

Title: Interest Rates in Savings Groups: Thrift or Threat?

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Abstract

Savings group (SG) models are praised for achieving financial inclusion for the poorest at a very low cost. Promoted by international NGOs, SG models are inspired by indigenous savings and credit associations (ROSCAs). SG models however differ in that they prescribe lending the pooled savings to group members for an interest. The interest rate aims to (1) boost capital accumulation, (2) allocate scarce capital efficiently, and (3) remunerate and incentivize savers.

This paper builds on a six-month fieldwork conducted in South Kivu (DR Congo) consisting of direct observations of SG meetings and interviews with SG participants and practitioners. We study the gaps between SG practitioners' objectives and SG participants' perceptions and practices related to the interest rate. Our research pays particular attention to the local context and local norms that interfere with SG practitioners' objectives. Our analysis highlights three gaps. First, SG participants turn savings into credit for security purposes rather than for rapid capital accumulation. Second, credit allocation decisions are guided by fairness and security concerns rather than efficiency. Third, SG participants often regard the accumulated interest as belonging to the group and to active borrowers rather than to passive savers. Our results invite development actors to pay greater attention to the potential risks of the SG approach for its participants. Despite the common appellation "savings groups", this microfinance innovation builds upon credit and strongly encourages its members to go into debt.

Keywords: financial inclusion; savings groups; interest in microfinance; rotating savings and credit associations; DR Congo; South Kivu.

Highlights:

- Interest rates in savings groups aim at (1) encouraging capital accumulation, (2) allocating capital efficiently and (3) remunerating savings.
- We identify three gaps between these objectives and SG members' perceptions and practices.
- **Gap 1:** SG participants turn their savings into loans to avoid the risks of storing cash rather than to achieve rapid capital accumulation.
- **Gap 2:** Credit allocation is not guided by expected credit performance but rather by concerns of fairness and risk-diversification.
- **Gap 3:** SG participants consider that the accumulated interest belongs to the group and should reward active borrowers rather than passive savers.

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1 **Introduction**

Access to financial services for all is one of the key targets to “*promote sustained, inclusive and sustainable economic growth and employment*” (United Nations, 2015). To achieve financial inclusion, an increasing number of international NGOs in Africa are embracing the Savings Groups (SGs) approach, also called a “*small wonder*” in the field of microfinance (The Economist, 2011). The Village Savings and Loan Association (VSLA) initiated by CARE International; Saving and Internal Lending Communities (SILC) by Catholic Relief Services and Saving for Changes (SfC) promoted by Oxfam/Freedom from Hunger are the best-known SG models. A SG typically consists of 15 to 30 self-selected members whose savings are recurrently pooled and accumulated for the purpose of lending money to its members. SGs are self-managed but facilitated by NGOs. The appeal of the savings groups approach for NGOs lies in its decentralized, self-managed, savings-led approach and its low cost/target beneficiary ratio – no external expense is involved except the training costs (Allen, 2006; Johnson, Mule, Hickson, & Mwangi, 2002). In 2016, the number of SG participants in Africa was estimated to be over nine million people.¹

SG models are inspired by indigenous savings associations, but in contrast to the widespread rotating savings and credit associations (ROSCAs), accumulated savings here are turned into short-term loans to be repaid with interest (see Section 2 for details). Hence, for the SG participants, who are widely accustomed to the traditional ROSCA institution, a peculiarity of the savings groups approach is its systematic interest mechanism.²

¹ This estimate was retrieved from the SEEP Network, a network of practitioner organizations combating poverty through improving financial inclusion. See <http://www.seepnetwork.org/savings-groups-global-outreach-pages-20015.php>

² In a few ROSCAs, allocation is determined through a bidding process, which can be assimilated to an interest mechanism (Besley, Coate, & Lounry, 1993).

Drawing on qualitative research conducted in South Kivu (DR Congo) in 2013 and 2014, this paper studies three interrelated questions. What objectives do SG practitioners pursue when promoting the use of an interest rate in SGs? Are the stated objectives of the interest rate mechanism observed in the field? If not, which local norms and contextual elements explain the deviations from stated objectives, and what are the unintended consequences of these deviations? Our qualitative field enquiry consists of direct observations of SG groups, as well as interviews with SG participants, non-participants, and SG practitioners (see Section 3 for details). In line with Morvant-Roux et al. (2014, p. 305), we indeed consider that qualitative analysis “*is best suited to disentangle and analyse cognitive and social processes*” involved in microfinance programmes, and therefore “*is critical to analyse issues that are difficult to summarize with numbers, as is clearly the case for norms, meanings, and social interactions, which pertain to the immediate context in which people live*”. Our qualitative research usefully complements quantitative research by revealing the existence of economic, social, moral, and cultural logics that influence SG participants’ appropriation, and interfere with SG practitioners’ expected objectives.

Our analysis of SG practitioners' documents, expounded in Section 4, shows that the interest is seen by SG practitioners as an essential strength of their model that aims to (1) boost the accumulation of capital, (2) allocate scarce capital resources efficiently, and (3) remunerate and incentivize savings. In Section 5, we then demonstrate the existence of three gaps between the expected objectives of interest rates and the observed practices of SG participants in South Kivu. First, SG practitioners expect that turning savings into loans that are paid back with interest will boost group capital accumulation. Our results, however, show that SG participants turn accumulated savings into credit for security reasons rather than to seek rapid capital growth. Second, we find that credit allocation decisions are not driven by expected credit performance but rather by concerns of fairness and credit risk-diversification. This implies that

credit amounts tend to be disconnected with credit performance and borrower repayment capacity. Third, we show that, while SG practitioners consider that interest should remunerate savers, SG participants consider that accumulated interest belongs to the group and should primarily serve the collective interest. Gaining interest just from saving is perceived as an unfair transfer from “active” borrowing members to “passive” savers. Such perceptions, in turn, encourage the emergence of coercive pressures to take credit so as to ensure that all members actively contribute to the collective surplus. These three gaps lead to unintended impacts, such as participants’ exposure to increased indebtedness, risks of loss of savings and increased costs for participants.

Our research contributes to the growing body of literature in microfinance that stresses the importance of taking into account the impact of social, economic and cultural specific contexts on the (mis)use and (mis)appropriation of microfinance services (Guérin, Morvant-Roux, & Servet, 2011; Guérin, Morvant-Roux, & Villarreal, 2013; Johnson, 2004; Lont & Hospes, 2005; Shipton, 2010). For example, Rahman (1999) shows that women’s positional vulnerability in a patriarchal society explains how female microcredit borrowers are pressured to achieve high repayment rates in Bangladesh. Morvant-Roux, Guérin, Roesch, & Moisseron, (2014) found that debt-related norms and local perceptions of sanctions in the case of default induce a low microcredit uptake in Morocco. Expanding on this literature, our research highlights the recurrent gaps between, on the one hand, the three objectives of the interest rate, as stated by SG practitioners, and on the other hand, SG members’ own experiences, perceptions, and practices related to this mechanism. We explain the observed deviations in light of the economic, social and cultural specificities of the context of South Kivu.

Our research also contributes to the burgeoning literature on SGs, which is mostly limited to a recent wave of randomized controlled trials (RCTs) on particular SG programs. A review of

seven of these RCTs³ suggests that SG programs increase savings and credit, as well as resilience and food security (Gash & Odell, 2013). However, mixed results are found on asset ownership, business-related spending and profits, health and education spending and school enrolment, while no effect is found on income, consumption, community engagement or individual empowerment. While useful to measure the impact of SGs (or lack thereof), existing RCTs were not guided by prior theory and hence do not explain why and how these impacts are met or not (Deaton, 2010). They consider the SG model as exogenous and fixed, and therefore fail to critically examine the constituting elements and the processes of the SG model once it is applied. Our key contribution is to open up the black box of the SG model and to provide insights on one of its key elements: interest.

This paper is organized as follows. Section 2 describes the principles of the SG programs promoted in South Kivu. Section 3 outlines the research methodology used. Section 4 identifies three objectives of the interest rate as stated by SG practitioners. Section 5 presents three gaps between SG practitioners' objectives and SG participants' perceptions and practices. Section 6 describes the unintended consequences. Section 7 provides a conclusion.

2 Savings groups programs in South Kivu

Located in the Democratic Republic of Congo, South Kivu has been the scene of successive conflicts since the 1990s. In this fragile context, the savings groups approach has gained rapid popularity among international actors operating in the province, especially among international NGOs seeking to move away from humanitarian assistance towards development programs. In

³ The seven RCTs included in this review evaluated the following SGs: (1) CARE USA's Save Up Village Savings and Loan Association (VSLA) program in Malawi; (2) CARE USA's Save Up VSLA program in Uganda; (3) CARE Ghana's ESCAPE VSLA program; (4) DanChurchAid's (DCA) VSLA program in Malawi (see Ksoll, Lilleør, Lønborg, & Rasmussen (2016)) ; (5) Oxfam America, Freedom from Hunger, and the Strømme Foundation's (OA/FFH) Saving for Change (SfC) program in Mali; (6) Catholic Relief Services' (CRS) Private Service Provider (PSP) program within its Savings and Internal Lending Communities (SILC) programs in Kenya, Tanzania, and Uganda; and (7) the International Rescue Committee's (IRC) New Generation VSLA program in Burundi.

addition, poor communication infrastructures and a generalized mistrust of conventional microfinance institutions (MFIs) – some leading MFIs having gone bankrupt over recent years – render the decentralized approach which characterizes savings groups models particularly attractive. By the end of 2014, nine international NGOs were promoting savings groups⁴ in South Kivu.

Different development actors are involved in the promotion of SGs, and facilitate the adoption of the model consisting in a set of standardized rules. In what follows, we distinguish four types of actors. (1) SG advocates are the authors of the SG guidelines and the academic scholars promoting the SG approach. (2) SG program managers work for international NGOs and implement SG programs. (3) SG facilitators are hired by NGOs to create and train SGs. (4) SG village agents are paid by the groups to supervise and assist complex operations after the end of NGO assistance. We use the term “SG practitioners” to refer jointly to SG advocates, SG program managers, and SG facilitators.

One SG consists of a group of 15 to 30 people who agree to meet up and save regularly. Joining the SG is voluntary but governed by the principle of self-selection. Members’ contributions are pooled into two distinct funds. The savings and credit fund is the larger fund and pools recoverable savings and turns them into short-term loans for members. The social fund pools regular but unrecoverable contributions to assist members temporarily in need. Each group usually decides in advance the types of emergencies and life-cycle events leading to financial compensation under this social fund (usually granted for weddings, childbirth, hospitalization, and funerals). All financial operations take place during meetings only, in order to allow

⁴ CARE International, Food for the Hungry, International Rescue Committee, Women for Women and ZOA International promote VSLAs. CARITAS and Catholic Relief Services promote SILCs. Louvain Coopération and Solidarité Internationale pour le Développement et l’Investissement promote MUSOs.

members to monitor and have control over fund management. To ensure safety, contributions are deposited in a metallic box, which is secured with multiple locks. Keys to the locks are kept by separate group members to avoid boxes being opened outside of the scheduled meetings. SGs are accepted by community leaders and local authorities, but are not formally registered. SG models offer some variations on the basic theme (Table 1):

Table 1 : Main SG models promoted in South Kivu (DR Congo) and variations.

Facilitating agency	Louvain Coopération/ SIDI	CARE	International Relief Committee (IRC)	Catholic Relief Services (CRS)/ Caritas
SG Model	Mutuelles de solidarité (MUSO)	Village Savings and Credit Association (VSLA)		Savings and Internal Lending Communities (SILC)
Meeting frequency	Weekly, fortnightly or monthly	Weekly or fortnightly		
Interest fees (as a percentage of the loan amount)	5, 10% or 20%	5, 10 or 20%	10% monthly.	10 or 20%.
Loan duration	1, 2, 3 or 4 months	1, 2 or 3 months	1 or 2 months	1, 2 or 3 months
Contributions to the savings and credit funds	Fixed and equal for all members <i>Advantage:</i> Simple accounting as each member holds equal shares.	Flexible Purchase of ‘shares’ whose value is fixed for the cycle (up to five shares per person per meeting) <i>Advantage:</i> allow for income fluctuations; socio-economic heterogeneity.		
Time Horizon	Infinite <i>Advantage:</i> endless accumulation process.	Time-bound (8-12 months) <i>Advantage:</i> regular audit of fund management; members can leave/join when a new cycle begins; rules can be redesigned.		
Distribution of benefits	At the discretion of groups. <i>Advantage:</i> group sovereignty.	Proportional to individual savings <i>Advantage:</i> Incentivizes saving.		

(a) *Interest and loan duration.* SG practitioners insist that SG participants are free to determine the interest (also called loan “service charge” or “service fee”) that is most appropriate for them.

They also assert that SG facilitators do not impose any specific level but rather assist SG participants in this complex decision-making process. However, VSLA guidelines also note that “*in most VSLAs 10% is normal, but that some charge as little as 5% and some as much as 20%*” (Allen & Staehle, 2007, p. 38). Similarly, SILC guidelines state that interest rates “*normally ranges between 5% and 20% a month*” (Vanmeenen, 2010, p. 6). In line with these guidelines, SG facilitators tend in practice to narrow savings groups’ options to facilitate decision-making and calculations. In South Kivu, IRC facilitators promoting VSLAs among vulnerable rural women acknowledged that they let participants choose between an interest rate of 10% for 1 month (214% annual interest rate) or 20% for 2 months (199% annual interest rate). VSLA and SILC facilitators from CARE and CRS allow more options: groups could opt for 10% or 20% loan interest rates and for a duration of 1, 2 or 3-months for the loan. Short loan maturities of maximum 3 months are promoted in order to ease the learning process of the new methodology and to avoid making members wait too long to access credit. Out of the 30 VSLAs facilitated by CARE in South Kivu in 2014, 28 groups set the interest rate at 20% monthly and two groups set it at 10% monthly. Setting 10% is the privileged interest as explained by this VSLAs program manager: “*We do not encourage interest rates below 10% because 10% really makes calculations easier for women who have a low level [of education]*” (VSLA program manager for CARE, September 27, 2014). Constraining the group decisions to round interest levels is justified for literacy reasons: “*We limit the choice of interest rate to 10 or 5% for reasons of ease of calculation with illiterate members*” (VSLA facilitator for IRC, September 26, 2014).

(b) *Flexible or fixed contributions to the savings and credit fund.* In the VSLA model, members save through the purchase of “shares” (from one up to a maximum of five shares per meeting). The standard value of a share is collectively decided at the beginning of a cycle in order to allow the poorest member to buy at least one share at every meeting. In the same vein, the SILC model

distinguishes “obligatory savings” from “voluntary savings”. These two systems allow members to save in flexible amounts and are deemed to be well suited to income fluctuations. In contrast, the MUSO guidelines prescribe fixed and equal contributions to the saving and credit funds, meaning that each member saves the same amount.

(c) *Time-bound or infinite models.* In SILC and VSLA, savings and lending activities are operated during a predetermined period (ordinarily 9 to 12 months), at the end of which all savings plus interest earned are returned to members. The time-bound schemes have the advantages of operating a regular audit of fund management. In addition, the start of a new cycle allows members to leave and others to join the group, and is the opportunity to redesign operating rules. In contrast, the MUSO model is intended to operate indefinitely. The infinite scheme does not break the accumulation process and allows for higher loans.

(d) *Profits distribution formula.* In time-bound models, groups are taught a predefined method to redistribute accumulated funds at the end of the cycle in proportion to the amount that each member saved. The redistribution formula prescribes to sum savings, the accumulated interest, and fines minus loan losses, in order to calculate the current share value. For those who are still indebted to the group, shares are not paid back but used to partially cover the loan loss. In contrast, the MUSO model precludes itself from dictating any predefined formula for sharing group surplus. MUSO participants are free to decide how to use and redistribute the group fund. MUSO guidelines mention different options such as using the interest to enhance lending prospects, compensating for inflation, investing in collective income generating activities or just building the group’s own capital (Rossier & Taillefer, 2005).

3 Research methodology

Our research methods are rooted in development sociology and development anthropology (Arce & Long, 2000; De Sardan, 2005; N. Long, 2003; N. E. Long, 1989; N. Long & Long,

1992). This field of research considers that development projects bring together two different worlds of cultures – that of the development practitioners and that of the beneficiaries. It assumes that the target beneficiaries are not passive consumers of development programs, but active participants who reconstruct them. Real outcomes of development projects result from interactions and compromises between actors belonging to different (sub)cultures. Hence real outcomes sometimes diverge considerably from the expected ones.

In order to explore the gaps between SG practitioners' objectives and SG members' practices and perceptions, we proceeded in two steps. The first step was to review SG guidelines, training manuals and reports⁵ in order to understand their objectives and the rationales underpinning the interest rate mechanism (results are presented in the Section 4). The second step was a six-month fieldwork carried out in South Kivu in two phases between 2013 and 2014 to investigate local perceptions and understandings of the “foreign” SG model. We primarily focused on the MUSO model, the first SG model promoted in South Kivu, since the start of 2002. The MUSO model also has fewer standardized rules and leaves more room for adaptation by its members, making it best-suited to examine the local appropriation process.

Our qualitative field enquiry consists of unstructured and in-depth interviews, observations of group meetings, and analysis of the groups' books and records. Individual interviews were conducted with SG participants (n=72) belonging to a total of 18 different groups. Our sampling strategy is aligned with the gender balance of the groups: 83% of group members and 82% of interviewees are women. Questions were related to participants' understanding of the SG model, their experiences with SGs and their perceptions of its inner process and functioning.

⁵ See for example: “Le Guide de la Mutuelle de Solidarité” (Rossier & Taillefer, 2005); “VSL Associates VSLA Programme Guide: Field Operations Manual. Version 3.1” (Allen & Staehle, 2007); “Savings and Internal Lending Communities - Field Agent Guide. Version 4.1” (Vanmeenen & Bavois, 2011); “Facilitator Guide: Village Savings and Loans Association” (IRC, 2012); “Village Savings and Loans: A Pathway to Financial Inclusion for Africa's Poorest Households” (Hendricks & Chidiac, 2011); “In Their Own Hands: How Savings Groups are Revolutionizing Development” (Ashe & Neilan, 2014); “Beyond Financial Services: A Synthesis of Studies on the Integration of Savings Groups and Other Developmental Activities” (Ripsey & Fowler, 2011).

Some participants were interviewed more than once in order to deepen our understanding of specific topics. Four interviews were conducted with participants who had already left the SGs and who were thus able to express more freely the difficulties they had experienced as members. Ten interviews were conducted with members of indigenous savings and credit associations in order to better understand the local financial practices and their potential impacts on the appropriation process of SGs.

Interviews were also conducted with SG practitioners of international NGOs: SG program managers (n = 11) and SGs facilitators (n = 6) promoting MUSO, VSLA and SILC models. Questions were related to the perceived objectives of the SG programs and the difficulties encountered during the implementation. Interviews with local SG practitioners who stand at the interface of two worlds of cultures and rationales – the foreign and the local – were very instructive for the purposes of our research. They helped us to dig beneath the surface and to uncover the contradictions between the public discourse that the practitioners are supposed to promote, and the hidden discourses.

In addition to interviews, observations were conducted during 38 SG meetings among 21 MUSO groups. Our attention was focused on the decisional process, power relations and social interactions. Meeting observations were also essential in order to confront interviewees' discussions about the functioning of SGs with real practices.

Our initial intention was to complement the qualitative research with a quantitative analysis of financial intra-group inflows and outflows based on the groups' financial record-keeping. However, observations and interviews revealed that written recordkeeping did not match with oral accounting that people were voicing. As most members lack the necessary writing and reading skills, they are not strict when filling out and controlling the record books provided by NGOs. In addition, we found out that some groups intentionally falsified the written financial

records and “cleaned them up” for public inspection as they wished to appear to be perceived as “successful” to outsiders. For example, after several weeks of investigation with one group, we found out that four members had overdue loans. When asked why there were no records of these debts, one member replied: *“These are our secrets. We cannot write such things in our notebook because outsiders might read them”* (MUSO participant, September 5, 2014). Hence, we concluded that written records did not reflect the realities of the intra-group inflows and outflows.

Working as foreign researchers raised specific methodological issues, as beneficiaries tend to associate foreigners with international NGOs, making access to “hidden transcripts” related to (mis)appropriation of an “outside” innovation more difficult. Scott (1990) uses the term “hidden transcripts” to refer to exchanges and opinions considered “unvoiceable” because they widely diverge from the “public transcripts”, and are voiced only “backstage” among insiders. Hence, to access “hidden discourses”, we focused our field enquiry on a limited number of groups in order to be able to spend more time with them and to gain their trust. We also hired four local research associates, who could get closer to the SG members in order to disclose the hidden stories around SGs.

Interviews were conducted either in French or in local languages with the assistance of translators. Interviews were recorded, transcribed, and analyzed to identify themes and categories. Nvivo software was used to analyze and codify the large corpus of data. We adopted an inductive approach, which is best suited to describe the unanticipated or unintended (side-) effects of a program (Hulme, 2000).

4 Interest in SGs: practitioners’ objectives and the underpinning market logic

In this section, we first review SG guidelines and identify three objectives of interest rates, as viewed by SG practitioners. We then interpret these objectives in light of economic theory.

a) Stated SG practitioners' objectives

SG models designed by development actors derive from indigenous savings and credit group systems whose old and pervasive existence in developing countries is well-documented (Ardener, 1964; Ardener & Burman, 1996; Bouman, 1977, 1995a; Geertz, 1962; Low, 1995). Among their infinite varieties, scholars usually distinguish between the rotating savings and credit association (ROSCA) and the accumulating savings and credit association (ASCA) (Bouman, 1995b; Collins, 2009; Rutherford & Arora, 2009). Considered as the simplest form of financial intermediation and the most widely observed, ROSCAs consist of small groups of people who pool together regular contributions and hand them over to one member on a rotating basis. On the contrary, regular contributions in the less frequent ASCAs serve to create a fund for the purpose of lending money for an interest rate to its members (Table 2). Although SG advocates recognize that ROSCAs are “*simple, transparent, easy to manage, accessible and tailored to the financial realities of the members*” (Allen and Panetta, 2010, p. 2), they criticize ROSCAs for not making adequate lump sums available for each member at a useful time, for not growing in value and for easily collapsing (Vanmeenen & Bavois, 2011). They consider that the ASCA model, although less widespread, is more appropriate to respond to the needs of the poor than the widespread ROSCA model. Hence, the role of NGOs is viewed as essential in assisting poor people to adopt the slightly more complex rules of ASCAs: “*It is because these things do not normally emerge spontaneously that the role of the NGO is critical in assisting adoption*” (Allen, 2006, p. 63).

Table 2: Comparison between indigenous ROSCA and ASCA. Adapted from Bouman (1995b)

	ROSCA	ASCA
Funds Management	Fund rotates immediately after formation; length of cycle seldom exceeds one year.	Fund accumulates and is redistributed according to members' discretion, sometimes not liquidated at all.
Lending conditions	Loan is automatic; often by prearranged order	Loan decision is needed.

	One loan per member and per cycle; unless holder of more than one share.	Loans requested when needed on a cycle.
Contributions	Equal and regular contributions.	Contributions may be unequal ('shares') and irregular.
Safekeeping	No physical storage of funds precludes embezzlement.	Safekeeping facilities needed.
Interest	In principle, no interest on loans. Exception: auction ROSCA, mutual agreement of members.	Loans are paid back with interest, which makes the fund grows and allows remuneration to savers.
Administration	Simple, usually unwritten constitution and procedures. Little, if any, administration and records.	Written, maybe even printed charter, rules and procedure. Records and bookings are normal.

The interest mechanism is key to SG practitioners' assumption that ASCAs-derived SG models are "*more attractive to participants than ROSCAs*" (Vanmeenen & Bavois, 2011, p. 7). Three objectives are put forward by SG promoters. First, paying back loans with interest is praised for boosting group capital accumulation, which in turn increases lending prospects for members. The interest on loans "*is first and foremost a lever for capitalization*" (Rossier & Taillefer, 2005, p. 25). The appropriate level of interest rate should "*encourage the growth of group funds over time*" (Oxfam America & Freedom from Hunger, 2011, p. 46). Because the "*interest on loans builds the group fund*" (Ashe, 2011, p. 15), SG practitioners claim that SGs "*provide loans in useful amounts (...), at times that are convenient to the borrower and tailored to the needs or opportunity*" (Allen, 2006, p. 63).

Second, charging interest on loans is deemed to "*discourage borrowers without a serious need or purpose*" (Allen & Staehle, 2007, p. 38), and to "*encourage investment of capital for income-generating activities*" (Vanmeenen, 2010, p. 11). The SILC guidelines assert that "*loans are easy to repay with interest, if they are invested in business*" (Vanmeenen & Bavois, 2011, p. 74).

Third, the interest is expected to offer SG participants “*very attractive profits on their savings*” (Allen & Staehle, 2007, p. 39). According to Allen (2002, p. 23), “*There is no competing savings instrument that provides these sorts of returns, which, owing to the very low cost-structure, are net*”. Even MUSO guidelines, while not prescribing a redistribution formula for the accumulated interest, assert that “*interest paid by members can be allocated to capital accumulation, and, eventually, to the remuneration of members' savings*” (Rossier & Taillefer, 2005, p. 17). These prospects of high returns are expected to incentivize saving behavior among SG participants.

In sum, SG practitioners affirm that SGs offer “*a high rate of return on savings (normally much higher than the rate of inflation) and provide loans in useful amounts usually in excess of the borrower's savings, at times that are convenient to the borrower and tailored to the need or opportunity*” (Allen, 2006, p. 63). Given the expected benefits of the interest mechanism, the MUSO guidelines conclude the absence of it “*would be aberrant from a western perspective*” (Rossier & Taillefer, 2005, p. 113).

b) Implicit market logic behind SG practitioners' arguments

What is the implicit theory underpinning the three objectives of the interest provided by SG practitioners? SG practitioners are not very clear about the theoretical foundations of their arguments, but our interpretation is that their economic reasoning fits into the classical theory of capital markets and interest rates. Economic theory explains that one of the most important tasks of any economy is to allocate capital across different possible investments. The interest rate is the price of borrowing or lending money. According to the theory, households supply capital funds for investment by sacrificing consumption today in return for larger consumption tomorrow, while businesses demand capital to invest in profitable activities. The market interest rate is then determined by the intersection between the supply and demand for loanable funds.

As summarized by Samuelson & Nordhaus (2010, p. 371), “*The interest is a device that serves two functions in the economy: As a motivating device, it provides an incentive for people to save and accumulate wealth. As a rationing device, interest allows society to select only those investment projects with the highest rates of return*”. The parallels between the quote from Samuelson and Nordhaus (2010) and the three objectives of the interest rates as seen by SG practitioners are striking: the interest rate aims at (1) boosting capital accumulation, (2) allocating scarce capital resources efficiently and (3) remunerating and incentivizing savings.

This market-oriented approach of credit and savings contrasts with ROSCAs, in which money is primarily allocated according to a logic of reciprocity (Bouman, 1995b; Platteau, 2000; Servet, 1996). Reciprocity refers to exchanges based on relationships that are voluntarily complementary and interdependent (Polanyi, 1971). ROSCAs operate according to the principle of reciprocity as they provide interest-free loans on a rotation basis. Although the logic of reciprocity remains present in SGs through the mutual commitment of members and the fact that they are socially tied to each other, we suggest that the interest mechanism promoted by NGOs instigates a market logic that was previously absent (or very limited) in rotating savings and credit associations.

In the next three sections, we highlight the gaps between the three objectives of the interest mechanism – (1) boosting capital accumulation, (2) allocating scarce capital resources efficiently and (3) remunerating and incentivizing savings – and the locally observed practices and perceptions related to the interest in South Kivu.

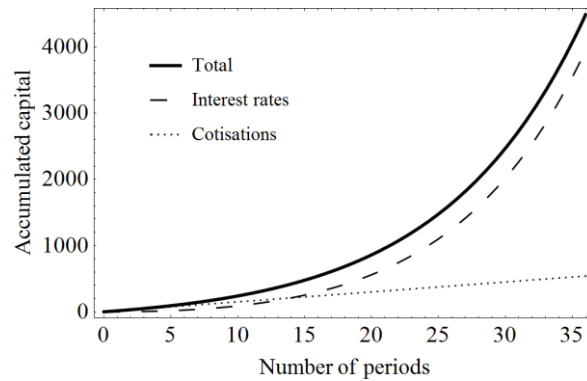
5 Empirical findings

Gap 1: Capital accumulation versus security

SG practitioners expect that interest paid back on loans will boost capital accumulation and increase the group lending capacity. The possibility to gradually take bigger loans is expected to meet members' growing demand for capital induced by expanding income generating activities. Rapid capital accumulation requires the ongoing transformation of savings into credit for members. Figure 1 outlines the capital accumulation process in a hypothetical infinite SG with a 10 percent monthly interest rate, assuming all the group funds are systematically lent to members.⁶ As we see, members' contributions represent the overwhelming part of the collective capital at the onset of the group. However, the value of accumulated interest rates quickly increases, overstepping the value of accumulated contributions after about one year.

Figure 1. Capital accumulation in a hypothetical infinite SG (r=10%, contribution 1\$, 15 members). The dotted line represents the accumulation of contributions by members. The accumulated interest earnings are represented with a dashed line. The sum of contributions and accumulated interest is represented with a solid line.

⁶We denote the interest rate r , the contribution of members c , and the number of members n . After t periods, the value of accumulated contributions should be equal to: $n \times c \times t$. The accumulated contributions increase as a linear function of time. If at each period, accumulated contributions and accumulated interest rates are borrowed at the interest rate r , the total value accumulated in the ASCA at time t is an exponential function of time given by: $nc \sum_{s=1}^t (1+r)^{s-1} = \frac{nc[(1+r)^t - 1]}{r}$. As a corollary, accumulated interest rates are also expected to increase as an exponential function of time, which is given by: $\frac{nc[(1+r)^t - 1]}{r}$. In practice, the accumulation may be slower because some members fail to contribute regularly, some members fail to reimburse loans on time, and part of the fund can be hoarded, can disappear or can be stolen. Rasmussen (2012) provides more details on how to calculate compounded interest in savings groups. His study shows that the median yearly return on savings amounts to 62 percent in a sample of Malawian VSLAs.



Our fieldwork revealed that MUSOs effectively turn accumulated savings and interest into credit to members. However, they do so primarily for security reasons, i.e. to avoid storing large amounts of cash. Indeed, the MUSO model, like all SG models, advises storing unlent group savings in a small metallic cashbox, secured with two or three padlocks. SG practitioners claim that the cashbox provides a “*safe place to save*” (Allen & Staehle, 2007, p. 39).

Interviewed MUSO participants declared they were not fully reassured by using a metallic box as it might expose the box-keeper to external threats and risks of robbery or lead to temptation. A female box-keeper was followed by thieves after a meeting and the cashbox was stolen from her home. In another group, the box-keeper’s son, a former rebel who had no job and no income found the cashbox at home and broke the padlocks. In the last group, the box keeper, a once trustworthy senior treasurer, became suspected of using the remaining cash fund between meetings by breaking the locks and replacing them just before the next meeting. All these anecdotes remind us of the difficulties of securing savings in a context characterized by insecurity and high levels of poverty.

To secure the funds, observed MUSOs preferred to avoid the use and the transportation of small but too visible cashboxes. One rural MUSO asked the female treasurer to bury the group’s cash balance in the fields after each meeting in a place kept secret, instead of using the cashbox.

Some urban MUSOs opened a deposit account in a microfinance cooperative to keep the group fund in a safer place than in their metallic cashbox.

However, the overall preferred strategy to secure the group fund is keeping an (almost) empty cashbox. If large sums of cash remain at the end of the meeting, members are again encouraged to take out loans in order to leave a small amount of money to the box keeper, as reflected in this quote: *“I have received many loans...because we do not like storing money, so if cash remains, we turn it into a credit to one of us”* (MUSO member, November 8, 2013).

Although risks of insecurity increase with fund accumulation and hence are more acute in the infinite MUSO model, similar SG members' concerns for fund security were reported by SILC and VSLA practitioners in South Kivu. One VSLA facilitator reported: *“The village community knows of the existence of VSLAs, and that VSLAs use a metallic cashbox to secure their funds. Some VSLA participants do not keep this information confidential and tell group outsiders who is the box-keeper. That is why some VSLAs here encountered troubles with thieves who came to search for and steal the cashbox. They flee with it far away, went in the fields, the forest or the bushes, and broke the cashbox but eventually they find out that there are only pens and notebooks. Because the money is secured in the hands of members.”* (VSLA facilitator, September 26, 2014). Similar findings were shared by SILC practitioners who acknowledged that *“[SILC participants] keep money in the social fund; but their savings and credit fund is always empty, because it is also a means of protecting their fund”* (SILC facilitator, September 22, 2014). The VSLA and SILC models encourage the periodic share-out of the accumulated fund, which limits security issues. At the same time, they encourage SG participants to start any new cycle with the pooling of an equal amount in order to speed up the growth of the savings and credit fund (Allen & Staehle, 2007; Vanmeenen & Bavois, 2011). This means that the security of savings remains an issue for SILCs and VSLAs.

What are the perceived advantages of keeping the cashbox almost empty for SG participants? It transfers the responsibility of the fund security between meetings from the box-keeper and key holders to the borrowing members who are made accountable in case of loss or robbery. However, as we show in section 6, this risk-mitigation strategy leads to the potential danger of granting loans to borrowers without repayment capacity, thereby exposing members' savings to risk of losses.

Gap 2: Efficient versus fair credit allocation

SG practitioners argue that paying back loans with interest encourages participants to request loans for activities that will generate profit, and discourage unneeded or less profitable loans. In all SG models, members' loan requests are made public during meetings. Only members are entitled to borrow, as lending to non-members is said to expose the group to the risk of fund losses. All SG members participate in the loan appraisal, and final decisions (to accept, downsize or reject a member's loan request) are reached by consensus. SG practitioners assume that the loan appraisal process in SGs is well-informed as *"everyone in the group knows the credit history, business potential, and goodwill of each individual member"* (Vanmeenen, 2010, p. 5). Hence lending to members is said to be *"without too much risk"* (Allen & Staehle, 2007, p. 39).

Our interviews and observations of MUSO meetings, however, revealed interesting criteria influencing decisions regarding loan allocation. Surprisingly, the intended use and profitability of the credit were almost never used as arguments during intense group deliberations regarding loan allocations. Instead, two fairness criteria frequently appeared in the discussions: (a) the right for all members to access credit and (b) the duty of each member to take credit in order to contribute to the collective surplus.

(a) Right to access credit: SG participants consider that membership automatically entitles them to a right to access credit, provided they have no pending loans. As stated by SGs participants: *“As everyone contributes, everyone has the right to access credit”* (MUSO member, September 9, 2014). Hence, when the sum of credit demands exceeds the total funds available, decisions regarding allocation generally give priority to members with no recent loan demands and/or split the available funds into smaller loans rather than leaving a member with a rejection – except if the latter member explicitly agrees to wait.

(b) Duty to take credit: As the fund grows quickly, the total funds available sometimes exceed the sum of credit demands. In this case, all credit demands are granted, even large amounts. Members pressure each other to take loans in order to contribute to the collective surplus. By taking credit, members prove that they belong to the group. As a member put it: *“members are considered good participants when they take out loans, because only borrowers bring back interest to the group”* (MUSO member, August 8, 2014).

In addition, a logic of risk-diversification underpins the sharing out of the credit amounts amongst members. Most members are small-scale self-employed sellers, producers or peasants with income-generating activities subject to risks of loss, robbery and market volatility. By spreading the collective loan capital amongst the largest number of members, groups search to minimize the widespread risk of loan default.

Interviewed VSLA and SILC practitioners reported similar norms of fairness and logic of risk-diversification. One of them told us that VSLA participants had complained about one member not taking out loans: *“How does she contribute? She brings money to the group but let the other members work with her money. How can she receive money the day of the share-out whereas we worked for the group, we worked for her?”* (VSLA manager for IRC, September 24, 2014). Commenting on the fact that all members are usually indebted to the group, another VSLA

manager acknowledged that *“it is like a sort of membership accountability; that the [VSLA member] has to be taking loan, paying interest and participating”* (VSLA manager for Women for Women, September 23, 2014).

In sum, credit allocation decisions in SGs are not driven by the expected profitability of business opportunities but rather guided by logics of fairness and risk-minimization. The fairness logic may seem in conflict with the efficiency objective, calling for an improved procedure of credit allocation. However, fairness is also essential to group cohesiveness. The fairness logic has two facets: the right to access credit, but also the duty to take credit to safeguard the group funds and contribute to the surplus. Given the pervasive risks, spreading the savings and credit fund amongst members seems a rational strategy that minimizes the consequences of a default on payment for the group, but increases the burden on borrowers. The fairness and risk-diversification logics are in fact deeply intertwined: loans are evenly spread among SG members to minimize risk, but also so that every member contributes to the joint efforts to protect funds and contribute to the group surplus. The norm of fairness and the logic of risk-diversification eventually lead to pressure to take out credit, even in the absence of borrowing needs.

Gap 3: Surplus ownership: savers versus borrowers

In line with a market-oriented approach, SG models expect the surplus to be redistributed in the form of dividends to savers – which in turn is expected to incentivize saving behavior among members. With regard to the choice of interest rate, a SG practitioner acknowledged: *“participants must take into consideration their expected return on savings [when they decide the interest rate]. If the VSLA participants set the interest at 5% for three months, then the day of the share-out, their return on savings will be very low. But if they choose a monthly rate of*

10 or 20%, they will have a return on their savings as high as 50%” (VSLAs program manager, CARE, September 27, 2014).

The MUSO guidelines provide no exact formula for the redistribution of the accumulated interest. However, it states that a member who leaves a MUSO should be returned his/her savings plus a share of the surplus, as the interest charged on loans is a means to protect members’ savings against inflation (Rossier & Taillefer, 2005). In contrast, the time-bound VSLA and SILC models explicitly prescribe the sharing of earnings in proportion to member savings. Their guidelines state that the entire savings and credit fund is divided in proportion to the amount each member saved throughout the cycle. As SILC and VSLA models allow for flexible savings amounts, the members who save more receive more profit. Either implicitly or explicitly, SG models consider that accumulated interest eventually belong to savers.

Observations and interviews with MUSO participants reveal different perceptions and understandings regarding the surplus ownership. They consider that *“accumulated interest is the money of the group”* (MUSO member, August 12, 2014) and that *“all members should benefit from the collective surplus independently of how much they have saved”* (MUSO member, August 25, 2014). MUSO members state that *“even new members who haven’t yet contributed much should have a right to accumulated interest rates”* because *“union, love and mutual assistance are important for sustaining the group”* (MUSO member, November 13, 2013). Contrary to the MUSO guidelines, MUSO members who were interviewed declared that participants who decide to leave should withdraw the amount saved, not more. He/she is considered *“not entitled to a share of the surplus”* (MUSO member, August 12, 2014), suggesting a view of the surplus as belonging to the group.

Although MUSO guidelines discourage breaking down the capital accumulation process, MUSOs often collectively decide on their own to spend, redistribute or invest (part of) their

surplus. It is noteworthy that none of the 21 groups studied had redistributed the interest gained collectively in proportion to individual savings. Although we cannot exclude the possibility that members were willing to do so but did not receive the necessary assistance, the absence of dividends redistribution would seem to be linked to a perception of the surplus as being owned by the group. In fact, our results suggest that decisions regarding surplus redistribution aim precisely to reinforce the group cohesion either by reinforcing members' social ties or the sense of equality and solidarity among them. For example, some groups use their surplus to buy goods in bulk (e.g. rice, clothing, schooling materials, soap), which are then equally shared among members, irrespective of the amount saved per member or members' seniority in the group. Also, buying the same *pagne* (women's clothing) is one of the favorite purchases among women's groups, as wearing the same clothing is also a manner for them to express shared membership. Using part of the surplus to celebrate Christmas together, for example, was said to reinforce the group's sense of togetherness. A portion of the collective surplus is sometimes donated to a member in addition to the social fund to express the group's solidarity with members' life cycle events (weddings and funerals). Some groups also decided to use their collective surplus in building the groups' assets (e.g. the purchase of goats with the idea that their offspring can benefit members on a rotational basis) or investing in collective income generating activities (e.g. soap production, a motorized mill, a collective field for cultivation).

Interviews with VSLA and SILC practitioners revealed further interesting dynamics. Their models prescribe sharing the accumulated interest in proportion to members' savings throughout the cycle. However, one VSLA manager reported that participants were surprised by the first share-out process and one remembered a member's reaction: *"What is this additional money I am being given? So I saved money but you give me back more? We thought that we were saving and that at some point someone would take money, like with daily money collectors, if you save 20 000 FC they give you back 19 000 FC [and keep 1000 FC for the service]. Or*

with ROSCA, you save 20\$ and you are given back 20\$.” (VSLA manager, CARE, September 27, 2014). This reaction recalls that remunerating savings is unusual in South Kivu as existing savings strategies are generally costly. Savers usually remunerate money collectors and as a result are under constant pressure to save their money and to keep their savings secure. In the words of one respondent: *“Maybe it is a notion [the interest on savings] that we don’t get here. [...] The concept of interest, making money out of money, came with financial cooperatives”* (ROSCA member, November 28, 2013). But VSLA and SILC members are not only surprised by the remuneration of savers: some simply object to this idea, as further explained by VSLA and SILC facilitators. One facilitator recalled how he witnessed fierce reactions during the share-out process: *“But on the day of share-out, there are these strong women who accepted to borrow money during the cycle, who invested it in their businesses and who shared their benefits with the group. On the day of the share-out, these strong women are objecting: “Now we have a great sum of money, but if we look at who has contributed to this money that we are about to share” These strong women usually claim that they should benefit more from the surplus than those who did not borrow money”* (VSLA facilitator, IRC, September 26, 2014). He further explained how these women rejected the remuneration formula and declared it unfair. In their eyes, the yielded surplus stems from risk-taking borrowers rather than “passive” savers. Members who do not borrow from the fund are not considered to be contributors to the growth of the yielded surplus. Hence, they are not viewed as the legitimate owners of the surplus.

VSLA and SILC facilitators reported that disappointed net borrowers initially asked for a share-out method that would take into account the borrowers’ contributions to the common fund growth. However, facilitators said they refused any alternative redistribution formula that would deviate from the SG guidelines.

To sum up, SG participants are unfamiliar with the idea of remunerating savings and most members perceive it as relatively unfair to risk-taking borrowers. In the MUSO model, which lets groups freely decide on surplus allocation, our findings show that the main factor determining surplus allocation decisions is preservation of group cohesion. Considered vital to the group's smooth functioning, cohesion is sustained by using the group earnings to reinforce the sense of equality, togetherness and solidarity among members. In the SILC and VSLA models that recommend redistribution of the surplus in the form of dividends at the end of a predetermined cycle, our interviews suggest the emergence of borrowing puts pressure on members. Encouraging indebtedness is a way to ensure that all members contribute to the growth of the surplus. Returning interest to savers is at odds with local perceptions and practices. Either the group is the legitimate owner of yielded surplus, or if individuals are to be remunerated, members consider that the surplus originates from risk-taking members who borrow money and reimburse this interest, and that borrowers should therefore be rewarded.

6 Unintended impacts

a) Increased risks of indebtedness

Although SG advocates praise the savings-led approach, it is important to remember that the provision of credit is a cornerstone of the saving group approach. Our findings of risk minimization and concerns of fairness imply that the allocation of credit in SG is not always based on members' repayment capacity.

This leads to three recurrent and risky practices. First, our interviews reveal that SG borrowers do not feel socially constrained to using credit for their own profit-making activities. SG members acknowledged using (part of) the credit amount for immediate expenses or insurance needs (e.g. payment of children's school fees or healthcare costs). Although rapid access to

money helps them to relieve immediate needs, having to reimburse it later with interest increases the burden on the borrower. Given the easy and sometimes forced access to credit, some SG members acknowledged transferring their credit to relatives or friends in need of money, implying increased risks of an inability to reimburse the group and of indebtedness for them.

Second, as the savings and credit fund accumulates, money circulation leads to serial borrowing: members reimburse their credit and receive a new loan on the same day. Serial borrowing accounted for a large majority of credit demands in the SGs observed. Although this practice complies with the collective will to distribute the group's capital among members, it produces the illusion of members' creditworthiness. Being certain of being granted equivalent or larger sums of credit can make it easier for members to juggle with other credit sources and to hide repayment difficulties.

Last, our observations reveal that loan amounts quickly exceed members' capacity to repay. SG models advise limiting a member's loan amount to two or three times his total savings. However, as the collective savings and credit fund keeps on growing, credit amounts tend to break this precautionary rule thus exposing the member and the group to credit defaults. As reported by one VSLA facilitator, this strategy leads to troubles: *"When they [the members] saw that they had accumulated a lot of money, some of them did not respect the rule stating that loans should not be larger than twice the member's savings. Then, you can imagine that someone who has 100\$, instead of giving her 200\$, you give 400\$ or 500\$. When she has to reimburse, it becomes complicated. Because in the business world one has to grow gradually. If you want to grow very fast, you will be overwhelmed by the situation and make uncontrolled losses"* (VSLA program manager, IRC, November 24, 2014).

These three common practices increase the risks of over-indebtedness for SG participants. A direct consequence of the risk of over-indebtedness is that savers are increasingly exposed to risks of credit defaults. Serial borrowing and concealing difficulties in keeping up repayments in order to avoid social sanctions and exclusion from the group makes it difficult to estimate the real risk exposure of a group's total loan portfolio. As savings are constantly in motion, SG participants often ignore how much of their savings they will (not) recover until the end of the cycle.

b) The real cost of the interest rate mechanism for SG participants

NGOs provide new SGs with intensive guidance for a limited period (usually 9 to 12 months). After this training period, groups are expected to master the SG procedures and rules and pursue the methodology independently.

In practice, most SGs express the need for external support when the NGO assistance ends, for at least two reasons. First, they require external agents to help them with complex calculations associated with the interest mechanism and the share-out process (in time-bound SGs). Even with rounded-up interest rates (i.e. multiples of ten), fund management, monitoring and recordkeeping can be difficult for SG participants. SGs with a majority of financially illiterate participants appeared to be the most dependent on external technical support to maintain trust in the system. Second, the neutrality of the external assistants appears to be essential for mediating tensions that arise over defaulting loans, funds mismanagement or the sharing-out process. These two challenges are likely to be more important and frequent in VSLAs and SILCs compared to MUSOs. In time-bound VSLAs and SILCs, the share-out process requires complex calculations and can cause tensions among members, especially when SG members end up with very different levels of savings at the end of the cycle (i.e. different number of shares) or when defaulting members are deprived of all their savings. In such cases, the external

agent has an essential role in mediating conflicts and maintaining social cohesion. In comparison, the MUSO model is less formalized, as groups independently decide how to allocate accumulated interest, and simpler, as contributions are supposed to be equal for all members. The higher flexibility of the MUSO model may however increase the risk of fund mismanagement, which in turn may increase the need for external assistance.

In response to these two challenges, NGOs promoting SG models have conceived follow-up systems that rely on trained intermediaries who take over assistance when the NGOs stop the development program. Depending on the model, they are called “village agents”, “private service-providers” or “replicator agents”. They are either talented SG members or former SG facilitators employed by the NGO during the assistance phase. These intermediaries are officially contracted by the NGO to promote and assist SGs.

These intermediaries are remunerated by SG participants, according to a convention signed by both parties. As explained by a SILC practitioner: *“It is the members of the group who pay. I give an example. Suppose that members contribute 500FC per meeting. As soon as the group is declared autonomous, they can decide that, for example, on top of the 500FC, we add only 100FC each meeting just for the person that is coaching us. Now, with the 100FC, if you multiply that by the number of people attending the meeting, let’s say they are 25 and that they are meeting every week, it implies that every member pays 400FC. And hence, 400FC times 25 persons, how much is it? It is a lot of money.... It stimulates the village agent to create new groups”* (SILCs program manager, CRS, September 22, 2014). In the example, the payment to the village agent is equal to 20% of members' contribution. One SILC program manager acknowledged that village agents earned twice the remuneration they were given when remunerated by the NGO. Evidence from Kenya, Tanzania, and Uganda is less extreme: the median quarterly fee that members pay to village agents amounts to about 3% of the median member’s quarterly deposits, with substantial variations across groups (Greaney, Kaboski, &

Van Leemput, 2016). However, Ferguson (2012, p. 8) suggests these village agents also receive in-kind “gifts” as payments, which are usually not reported by agents as they “*think of them as gifts rather than earnings*”. These gifts are of “*wide-ranging scale, from food and clothing, to cash and even substantive assets like a motorbike, and fired bricks sufficient to construct a three-room house*”.

While the extent of these statistics and anecdotes should not be overgeneralized, they still raise questions about the real cost of the SG model for its participants. Although SG advocates stress that the system is simple and cheap to adopt, and insist that groups are always free to appeal to intermediaries, it is obvious that the most vulnerable groups are also the most dependent on them. More research is needed to understand the real cost of “village agents” to SG participants.

7 Discussion and conclusion

Our paper provides a critical appraisal of the interest mechanism in SGs. It highlights SG practitioners' and SG participants' diverging views on interest, drawing on qualitative research conducted in South Kivu (DR Congo) among MUSO groups and SG practitioners working with VSLAs, SILCs and MUSOs.

The interest mechanism in SGs is rooted in a market-based vision of savings and credit flows. Market logics prescribe price mechanisms to coordinate supply and demand. Interest reflects the price of capital and as such, SG practitioners regard it as essential (1) to boost capital accumulation, (2) to allocate scarce capital efficiently and (3) to remunerate and incentivize savings.

Our results underline three “gaps” between SG practitioners’ objectives and SG participants’ experiences and perceptions related to the interest in South Kivu. First, SG practitioners expect interest on loans to boost capital accumulation. Our results show that if SGs participants

effectively turn savings into credit for members, they do so to avoid storing money in “insecure” SG metallic cash boxes rather than for financing growing businesses. As the savings and credit fund grows, credit amounts increase in order to keep the cashbox empty. Larger credit sums are not justified by increased business needs and do not necessarily match borrowers’ repayment capacities. Consequently, the preferred strategy of empty cashboxes decreases the immediate risk of robbery, but at the cost of increased risk exposure to credit defaults. The need to secure the group fund is more acute in the MUSO model compared to the time-bound VSLA and SILC models, as the latter periodically share out the accumulated group fund.

Second, SG practitioners expect interest on loans to discourage borrowing without serious needs or purposes, and to incentivize investments in income-generating activities. Our results show that credit allocation decisions are not based on the potential credit performance, but are rather driven by a norm of fairness and a logic of risk-diversification. The fairness criterion seeks to preserve the social ties essential to cementing group cohesion. It somewhat reproduces the reciprocity principle underpinning the allocation of funds in traditional ROSCAs. Risk-diversification implies spreading the risk amongst members. These criteria lead to the allocation of credit amounts that are unconnected with borrowers’ repayment capacity. The logics of risk-diversification and fairness were reported by MUSO members and by SILC and VSLA facilitators. Hence, in all SG models, vulnerable borrowers are exposed to risk of indebtedness, and the group's capital is exposed to the risk of defaults on repayments.

Third, SG practitioners expect the interest to provide attractive profits to savers and thereby incentivize saving behavior. However, our results show that remunerating savings is unusual in South Kivu. SG members are accustomed to paying deposit collectors in order to encourage their own saving behavior and to secure savings. Remunerating savers also collides with the widespread perception that the accumulated interest originates from borrowers. In all SG

models, we identified concerns about the redistribution of accumulated interest to “passive” savers rather than to “active” credit takers.

If the objectives of the interest mechanism are not fully achieved, why do SGs participants accept interest on loans as high as 10% per month? First, these levels of interest are strongly encouraged by SG guidelines. The VSLA guidelines state that a 10% monthly interest rate is “normal” whereas 5% monthly is deemed to be “little” (Allen and Staehle, 2007, p. 38). SILC advocates assert that interest “normally ranges between 5% and 20% a month” (Vanmeenen, 2010, p. 6). Second, members are widely accustomed to these levels which reflect interest rates applied in the informal credit sector. Third, the general idea of making money grow was found to be appealing to SG members. Fourth, SG participants appreciate the idea of building a collective surplus through interest rates, and then using this collective surplus to invest in collective assets and build social cohesion. This last reason is especially relevant for the MUSO model, as the absence of predefined formulas for the redistribution of accumulated interest allows groups to invest in joint income-generating activities and in building social capital. However, while SG members do not oppose high interest rates, they do argue over the sharing out of accumulated interest. If perceived unfair, the redistribution of accumulated interest among members threatens members’ social ties and group cohesion.

Practitioners who are considering implementing SG programs should carefully balance the costs and the benefits of the approach. Our results indeed challenge some of SG practitioners' core assumptions about the SG methodology. SG practitioners claim “*the money raised through the service charge [interest on loans] is the property of the Association [the SG] and is not lost to the members (as it would be if they had borrowed from a bank or a moneylender). It ends up back in their pockets and is, in effect, another form of savings, because they get it back at the end of the cycle when the money is shared out*” (Allen & Staehle, 2007, p. 38). They therefore argue that, “*because all the benefits from the interest paid on loans accrue to the members,*

there are few constraints on charging higher interest rates” (Grant & Allen, 2002, p. 215).

Such statements ignore the redistributive effects of the interest: net savers in SGs receive more profit at the expense of net borrowers. Interest paid on loans is not equivalent to extra savings for borrowers when members do not save and borrow the same amounts of money.

Despite the widespread label “savings groups”, these models are built upon mechanisms of credit and indebtedness. Although savings groups provide flexible saving and credit services for the poor and allow for accumulation, at the same time they expose their members to the risks of repayment difficulties, defaults, and ultimately to social exclusion. Our results suggest that the SG approach may be risky for members who have no or limited business opportunities as they will be tempted or pressured to borrow money. They are then likely to use credit for consumption or to be subject to pressure to lend money to friends or relatives, and are therefore likely to struggle to repay the loan and/or the interest. In addition, the recourse to village agents to assist with calculations and sharing-out of savings when the NGO assistance ends is an additional burden, which increases the cost of the SG model for its beneficiaries.

Last, the idea that SG models improve on the ROSCA model might actually overlook some advantages of the ROSCAs. ROSCAs are simpler, more transparent and therefore less vulnerable to fraud (Rutherford & Arora, 2009), more balanced and provide a stronger saving commitment (le Polain, 2017). If ROSCAs are more widespread than ASCAs, it could simply be because poor people know better than NGOs what is most appropriate for their needs.

Although our paper focuses on the adoption of SGs in South Kivu, it is important to remember that SGs are estimated to involve over 9 million participants in Africa. Interest is at the core of the SG methodologies promoted across the globe. Some results might however be specific to South Kivu. For example, the low level of trust of SG participants in using metallic cash boxes, as recommended globally by SG methodologies, might be explained by the post-conflict

context and the still widespread insecurity in South Kivu. However, a review of recent research on SGs in other contexts provide evidence that support our findings in South Kivu. First, with regard to the security issue, the risk of lock box theft is identified as one of the greatest weaknesses of SGs in Kenya, Tanzania, Uganda and Rwanda (BFA, 2014). The authors further suggest the existence of forced borrowing to maintain low levels of residual cash. Similarly Malkamäki (2015) found that one third of the surveyed VSLAs operating in Kenya do not use the metallic cash box, contrary to the VSLA rules. Second, regarding the procedures for credit allocation, Green observed among VSLAs in Tanzania that *“borrowing was not merely an optional benefit of group participation. It was, like savings, a requirement for group membership. Members had to be seen to borrow in order to contribute interest which would produce returns for members of the group”* (Green, 2016, p. 13). Third, the perception that the interest belongs the groups or to “active” borrowing members is also found in other contexts. Malkamäki (2015, p.138) finds that VSLA members in Kenya consider that it is *“not fair towards the defaulters not to give any profits since also the defaulters have saved the whole cycle and borrowed money and paid interest”*. Similarly, Jahns-Harms & Wilson (2015, p. 9) found that some savings groups *“distribute the interest earned in proportion to the total amount each member borrowed during the cycle – with heavy borrowers receiving a greater share of the accumulated interest payments”*, suggesting that these groups also consider interest as owed back to “active” borrowing members. In Kenya, Odell & Rippey (2011) discovered *“an unexpected variation (...) in the method of computing the share-out”*. Some SGs redistributed interest proportionally to savings in line with the guidelines, while other groups redistributed the interest equally to all members, or *“returned it to the member who paid it.”*

Our results call for further qualitative and quantitative studies on the effect of interest rates in SG groups. Existing RCTs assessing the impact of the SG models considered the constitutive elements of the SG model as fixed. For example, the following questions should be explored in

future research: What is the impact of lowering interest rates, for example by applying the interest for the entire loan duration rather than monthly? How could SG models be improved to mitigate the risks associated with capital accumulation? How could credit allocation within SGs be improved, given fairness and risk-minimization logics? Are SGs with a predefined redistribution formula more successful in terms of economic outcomes, but less effective at building social-cohesion? Future research should also study redistributive effects of different SG models on net-savers and net-borrowers, and examine how perceptions and practice of the interest rate in SGs vary with the context. More generally, future research should study *why* the SG model works and *which* elements make it work – rather than simply assessing whether it works or not (Deaton, 2010).

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