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Financing Coffee Farmers in Jimma Zone, Ethiopia: Challenges and Opportunities

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This paper was chosen through an open call for research in rural finance, whereby the selected individuals were invited to Rome, Italy, to share their results during the conference and to discuss key issues in shaping the rural finance research agenda as well as ways of strengthening the ties between research, policy and practice.

FINANCING COFFEE FARMERS IN ETHIOPIA: CHALLENGES AND OPPORTUNITIES

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Abstract

Notwithstanding the severe price shocks which have been shaking its value chain, coffee remains a fundamental component of the Ethiopian economy and export. Nevertheless the prolonged price decline has substantially weakened its production basis and prospects, so that appropriate financial services are urgently needed to sustain rural communities. Despite the growing literature on microfinance, financial supply and demand of rural communities remain issues largely unexplored. To address these issues, in 2005 we carried out an original survey interviewing 120 Ethiopian coffee farmers; further, the statistical analysis was complemented by "focus group" discussions and individual interviews with "key-experts" of the coffee value chain. Several important findings emerge from this study. First, there is a strong evidence of an overall gap between demand and supply of financial services, across the different sources (formal and informal ones). Second, existing financial services (loans) are too costly (except for the cases of microfinance institutions and cooperatives) and often not tailored to the farmers' needs (in relation to timing, length and amounts). Concerning saving products, their diffusion is still very limited, since they have been recently introduced, but in the future they could become an important component for strengthening the microfinance outreach; currently, they also stand as a substitute for risk-insurance products, totally absent in the coffee production chain. Regarding policy recommendations, the main priorities appear those of enlarging the outreach of MFI and financially-active cooperatives. More generally, a need emerges for demand-oriented financial services and suitable "bottom-up" agricultural development and policy-making.

1. INTRODUCTION[1]

Ethiopia is well known as the country of origin of "Buna" (coffee in Amharic), but also as one of the poorest countries in the world, even when compared to sub-Saharan Africa (SSA, henceforth): in 2004 Ethiopia has a GDP per capita of 114 US$ - the SSA average being 731 US$ - cf. UNDP (2006). Coffee has been representing a considerable share of Ethiopian economy and export. With the coffee price fall, begun in 1999, a substantial portion of the population (mostly rural) witnessed another severe decrease of income, which aggravated the poverty outcomes of previous crisis, natural (due to droughts, crop disease) and institutional. As a result, despite the public efforts to modernize agriculture and mobilize its surplus, Ethiopia is still far from getting adequate food supply.

In this context, development and public policy must acknowledge market and institutional failures and intervene accordingly. Agricultural policy stands as the main ingredient of any development strategy for Ethiopia; further, public network infrastructure and services need to be intensively and extensively upgraded. However, beside traditional instruments of intervention directed at the micro level of production (agronomical techniques, land reforms), an original role could be played by microfinance, directed at improving the financial side of a low productivity agriculture.

In order to investigate the demand and supply of financial services for coffee producers, and to highlight the main areas of possible intervention, we carried out an original survey, complemented by qualitative analysis (focus group meetings and

[1] Anne Bastin would like to thank its supervisor Prof. Laura Viganò (State University of Bergamo) for invaluable guidance and support, and Dr. Wolday Amha (AEMFI), for advise and precious data on the subject. Sincere gratitude is expressed to Mr. Bekele Mosisa and its collaborators (FCE NGO, Jimma), for their precious logistic support during the field survey, and to all the professionals and institutions who equally helped: listing them entirely would be impossible here.

interviews with key informants); so, this work aims at filling an important gap existing in the literature, studying microfinance in a sector fundamental for the country's wealth.

The structure of the study is the following: in the second paragraph, we briefly review some background of Ethiopia' economy and coffee production. In the third paragraph we illustrate the research methodology and the sample. Paragraph four presents the main results of the analysis, identifying the weaknesses and the strengths of the existing financial providers in meeting the demand of rural communities. Paragraph five concludes, presenting a few policy implications.

2. BACKGROUND OF ETHIOPIA

General overview of the country

Ethiopia is a large and populous country (the second in SSA, with 70 millions inhabitants), which in the past decades underwent a series of disastrous civil wars, border crisis and radical institutional changes. From a past of quasi-feudal monarchy, in the early-Seventies Ethiopia became a socialist state, with state ownership and government control on the main economic activities – including nationalization and radical agricultural reforms. With the collapse of the Derg regime (1991) and the victory of the Ethiopian People's Revolutionary Democratic Front (EPRDF henceforth), there has been a new change in the economic structure and policy-making, from the previous centrally-planned model to a more market-based one; in particular, in 1993, together with a huge devaluation (over 50%) of the national currency, the system of price controls was abolished and private entrepreneurship somehow encouraged. Together, with the new

Constitution (December 1994), the EPRDF moved to a decentralized structure of state and government, with a federation of 9 regional states, with a strong ethnic identity.[2]

Notwithstanding its potential for agricultural development (see later), Ethiopia remains a very poor and underdeveloped country: according to the UN Development Report (2006), Ethiopia ranks 170th out of the 177 countries considered[3]. In fact, it displays the typical features of underdevelopment: in 2004, life expectancy at birth is only 42 years (46 the average of SSA), while 87% and 78% of its population lacks sustainable access to, respectively, improved sanitation and water source; moreover, 46% of the population results to be undernourished (cf. UNDP 2006; p. 308). Public commitment to health (3.4% of GDP) and education (4.6%) - although above the SSA average - remains highly insufficient face to the internal challenges, especially if it is compared to the budget devoted to other areas; in particular, the health situation in Ethiopia remains highly critical[4].

The Ethiopian GDP and GDP per capita have recently exhibited a modest recovery, starting from the mid-Nineties[5]; however, some components of this dynamics (in primis export) appear highly volatile and sensitive to external shocks (cf. later). Table 1 shows that recently also gross investment recovered, despite the drop of domestic

[2] More details can be found, for example, on Women's World Banking (2005).
[3] We recall that the UNDP Human Development Index (HDI) is a composite index measuring three main achievements: quality of life (as measured by life expectancy at birth), knowledge (adult literacy rate and gross enrolment at schools) and standard of living (GDP per capita in purchasing power parity - PPP of US$). Despite the multidimensionality of human development and the informative limits of every quantitative indicator, the HDI stands as a better alternative to other more simplistic measures of human well-being (such as GDP per capita).
[4] An in-dept analysis of the relation between environment, economic activity, public policy and health in Ethiopia is developed in the last report of UNPD (2006).
[5] Other data show that the annual growth rate of GDP per capita was negative over 1985-95, being equal to -1.9% per year; it became positive over the most recent period (1995-2005), equal to 1.6% (cf. World Bank, 2006a).

saving (partly compensated by emigrants' remittances - see nation saving figures) and also thanks to foreign aid.

Table 1 – Main macroeconomic indicators of Ethiopia

	1985	1995	2004	2005°
GDP (US$ billions)	9.4	7.6	9.7	11.2
Gross capital formation/GDP	11.4	18.0	21.3	26.3
Gross domestic saving/GDP	5.8	11.9	4.1	3.6
Gross national saving/GDP	7.5	20.7	16.2	17.2
Total debt/GDP	55.3	135.5	67.5	-
Total debt service/export	27.7	19.1	5.9	-

Source: World Bank (2006a). ° = Based on preliminary estimates

In fact, thanks to the latter (net aid representing 22.6% of GDP in 2004, 70.5% of import and 74.7% of central government expenditure, see World Bank 2006b; p. 89) and debt relief campaigns, the debt stock of Ethiopia has ameliorated, and the debt service now puts a lower pressure on export, being equal to 5.9% of it in 2004 (cf. table 1).

Ethiopia continues to be a rather closed economy, with a low participation to world trade: its export accounts for only 16.4% of GDP, while its import dependence is higher, being 39.1% of GDP (cf. table 2). Moreover, these figures also reflect: an asymmetric dynamics (with import growing at a faster pace - more than doubled over the last decade) and the serious decline of its terms of trade, whose index dropped to 69 in 2004[6]. This worrying dynamics is also reflected by the deficit of the normalized trade balance, and has not been compensated by net income and transfers (remittances), as showed by the current account deficit. This call for a cautious approach of trade opening

and markets liberalization – two main ingredients of the current government development strategy (cf. MOFED, 2002) - which must be framed within appropriate institutional arrangements for the safeguard of the poorest (see Stiglitz, 2006).

Among the causes of this vicious pattern of trade, we notice that Ethiopian export composition, like many underdeveloped countries, is highly unbalanced towards food (62%) and raw agriculture materials (25.9%) - only 11.4% of export are manufactured goods, cf. World Bank (2006b; p.63) - while import is highly skewed towards manufactures (64%). Moreover, the export is not diversified (the relative index is 4, ranging from 0 to 100), and this renders the country highly vulnerable to the exogenous price shocks of the main commodity exported.

We also notice that Ethiopian production and trade patterns, together with the decline of the exchange rate, might undermine particularly the wealth of the poorest social classes, which face a comparatively higher rise of internal prices, being their consumption basket the most affected: an indirect evidence comes from the last two indicators of table 2: inflation for the consumer, mainly fired by the foreign channel, is twice the general price dynamics (GDP deflator).

Table 2 – Further macroeconomic indicators of Ethiopia

	1985	**1995**	**2004**	**2005°**
Export/GDP	5.8	9.7	15.4	16.4
Import/GDP	11.5	15.7	32.6	39.1
Export price index (2000=100)	110	156	81	102
Import price index (2000=100)	100	86	117	133

[6] A similar pattern is displayed by the trade of coffee - see further below We want to stress that this negative trade performance is not entirely explained by energy prices, nor is going to be solved by the recent world recovery of the prices of commodities, reflected into the light rise of export prices in 2005.

Terms of trade index (2000=100)	110	182	69	77
Normalised trade balance(Ex-Im/ Ex+Im)	-0,33	-0,24	-0,36	-0,41
Current account balance (mil. US$)	-373	190	-499	-1013
Consumer prices	19.1	10.0	3.3	11.6
Implicit GDP deflator	32.1	13.5	9.6	6.0

Source: our computations on World Bank (2006a) data. ° = Based on preliminary estimates

Agriculture

In 2005 agriculture accounts for 47.7% of GDP (cf. World Bank 2006a), while industry and service are respectively 13.3% (manufacturing only 5.1%) and 39%. However, despite the primary sector weight, Ethiopia is still far from getting adequate food supply, since most of its large agricultural basis (84% of the population is rural, and mostly (81%) employed in the primary sector) continue to have a mere subsistence character, with a low productivity. This situation is rooted on a complex system of causes.

The first part of the story, for the sake of synthesis, can be usefully summarized with the vicious "trap of poverty" (for a notorious classical version of it, see Myrdal, 1957): a low agricultural income cannot sustain capital investment and land improvement, which fires back in low productivity.

This is further complicated by the lack of basic infrastructure in rural areas: transport, telecom, trading and storage services, together with personal services (health, social services), underperform particularly in rural Ethiopia, as exemplified by the index rural of access[7], equal to 17% (cf. World Bank 2006b; p. 68). The infrastructural deficit also hampers the development of local agricultural markets, whose large inefficiencies in creating and mobilizing the surplus have been empirically confirmed, for a variety of

[7] Defined as the % of the rural population within 2 Km of an all-season road, over the total rural population.

products (especially for food crop)[8], and reinforces the subsistence character of the most agricultural production in Ethiopia.

Moreover, the typical "poverty trap" in this country seems to be complicated by a further institutional obstacle, that of the peculiar property rights regime of land. Before 1991, agricultural policy was centrally planned and the agricultural "market" was under public control, through a system of quotas and fixed prices. After the fall of the socialist regime, the new government has launched a large-scale agricultural modernization campaign, known as Agricultural Development Led Industrialization (ADLI)[9], abolishing the planning system and liberalizing agricultural production and markets. However, land markets have not been allowed to come to existence (cf. Regassa, 2004). Now, lack of full land ownership acts as a double constraint on agricultural productivity: first, by diminishing the incentive to land improvement (irrigation, fertilization, cultivation turnover), but also by hampering the financial capacity of farmers, since they lack the most important collateral for obtaining credit. So, also land property rights, by limiting tenants' financing and investment, dampen down agricultural productivity.

As a consequence, the whole vicious cycle of poor agricultural practices and low input, exacerbated by the frequent threat of natural and human calamities (coffee disease, drought, recurrent border wars), hold back agricultural output and productivity, impeding the emergence of the surplus.

Coffee

[8] On these issues we refer to a few works of E. Gabre-Madhin, strating from Gabre-Madhin (2001).
[9] This policy acknowledges the initial primary role of agriculture for economic development. In fact, before having an industrial and tertiary development, agriculture needs to improve its productivity, to foster accumulation and the take off of the other two sectors. In the medium-long run its share is expected to diminish, and those of industry and services increase.

The word "coffee" comes from the region of Ethiopia where it was first discovered, "Kaffa", meaning "the land or plant of God". Due to the large variety of genetically different strains of coffe existing in Ethiopia (mostly Arabica[10]), botanists and scientists agree that this country is the home-land and origin, for diversification and dissemination, of the coffee plant (cf. Mekuria et al., 2004). Most of the coffee areas are located in eastern, southern and southwestern Ethiopia.

Coffee as a cash crop has always been very important for the Ethiopian economy. More than 10 million Ethiopians (no less than 15% of the population) belong to the coffee value chain, directly or indirectly (processing, storage, trade and export). Moreover, taxes collected on coffee export constitute a substantial portion of the state revenue (cf. LMC International, 2000). During the peak of the price crisis (around 2001), the country was detaining 3.6% of the world production, and exporting (mainly unwashed Arabica coffee)[11] a world share of 2.3% (11th in the world rank of exporters). Ethiopia is also characterized by a high domestic consumption of coffee: as showed in table 3, roughly half production is absorbed by the internal market.

Table 3 – Coffee export of Ethiopia over the last decade: main indicators

Export	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**
Export/prod.	33,3 %	48,0 %	52,2 %	50,0 %	50,2 %	51,7 %	35,1 %	52,8 %	61,2 %	51,7 %
Quantity index	86	125	134	130	123	134	90	135	153	152
Value index	112	113	155	154	109	103	55	65	73	79
Unit value ind	129	90	116	118	88	77	60	48	48	52

Source: our computations on FAO (2007) series of export and production of green coffee. All indexes: 1994=100.

[10] Roughly, 66% of the world production is Arabica, and the remaining is Robusta.
[11] Cf. Amha e Gabre-Medhin (2003; table 1).

Due to the price decline started in 1999, the importance of coffee for the Ethiopian economy has dramatically fallen. As a main evidence, we notice that coffee share on total export declined from 63% in 1995 to 37.4% in 2004 (cf. World Bank, 2006a); in terms of GDP, the weight of coffee output[12] diminished from 2.5% in 1995 to 1.9% in 2005.

In particular, from table 3 we notice that, face to the first price fall of 1999, the quantity exported temporarily declined, but later recovered. Instead the series of price shocks, which are far from being absorbed (the "unit value index" in 2004 remains still below its 1999 level) has kept the nominal value of export ("value index") still below the pre-crisis level (by a half, comparing 2004 with 1998).

Consequently, the crisis of agriculture, starting from the coffee value chain[13], has propagated across the whole economy of the country, acquiring a cross-sectoral and national character. Concerning the public budget, for example, the drop of tax revenues from farmers and export has significantly undermined the country debt repayment capacity, causing it to become more dependent on foreign aid and policy.

At the micro-level, many farmers and traders (including cooperatives) went bankrupted, or sunk below the poverty line, loosing their principal asset (livestock) to repay or buy subsistence good and services. Other coffee farmers were forced to switch to other products ("qat", maize, flowers, but also hides and skins), in order to mitigate the risk. Now, while in principle crop and merchandise diversification is beneficial (cf. also MOFED, 2002), it might prove insufficient or even damaging, if done without solving the

[12] Due to data restraints, we calculate it as production at "international US$" (cf. FAO, 2007) , divided by GDP at nominal US$ (cf.World Bank, 2006c).
[13] The price drop was not limited to coffee. In fact, in 2001 the price of many world commodities attained a minimum peak.

structural problems at its basis; for example, production diversification might further reduce the efficient division of labour and the size of the domestic agricultural markets.

The high vulnerability of Ethiopian farmers to the volatility of the coffee price is exacerbated by the small scale of producers: 95% of output is from small landholders, a condition which is typically paired with poverty and subsistence production. In fact, the representative smallholder has around 0.5 hectare (Ha) of coffee (with a potential production of roughly 400 kg of green coffee), the remaining 5% being produced by State farms (cf. LMC International, 2000). Moreover, small coffee farmers are concentrated in remote rural areas, where complementary production services, infrastructure and market information typically lack, originating inefficiencies in terms of production, logistic and transaction costs. Finally, the small land available and the mono-production cause the farmers' wealth to be maximally vulnerable to price shocks: in fact, they need to sell the cash crop at whatever price condition, in order to acquire subsistence goods.

For example, in the region of Jimma Oxfam International (2002) found that farmers could not even cover their basic production costs, and were operating at loss. In the peak of the crisis, after the harvest in September 2001, farmers sold red cherry[14] at between 0.5 and 1 Birr per kg, while average production costs were 0.53. As a result, some of the cooperatives went bankrupt, or discontinued the operations in some areas.

This evidence points to the high instability implicit in the entire coffee value chain. It is rather obvious that this situation becomes unsustainable when basic financial and risk management services are absent in the local market, as is typically the case in most rural areas of Africa. In fact, the absence of affordable financial and risk management services fires back on the production side, impeding production and

complementary improvements (such as crop storage and strategic trade) along the coffee chain, thereby lowering the creation of value added and the level of market power detainable by the supply side.

In the extreme cases, frequently detected during our empirical study (see later), because of the seasonal character of the crop and its the long productive cycle (every 3-5 years coffee trees need to be replanted), farmers need to rely on traditional borrowing from traders and money lenders (highly costly); and this undermines their future financial equilibrium and profitability.

Further, a series of coherent improvements on the terminal stages of the coffee chain have been called (for example, cf. DTIS 2004; p.74 ss). The natural vocation of Ethiopia as a high quality coffee produced need to be strategically sustained in terms of branding and specific channel investment, since the basic organization of international agricultural markets is not conducive to the price discrimination of differentiated product. In this respect, the working of the traditional Ethiopian auction system[15] prevent exporters to stipulate long-term contacts with buyers, due to the 'spot' character and the anonymity of the auction mechanism. These trading features are obviously incompatible with the need to signal different quality levels of the merchandise, and to charge correspondently. A similar reasoning apply to the investment needed to promote and certify the Ethiopian potential in niche markets (organic, fair trade and ecological coffee). Face to these big challenges, the need for a more developed and articulated financial sphere is unequivocal.

Financial demand and supply: a role for microfinance

[14] Fresh coffee grains. 1 kg of dry coffee is equivalent to 3 kg of red cherry.

Due to the rural location of Ethiopian farmers and to their wealth profile, there are good reasons to believe that a strong demand exists for financial and insurance products among small farmers, and that this demand is not adequately met. As a result, many coffee farmers in several areas of Ethiopia should result credit rationed. The reasons for that are rooted on traditional factors – typically affecting developing countries – and on idiosyncratic factors – specific to Ethiopia.

Among the first, it is notorious that formal financial institutions avoid rural customers, because of the high general risks, lack of collaterals, and high transactions costs (the latter also due to very poor transport and telecom networks of the country). Consequently, alternative credit programs aimed at improving rural households' access to formal credit have been developed in Ethiopia, the main example being the MFI industry (cf. RUFIP, 2001, Assefa et al. 2005). Their working schemes differ from those of traditional financial services, since they are better suited to deal with lack of collaterals and low repaying rates, being more rooted on the local institutions, and having peculiar enforcement mechanisms; for example, they rely on group lending schemes, which contain more effective "peer-to-peer" monitoring. Moreover, despite the fact that profitability remains an important step for achieving sustainability, they put a lower emphasis on it: for example, lower profits for the MFI may be justified when more benefits are transferred to MFI clients (cf. Otero, 1999).

As a result, access to microfinance may help in reducing cash flow problems for the farmers, while being a highly accessible and low-cost alternative to more flexible informal channels (such as money lenders, traders). Consequently microfinance, by

[15] Until 1998, all coffee was traded through compulsory auction. Later, a few regulatory changes have gradually let some producer cooperatives to sell directly to foreign buyers.

reducing credit rationing, increase the farmers' investment propensity and should stand as a viable institution to promote agricultural productivity and income, while managing risks efficiently[16].

However, specific evidence on financial services available to the rural population in Ethiopia - particularly in the coffee value chain - is scarce. Equally scarce is the evidence on the new formal financial services, such as microfinance, and on the pros and cons of it in addressing specific development challenges. In fact, after years of microfinance diffusion and enthusiasms, the research agenda should now assess it with respect to its performance – in particular in its potential to become a business model viable "per se", rather than merely donor-dependent (cfr. Murdoch, 1999).

A few studies focused already on rural communities, and they found that in Ethiopia the majority of the population get access to financial services through informal channels, such as money lenders, traders, friends or relatives, Iquib e Idir [17] (cf. Bezabih et al., 2005). These studies, however, although considering the specificities of credit in rural communities, did not examine them in relation to coffee production. Similar conclusions on rural households rationing were presented in the IFAD-World Bank (2001) study, which also indicates that in 1999, only a small amount of rural households (some 4-5%) were served by MFI (34 % in Tigray, 5% in Amhara, 1% in Oromia and 3% in the Southern Region).

While the challenges of serving rural producers remain generally high - presumably in the case of small coffee farmers – nevertheless relevant opportunities should exist for providing financial services to this huge segment of the Ethiopian

[16] A comprehensive analysis focused on Asia is provided by Meyer e Nagarajan (2000).

population (84%). In fact, as of December 2004, the outreach of MFIs in Ethiopia was still limited to 1 million persons[18].

In what follows, we present an empirical analysis specifically aimed at these issues, focusing on the demand and supply of new formal financial services – such as those offered by microfinance - to coffee farmers. In particular, we test the extent of the financial gap between demand and supply, and the characteristics of the initial microfinance supply in rural Ethiopia. The policy ambition is to provide some first evidence on the likelihood that microfinance may effectively heal the severe crisis entrapping the Ethiopian coffee chain, thereby contributing to the relaunch of the country's projects of agricultural development.

3. THE SURVEY

Description of the study area

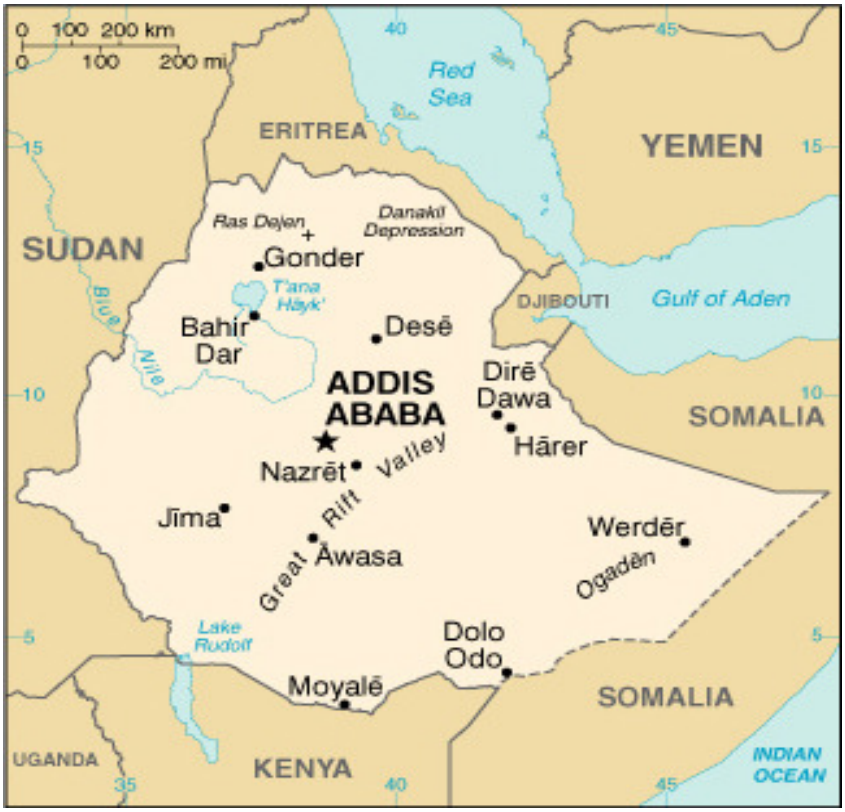
The survey was carried out in August 2005 in the Jimma Zone, belonging to the Oromia Regional State, located at 335 km S-W of Addis Abeba (see map 1). The region has 12 administrative Zones and 180 woredas. In terms of both population and area, Oromia is the largest Regional State in Ethiopia: its area spans over 367,000 sq.km (about 30% of the total nation) and a population of more than 25 million inhabitants (35%); 88% of Oromia population lives in rural areas, where the average household size is 5 persons.

34.6% of the Oromia population lives below the absolute poverty line. Agriculture constitutes the mainstay of the economy, and is characterized by fragmented and subsistence farming. The majority of the farmers depends on coffee: farmers producing

[17] Iquib is a traditional ROSCA: Rotating Savings and Credit Association, while Idir is more like a traditional insurance scheme helping people facing the (expensive) funeral procedure.
[18] Unpublished data collected by the authors from AEMFI, "MFI outreach growth in Ethiopia".

"Arabica" coffee in the region are 424,309, and 95% of the production is done by small farmers. The 85% of the coffee produced in the region is marketed raw: sun dried (or unwashed) coffee.

Figure 1 - Map of Ethiopia

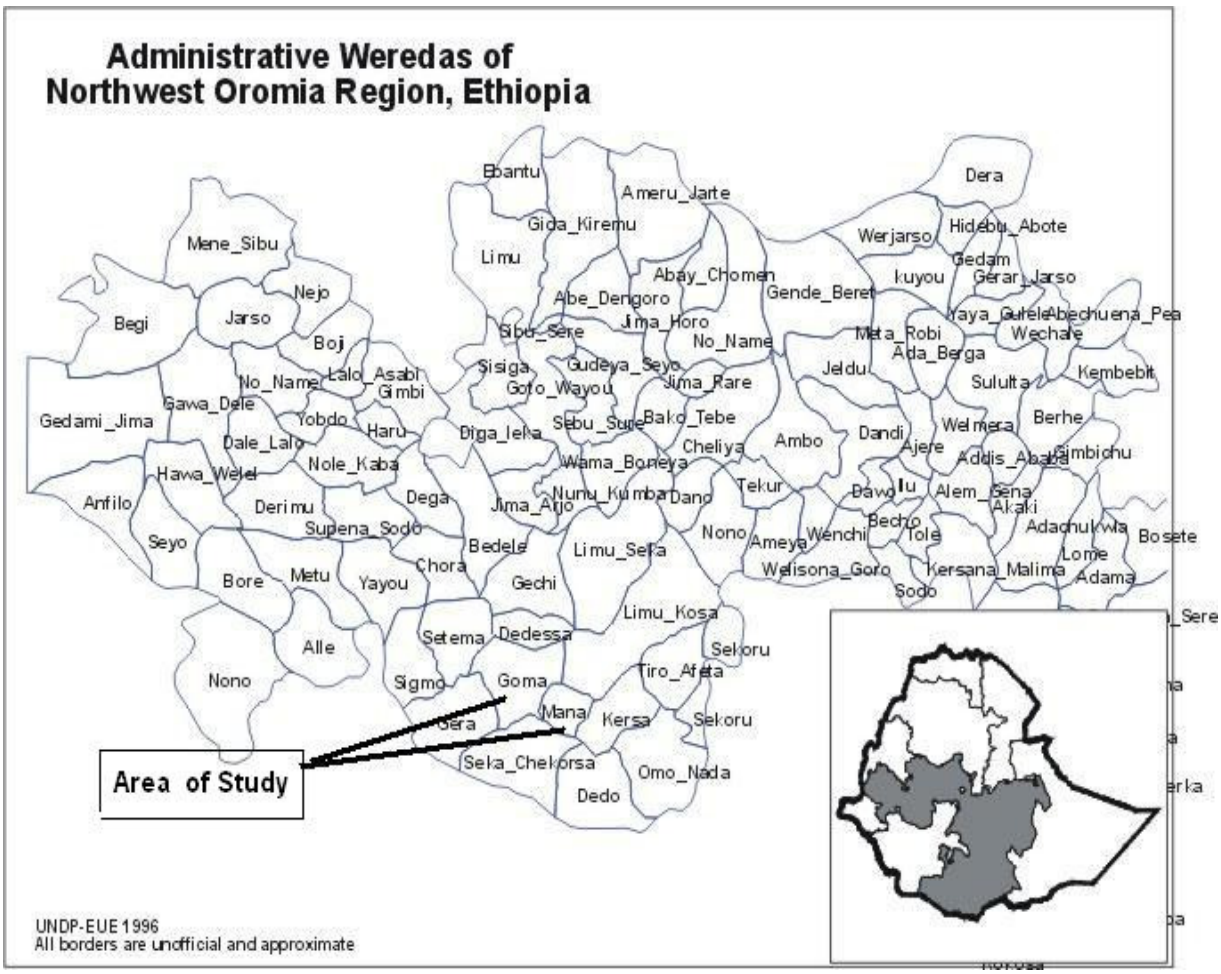


Jimma is one of the largest towns in the western part of the country, and one of the 12 Zones of Oromia. Jimma Zone has 13 woredas: out of these, Goma, Manna, Limu Seka and Limmu Chekorsa are woredas known as predominantly coffee-growing areas. Each woreda is further divided into PA's (Peasant Associations) or Kebele[19], with each one containing several villages.

[19] It is the lowest government administrative unit, and covers on average 5,000 people (1,000 households).

Jimma town is the capital and administrative centre of the Zone, which encompasses an area of 19,300 sq. km. Its population is around 2 millions, of which approximately 5% lives in Jimma town. The transport network of the Zone is roughly two-fold: 644 km of all weather roads and 447 km of dry weather roads. The Jimma Zone has large areas of potentially cultivable and irrigable lands: in 1999/2000, about 45% of the total area was arable (of which 30% was under cultivation). Out of the 13 woredas of Jimma, only 7 focus on coffee production; Goma and Mana, where the present study was conducted, are two major growing coffee areas: here most of the coffee cultivated is forest coffee, at middle altitude of 1600-1700 m. (cf. figure 2, map of the study area).

Figure 2 - Map of the study area



Research design and sampling

The first step of the analysis was the ex-ante identification of actors who are playing a role in financial services and in the coffee production (stakeholders). Two classes of stakeholders were identified: coffee farmers at the kebele level, and formal financial providers (Banks, Cooperatives, MFI). Thanks to the organizational help provided by our contacts, we were also able to collect a wealth of documents and unpublished statistics,

and to organize "focus group" discussions and individual interviews with stakeholders and keys experts of the coffee chain.

Stratified random sampling was used to build a representative sample for the household coffee farmer survey. Primary information was gathered by interviewing 120 farmers, using semi-structured questionnaires (two types of questionnaires: one for the farmers having already received financial services and a one for those who never had before). Before starting the round of interviews[20], the experimental questionnaire was pre-tested on a small sample of farmers, and consequently adjusted to fit the local situation.

After the survey, secondary complementary information was collected – also with formal interviews - to map the financial sector and the organization of the Ethiopian coffee markets[21].

4. MAIN RESEARCH FINDINGS

We first present the basic characteristics of the sample. The group originally interviewed was composed of 120 farmers; however, for the specific policy purposes of this analysis, we decided to drop the smallest ones (those having less than 0.5 Ha of total land)[22]. This choice reduces our final sample to 87 cases.

[20] We would like to thank once again the NGO FCE (Facilitator for Change Ethiopia, Jimma), who provided us with enumerators and assistants for interviews and translation.

[21] The list of subjects contacted/interviewed include (see glossary): the NBE, the CBE, the DBE, the RUFIP Program, the OCSSCO, the MOA, the MOARD, the EU CIP/MOARD program, the woreda administration offices of Goma and Mana, the AEMFI, the USAID, the Federal Cooperative Commission, the OCFCU and 4 primary cooperatives in Goma and Mana. Interesting information was also collected from Harbu MFI, Buusaa Gonofa MFI and FCE in Addis and Jimma.

[22] Due to the limited size of their land, these farmers lie well below the threshold of poverty, and cannot be healed by ordinary development policy. Rather, they need straordinary and emergency assistence.

Being the size of land a fundamental individual characteristic (as the main structural feature of production), influencing the financial and risk profile of rural activities, farmers were first classified according to it: small farmers (those having between 0,5-1 Ha of land), medium farmers (between 1-2 Ha), and big farmers - presumably the wealthiest (between 2-6 Ha).

Our sample is mainly composed of males (88.5%): this does not come as a surprise, given the social structure of rural Ethiopia and the fact that we interviewed the household heads. Therefore, most of the few women interviewed were widows.

Table 4 - Level of education in the sample

	n.	(%)
None or sign only	43	49.4
Reading & writing	14	16.1
Primary school	22	25.3
Secondary school	8	9.2
Total	87	100.0

Source: Authors' survey

Table 4 uncovers what is a well known stylized fact in development economics: rural communities are mainly composed of illiterate people, while only a small percentage carried out a proper curriculum of education. In more details, we see that almost 50% of the sample is illiterate and only 9.2% of the farmers managed to attend a secondary school level of education. Certainly, this level of education does not provide that basis of human capital needed to face the production and trade challenges of the coffee chain.

Table 5: Background statistics

	Mean	Std. Dev.	Median	Min.	Max.
Age (years)	46	10.7	45	25	73
Family size (persons)	7.2	2.8	7	2.0	14

Working people (persons)	5.4	2.3	5	0	14
Children below 5 y.o.(persons)	1.2	1.2	1	0	4
House-road distance (Km)	2	2.3	1	0	12
House-market distance (Km)	4.7	4	5	0	15
Size of land (Ha)	1.2	0.8	1	0.56	5.5
Coffee land (Ha)	0.6	0.5	0.5	0.07	3.2
(Other) crop land (Ha)	0.54	0.4	0.5	0	2.5
First activity income (% tot.)	70.7	13.8	70	40	100
Second activity income (% tot.)	21	9.7	20	0	50

Source: Authors' survey

Table 5 brings a wealth of interesting information for framing the subsequent analysis. First, age mean is 46, above the country's life expectancy at birth (42 year for males, 45 for females), and the median is slightly below (45). So, we got the older share of the population - and also this can be partly related to the patriarchal status of the Ethiopian rural society. Second, the average family size is 7.2 persons, and the distribution is rather concentrated around the mean (std. dev. 2.8)[23]. Most of the family components work (5.4, and this often include the occasional participation of children formally at school). Our rural sample was selected to be not "too remote", i.e. reflecting a good index of rural access, for a variety of reasons (logistics of the survey, but also theoretical reasons, such as the likelihood of access to financial services): this is confirmed by the average distance from the main road (2 Km, with a median of 1 Km), and from a rather close average distance from the main (village) market (4.7 Km, with std. dev. 4). Concerning the land size, the sample has an average of 1.2 Ha each[24] (Min. 0.6, Max. 5.5), and this is in line with the smallholder predominance of the Ethiopian universe. So, we are facing a very traditional and small scale agricultural landscape, which is not conducive to the

[23] Indirectly, we can also notice the larger family found in rural areas, since the average size for Oromia is around 5 persons, cf. Oromia Finance Economic Buro in Addis Ababa, August 2005

[24] Again, with respect to the modal type of farmer in rural Ethiopia, our average land size is bigger. Although not chosen during the stratification, this structural feature of our sample make our analysis more

employment of intensive and mechanized techniques. However, given the residual character of the cultivation of the other crop (maize - corn), mostly used for household consumption, coffee represents a more that proportional share (precisely, 70.7%) of farmers' income, in a rather generalized way (median 70, std. dev. 13.8). Obvious, this quasi mono-culture resulted to be very risky in those years when coffee prices dropped dramatically in the region.

After this preliminary descriptive investigation, we go to the exam of the financial behaviour of the sample. First, we investigate how farmers manage the different risks faced during the year; second, we study the basic features of the credit market, and in particular we investigate what are the existing financial instruments used in the Jimma zone.

Risk Management

Table 6 - Main risks perceived by the coffee farmers

	%
Coffee price volatility	85.1
Coffee disease (CBS)	55.2
Lack of access to loans	47.1
Weather conditions	24.1
Illness/disease of the family	19.5
Scarcity of land	11.5
Fall in other crop income	8

Frequencies do not add up to 100 due to multiple responses
Source: Authors' survey

Table 6 presents the main risks encountered by coffee farmers. The most frequent is their vulnerability towards coffee prices, which is one of the systemic (id est, common) risks

meaningful. Any financial deficit showed by such a sample could be more easily generalized, together with

affecting coffee producers[25]. Obviously, the living condition of coffee farmers is directly linked with the pendulum of coffee prices. In particular, during the lean period, small coffee farmers suffer from hunger[26]. The second risk is the CBS disease (Coffee Berry Disease), also called "cholera" by local farmers[27]. Even if remedies are potentially available, mainly through the Coffee Improvement Project (CIP) from the EU, a sizeable portion of farmers has not benefited from the service yet; so, there is a high demand for training on CBS. Moreover, more training is gradually needed as a growing number of farmers switch to (higher quality) organic coffee, which excludes the use of fungicides. The third systemic risk is the perceived lack of loans: although apparently inappropriate as a risk, this occurrence is emblematic of the general permanent uncertainty which characterizes rural activity, aggravated by the uncertainty in getting credit, mainly due to lack of collaterals. A non negligible part, however, needs credit also to finance subsistence good or services, such as in the case of illness (19,5%), frequently caused by malaria; in fact, malaria typically appears during the rainy season (corresponding to the lean period).

Table 7 - Instruments of Risk Management

Farm's activities diversification (other crops, animal fattening)	44.8%
Coffee quality differentiation (organic)	42.5%
Reduction of operative costs	20.7%
Secondary rural and/or non rural activities	18.4%
Commercial credit	13.8%
Long-term contracts with buyers	12.6%

its policy implications, to rural Ethiopia.

[25] In particular, many mentioned the difficulties inherent in forecasting prices; moreover, others mentioned that the government should stabilize the prices as it used to do during the Derg regime, where all prices were controlled and fixed

[26] Significantly, one of the farmers observed: "Our life goes up and down with the coffee prices and there is nothing that we can do about it."

[27] CBS disease is causing big losses in coffee production since the grains get black before maturation and become spoiled.

Saving	2.3%

Frequencies do not add up to 100 due to multiple responses
Source: Authors' survey

Risk management strategies include income diversification and income skewing activities, while risks coping mechanisms include self-protection instruments (such as saving and credit) or informal network arrangements (with friends/relatives, or traditional Ethiopian institutions like Iquib e Idir) (cfr. Dercon, 2002). Table 7 illustrates that in our sample there is a clear prevalence of risk management strategies over risk coping mechanisms: farm's activities diversification (44.8%), coffee quality differentiation (42.5%), reduction of operative costs (20.7%) and secondary production activities (18.4%). Less frequently, a few risk coping strategies are also used, mainly commercial credit (13.8%) and long term contracts with buyers (12.6%). Saving as a self-insurance against risk is negligible, at least according to their answers; in fact, as we will see later, their actual behaviour is different; although most farmers save, they do not perceive it as a risk-coping strategy.

Going deeper, our sample let understand that the most diffused ways of risk management are those which leverage on local knowledge and skills (i.e. production diversification and reorganization), conditional on credit availability. In fact, as showed later, income diversification is only possible to entrepreneurs getting MFI loans, since the higher cost implied by informal sources (friends, money lenders, etc.), given the amount necessary[28], would be unbearable. Alternatively, there are production diversification activities, like conversion to organic coffee, who are increasingly chosen due to the partial public subsidization of the cost: in particular, our focus group discussions showed

[28] For example, an ox costs around 800 Birr. Slightly cheaper is bee keeping, which is a good source of income in the region.

that the OCFCU and a few primary cooperatives are intensively involved on this issue, together with local farmers.

It is also interesting to analyze the main risks in relation with the size of land cultivated, as in table 8 below. As expected, there is a certain negative relation between risk perception and land size, whatever the risk considered: this is partly due to the sample composition effect.

Table 8 – Main perceived risks by farmer size

Main risks	Small	Medium	Big	Row total	Sample incidence
	(%)	(%)	(%)	(%)	(%)
Volatility of Prices	54.1	39.2	6.8	100	85.05
Coffee Disease	54.2	39.6	6.3	100	55.2
Lack of access to FS	43.9	48.8	7.3	100	47.1
Weather Conditions	66.7	33.3	0	100	24.1
Illness disease in the family	52.9	23.5	23.5	100	19.5
Scarcity of land	70	20	10	100	11.5
Fall in other crop income	57.1	28.6	14.3	100	8

Multiple responses and row percentages. The last column refers to the risk incidence over the total sample (87 farmers).
Source: Authors' survey

In particular, focusing on the most perceived risks, small producers fear particularly weather conditions, volatility of prices and coffee disease. Medium farmers, instead, suffer comparatively more from lack of access to financial services - probably because they have an effective demand which remain (partly) unsatisfied. Big farmers, instead, register a comparatively higher occurrence of illness risk, which results to be more evenly distributed across classes: after all, the healthcare situation in rural communities is rather undifferentiated.

Table 9 – Main Risk Management instruments by farmer size

Instruments	Small	Medium	Big	Sample Incidence
	(%)	(%)	(%)	(%)
Farm's activities diversification	48.7	38.5	12.8	44.8
Coffee quality differentiation	54.1	37.8	8.1	42.5
Reduction of operative costs	55.6	38.9	5.6	20.7
Secondary rural and/or non rural activities	68.8	31.3	0	18.4
Commercial Credit	58.3	33.3	8.3	13.8
Long-term contracts with buyers	72.7	18.2	9.1	12.6
Saving	0	50	50	2.3

Source: Authors' survey

Table 9 highlights the "black side" of smallholders and land fragmentation: they need to sell frequently (68.8%) their labor to other entrepreneurs, engaging in secondary (dependent) activities. More often (72.7% of the cases), small producers also commit to long-term contract with merchants at a fixed price: given their small size and negligible market power, and the predominantly negative expectations connected to the recent price falls, this long-term instrument often results to be a rather asymmetrical (i.e. unequal) bargaining.

Utilization of financial services

Financial services in microfinance consist of loans, saving products, insurance and transfer payments. In our case, since money transfers and insurance products[29] do not exist in the study areas, we shall focus on the first two. Among those people without access to financial service, credit is needed principally for two reasons: for agricultural production (48.4%) and to purchase livestock (32.3%).

Instead, concerning people who got access, table 10 shows the main utilizations of loans. We see that the "subsistence destination" was rather widespread (53.5%): purchase

[29] By insurance product, we refer to a financial instrument to protect farmers against systemic risks such as fall in coffee prices. The only exception is a "micro life insurance" product recently introduced by the MFI OCSSCO (see later).

of food, but also clothes, children education and house construction. At the second position stands product diversification (32.1%), while coffee-related production activities rank third (14.3%). Although the period in which the survey was conducted might have somehow[30] increased the "subsistence use" frequency, we believe that there is a more structural explanation for it – the prolonged crisis affecting the rural population – which explains why the majority of the financed farmers did not invest on coffee production or land improvement techniques.

Table 10 - Use of loans granted to coffee farmers

	n°	%
Coffee inputs	8	14.3
Consumption, house expenditures, etc.	30	53.5
Other productions (trading, animal fattening, other crops)	18	32.1
Total	56	100

Source: Authors' survey

Access to financial services: loans

Almost two thirds of the sample (64.4%) got access to financial services in the past, while the remaining part (35.6%) lacked any source of credit, although most tried to get credit (54.8%)[31]. Moreover, for those who did not even try, the answers depict a framework of lack of supply of financial services in the local area, self-rationing and poverty-trap[32].

So, the overall picture leads to conclude that almost the entire sample did have a potential demand for financial services: the majority was served, while the remaining

[30] Since coffee picking usually takes place between September and January and coincides with food crops harvesting, there is a lack of cash and food particularly from June to September (lean period, when the survey was conducted).

share (still substantial) was unsuccessful for a variety of reasons: regarding the lender (for example, its temporary inability to lend), the borrower (not meeting the income or collateral conditions to get credit) or both (distance or other transaction costs).

To complete the analysis on this issue, we need to assess the degree of satisfaction from the financial services. Before that, we go to present the types of financial service marketed (table 11).

Table 11 - Sources of financial services and amount of loans obtained

Sources	**Cases**		**Amount of Loans**				
	n.	%	Mean	Std. Dev.	Coeff. Variat.	Min.	Max.
Friends	11	16.2	293.6	339.4	115.6	60	1250
Traders	6	8.8	145	103.5	71.4	60	300
Money lenders	6	8.8	193	133.7	69.25	60	400
Cooperatives	22	32.3	115	34.5	30	42	200
MFI (OCSSCO)	23	33.8	905	241.9	26.7	445	1500
Total	68	100	330.3	170.6	51.6	133.4	730

Double source of finance is present in a small number of cases.
Source: Authors' survey

Table 11 shows that the financial market is roughly tripartite: 33.8% of the farmers were served by an MFI (OCSSCO), the only formal microfinance provider serving coffee producers present in the study area. Second, 33.8% borrowed from informal financial

[31] Further analysis show that the most frequent reason (29%) given for failure to obtain was that also the money lender was financially constrained, and hence he could not lend.

providers: friends (16.2%), money lenders (8.8%) and traders (8.8%). Finally, primary cooperatives, with 32.3%.

If the proportion of the clients served by the MFI and the informal sector is practically identical, the average loan from the MFI was substantially higher, being 905 ETB[33], against the 210.5 ETB offered by the informal sector. Finally, 115 ETB is the average loan lent by our cooperative[34]. Moreover, the dispersion around the mean of the MFI loan amount is rather small with respect to that of money lenders and traders (cf. the coefficient of variation): this indicates that the credit chances offered by MFI are higher in quantity and relatively less unequal among borrowers. Finally, friends seem to offer a good opportunity for credit, but they appear on average a source internally differentiated (highly dispersed) which may not be often available, being highly dependent on the own local context and human relations network.

Other advantages of the MFI financial offer emerge from the following table 12, where we summarized the range of duration and cost of loans according to the different financial sources[35]. This analysis is important because financial service providers select differently their customers, requiring different guaranties (collateral) or conditions of eligibility from coffee producers. So, table 12 should not be interpreted as providing the

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[32] A more detailed analysis of this section is presented in Bastin (2005).
[33] Amount sufficient to buy an ox.
[34] We recall that only one cooperative out of the 4 we contacted offers this financial service to its members; moreover, it was in its first year of operation: so a relatively new experience for the Zone of our sample, not necessarily representative of the Ethiopian universe.
[35] A methodological caveat first. While for the duration we got reliable and non ambiguous direct information from the questionnaires, for the estimation of the cost we had to make some assumptions, since the amount to be repaid by some borrowers (for example, many of those getting from money lenders and traders) was not stated in monetary terms but "in kind" (id est, kilos of coffee repaid for a given initial loan); having made the relevant assumptions, we calculated the "implicit" rate of interest of the credit transaction, which resulted to be usually very high. Due to this methodological heterogeneity, we preferred not to calculate any centrality measure (which in theory is also influenced by the amount of the loan, and hence should be weighted), but rather to present the range of the rate of interest distribution paid by the borrowers (taking both those in monetary terms and "in kind"), for each specific source.

whole range of possibilities for a potential borrower, but rather the different characteristics of the offers designed by the lender, which most of the time acts in a context of quasi-monopoly. Looking at the duration we uncover relevant differences. First, it is showed that the longest period of duration is given by MFI (12 months maximum), which also possesses the highest minimum duration (6 months). Friends offer in theory the second-best alternative for duration, better than traders and money lenders. Cooperatives, instead, offer small-term loans.

Table 12 - Duration and cost of loans according to the sources of FS

Source	Duration (months)		Annual interest rate (%)	
	Min.	Max.	Min.	Max.
Friends	2	12	0	120
Traders	5	8	200	660
Money lenders	5	7	120	171
Cooperatives	3	6	0	0
MFI (OCSSCO)	6	12	11.5	11.5

Source: Authors' survey

Things change greatly when we go to analyze the underlying cost conditions. For example, the MFI charges a very reasonable rate of interest. While for the minimum rate their offer is surpassed by that of friends (most of the time zero) and that of cooperatives, MFI stand as the cheapest concerning the maximum rate of interest (excluding cooperatives). However, the eligibility criteria for MFI loans are rather selective and cannot finance items other than agricultural production, livestock or similar (in general, loans are given for income generating activities, while consumption is excluded). Moreover, there are also restricted time periods of eligibility: usually, loans are offered during selected months (January-February in our sample). Further, loans are only given jointly to a group of borrowers: while the leader of the group acts externally as an instrument for the reduction of asymmetric information (and transaction costs), the role of

the group is that of peer-to-peer monitoring. It is clear that the MFI wants to be protected from the risk of bad or non-repayment from the coffee producers, who are especially vulnerable during the months of June-August[36]. Clearly, the strictness of the eligibility criteria and the monitoring mechanisms in place yield a negligible rate of overdue loans for MFI, which can sets in return very reasonable rates of interest.

Cooperatives (we have just one "financial" cooperative in the sample[37]) offer rates of interest even cheaper than MFI: in our case the rate charged was zero, together with a low administration or membership fee. However, they strictly select the borrowers (who need to sell coffee to the cooperative to be eligible for credit, getting sometimes a lower price for coffee with respect to alternative trading channels) and give only credits of small amount, conditional on the past behavior of the potential borrower.

Borrowing from friend is also very cheap in the majority of cases (9 over 11 cases show a rate of zero), while in the remaining cases the rate of interest charged is non-negligible (up to a maximum of 120% per year – presumably "bad friends").

The more flexible and accessible credit channels result to be that of money lenders and traders, which however charge outrageously high (definitely unsustainable!) interest rates, even though their funds can be freely used also for non-productive reasons. However, we need to realize that most of the time this freedom of choice is only apparent, being these borrowers affected by highly urgent personal needs (serious health

[36] Indeed, during the years of fall in prices, the repayment rate of MFI dropped to 30%. This put a great danger to the sustainability of the institution, which needed to stop disbursing loans for a while.

[37] Access to funds and zero interest rates are reserved to cooperative members, who repay the cash amount in kind just after harvest at the current market price. In general the principal function of the primary cooperatives is strictly agricultural: with the support of the Union (higher level cooperative), they are mainly concerned with production and marketing issues. They have just started to provide loans to their members in 2005 to help the coffee producers to cope with the difficulties of the lean season of July-August. Their financial role is likely to remain small, since they do not have either technical knowledge or preferential access to credit funds; in this Zone, they also carry bad losses from the past.

problems or mere subsistence), which do not permit to wait longer to be satisfied. In a sense, this credit relationship is highly risky for both parties: credit lenders select the most risky portion of the credit demand rationed by the other channels, often without collateral, and need to fix a high rate and a short repayment period to compensate for the higher rate of overdue loans; on the other side, these borrowers select the most costly and risky offer, which is likely to unbalance even further their precarious financial situation in the near future. Most of the times, the highest rates of interest (hundreds of percent points!) were found when the loan is returned "in kind". This phenomenon can be interpreted with different explanations. A first one could be simply that of a big unbalance between demand and supply of funds, especially likely during the lean period: a partial support comes from the fact that most of the loans borrowed from the informal lenders and the cooperatives were requested in June-July. However, we could also think that money lenders and particularly traders, who are the big coffee merchants, ask a premium for risk on loans repaid in kind, since in this case they bear the risk of a sudden fall in prices (the quantity of coffee to be repaid is in fact stated at the beginning of the period): however, given the interest rate demanded, the risk premium rationale can justify only a small portion of the excess rate demanded. Perhaps, a further explanation is to be found also on asymmetries of information and on a certain kind of "computation illusion", which affects the farmer when the repayment is in kind[38].

It is rather obvious to conclude that, by paying such outrageous interest rates, with a low productivity activity like traditional coffee farming, informal credit might well undermine small farmers, rather than helping them to get out of the poverty trap.

[38] Again, the main inference for that comes from the fact that interest rates calculated on loans repaid in monetary terms are sensibly lower that those repaid "in kind".

Table 13 - Principal problem faced with the loans

	n.	(%)
Inappropriate loan terms (Grace period, duration, collective eligibility)	21	37.5
No problem	16	28.6
Small amount	11	19.6
High interest rate	8	14.3
Total	56	100.0

Source: Authors' survey

We also asked what was the main problem faced with the loan received. Neither the interest rate nor the small amount rank first, but the inappropriate loan terms. Most of the time, the sample complained about the group methodology, forcing them to be organized in groups and submitted to the joint liability pressure for repayments of the credits; however, this is not a limit per se, but rather an enforcement property which instead guarantee the viability of the microfinance formula. They also blamed that the time frame of the loans was not synchronized with the financial cycle of the coffee harvest (once a year)[39].

Concerning the relation between size of land and the amount of loan, table 14 highlights an obvious positive relation, largely expected from the literature findings.

Table 14 - Relation between land size and amount of loans (ETB)

Land size	n.	Mean	Std. Dev.
Small	29	371.3	382.0
Medium	24	626.7	443.1
Big	3	933.3	305.5
Total	56	510.8	430.9

Source: Authors' survey

[39] Farmers would like to receive at least one year loan term, and a sufficient grace period to start repaying.

Moreover, further evidence depicts that the vulnerability of small farmers lead them to borrow more frequently from the informal sector (friends, money lenders and coffee traders), since, for various reasons (lack of collateral, eligibility, asymmetric information) they are not served by the microfinance institution. On the contrary, 60.9% of the medium producers (and most of the big) get their loans from MFI, while only 34.8% of them deals with the informal sector. Instead, the primary cooperatives mainly serve the smallest farmers, the ones likely to be interested in the small amounts of credit available from cooperatives.

Finally, we asked the sample with access to FS if the amount requested was satisfied. Among those who got a loan during the last year, only a small minority (30.4%) declared itself satisfied with the amount received, while the majority judged the amount insufficient (69.6%)[40].

Based on this evidence, the following step of the analysis was that of finding a measure of credit rationing in the sample. The first starting point is the estimation of the level of demand of FS, together with the amount already received in the last 12 months. The questionnaire was structured in a way to ask similar information to both types of farmers, those with past access to FS and those without, in order to construct a proxy of the demand for both (cf. DEMAND in table 15). Then, the differential between the amount asked and amount actually received was calculated, both in absolute and relative (with respect to demand) terms[41]. This yields the proxy for the gap in loans (GAPFS and GAPFS% respectively).

[40] Complementary, those who did not receive any loan were asked about their financial needs, and the likelihood to ask a loan in the near future. Again, almost the entire set said that they would have asked for a loan.

[41] Coherently, for those who did not receive in the past any loan, the gap is equal to the present demand.

Table 15 - Demand of loans and financial gap for coffee farmers

	n.	Min.	Max.	Mean	Std. Dev.	Coeff. Var. (%)
DEMAND	81	100	20,000	**2,457.8**	3,807.6	154.9
GAPFS	81	0	20,000	**2,104.7**	3,886.9	184.7
GAPFS %	81	0	100	57.8	42.3	73.2

Source: Authors' survey. Absolute values in ETB for the first two rows; % values in the third.

Table 15 shows that the distribution of the demand of FS is rather dispersed around the mean (see std. dev.), signaling a certain degree of heterogeneity among the financial needs of farmers. In details, the size of the average demand of farmers is 2,457.8 ETB each. However, the amount demanded results to be far higher than that actually received, so that the average gap is rather high, being equal to 2,104.7 ETB each. Moreover, the relative gap (see GAPFS%) implies that the average farmer receives only 42.3% of the amount of loan asked, while the remaining majority portion (57.8%) remains not financed.

Saving products

Saving can help small farmers to face difficulties linked to life cycle-events, emergency needs[42], or to undertake investment or self-made "pension schemes": in fact, it creates a money reserve and stimulates financial planning, thereby qualifying as a risk-coping strategy (cf. Dercon, 2002). During the different meetings with qualified financial experts (Banks, MFIs, Union representatives), a certain consensus emerged around the fact that farmers would not possess the culture of saving. This judgment apparently contradicts the evidence in our sample (a large and unexpected share of farmers save), which is also represented in the literature: for example, Rutherford (1999) argues that «Poor people can

[42] Obviously, crop and weather's insurance products do not exist in these rural communities.

save and want to save, and when they do not save it is because of lack of opportunity rather than lack of capacity».

Probably, one main explanation for theses divergent views is offered by our sample; among the farmers who had saved in the past (85% of the total sample), most of them did it "in kind" (47.3%, mainly small farmers) and in "kind and cash" (24.3%), rather than only "in cash" (only 28.4%). Indeed, saving in kind seems to them easier and safer than keeping money in the house (chosen by 75% of total cash savers), given that most cash saving alternatives are still inaccessible (also cognitively) for the majority of rural population[43].

Further, it seem to us rather inevitable that in an "quasi-subsistence" agricultural regime, where self-consumption is relevant and agricultural markets are too small, also saving tends to assume a "non monetary" nature; in fact, saving in asset (cattle) is a rather frequent and traditional option in Ethiopia, since it presents the advantage of being an (asset) saving while it can equally be utilised as a capital input to production.

As a consequence, despite the fact that saving in kind (cattle) might become very risky (animal disease, recurrent food crisis, like in 1984-85[44]), its persistent diffusion should direct our attention to both sides of the financial market (including supply), rather than only to demand side, as done in the "anthropological" explanation of the financial community.

[43] A formal saving account with the local MFI was chosen by 22.2% of cash savers, yielding an interest rate of 4% per annum.

[44] At that time the terms of trade among cattle and food collapsed. However, people rationally kept cattle, cutting food consumption – more costly - in the attempt to recover in the future the full value of their saving (cf. Dercon, 2002).

In sum, there are macroeconomic (endemic poverty and coffee price decline) and seasonal (lean period) reasons which mainly account for the reduced saving flow[45]. In this context, a substantial part of saving follows the traditional pattern "in kind", while the low accessibility and scarce information about the new saving products (MFI and financial cooperatives arrived recently in the area surveyed), contribute to dampen their diffusion.

As a counter-proof, we then demanded what would have been the most useful financial products for them, if they only had the choice between loans and savings (table 16). It is quite surprising to see that the majority of farmers indicated saving services as the first priority, rather than loans.

Table 16 - Preference between savings and loans

	n.	(%)
Loans	22	25.3
Savings	56	64.4
Savings and loans	9	10.3
Total	87	100

Source: Authors' survey

We believe that this evidence confirms the urgent need to give policy incentives and funds to MFI and financially active cooperatives, to augment the outreach of their activities in rural areas, emphasizing not only the credit side (as done up to now), but also the introduction of saving products; this in turn can finance the take-off and the autonomous development of the "microfinance banking", rendering it less "donor-dependent" (as emphasized by Morduch, 1999). As a final remark, during the survey it

[45] During the field survey, most of the farmers did not have any saving left because of the lean season. 30.8% of the producers also mentioned as the main reason for not saving the low current profitability of

was frequent to hear the local or administrative agents of the woreda complaining about the fact that farmers earning "lots of money" upon harvest do not save for emergency events. The above evidence suggests that, if more providers were operating and offering these new services in the study area, people would probably earn and save more.

We also argue that the introduction of suitable saving products could alleviate the absence of specific insurance products, whose introduction appears far more difficult[46] due to prevalent systemic character of the risks faced in rural underdeveloped countries (were risk diversification is less feasible). Although the two instruments are not substitutes, deposits and other simple saving products can enable farmers to better manage their financial cycle; currently, the most typical "financial instrument" consists in pre-selling to merchants (sebsabies and ackrabies) the coffee harvest at a fixed price, in order to get financed; but this instrument is too costly (in terms of a lower negotiated price for coffee) and rather inappropriate.

5. CONCLUSIONS

Financing rural areas and communities, although economically and ethically necessary (and socially inclusive), is a difficult business, where traditional financial markets fail, in Ethiopia as elsewhere in developing countries. Farmers result to be typically excluded (or credit-rationed) by banks and traditional financial institutions, and they finish to get access to alternative informal sources which often worsen their financial situation. This study is a first attempt to uncover the current situation of Ethiopian coffee farmers which,

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coffee production.

[46] Recently, the MFI OCSSCO has launched a "micro life insurance", protecting both the household and the MFI in case of death of the borrower (indeed, out of 24 MFIs in the country, OCSSCO is one of the first to offer this kind of product).

for a variety of reasons, have been recently facing the negative consequences of radical institutional reforms, market liberalization and agricultural price volatility, while remaining in a condition of land fragmentation and low productivity. The study has focused on representative Ethiopian coffee farmers (smallholders), who account for 95% of the country's production.

Roughly, 65% of the sample received financial services, while the remaining had no access at all, although needed. Among the available financial sources, the first important provider result to be the microfinance institution (MFI), which has recently appeared on these rural markets. The MFI resulted to be the most suitable source in terms of conditions (low interest rates, longest duration for the loan and biggest amount), but its outreach remain limited, touching only 33.8% of the sample. Further progress is needed also in the types of financial products offered: for example, the surveyed MFI does not provide consumption loans, mostly needed during the lean season. Second, the informal sector brings some relief to rural people, especially during the lean period: it is very flexible and quick in access but, except for friends, the interest rates charged are unsustainable, so that in the long term these loans worsen the poverty trap of farmers. As far as the primary cooperatives are concerned, they are usually not perceived as an "official" financial institution, since they have been entering the microfinance market only recently. In the only case surveyed, the size of its operations (average amount and loan duration) appeared rather insufficient face to farmers' demand.

We also assessed the relative gap between demand and supply of credit: it came out that only 42.3% of the original demand was satisfied. Regarding saving products, there was a certain evidence of a potential demand for deposit products, which could

gradually replace traditional saving “in kind”. In particular, saving constitutes a “de facto” risk-coping strategy for farmers, although mostly unconscious.

To summarize, there is a limited supply of financial services (loans and savings products) to the coffee farmers of Jimma Zone. One third of the credit is informal, and the market power enjoyed by its suppliers renders it highly costly and inefficient. The main resulting effect is that most lending activities in this area do not contribute to achieve the financial sustainability of farmers and their productive growth, but are simply limited to ensuring subsistence, at the most. This situation in turn affects their future financial eligibility as potential customers of “financial” cooperatives and MFIs. As a consequence, based on this evidence, a further diffusion of new microfinance intermediaries across the whole country is urgently needed.

More generally, given the current poverty trends of Ethiopia, further complementary policy instruments (and foreign aid) are equally necessary and urgent, beginning with traditional public infrastructure, such as transport, telecom (where Ethiopia falls well behind) and health services. In particular, the undergoing process of market and trade liberalization should be closely monitored and carefully co-adapted to its institutions, to avoid that the costs of the structural adjustment further damage the poorest.

List of Acronyms and rate of exchange

ADLI	Agricultural Development Led Industrialization
AEMFI	Association of Ethiopian Microfinance Institutions
CBE	Commercial Bank of Ethiopia
CIP	Coffee Improvement Program (EU program)
CSA	Central Statistical Agency

CTA	Coffee and Tea Authority
DBE	Development Bank of Ethiopia
EPRDF	Ethiopian People Revolutionary Democratic Front
FCE	Facilitators for Change Ethiopia (local NGO)
MFI	Microfinance Institutions
MOA/RD	Ministry of Agriculture, Rural Development
NBE	National Bank of Ethiopia
NGO	Non Governmental Organization
PA	Peasant Association (or Kebele)
OCFCU	Oromia Coffee Farmers Cooperative Union
OCSSCO	Oromia Credit and Savings Share Company (MFI)
RUFIP	Rural Financial Intermediation Programme
USAID	United States Agency for International Development

Birr (ETB): Ethiopian currency. US$ 1= 8,65 Birrs (August 2005)

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