

MFI characteristics and loan preferences of farmers: Household-level evidence from rural Ethiopia

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Abstract

One of the debates around sustainability and the scaling up of micro-financial services is the commercialisation of micro-finance institutions (MFIs). This paper examines the contribution of the commercialisation of MFIs to ensuring the sustainability of MFIs and in scaling up their commitment to serve their primary target groups: poor and marginalised people. By using household-level data from rural Ethiopia and secondary data from selected MFIs, the study systematically examines the characteristic of MFIs and the factors determining the choice of farmers for MFIs vis-à-vis informal institutions. However, MFIs have achieved rapid growth in the number of beneficiaries, and have also gradually shifted away from their traditional primary targets (poor households) toward not-so-poor households and even large-scale investors: a drift in mission. The paper argues that, unless regulated, this commercialisation incentivises MFIs to transform themselves into conventional banks. The primary aim of the MFI project was to create vibrant financial institutions that are committed to serving poor and marginalised people. The research also identifies factors related to loan terms and household characteristics that strongly determine the choice of farmers for MFI loans.

Key words: micro-finance; rural finance; RuSACCO, credit, loan preferences

1. Introduction

In the past, development was viewed as a transformation of smallholder traditional agriculture into mechanised, large-scale farms in order for the agricultural sector to supply cheap food, intermediate inputs and labour for the industrial sector. This view was based on the widely held belief that smallholder-based traditional agriculture is not efficient and cannot fulfil the preconditions required for the development of the industrial sectors. Contrary to the above view, Theodor Schultz (1964), in his hypothesis of the “poor but efficient”, argues that farmers are no less efficient than large-scale farms in using their meagre resources and available knowledge, but they are poor because they lack the necessary resources to improve their life. The important effect of his influential work on the development policies of poor countries was that it provided a new policy instrument for improving the life of smallholder farmers: improving their access to technological inputs, finance and extension advice.

It was in view of this that most sub-Saharan African countries experimented with diverse development approaches to improve the productivity of smallholder farmers. One of these approaches in the area of rural finance was government’s provision of subsidised credit. Despite decades of effort to improve smallholder agriculture by providing government-subsidised credit, success was limited. In addition, not only was the credit system less effective in bringing about the expected outcomes, but it posed a heavy financial burden on other public investment activities required for the development of the agricultural sector itself: investment for infrastructural,

institutional and technological developments. It was in view of these that countries shifted from providing subsidised credit to promoting micro-financial institutions that offer diverse financial products. Despite these efforts, rural financial services remain poor. The development of a financial market in Ethiopia in particular is a recent phenomenon.

Until the structural reform, there were only a few government-owned financial institutions in Ethiopia and these had limited financial and technical capacity. One of these was the Agricultural Development Bank of Ethiopia (ADBE), which had only a few branches, mainly in big towns. In the past, ADBE provided small input loans to farmers through co-operatives. But, following the collapse of the co-operatives and after unsuccessful attempts, ADBE withdrew from such loans to finance only large investment loans. In response, some attempts were made to provide input loans through the Ministry of Agriculture. However, not only was the activity out of the mandate of the ministry, the performance was limited. Farmers had to rely on informal sources for other types of financial loans. Reorganising co-operatives became a must, and this was undertaken by the government. However, the government had to provide its own budget as collateral against the input loan that the commercial banks provided to the co-operatives. This system is still functional, however, although the credit is not only limited to input loans. Until recently, farmers had to rely only on informal financial institutions for other types of loans and other financial products. Since 1997, and following the experiences in Asia, a number of microfinance institutions emerged. A number of microfinance institutions, such as credit and saving institutions (CSIs), rural saving and credit co-operatives (RuSACCOs), saving and internal lending communities (SILCs) and the like, have emerged in the past two decades. Not only have the number and size of alternative financial institutions grown at an exponential rate, each of the above microfinance institutions has come up with diverse financial products.

The financial capacity of many of the old CSIs has grown dramatically. These CSIs have established micro-banks in many of the small towns in their areas of operation. Reports show rapid growth in the size, coverage and financial and technical capacity of MFIs in the country. These MFIs have now established what are called *micro-banks* in many of the small towns in the regions. Building the financial and technical capacity of CSIs is essential for the sustainability and expansion of their services. The commercialisation of the MFIs will be desirable if it can be achieved without compromising the primary goal of serving the rural poor. The issue, however, is that growth could have been achieved through fraudulent and exploitative actions. First, their primary sources of loan funds had been grants and highly subsidised loans, and the costs of loan funds are much smaller than would otherwise have been generated from savings. Second, the monitoring and supervision costs were lower by virtue of the special support from the polity. Third, the costs associated with the risk of defaults had been kept to bare minimum levels, again due to excessively coercive measures. Thus, it is not clear whether the observed successes were made without compromising the very mission for which they were established. Furthermore, the aggressive move toward establishing micro-banks can have adverse effects. Given the size of the loans and other loan terms, the primary targets of the micro-banks seem to be large-scale investors, not farmers. This could incentivise CSIs to gradually shift away from their primary mission of serving resource-poor and small-scale households and focus increasingly on large-scale investors. The question is thus: 'Are the CSIs committed to sticking to the primary mission for which they were established: serving the poor segment of the society?' A similar trend has also been observed among the co-operative unions and banks. Ho and Mallick (2017) surveyed diverse fraudulent actions of CSIs and found that the weak institutional capacity of the regulatory institutions, the political affiliation of the CSIs, and the number and distribution of the MFIs meant that effective regulation seemed to be difficult. In such an institutional environment, fraudulent actions by bank and MFI personnel is likely to be prevalent (Ho & Mallick 2017).

The main purpose of this research was to critically examine the characteristics of MFIs and their mode of service delivery in order to gain insight into the consistency of their service with their primary mission. The paper further systematically assesses the preference of smallholder farmers among alternative financial institutions: MFIs (CSIs and RuSACCOs) and traditional/informal financial institutions. The paper assumes that the choice preference of farmers for alternative financial institutions is a function of the characteristics of households and financial institutions. It can thus give insight into the elements that are causing MFIs to be preferred to the traditional/informal financial institutions. In addition, the study also aimed to critically examine the consistency of the terms of loans and other financial services of MFIs vis-à-vis their primary missions.

The paper is structured as follows. The first section provides a brief background to the study. This is followed by a brief overview of the conceptual issues surrounding the MFI project in the second section. Section three presents the sources of data and methods of analysis. The results of the analysis are presented in section four. The trends in the growth of MFIs and their services over the past two decades, and contextual issues governing their performance, are also discussed in this section. In addition, descriptive statistics for the selected performance indicators of MFIs and household participation in micro-financial services are presented in section four, along with the results of the econometric model. Finally, a summary of the key findings and the conclusions are presented in section five.

2. The MFI project: the Ethiopian case

There seems to be a general consensus that resource-poor households have the potential to break out of poverty if their access to key institutional services is improved. The differences in opinion exist in how to improve their access to these services on a sustainable basis. In particular, offering affordable financial services to resource-poor households has been a big challenge for many years. On the supply side, the unit costs of offering financial services to small-scale clients generally tend to be high due to diseconomies of scale. But the unit costs of the services grow exponentially when these clients are widely scattered in less accessible areas. The unit costs further rise when the loan is intended for such business activities for which the risk of failure is inherently high, as is the case with most agricultural production activities. In addition, these resource-poor households are viewed conventionally as being 'too poor to save' (Adams & Vogel 1986). The unit costs rise further when institutions that enforce property rights and contracts and that reduce information problems are weak. On the demand side, the access of smallholder farmers to input and output markets, technologies and other essential complementary services is so poor as to narrow the feasible set of investment opportunities. At equilibrium, the borrowing rates will be higher than that can be justified by the available investment opportunities. As a result, smallholder farmers remain less attractive to conventional banks. This calls for public intervention in the rural credit markets.

The idea of micro-finance institutions is that it is possible to reduce the transaction and operational costs by using innovative approaches and by integrating the financial interventions with other development interventions. Integrating human and institutional capacity building, using group-based financial services, diversifying financial products, using IT and capitalising local institutions and organisations are some of the innovations that are considered to reduce transaction costs and risks. These efforts are assumed to be integrated with interventions that develop other complementary services. Thus, MFIs were developed as specialised financial institutions that are committed to meeting the financial demands of small-scale businesses in general, and the deprived segment of society in particular.

Compared to conventional financial institutions such as banks, MFIs face a triple burden in that they provide loans to risky businesses run by risky borrowers who operate in a risky institutional

environment. Compared to other sectors, such as the manufacturing and services sectors, agricultural loans are relatively riskier. The level of risk will be even higher when the agricultural activities are highly dependent on nature and the production system is traditional. Not only are the risks high due to production failure, but price risks are relatively higher for agricultural products than for manufacturing products. These risks will be much higher when the scale of production and marketing is small. Finally, the social, geographical, infrastructural and institutional environments not only raise the unit operational cost of a providing loan, but they also raise the enforcement cost of recovering the loans. In sum, MFIs provide money to borrowers whose business activities are surrounded by high production and market risks. The burden will be much higher when MFIs have to work with resource-poor farmers who lack dependable collateral. The very rapid growth of MFIs in terms of their numbers and financial portfolios, and the number of beneficiaries against all odds, is thus surprising.

One of the key problems in the provision of subsidised credits in the past was that the recovery rate was very poor. Since legal or administrative actions were rarely taken on defaulters, farmers adopted, both individually and collectively, diverse strategies to avoid repayments. Thus, strategic default (Stiglitz & Weiss 1981) was so high as to induce farmers to consider government-sponsored loans as grants. One of the key steps taken by the government since the establishment of micro-finance institutions is that it began to take severe administrative measures to force farmers to repay their loans – both input loans provided by government and any loans provided by CSIs. Since all of the major CSIs in Ethiopia are owned by the ruling party¹ (in the name of endowments), the ruling party had the incentive to provide strong administrative support to the CSIs. This enabled the CSIs to reduce defaults to a bare minimum level. The government gave CSIs unconditional rights to claim the assets of those borrowers who failed to repay their loans on time. Without following the proper legal channels, the local administration simply forces those borrowers to sell any assets they own, often through the use of local militia. For example, a *semiformal local organ* recently was empowered to take similar measures to force farmers to repay their debt from CSI. Owing to the strict and continuous administrative measures taken by the government to recover CSI loans, farmers have begun to realise that such loans can no longer be viewed as a grant, as they used to be in the past. Now, when farmers borrow from CSIs, they are fully aware of the consequences of failing to repay. The current loan recovery rate of 98% is due to the strong administrative support (sometimes legal) provided to CSIs. Such strict enforcement has caused farmers to change their past beliefs about government-associated loans and induced them to think twice before they decide to borrow money from CSIs.

On the one hand, the strict enforcement has increased the level of loan recovery of CSIs by keeping the default rates at a bare minimum level; on the other hand, it can also adversely affect those borrowers who are unable to repay their debt for real causes. Farmers could be forced to deplete their assets due to the strict force of obeying the rigid repayment schedule of the CSIs. In such cases, the loan, instead of improving the welfare of farmers, becomes *a medicine that would be worse than the disease*. Although we found many farmers during the focus group discussions who reported positive impacts of CSIs, we also found many farmers who had extremely negative views about CSIs.

There are many other issues surrounding the sustainability of MFIs. Given that their major sources of loanable funds continues to be external donors, the question remains whether the MFIs can be financially sustainable (IMF 2005; Cull *et al.* 2007; Hermes *et al.* 2011; Niels & Lensink 2011), and whether they have the ability to meet their poverty and social responsibility goals (Luong & Welter

¹ The dominant CSIs, namely Amhara Credit and Saving Institution (ACSI), Oromia Credit and Saving Share Company (OCSI), Dedebit Credit and Saving Institution (DCSI), Omo Microfinance Institution, Addis Credit and Saving Institution and Benishangul Microfinance Institution, are all owned by the ruling party.

2010; Bédécarrats *et al.* 2011). The issue is thus how MFIs can generate income from outstanding loan portfolios that is sufficient enough to cover their operational costs without charging unfair interest rates.

The other general issue is that, for many historical and ideological reasons, markets are especially poorly developed in Ethiopia, even by the standards of sub-Saharan African countries (Jayne *et al.* 2003; Altenburg 2010). Although the economic policy of the government, on paper, is market oriented *de jure*, it is near to socialist orientated *de facto*. The question then is how efficient financial institutions arise in such an economic and political environment. Given these situations of MFIs and the overall environment, the question is what are the impacts of MFIs on their primary target groups, namely poor households.

Theoretically, the potential contribution of MFIs in increasing income and in incentivising wealth accumulation is straightforward. Many of the related studies, however, have also found a positive contribution made by MFI loans in respect of poverty (Geda *et al.* 2007; Becchetti & Castriota 2011) and consumption smoothing (Collins *et al.* 2009). Studies on the impact of MFIs on poverty suffer methodological problems, particularly associated with self-selection bias and the inability to isolate the impact of MFIs from other confounding factors that can have an impact on poverty. Yet no conclusive results are obtained even from randomised studies (Banerjee *et al.* 2015). In particular, many studies find that MFIs have failed to address the poorest of the poor (e.g. Nathan *et al.* 2004; Hermes *et al.* 2011; Leikem 2012). The group-lending procedure, together with other rigid loan contracts, are systematically excluding these sections of society (Scully 2004; Giné & Karlan 2007). This weak evidence, particularly related to the impact of MFI in addressing the poorest of the poor, is consistent with the actual strategy of the MFIs in Ethiopia – all of the MFIs covered in the study operate as for-profit MFIs.

Whether the provision of such credit enables farmers to get out of poverty or not depends on many other factors than the credit. However, improving farmers' access to credit and other financial services is necessary and crucial, as improving the welfare of the farmer requires much more than that. Even if the MFIs provide efficient services to their target groups, the impact on poverty could still remain negligible if there are no meaningful improvements in the farmers' access to other, complementary services. In particular, access to attractive markets remains a critical issue. The ambitious expectation of the potential positive impact of MFIs on poverty implicitly undermines the role of access to other essential services, such as markets, technology, extension and further services by making unrealistic promises. Van Rooyen *et al.* (2012), in their review of studies on Sub-Saharan Africa, even found negative impacts of MFIs on some outcome variables, such as income and education.

3. Source of data and methods of analysis

3.1 Sources of data

The study used survey data collected from 243 households drawn from eight kebele administrations (KAs).² In the first stage, two regions that have prominent records of MFIs were selected, namely the Amhara and Oromia regions. Similarly, two administrative zones from each region were selected purposively, namely the West Gojjam and East Gojjam administrative zones from the Amhara region and the East Hararge and West Hararge administrative zones from the Oromia region. Then, one district (*wordera*) from each administrative zone was selected in a similar fashion. Next, two sample KAs were selected from each sample district. The selection of sample KA was made based on the activity of CSIs and RuSACCOs. The next step was to randomly select

² A kebele is the smallest administrative unit of Ethiopia.

25 to 31 sample households from each KA. In each KA, while half the sample of households was randomly drawn from the roster of MFIs beneficiaries, the remaining households were drawn from the roster of KA residents, excluding beneficiaries. Accordingly, 64 and 59 sample households were selected comprising borrowers from CSIs and RuSACCOs respectively, and the remaining 120 households were selected from non-beneficiary households. The study also consulted financial institutions and government and non-governmental organisations working in the areas of rural finances.

3.2 Method of analysis

The study uses descriptive statistics and econometric models. The descriptive statistics use percentage, mean, standard deviations and test statistics such as t-test and chi-square tests. Trend analyses were also done to provide a picture of the trends of selected financial service indicators. Finally, a multinomial probit model was used to analyse the choice of rural households for alternative financial sources: informal sources, CSIs and RuSACCOs. The following variables were used for identifying household and MFI characteristics and loan terms, which are hypothesised to affect the choice farmers make between alternative financial sources:

- Region – the two study regions (0 for Amhara region and 1 for Oromia region);
- Age – age of household head in years;
- Family size – in terms of number of household members;
- Rating – refers to the sum of the ratings of sample respondents regarding the quality of services provided by CSIs. The study used a scale from 5 (very good) to 1 (very bad). This rating had to be made on the size of the loan, the mode of disbursement, supervision and other support, the duration of loan, flexibility of repayments, interest rates and collateral requirements.
- Loan duration – number of months;
- Off/non-farm – participation of the household in off/non-farm activities (1 if the household participated and 0 otherwise);
- Processing duration – proxy for transaction costs measured in terms of the number of days from the date of application to the release of the loan;
- Collateral – the presence of fixed assets or a personal guarantor that can be pledged as collateral (1 if the household has collateral and 0 otherwise);
- Family education – measured by the sum of the grade levels of all family members (this is based on the assumption that the education levels of family member affect the behaviour of the household head in many ways); and
- Information asymmetry – measures the interest rate gap between what the households actually pay and what they think they pay.

4. Discussion of results

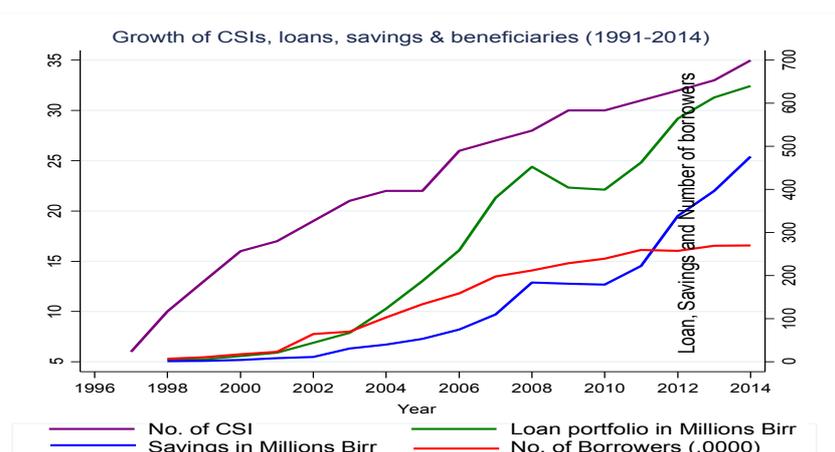
4.1 Trends relating to financial services: growth and sustainability

There are two set of institutions that provide different financial products to small-scale farmers: informal and formal institutions. Formal financial institutions include CSIs, RuSACCOs, banks and other formal organisations and associations. While CSIs are primarily credit oriented, RuSACCOs are savings oriented.³ Informal institutions include *Iqub*⁴, *idir*,⁵ local money lenders and relatives.

³ The paper primarily treats CSIs as MFIs, although technically both CSIs and RuSACCOs are MFIs.

⁴ *Iqub* is an informal financial system established among known individuals. Members contribute an agreed fixed amount of money periodically (daily, weekly, fortnightly or monthly), depending on the pattern of financial flow of the members. In each period, members contribute the agreed fixed amount of money and the total sum of money will be award to one of the members (lottery basis) at the end of the period until every member has received money. It is a

The country has seen a rapid growth in micro-financial institutions in the past two decades. The numbers of micro-financial institutions, the number of beneficiaries and the volume of loans and savings in the country have grown at a dramatic rate in this period (see Figure 1). Since 1997, the number of CSIs in the country has grown at an exponential rate of 10.4%. Over the past 10 years, the number of beneficiaries, the volume of lending and the volume of savings grew at an exponential annual growth rate of 23.0%, 30.5% and 36.5% respectively. However, although there has been rapid growth in MFIs in the country, the market is dominated by only a few MFIs. MFIs in Ethiopia are dominated by a few parastatal-like CSIs: Amhara Credit and Saving Institution (ACSI),



Dedebit Credit and Saving Institution (DECSI), Oromia Credit and Saving Company (OCSSCO), and Omo Credit and Saving Institution (OCSI). These were established under the ownership of the four coalition parties in the Ethiopian People's Revolutionary Democratic Front (EPRDF). These four micro-finance institutions account for 75% of the capital, 88% of the loans outstanding, and 83% of the assets held in the sector (Ayele 2015).

Figure 1: Trends in number of CSIs (MFIs) and their outreach

Source: Time-series data obtained from MFI offices

The growth of ACSI in particular has been spectacular in that the number of branches has grown to 228 in nearly 20 years, and the amount of annual loan disbursement and number of clients served has grown at an exponential rate of 50.7% and 47.8% per annum respectively. The growth in the number of beneficiaries and the amount of loans disbursed being equal means that the average individual loan has remained more or less the same. In this respect, there is only relatively slow growth in the size of the loan per head. After the nearly 20 years of rapid growth of ACSI, the average size of the loan per head has remained at around 1 400 Birr (equal to 67 USD). It is difficult to consider this giving rise to meaningful investment with such a small loan.

The growth rate of RuSACCOs has been even faster since 1997. The number of RuSACCOs and their member farm households have grown at exponential rates, of 17.9% and 14.4% per annum respectively over these periods (Figure 2). A large portion of this growth has occurred in the four dominant regions of the country: the Oromia, Amhara, Tigray and Southern regions, in order of importance. However, the growth in the number of RuSACCOs is huge, many of the RuSACCOs are still weak and small, and many of them were established just to absorb external funds. Their managerial capacity was also very weak and dependent on the continuous support of co-operative

widely used informal credit system in rural and urban areas, and among different groups – from shoe-polisher children to petty trader women to civil servants to big businessmen.

⁵ *Idir* is another informal institution that provides some loans and insurance services. Even though its major goal is to finance social ceremonies and burial activities, it also provides limited insurance services.

promotion offices. Given the past failure of co-operatives in the country,⁶ one needs to critically examine the important elements behind the observed success stories of CSIs and RuSACCOs.

⁶ Ten thousands of diverse co-operatives that were established under the previous socialist regime were destroyed in the night of 5 March 1990, when the government announced a policy shift from a socialist to a mixed economy.

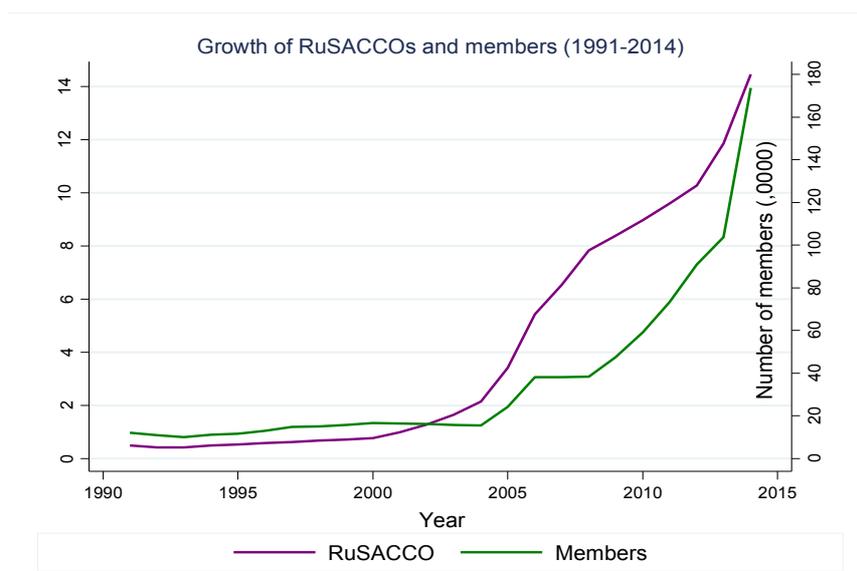


Figure 2: Trend in the number of RuSACCOs and their members

Source: Time series data obtained from MFI offices

Although there has been spectacular growth in CSIs and RuSACCOs, their financial products have remained limited to loans and savings. They offer no insurance services, mobile banking, and the like. The country's poor telecommunications service has remained a key obstacle. Although IT is a key infrastructural element required for the development of financial services (Kauffman & Riggins (2012), the country seems to have a long way to go before it takes full advantages of information technologies in the financial sector. This is in fact surprising, given the progress neighbouring countries have made in this respect. Kenya in particular is a good example (The Economist 2015).

4.2 Informal lending: costly to the lender

A surprising proportion of sample respondents were found to give loans to other farmers in their villages. Of the total of 243 respondents, 39.9% reported that they had lent money to a total of 113 relatives and neighbours (Table 1). While about 70% of the loans had been fully recovered, the remaining 30% of the loans were still partially or fully outstanding. Regarding these outstanding loans, 18.8% of the lenders believed they would not recover the loans, particularly since about 94% of the loans were offered without any collateral and the transaction was based on trust. The high default rate shows the ineffectiveness of such trust-based transactions.

Given that a two-digit inflation rate has been common in the country over the past years, such interest-free loans always involve real costs to the lender, as the real value of the money declines. When the risk of default is added to the opportunity costs of the fund, which is associated with inflation and other operating costs, lending involves a big burden for the lender. Despite this burden, only 17.7% of the respondents reported that they refused to lend money. Of these, 43.9% reported liquidity problems as the reason for not lending money, while the remaining reported information and enforcement problems. The question here then is why such relational credit transaction continue to exist amid such high risk of default and inflation costs. The reason seems to be that culture and social relationships impose a responsibility on the haves to bear such costs. However, although such risky relational credit transactions are a spontaneous response of society to the missing financial markets, their poor enforcement will not only reduce the continuity of the institution, but will also deter the potential development of financial markets. They also become the source of disputes and violent conflict between lender and borrower. Moreover, the loans are accessible only to those with a good social network.

Table 1: Description of relational credit transactions

Performance of relational credit transactions	N	%
Number of lenders	97	39.9
Mode of contract		
- Verbal with witness	20	17.9
- Verbal without witness	87	77.7
- Written	5	4.5
Loan recovery		
- Fully recovered	76	67.3
- Partially recovered and expected to be recovered	19	16.8
- Arrears and default	12	10.6
Reason for refusing to lend money to friends/relatives	42	100.0
- Lack of trust	9	21.4
- Enforcement problems	15	35.7
- Cash shortage	18	42.9

Source: own computations from household survey

Informal institutions were found to lend an average amount of Birr 2 642.3 (USD 132) for an average duration of about six months (Table 2). The purpose of the loan includes consumption and medical expenditure, and productive and construction activities.

Table 2: Description of amounts, purpose and durations of relational credits

Personalised loan contracts	N	%	Mean	Std. dev.	Min.	Max.
Total relational credit (Ethiopian Birr)	113		2 642.3	4 636.7	50.0	27 000.0
Duration of loan in months	113		5.9	6.9	0.5	24.0
Purpose of loan						
- Consumption	34	30.4	1 537.5	1 858.3	50.0	10 000.0
- Medical/school/ceremonial expenditure	31	27.7	3 945.5	7 040.7	300.0	25 000.0
- Productive activities (petty trade, inputs, etc.)	28	25.0	2 963.8	5 206.7	50.0	27 000.0
- Construction and others	19	17.0	2 250.0	2 342.3	200.0	10 000.0
Total	112	100.0	2 642.3	4 636.7	50.0	27 000.0

Source: own computations

Informal institutions played an important role in both rural and urban societies in the past. However, one of the important limitations of these institutions is they cannot handle complex and risky loans. Not only can they only handle small, emergency loans, but they also require a conducive social environment for this micro-credit system to be effective. To be effective, the social system needs to be stable and 'closed'. Integrating society into markets and transforming its production system into an intensive commercial system requires more than such informal ultra-micro loans. Not only are the ultra-micro loans not sufficient to promote intensive and commercial production, but the markets do not usually develop in a social system segregated into a close-knit, small, closed social network. The development of the market requires a move from informal institutions embedded in segregated social networks to formal institutions embedded in an integrated social system. In the past, when most rural society were closed and stable as a matter of history, informal institutions played important roles in the economic life of society. But, under conditions where the potential development of such institutions exists, it is not necessary to rely on such inefficient institutions. There rather is a greater lack of necessity to promote such institutions.

4.3 Farmers use a mixture of formal and informal financial sources

Depending on the individual's income flow relative to members in the community, those individuals whose income flow is high use diverse types of formal and informal financial institutions. For instance, among the 52% of *Iqub* members, 76% (96) used one or more of the following formal financial institutions: banks, CSIs and RuSACCOs. *Iqub* especially involve obligations that cannot be postponed, as this would immediately have an effect on the amount other

members receive. Failure to make the periodic contribution involves a high penalty. Thus, members either need to have reserve money or have to borrow from other sources. Gohkale (2009) found that poorest households in Andhra Pradesh borrow from MFI to pay off loans they borrowed from money lenders (Gohkale 2009).

4.4 Interest rates of MFI loans are not as low as they are claimed to be

Farmers were asked to provide the interest rates they thought they paid for their loans from the various alternative financial sources, namely money lenders, CSIs, RuSACCOs and relatives and neighbours. They claimed to pay interest rates of 10.4%, 10.1%, 9.0% and 2.6% for money borrowed from money lenders, CSIs, RuSACCOs and relatives respectively (Table 3). We then calculated the actual interest rates by asking them for the total amount they borrowed, the amount they paid and the actual duration of the loan. The calculated interest rates for the money lenders, CSIs, RuSACCOs and relatives were, on average, 10.4%, 18.5%, 14.5% and 2.6% respectively. Surprisingly, therefore, the interest rates they believed they paid for CSIs and RuSACCOs were far below what they actually paid. What they actually paid was at least 50% higher than their perceived interest rates. The official data we obtained from the branch offices of the CSIs and RuSACCOs also differ somewhat from our calculated results. While Habru, a private micro-finance institution operating in Bure, West Gojjam (one of the sampled districts) and ACSI charged an interest rate (including service charges) of 21.5% per annum, OCSI charged 20.5% per annum. When one includes the transaction costs, such as travel costs and the time it takes to process the loans, the costs of borrowing will be higher than the above rate. It will be difficult for the farmers to find a business activity that can justify such a high cost of borrowing. Perhaps this could be interpreted as the ignorance of farmers regarding how interest rates are calculated. Their ratings were checked for any correlations with their actual experiences. While no evidence of correlation was found, the respondents' overall rating was found to be negatively correlated with their perceived interest rates. There thus seems to be a lack of transparency in the loan terms.

Table 3: Perceived and actual interest rates of alternative credit sources

Interest	Perceived		Actual			
	N	Mean	Mean	Std. dev.	Min.	Max.
Interest rate respondents are willing to pay	182	10.3	10.3	1.7	.0	12.2
Interest charged by from money lenders	6	12	10.4	0.1	10.2	10.4
Interest charged by CSIs	67	10.1	18.5	1.5	2.0	12.7
Interest charged by RuSACCOs	53	9.0	14.5	1.6	5.6	11.6
Interest charged for loans from relatives	42	1.0	2.6	4.1	.0	12.3

Source: own computations from household survey data

Finally, contrary to the conventional belief that local money lenders charge prohibitively high interest rates (e.g. Bateman 2011), we found that local money lenders provide a loan at a rate not so high. This may be due to the fact that the loan is embedded in reciprocal relationships. However, the lending interest rates of RuSACCOs are not that low, and farmers can recover part of the interest costs from dividends. When this dividend is taken into account, the interest rates charged by CSIs will be about 8% higher than the rate charged by RuSACCOs.

The high interest rates charged by MFIs are good for their financial sustainability, however, although it may create a great financial burden for borrower farmers. Farmers may not find a business activity that can justify such high interest rates. Even if they borrow in the hope of higher returns (higher than 21.5%), they may fail to do so given the high market and production risks. In terms of loan size, CSIs provide slightly larger loans compared to RuSACCOs. Although the interest rates charged by money lenders were found to be lower than usually believed, their supply was found to be very limited due to the high transaction costs – largely given the illegality of the activity and the scale of operation.

4.5 Comparison of alternative sources

Table 4 summarises the survey results on the participation of farmers in alternative financial institutions: informal, CSIs and RuSACCOs. The average loan sizes from informal institutions, CSIs and RuSACCOs were found to be Birr 5 268.0, 6 235.4 and 5 023.4 respectively. The difference between CSIs and RuSACCOs was found to be statistically significant, even if the difference in absolute terms was not large. In terms of average loan duration, we found no significant difference between the two alternative institutions.

Table 4: Comparison of loan size and duration between alternative financial sources

Indicators		N	Mean	SD	t-test
Loan size	Informal	21	5 268.0	3 503.5	2.11**
	CSI	69	6 235.4	3 654.9	
	RuSACCO/Co-ops	65	5 023.4	4 301.8	
Duration	Informal	21	5.8	2.7	1.45
	CSI	69	11.8	10.4	
	RuSACCO/Co-ops	65	11.0	6.5	

Source: own computations from household survey data

The average loan from both CSIs and RuSACCOs was not large enough to enable farmers to enter into relatively larger business activities. The data obtained from the ACSI regional offices even show that the average loan size is around Birr 1 400.00, which is equal to 70 USD. At the same time, however, these CSIs provide loans of up to Birr 500 000 (25 000 USD) to medium and large businesses in the town (though their micro-banks). While CSIs have designed new financial products and different loan terms to attract large borrowers, they have done little, if anything, to attract micro-borrowers and to expand the service for smallholder farmers. Even though the purchasing power of the Ethiopian Birr has continuously deteriorated due to the rapid inflation observed over the past two decades, the CSIs have not changed the initial loan size for smallholder farmers that was set more than 20 years ago. The CSIs seem to have been less interested in designing attractive loan terms for micro-borrowers. In addition, they seem to have shifted from serving the poor to maximising their profit by providing large and more secure loans in the same way conventional banks do – a drift from the mission for which they had been established. Using a large dataset of MFIs over 15 years, Wagenaar (2012) found a mission drift in those MFIs that shifted from non-profit to for-profit institutions. Ayele (2015) found a similar trend in Ethiopia in lending to the poor. The main aim of MFIs was to create a financial institution that serves the poor. It was not to transform the MFIs into conventional banks that serve the not-so-poor and the rich segments of society.

4.6 Credit rating of CSIs

Finally, farmers were asked to rate the various loan terms of CSIs as very bad, bad, fair, good and very good. By assigning 1 to 5 respectively for the above ratings, we computed index weighting by the proportion of respondents in each category. Table 5 shows the results of the rating.

Table 5: Farmers ratings of loan terms of CSI loans

No.	Rating criteria	Rating (in a scale from 1 to 5)
1	Loan size	3.8
2	Mode of loan disbursement	4.0
3	Supervision and advices	4.2
4	Duration of loan	3.6
5	Flexibility of repayment	3.5
6	Interest rate	3.2
7	Collateral requirements	3.7

Source: own computations from household survey data

On average, the farmers' ratings ranged from a lowest rating of 3.2 for interest rate to the highest rating of 4.2 for provisions of supervision and advisory services. It can be seen that the services were not that satisfactory when evaluated by the borrower respondents.

Finally, we examined the level of savings in the rural areas. In contrast to our expectations, a large proportion of farmers did have saving accounts. As presented in Table 6, in the total sample of respondents, 69.5% had savings – in banks (11.1%), in SCIs (26.3%), and in RuSACCOs (24.3%). Of these respondents, 7.8% had more than account. Only 30.5% of the respondents did not have any saving accounts. This probably does not reflect the savings status of rural households as a whole. Since most of the sample farmers used in this study were drawn from accessible locations, it is possible that farmers located far away from the towns might not have similar access to alternative financial institutions.

Table 6: Participation in savings

Savings	N	%	Mean savings per month	Std. dev.	Min.	Max.
Savings in formal financial institutions	128	52.9	475.1	2 574.1		
Savings account	169	69.5			10.0	30 000.0
- Bank	27	11.1	2140.9	5 944.1	10.0	30 000.0
- SCI	64	26.3	76.2	261.3	10.0	2 100.0
- RuSACCO	59	24.3	61.3	100.0	10.0	750.0
- More than one account	19	7.8	736.7	2 274.2	20.0	10 000.0
Without savings account	74	30.5				
Total	243	100.0				

Source: own computations from household survey data

4.7 Preferences of farmers for alternative financial sources

Farmers' preferences between the three alternative financial sources (CSIs, RuSACCO and informal institutions) was regressed against explanatory variables that are hypothesised to capture the socioeconomic characteristics of the sample households, and the characteristics of the MFIs and their loan terms. The multinomial probit was found to be robust compared to multinomial logit model. Taking the choice of farmers for informal institution as a base outcome variable, we found that all hypothesised variables were found to significantly determine the preferences of households between CSIs and informal sources such as *idir*, *equb* and relatives. From the variables, region, age of household head, family size, participation in off/non-farm activities and processing duration were found to negatively and significantly determine the choice of farmers for CSIs versus informal institutions (Table 7). In other words, households with an older household head, a large family size, and no participation in off/non-farm activities are likely to choose informal institutions rather than CSIs. Similarly, the strong negative relationship between processing duration and farmers' choices for source of loan indicates that informal financial sources are preferred for their quick loan-processing procedures. In contrast, the presence of collateral, the magnitude of information asymmetry between the actual and perceived interest rates, family education level, loan size, loan

duration and household ratings of CSIs' services were found to significantly and positively determine the choice of households for CSIs versus informal loan sources.

On the other hand, only a few variables were found to significantly determine the choice of households between RuSACCOs and informal institutions. While family size and processing duration were found to negatively and significantly determine the choice of households for RuSACCOs, loan duration, family education and collateral were found to positively and significantly determine the choice of households for RuSACCOs. In both cases, family size, loan-processing duration, loan size, loan duration and education levels were found to be significant determinants of choice for both CSIs and RuSACCOs with reference to informal sources.

Table 7: Determinants of preferences of farmers for alternative sources of credit

Alternative	Independent variables	Coefficient	Standard error	z
Informal sources	Base outcome			
CSIs	Region	-1.40	0.66	-2.12**
	Age	-0.05	0.02	-2.34**
	Family size	-0.38	0.16	-2.40**
	Rating of services	0.05	0.02	2.08**
	Loan duration	0.33	0.09	3.85***
	Loan size	0.00	0.00	2.21**
	Off/non-farm activities	-1.27	0.56	-2.29**
	Family education	0.06	0.03	2.15**
	Processing duration	-0.10	0.03	-3.31***
	Collateral	2.30	0.70	3.30***
	Information asymmetry	0.03	0.02	1.68*
RuSACCOs	Region	-0.45	0.62	-0.73
	Age	0.00	0.02	-0.13
	Family size	-0.29	0.14	-2.06**
	rating_tot	0.01	0.02	0.27
	Loan duration	0.19	0.08	2.50***
	Loan size	0.00	0.00	-1.07
	Off/non-farm income	-0.14	0.51	-0.27
	Family education	0.07	0.03	2.63***
	Processing duration	-0.07	0.03	-2.46***
	Collateral	1.21	0.55	2.21**
	Information asymmetry	0.02	0.01	1.23

Source: own computation from household survey data

5. Conclusions

Despite the rapid growth in formal (semiformal) financial institutions such as CSIs and RuSACCOs, informal financial sources continue to play crucial roles, even in those rural areas that have relatively better access to formal financial institutions. Furthermore, loan transactions between relatives and neighbours and participation in *iqub* still play important roles, even in the areas that have better access to alternative formal financial institutions. However, although there has been rapid growth in the number of RuSACCOs and CSIs over the past 20 years, the level of financial services has remained quite limited in terms of size of loan and types of financial products, and in terms of reaching the poor section of society. Despite two decades of rapid expansion and growth in CSIs in the Ethiopia, the size of loans for rural households has remained very small. If one calculates the real values of these small loans (considering inflation), the size of loans has been even getting smaller in real terms. We found that the maximum size of loans in the rural areas was very small, the loan terms were rigid, the types of financial products were few, and there also has been very little progresses since the past.

Reports also show dramatic growth in the CSIs in terms of financial capacity, outreach and other parameters. However, this has not been followed by a parallel increase in the size of individual loans and the diversity of financial products. For instance, despite the rapid inflation over the past two decades, the maximum loan size available for a beginner borrower remains the same as it was at the start of the two decades, when the CSIs were established. There has also been very little progress in diversifying financial products for resource-poor households. Furthermore, the CSIs are not only making aggressive investments in establishing micro-banks, but they are also designing diverse products and attractive loan terms for big investors. Despite the results of the choice analyses, which show that the households' choice of CSIs is positively related to the loan size, the duration of the loan and the quality of loan services, and negatively related to the bureaucratic process of obtaining a loan, there have been no improvements in improving these aspects for micro-loans. All the indications are that the CSIs are moving away from smallholder farmers to serve large-scale borrowers. The MFI project and all the concerted efforts made by donors and governments in the past two decades were not to upgrade the CSIs to conventional banks, but rather to create vibrant, rural financial institutions that are committed to serving the poor.

Reducing poverty and improving the wellbeing of rural household require more than providing very small and rigid microloans. They require attractive financial services that incentivise and enable farmers to commercialise their agricultural activities. Given the fact that most of the MFIs were established and funded by 'public' funds, the regulatory institutions must make sure that they are meeting the primary goals for which they were established. In addition to the regulatory measures, attempts should also be made to expand economic opportunities in the rural areas. Moreover, the lack of collateral remains the main constraint to the expansion of meaningful financial services in rural areas. The current attempts to improve input supply (fertiliser and improved seeds), loans and extension services without improving the market environment seems to be based on Say's law – supply creates its own demand. It cannot succeed without primarily expanding the markets.

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