issue. The strict ALM rule could be relaxed in order to increase the possibilities for FCs to provide long-term loans to their members. The *maturity ratio* could be adapted for different FCs' categories created in function of their size and their financial solidity. 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 per se but rather as a call for a more efficient –but still regulated– system that takes full benefit from the past German experience.

## **Conclusion**

Lessons from the Northern countries' past experience can be enriching for microfinance cooperatives in the South. In particular, West African FCs could find in the German experience interesting tools in order to tackle one of their most important issues: adequately responding to their members' long-term financing needs.

Being characterised by short-term internal resources, FCs have two options to offer long-term loans: use external long-term resources such as borrowing or grants, or use internal resources and deal with a maturity mismatch. Both options require good governance and monitoring. We have shown how some successful German mechanisms could realistically be implemented in the West African context to favor the second option, which has the merit of sticking to the cooperative spirit. However, there is a trade-off between low risks and better services. Without adequate monitoring, a maturity mismatch can be fatal for FCs and can generate dramatic social consequences such as the destruction of poor people's savings. Thus policies

have to be implemented very carefully, with a global view taking into account all plausible consequences. Our study is one step on that way, bringing new ideas into the discussion, through a historical successful experience.

However, limits must also be highlighted. First, the study is based on one unique experience: German FCs during the nineteenth century. However, multiple models have been experienced and each can have their comparative advantages. Second, nineteenth-century German and today's West African contexts are relatively different, thus a deeper context impact analysis could be appropriate. However, it would represent a whole paper in itself. Finally, the *Parmec* Law is currently under revision, but without any special focus on the mismatch issue. Also, political stakes, as well as donors' influences, have a strong and complex importance, which is not approached in this paper.

Further studies could broaden the scope by considering other perspectives such as the development of remittances services: migrants' savings can be a huge potential source of long-term funding for FCs.<sup>44</sup> Also, we could investigate other successful Northern FCs, such as the Canadian Desjardins, Savings Banks (Mersland, forthcoming) and mutual guaranties institutions around the world (see e.g. Levitsky, 1993; Caprio and Vittas, 1997; Columba *and al.*, 2009). This would allow to look at the issue more broadly in order to draw elements from different experiences in function of their adequacy to the West African context and prevent the replication of one model regardless of the context and the culture.

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<sup>44</sup> Even if this raises other issues, such as the members' local proximity and common bond.

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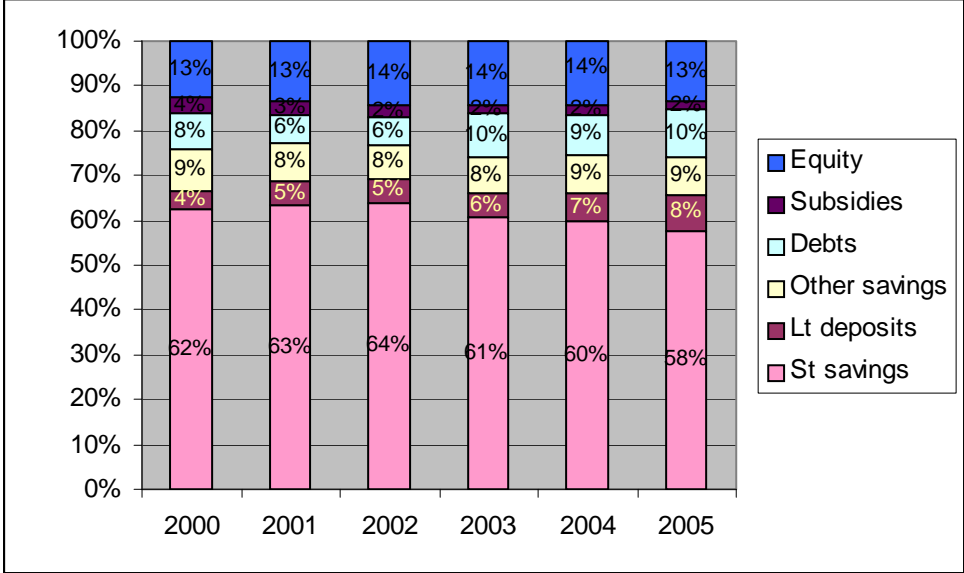
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# Table Appendix

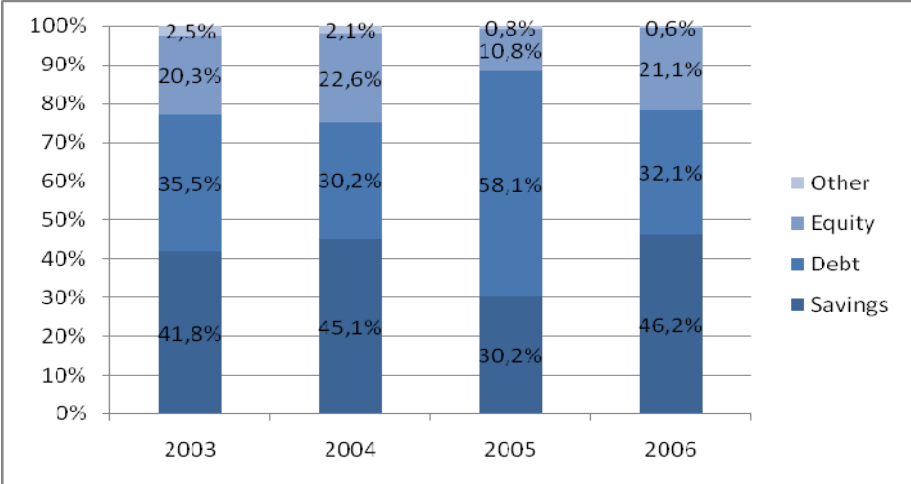
Table 1: financial structure of West African FCs



Sources: BCEAO statistics - see also Lecuyer 2009

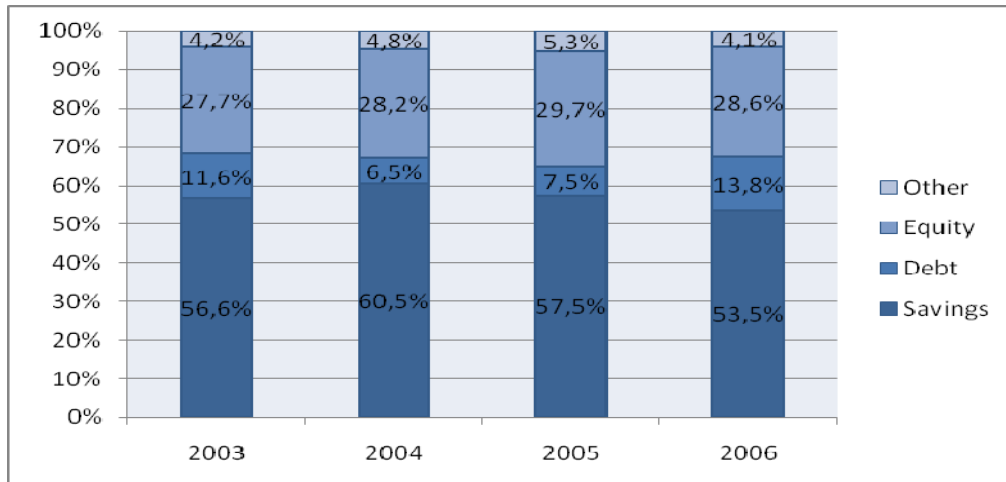
Table 2: financial structure of Senegalese FCs in function of their size

### 3.A. For Autonomous FCs



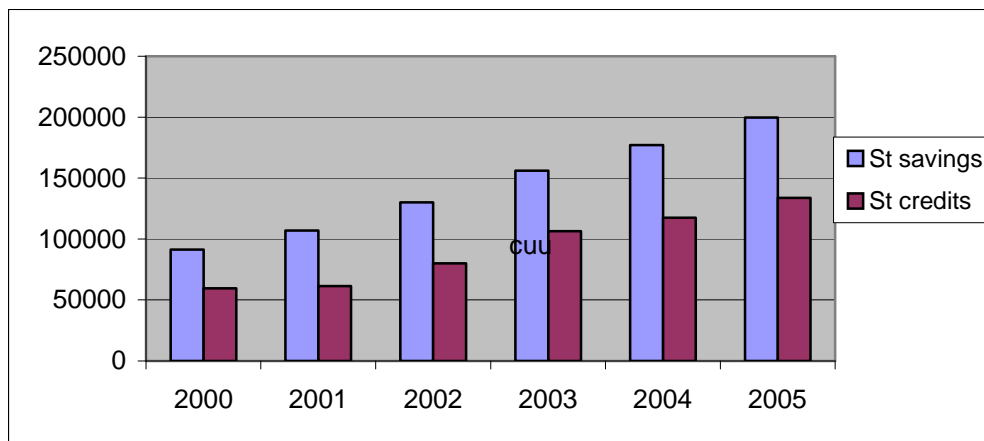
Sources: Senegalese Microfinance Department statistics

### 3.B. For Networks



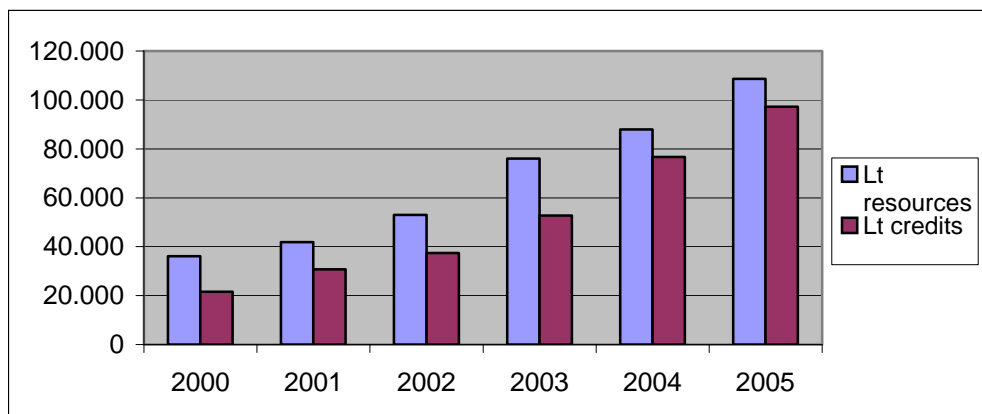
Statistics from the Senegalese Microfinance Department

Tableau 3: short-term resources and uses comparison



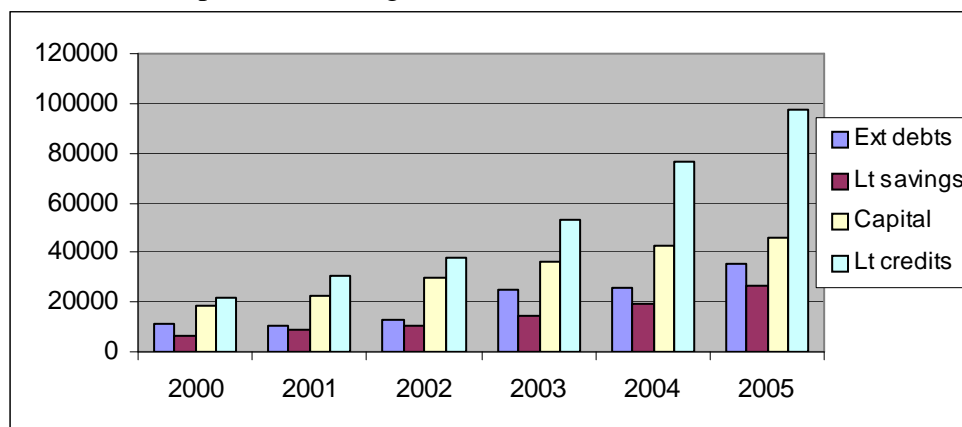
Sources : Source: BCEAO statistics (1€ = 655.96 FCFA)

Table 4: Long-term resources and uses comparison



Sources : Source: BCEAO statistics (1€ = 655.96 FCFA), long-term means one year and more, but do not reach very long-term.

Table 5: decomposition of long-term resources



Sources : Source: BCEAO statistics (1€ = 655.96 FCFA)

Table 6: Sector structure comparison

Germany

Member per local FC	In 1914 unlimited FC	In 1914 limited FC	Local FC per Union	Haas	Members (coop)	% of FC members	% of other coop members
S-D	570	743	Smaller	Gustrow	60	57	17
Haas	95	71	Bigger	Munchen	2417	93	6
Raiffeisen	110	115	Median	Dresden	442	60	38
<b>Mean rural local FC</b>	103	93					

Guinnane (2003),

Guinnane (2004)

West Africa

Member per local FC	1998	2006	Local FC per Union	1998	2006
Local FC - Kafo	762	1719	Union Kafo	89	130
Local FC - RCPB	2229	4499	Union RCPB	73	101
Local FC - Pamecas	1139	6739	Union Pamecas	22	36

Ouedraogo and Gentil (2008)

Local FCs - CIF	2006	Member/local FC - Rural	2006
Average size of local FCs - CIF	4083 members	Average size rural local FC - Kafo	1299 members
Total local FCs in the CIF (addition of FCs of the six networks)	444 local FCs	Average size rural local FC - RCPB	1282 members
Average numbers of local FCs per network	74 local FCs	Mean rural local FC (Kafo and RCPB)	1 291 members

Ouedraogo and Gentil (2008)