

**THE ROLE OF A CREDIT GUARANTEE IN ALLEVIATING CREDIT
CONSTRAINTS AMONG COFFEE FARMERS' COOPERATIVES IN
ETHIOPIA**

by

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DECLARATION

I hereby declare that '**The Role of Credit Guarantee in Alleviating Credit Constraints among Coffee Farmers' Cooperatives in Ethiopia**' is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

(Negussie Efa Gurmessa)

4 November, 2016

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ABSTRACT

This study explored the role and effectiveness of a credit guarantee scheme targeting coffee farmers' cooperatives in Ethiopia. The study, among other things, aims at exploring how provision of a credit guarantee influences supply of institutional credit to coffee farmers' cooperatives as well as examines cooperatives guaranteed loan utilisation, the resultant changes/impacts and intervening factors. Credit guarantee schemes largely trace their roots in the liberal and neoliberal economic and social contexts. One of the key issues the current study tried to address is examining how a credit guarantee scheme operates in a partially liberal capitalist context where there is pervasive state intervention in the key sectors of the economy, including financial and coffee sectors. The study was conducted in eight zones of the two major coffee producing regions of Ethiopia – Oromia and Southern Nations, Nationalities and Peoples' regions. A mixed method with structured questionnaires (at two stages), key informant interviews, focus group discussions and extensive observation were used to collect data from primary cooperatives, financial institutions, coffee extension and cooperative experts. Qualitative analytical methods, descriptive statistics and econometric model were used in analysing the data.

The study reveals that most primary cooperatives have weak institutional, business and financial capacities, and limited access to institutional services including credit. The findings show that cooperatives generally have limited role in the coffee production end, but they play an important role in its marketing. The study suggests that coffee or multipurpose cooperatives are not ideally suitable to serve as intermediaries for bank loans. The study reveals that the vast majority of the study cooperatives have potential demand for loans, but revealed low actual demand. Different sets of internal (demand side) and external factors influence cooperatives' potential and actual demand for loan in different ways. The assessment of the guarantee scheme under analysis shows that though most of its design and operational features are in line with international practices, there are some obvious limitations. Low risk coverage level, limitation in the total volume of the guarantee fund, lack of capital enhancement mechanism for the lending banks, short life span of the scheme, lack of flexibility and adaptation and reliance on a single lending bank are among the notable limitations. In terms of utilisation of the guarantee fund and outreach of the lending activity, the scheme attained limited achievements with a low leverage ratio.

However, substantial financial additionality was attained among the borrower cooperatives, but the intervention had little impacts in improving the terms and conditions of loans. The positive effects on the economic/business activities of beneficiary cooperatives include acquisition of processing facilities, increase in member size, increased volume of coffee processed and dry cherry traded and improvement in the income generated from such business activities. However, the scheme had limited effects on cooperatives' human resources and type of management. A number of internal and external factors appear to influence effectiveness of a credit guarantee targeting farmers' cooperatives.

Several recommendations were made. First, there is a need to integrate attractive features into the scheme that can be periodically revised and adapted. These may include raising the risk coverage level especially at the initial stage, including liquidity boosting mechanism, lowering guarantee fee level, devising longer-term arrangement, integrating strong capacity building and technical support and other incentive packages. Second, the lending banks need to develop suitable loan products, revisit and improve their lending terms, requirements and approaches. Third, if they are to effectively demand for and make proper use of such guaranteed loans, cooperatives need to be supported so as to enhance their organisational, business and technical capacities. Fourth, there is a need for the government to further strengthen provision of a more supportive and enabling legal and institutional environments and relax some of the regulatory frameworks so as to facilitate the lending-borrowing activities.

LIST OF ABBREVIATIONS

ADLI	Agriculture Development-led industrialisation
AIDB	Agriculture and Industrial Development Bank
AMC	Agricultural Marketing Corporation
ATA	Agriculture Transformation Agency
CBE	Commercial Bank of Ethiopia
CBO	Cooperative Bank of Oromia
CFC	Common Fund for Commodities
CGS	Credit guarantee scheme
CSA	Central Statistical Agency
DBE	Development Bank of Ethiopia
DFID	Department for International Development
ECX	Ethiopian Commodity Exchange
EPRDF	Ethiopian Peoples’ Revolutionary Democratic Front
FCA	Federal Cooperative Agency
FGD	Focus Group Discussion
GDP	Gross Domestic Product
HDI	Human Development Index
HDR	Human Development Report
ICA	International Cooperative Alliance
ICO	International Coffee Organisation
IIRR	International Institute of Rural Reconstruction
ILO	International Labour Organisation
ITC	International Trade Centre
KII	Key Informant Interview
LGS	Loan Guarantee Scheme
MFI	Microfinance Institution
MoA	Ministry of Agriculture (Ethiopia)
MoFED	Ministry of Finance and Economic Development
NBE	National Bank of Ethiopia
NGOs	Non-governmental Organisations
OBoFED	Oromia Bureau of Finance and Economic Development
OCFCU	Oromia Coffee Farmers’ Cooperative Union
OECD	Organisation for Economic Cooperation and Development
PASDEP	The Plan for Accelerated and Sustained Development to End Poverty
PEA	Project Executing Agency
PIA	Project Implementing Agency
RUSACCO	Rural Saving and Credit Cooperative
SACCO	Saving and Credit Cooperative
SAP	Structural Adjustment Programme
SBA	Small Business Administration
SME	Small and Micro Enterprises
SNNPR	Southern Nations and Nationalities People’s Region
TIN	Tax (payers) Identification Number
UNDP	United Nations Development Programme
USAID	United States Agency for International Development

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CHAPTER 1

1. INTRODUCTION AND BACKGROUND

1.1. Introduction

Access to affordable and appropriate financial services on a timely manner is a critical factor for all development efforts in general and for the agricultural sector in particular. However, smallholder farmers' access to institutional credit has been restricted by a number of constraints related both to the supply and demand sides, and other external factors such as policy and regulatory frameworks. In particular, risks associated with agricultural production and rural-based smallholders, costs of small-scale lending and lack of viable collateral are frequently mentioned as the major constraints. Credit guarantee schemes have been designed and widely used to address the problems associated with loan security and to encourage financial institutions to lend to those who are traditionally considered credit risky groups. Such credit guarantees largely trace their origin in the liberalism and neoliberalism economic systems of European and North American countries. Such economic policies seek to promote deregulation, privatisation, free market and trade. Under such economic systems it is believed that market enables efficient and effect allocations of productive resources and thus state is expected to abstain from intervening in the economy and market. As Harvey (2005) notes the role of the state is to create and preserve an institutional framework appropriate to such practices.

In recent decades, credit guarantee programmes have become popular across the globe and have been taken up by countries with different policy environments and economic systems. Ethiopia is one of such countries, which have been trying to use this tool under different political, social and economic contexts. The Ethiopian government has not been convinced of the relevance and effectiveness of neoliberalism in realising the kind of development the country seeks to attain. The government rather pursues what is known as a “developmental state” economic thinking that is characterised by strong state intervention in the economy and extensive regulation. Such variations in the political and economic environments would inevitably have profound effects on the performance and effectiveness of credit guarantee programmes. Taking a credit guarantee

scheme for coffee farmers' cooperatives in Ethiopia, this research explored the role, effectiveness and impacts of a credit guarantee programme. The study has analysed demand for, access to, supply and utilisation of bank credit and resultant changes in relation to the availed credit guarantee, and factors influencing its performance and successes.

This chapter presents introduction and background to establish the context of the study. The following section begins by providing background information about Ethiopia. This will be followed by sections on the significance of the Ethiopian agriculture and the coffee sub-sector, significance and expansion of rural finance, and the design and operational features of the Ethiopian credit guarantee scheme for coffee farmers' cooperatives. Finally, statement of the research problem, research questions, objectives of the study, overview of the research design and methodology, limitations and scope of the study, definitions of the key concepts used in the study, structure of the thesis and chapter contents are outlined.

1.2 Background

1.2.1. Ethiopia: Country Background

Located in the Horn of Africa, Ethiopia is one of the largest countries in Africa and the second most populous nation in the continent. According to the CSA population projection for 2014, the total population of Ethiopia is about 88 million, while the total area of the country is 1.14 million sq. km (HDR, 2013). In total, about 81 percent of the population resides in rural areas (CSA, 2013), largely depending on agriculture for their livelihood. The rapidly growing population has been posing serious challenges to the government as food production and the growth of other agricultural products could not keep pace with the high population growth rate. Despite the recent rapid economic growth, Ethiopia is still one of the poorest countries in the world. According to the Human Development Report (2013), Ethiopia's Human Development Index (HDI) for the year 2012 was 0.396, positioning the country at 173 out of the 187 countries and territories. This is well below the average of 0.466 for countries in the low human development group and the average of 0.475 for countries in sub-Saharan Africa. Moreover, Gross National Income per capita for Ethiopia is US\$1,017 as compared with US\$2,010 for sub-Saharan Africa. Recent studies indicate that national poverty has shown significant decline. The country's 1.25

USD per day poverty rate has fallen from 71.3% in 1990 to 30.40% in 2009, while the poverty head count ratio at national poverty line for the same period has declined from 45.50% to 29.60% (Chanyalew, 2015). UNDP's HDR (2013) indicates that Ethiopia along with some African countries such as Rwanda and Uganda continued to grow at a faster rate. Other evidence also shows that Ethiopia has recorded a high annual growth since 2004 and the country has become one of the fastest growing economies in Africa.

The economy of Ethiopia is largely based on agriculture, which contributes close to 50 percent of the Gross Domestic Product (GDP), up to 90 percent of the export earnings, as well as provides livelihoods to about 83% of the population of Ethiopia (Davis *et al.*, 2010). In fact the share of agriculture from GDP has declined from 53% to 42% between 1995/6 and 2010 (Chanyalew, 2015). This is mainly due to a shifting trend to services and industry, which have gained significant importance in recent years. Consequently, the share of the service sector has grown from 34.60% to 46% during the same period (Ibid). Despite the low productivity of the agriculture sector and widespread poverty among the farming community, Ethiopia is endowed with immense natural resources and paramount potential for agricultural production. The country is also known for its massive agro-ecological, ethnic, social and cultural diversity.

According to Davis *et al.* (2010), out of the total 111.2 million hectares of total land area of Ethiopia, 74 million hectare is arable while currently only 13 million hectares is being used for agricultural activities. Recent records show that there are about 13.5 million smallholder farmers with an average landholding of 0.93 hectare (Chanyalew, 2015). According to the CSA (2014) sample survey of the main (*Meher*) season of private peasant holdings, about 12, 407, 473; 209,880; 161,488 and 71,507 hectares of land are covered by grain crops (out of which 79.38% is cereals), root crops, vegetables and fruit crops, respectively. In addition, 538,467 ha; 222, 079 ha; 24,727 ha and 29,104 ha, respectively, are covered by coffee, *Khat*, hops and sugar cane (CSA, 2014). Moreover, the country's livestock resources are among the top in the world, at least in terms of number. Ethiopia also possesses high level of biodiversity of great significance to the world. Among others, the country has provided coffee *Arabica* and *teff* genetic resources to the rest of the world. Though the country is paradoxically hit hard by recurrent droughts, Ethiopia is renowned for its abundant water resources. These, among others, include Lake Tana

(the source of Blue Nile), and other major rivers that even flow beyond the boundary of the country. Ethiopia has 12 major river basins, 12 large lakes, 122 billion m³ of annual surface run off and an estimated 2.6 billion m³ of usable ground water (Chanyalew, 2015). But these water resources are yet to be developed and effectively utilised for agriculture and other purposes. Ethiopia has developed only about 5% of its irrigation potential area, which is estimated to be 3.7 million ha (Chanyalew, 2015). Particularly the dwindling natural resources and climate change, coupled with the rapidly growing population, have posed enormous challenges to the government in its effort to accelerate sustainable growth in the agriculture sector and in the overall development endeavors of the nation.

1.2.2. The Ethiopian agriculture sector

As discussed in the above section, agriculture constitutes a vital part of the Ethiopian economy. In addition to providing food for the rapidly growing population, the sector plays a vital role in generating raw material inputs and financial resources for the manufacturing sector. However, despite the encouraging achievements recorded in recent years, the growth and development of the agricultural sector has not reached a satisfactory state. Low agricultural productivity is apparently one of the main contributory factors to Ethiopia's large food deficit (Croppenstedt *et al*, 2003). The agricultural sector in Ethiopia is largely characterised by small-scale, scattered and subsistence-oriented production system, with limited access to and use of improved farm inputs and technologies, credit and other support services, and weak market integration. Moreover, agricultural activities are predominantly rain-fed which has been posing a daunting challenge to the country in the face of climate change. Various records (e.g. MEDAC, 1999) show that Smallholder farmers operate about 95 percent of the cultivated land and produce more than 90 percent of the agricultural products.

In view of its vital role in influencing the performance of the other sectors and overall development of the economy, agriculture has taken a centre stage in the development agendas of Ethiopia. Government's past and current plans and development programmes rendered unique attention to the agriculture sector, as an engine for economic growth and poverty reduction. Like their predecessors, the just ended five-year Growth and Transformation Plan, and the new five year plan have set huge targets for the sector. At a time when many governments in Africa were

curtailing support for the agricultural sector, the Government of Ethiopia instituted a policy of Agricultural Development-Led Industrialisation (ADLI) (Davis *et al.*, 2010). The principal objective of the Ethiopian development plan is transformation of the subsistence agriculture to market-oriented production, and effectively linking forward and backward with the industry. This process inevitably demands, among other things, financial and technological resources. For instance, in India the Green Revolution of the 1960s and 1970s called for adequate supply of credit to acquire farm inputs such as fertilizer, improved seeds, irrigation pump, and the likes (Mohan, 2004). Nevertheless, like in many other developing countries, small-scale farmers in Ethiopia experience shortage of saving capital and sufficient financial resources to invest in critical farm inputs and modern technologies that would boost their productivity and income.

Despite its immense potential and critical role in the economy, the Ethiopian agriculture sector has not enjoyed the support and attention of financial institutions. In general, lack of effective extension services and lack of agricultural credit have been frequently mentioned among the major factors hindering the productivity of the Ethiopian agriculture (Anbes and Gowda, 2008). In a country like Ethiopia where agriculture plays a dominant role in the economy and engage the vast majority of the population, there is a critical need to provide adequate credit facilities for smooth and sustainable operation, growth of the sector and improvements in farmers' living conditions (Admasu and Paul, 2010; Admassie, 2004). Undoubtedly, absence of effective and appropriate financial resources could undermine the efforts to modernise and advance the agriculture sector. Thus accessible, affordable, adequate and sustainable financial services are required to support the transformation process of the Ethiopian agriculture from its bare subsistence level to commercial and market-oriented farming. The effects of the policies and reform programmes of the different governments on the agriculture and related sectors under the different regimes of Ethiopia are discussed in chapter two.

1.2.3. The Ethiopian Coffee Sub-sector and its significance in the country's economy

Coffee is one of the prominent agricultural commodities with considerable social, economic and environmental significance for Ethiopia. The country is one of the pioneer coffee producers, consumers and exporters in the world. Ethiopia is the first and sixth largest coffee producer in Africa and in the world, respectively (ICO, 2005). During the year 2012, Ethiopia exported 3.2

million bags of coffee, making the country the largest African coffee exporter and the tenth largest ex-orter in the world (ICO, 2013). The fact that about half of Ethiopia's coffee is consumed locally inevitably has had adverse effects on the volume of exportable coffee. However, now-a-days such tradition is increasingly taken as a positive culture and great opportunity to sustain the coffee industry, especially during global coffee market falls. Being the origin of coffee *Arabica*, the country possesses massive diversity in terms of coffee genetic resources. Despite the rapid growth revealed in other exportable commodities, coffee has continued to be the leading commodity in terms of export earnings, currently accounting for over a quarter of the value of all exports. In fact the value share of coffee has declined from more than 65% in the 1990s to about 26.50% in 2012 (Chanyalew, 2015). Coffee also provides livelihood to a quarter of the population. According to the CSA report (2014), about 538,467 hectares of coffee is produced by about 4.50 million smallholder farmers, with annual production of 3.92 million quintals. In terms of proportion of area coverage, at national level coffee covers 3.84% of the area under all crops (*Ibid*).

Evidence suggests that the smallholder sector is responsible for about 95% of the coffee produced in Ethiopia. The rest is produced by large private and state farms¹. Esayas (2010) indicated that some 12 years ago, there were only three large state farms under the Coffee Plantations Development Enterprise, namely: Bebeka, Limu and Tepi with coffee plantation area of 6,537 ha, 8,026 ha and 6,442 ha, respectively. As of 2010, the coffee plantation area under the enterprise was 20,144 hectares. However, these parastatals have been sold out to private investors over the past years (between 2012 and 2014). Bebeka and Teppi Coffee Plantations were privatised in 2011/12 and 2012/13, respectively. Limu Coffee Plantation was the last to be privatised in 2014. Currently, there are no more state coffee plantations in Ethiopia (Minten *et al*, 2014). On the other hand, earlier reports show that within about a decade, over 135 private investors have entered into developing modern coffee plantations on over 32,000 hectares of land (Esayas, 2010). Some sources indicate that large scale commercial farmers at present operate on up to 50,000 hectares of coffee land. However, the contribution of large-scale farms to the total coffee production of the country is still meager as compared with the share of the smallholders.

¹The share of state farms has diminished in recent years due to privatisation activities and the last farm was privatised in 2014.

Coffee activities across all levels of the value chain demand substantial financial resources. Smallholder farmers, who are responsible for the production of the bulk of Ethiopia's coffee, experience lack of adequate financial services to acquire necessary inputs and modern technologies. This has had serious implications for their productivity and market integration. Due to lack of collateral of required value and quality, and because of the nature of their activity/business and locations, most smallholder coffee producers of Ethiopia face formidable challenges in accessing formal credit markets. In general, credit services for the coffee sector are generally scarce in Ethiopia, particularly for the production end. A study by ITC (2011) reports that the coffee sector development in the East African region has been jeopardised by lack of credit facility. The same study notes that lack of finance is one of the obstacles to the modernisation of coffee production and post-harvest activities. Similarly, farmers' cooperatives contribution in improving farmers' position in the coffee value chain has been hampered primarily by lack of finance. They have difficulties in obtaining loan to invest in modern pulping, drying and storage facilities, as well as to finance their marketing operations (ITC, 2011). Obviously lack of credit to acquire modern processing facilities has serious consequences for coffee quality, with profound implications for market access and economic return.

The changing policy environments at national level and in relation to the coffee sub-sector had a number of consequences for the coffee sector development. Among these, changes in policies related to cooperative promotion, coffee development and marketing institutions, coffee marketing system, and financial institutions have greater direct and indirect effects on the coffee sector. For example, Minten *et al* (2014: 2-4) notes the fact that there have been substantial domestic policy reforms in the recent years that has hugely affected the structure and performance of the coffee export sector. This is largely related to the creation of the Ethiopian Commodity Exchange (ECX) marketing system, which has led to vital changes in the structure of coffee value chain. Having keen interest in the coffee sector, the government of Ethiopia has intervened in the coffee sector through various measures. As Minten *et al* (2014) noted, the government directly has been intervening in the coffee market for example in an effort to reduce hoarding by exporters. In a related issue, a policy was effected in 2011 to limit the amount of coffee an exporter can keep in the warehouse at a given time. In addition, as highlighted by

Minten *et al* (2014: 4) there have been a number of changes regarding export taxes on coffee over time, which include the removal of entry barriers (Proclamation No. 70/1993); the consolidation of all taxes and duties levied on coffee export into a single tax group (Proclamation No. 99/1998). Waiving of all export taxes on coffee exports following the early 2000s international coffee crisis is another notable measure. The effects of the policy directions of the different regimes of Ethiopia on the coffee sector are further discussed in depth in chapter two.

1.2.4. The role and significance of rural finance in promoting agricultural development

Improving access of resource-poor people to appropriate financial services has been increasingly recognised as one means of breaking the vicious circle of poverty they are trapped in. Access to adequate and timely financial services for all actors in the agricultural value chain has been identified as a key element for success (KIT and IIRR, 2010). In particular, as Gandhimathi and Vanitha (2009) note, credit is one of the prerequisites for farmers to increase the agricultural output in the agricultural development endeavor of a country. Credit helps smallholders to acquire necessary inputs, adopt new technologies and undertake new investments which they cannot finance from their own capital. According to Barslund and Tarp (2008), households with access to credit seem to be more willing to pursue promising but risky technologies as it increases their risk bearing capacity. Extending this line of argument, Sial *et al.* (2011) note that availability of agricultural credit increases technical efficiency, resource allocation and profitability of farmers. Apart from its critical role in improving production and productivity, credit can also enable smallholders access better market opportunities, generate better income and improve their livelihoods. In general, development experience has shown that deeper and more efficient financial markets can contribute to accelerated agricultural growth and improved food security (World Bank, 2006b).

Some scholars note that (e.g. Mahmood *et al.*, 2009) agriculture as a sector depends on credit more than any other sectors due to seasonal variations in the farming returns and the shift towards commercial farming. Transformation of the subsistence agriculture to commercial-oriented production would inevitably escalate the demand for capital to finance expansion and/or operations of farm activities, and for acquisition of modern technologies. That is why many underscore that credit is a key element in the effort to modernise agriculture and

commercialisation of a rural economy (Mahmood *et al*, 2009; Olagunju and Ajiboye, 2010; World Bank, 1994). The benefits generated through financing initiatives of rural-based farming community are not limited only to farm households. As KIT and IIRR (2010) put it, efforts to serve those engaged in agriculture related activities hugely increases the client-base for financial institutions as well. Moreover, development in the agriculture sector will have considerable spill-over effects for the non-farming communities and the nation at large.

1.2.5. Expansion of the financial institutions: *have they adequately supported agriculture?*

Like many other developing countries, the Ethiopian government has considered expansion of the financial market as an important policy direction. In early 1990s, the EPRDF-led government took a crucial step in terms of liberalising the centrally planned and communist-ruled economy. As discussed in chapter two, liberalisation of the financial market forms an important part of these efforts. As a result, a number of financial institutions (including private financial institutions), have emerged in recent years. Nevertheless, though there have been enormous expansion and developments in the financial markets of Ethiopia over the past two decades, there are still substantial gaps in the rural and agricultural financial markets. Evidence (e.g. Admassie, 2004) shows that generally the improvements have not been vested in the agricultural and smallholder sectors as expected. As compared to other economic sectors, financial resources (such as credit facilities) that have been directed to the Ethiopian agricultural sector are generally low (Admasu and Paul, 2010; Admassie, 2004). For instance, Croppenstedt *et al* (2003) asserted that access to credit is a major supply-side constraint to fertilizer adoption in Ethiopia.

Earlier study (Admassie, 2004) shows that the share of agriculture in the total credit disbursed by banks between 1991/92 and 1997/98 has only been 14.70 percent. In particular, its production activities have been experiencing severe shortage of institutional credit. Wolday (2008b) similarly indicated that out of the total amount of loans disbursed (2.7 billion Birr) until 2007 by Awash International Bank, one of the pioneer private banks in Ethiopia, only 172 million Birr was allocated for the agricultural sector. In agreement with this evidence, a World Bank study (1994) reveals that lending by the Commercial Banks of Ethiopia to agriculture has been less than 5% and has stagnated over years. In addition, almost all of the agricultural credit is of short-term nature, which will have little impact on long-term investment and in transforming the

agricultural sector (Admassie, 2004). Moreover, Bastin and Matteucci (2007) note that existing financial services are too costly and often not tailored to the farmers' needs in terms of timing, duration and volume. A study conducted by Komicha (2008) in South-eastern Ethiopia shows that the formal credit sector had the longest loan processing time, less flexible repayment arrangement and often offers credit in kind.

In general, the loan products of the formal financial markets often do not take account of the nature of the crop (e.g. coffee) production cycle, and are not suitable to smallholders (ITC, 2011; Bastin and Matteucci, 2007). Although farmers require credit for various agriculture related purposes, the bulk of the formal agricultural credit in Ethiopia has been geared towards delivery of inputs for major food crops. For instance, studies conducted by Wolday (2008a) and Admasu and Paul (2010) ascertain that agricultural loans from banks' are often channeled to farm households indirectly in the form of fertilizer and improved seeds. As discussed in the next chapter, though the EPRDF government had declared adoption of a free-market economic policy, it has sustained heavy interventions and extensive regulations on the financial sector. Such state intervention and tighter regulatory systems appear to severely discourage financial institutions from extending loans to the less attractive and risky sectors such as rural-based smallholder farmers. In addition, the policy banks have been given directions to channel their funds to priority areas such as government development projects and selected private investments.

Due to their limited access to the formal credit sector, the majority of Ethiopian farmers often heavily rely on informal credit sources² that charge high interest rates. As a result, the informal lending sector has continued to dominate the rural financial market. Studies conducted by Gemtessa *et al* (2006) and Emanu *et al* (2005) report that 80% and 74% of the borrowers in their respective study areas obtained loans from informal sources. Informal lenders are often preferred for some of their peculiar features which include: proximity, timely access, collateral-free lending, speedy disbursement, flexibility in loan transaction, and less complicated bureaucratic procedures (Pal, 2002; Sinha and Martin 1998). However, informal credit sources are not in a position to serve borrowers that demand larger volume of loan such as those involved in

²Informal finance refers to all transactions, loans and deposits occurring outside of the regulations of a central monetary or financial market authority (Aryeetey *et al*, 1997; Atieno, 2001).

activities related to coffee which require substantial amount of capital. Moreover, because of its exorbitant interest rates, shortage of loanable funds and short-term loan products, the informal credit market is less likely to meet farm households' demand for credit (Komicha, 2008).

1.2.6. The Ethiopian Credit Guarantee Scheme for coffee farmers' cooperatives

With the aim of improving smallholders' coffee quality and income, a three year pilot project on improving coffee quality through enhanced primary processing practices was implemented in Ethiopia and Rwanda between July 2004 and February 2008. The pilot project demonstrated substantial impacts in terms of improving coffee quality and producers' income (Negussie *et al*, 2007). The improvement in quality was greatly translated into increased price premiums of up to 78% above the prevailing local prices offered for the coffee produced using traditional processing methods. Despite the significant positive impacts, massive out-scaling of the results and adoption of the experiences by non-project participant farmers and those in other areas could not be realised as expected. Lack of financial resources to acquire necessary coffee processing technologies by smallholder producers was identified as one of the formidable challenges. As discussed in the preceding section, although there are a number of financial institutions in Ethiopia, lending to smallholders and their cooperatives has not been attractive due to a number of reasons. Farmers' inability to provide viable collateral has been identified as one of the major bottlenecks in accessing bank credit. Thus experiences gained and challenges faced during the pilot phase had led to the initiation of a follow-on project, which basically focused on provision of a credit guarantee.

Initiation of the guarantee scheme, participating institutions and focus areas

Cognisant of the aforementioned reality, Common Fund for Commodities (CFC), International Coffee Organisation (ICO), CABI Africa, Rabo Bank and the Ministry of Agriculture (MoA) in Ethiopia initiated a follow up project that integrated credit guarantee fund (CFC, 2011). The scheme is a five year project (2011 - 2016) and is entitled "Sustainable Credit Guarantee Scheme to Scale up Improved Coffee Processing in Ethiopia and Rwanda". It aims at promoting enhanced access to affordable commercial credit³ to farmer cooperatives to facilitate out-scaling of improved coffee processing technologies and practices. This in turn was expected to help the

³Both working capital for purchase of coffee cherries and long-term loan to finance investment in processing facility

beneficiary cooperatives to improve the quality of their coffee, to access competitive market and raise the returns from coffee business. CFC is the main financier, while CABI Africa and MoA, respectively, are the project executing and implementing agency for the Ethiopian component. The initiative was a partial guarantee scheme whereby the risks of losses are equally shared between the guarantor (CFC) and the lending bank (Cooperative Bank of Oromia). The guarantee was provided through the Rabo Bank Rural Fund, which has acted as the fund manager. Moreover, Rabo Bank International Advisory Services was engaged to provide capacity building services to the lending banks and coffee cooperatives. Through the assessments carried out during the scheme design, Cooperative Bank of Oromia (CBO) showed interest and willingness to participate in the lending process in Ethiopia. It was stated in the project proposal that CBO is the most suitable candidate for the Guarantee Scheme due to its strong focus on cooperatives and its knowledge about the coffee sector. In addition, it is one of the few banks involved in financing of coffee processing activities, while most other banks only finance the coffee trade. Many primary cooperatives and their unions in the Oromia region are shareholders of CBO. Though it originally started operation as a Bank for the Oromia region, CBO is now expanding its operation to nation-wide network with 120 branches as of November 2014 (as compared with only about 60 branches in 2011).

Strengthening and working through farmer cooperatives were considered as a key strategy in the successful implementation of the guarantee scheme. The scheme has implemented a number of capacity building and other complementary activities that aim at improving the ability of the lending bank to effectively lend as well as to boost the capacity of the targeted cooperatives to effectively make use of the guaranteed loans. Moreover, improving access to appropriate market information by key players such as producers and traders was cited as an essential element in the project. However, this component of the scheme did not seem to be granted adequate attention during its implementation. In addition, coffee extension and cooperative promotion experts working with primary cooperatives received several training of trainers' programmes.

Structure of the partial credit guarantee scheme, risk-participation and eligibility

As indicated in the project document, two levels of credit guarantees were proposed for the Ethiopian component. A portfolio guarantee scheme financed mainly by the CFC was proposed

as a financing mechanism for primary cooperatives. In addition, an agri-guarantee fund was devised as a funding mechanism for the cooperative unions and large commercial farmers, and was to be funded mainly through Rabo Bank. The former is the primary interest of the current study. As Navajas (2001) notes, indirect (or portfolio) guarantee is where a third party (in this case RABO Bank) administers the fund provided by the donor agency (such as CFC), and the scheme guarantees loan up to a certain percentage. The project document indicated that it is not practical to obtain approval from the guarantor for each and every loan separately. The guarantor and lending banks rather agreed on the borrower and loan criteria beforehand. Thus all loans that meet the agreed criteria were to be guaranteed by the scheme. In extending a qualifying loan to a borrower, CBO shall abide by prudential lending practices, and shall use its existing lending policies and procedures in screening, approving and disbursing the qualifying loans.

Risk sharing

As stated above, the initiative is a partial guarantee scheme with 50% risk sharing between the lending bank and the guarantor. In June 2011, two risk-participation agreements were signed between Rabo Bank (Rabo Rural Fund and Rabo Foundation) and the Cooperative Bank of Oromia for the two components highlighted in the preceding section. The following issues were highlighted in the risk participation agreements: “CBO has requested Rabo to provide security to cover possible losses under the qualifying loans by means of a risk-participation up to a maximum of 50% on the principal amount and up to 1 year’s accrued interest of each qualifying loan. Rabo and CFC have agreed to provide CBO with such security always provided that the aggregate amount payable to the CBO by CFC (through Rabo Rural Fund) and Rabo Foundation under the total risk participation shall under no circumstance exceed 1,250,000 USD and 500,000 USD under the first and second agreements, respectively”. In other words, based on the 50% risk sharing, the total risk agreement is 3.50 million USD.

The risk participation agreement states that the guarantee fund will be kept in Rabo’s account in the Netherlands. With respect to a guarantee fee, it was stated that CBO should pay annual risk fee of 1.5% to Rabo Bank in consideration of its Total Risk Participation. However, we observed that the local bank was of the opinion that the fee was to be paid on the actual amount of loan disbursed to the targeted cooperatives. It was stated that the agreement expires after 5 years, and

the maximum tenor of any qualifying loan shall be 4 years. In addition, the first year was devoted to ground works, awareness creation and capacity building. As a result, the first round guaranteed loans were granted to a few primary cooperatives towards the end of 2012. Thus the effective lending duration under the scheme was generally too short.

Eligibility

As regards eligibility of the borrowers and targeted sector, it was stated in the scheme's agreement that coffee farmers' cooperatives, active in coffee production, processing and marketing, created and registered with relevant authority, or in the process of being created or holding a license, is eligible to become a borrower. Nevertheless, in view of the small size of the scheme's guarantee fund, at the commencement of scheme implementation, the project management (PIA and PEA), in consultation with the cooperative promoting agencies, selected 22 primary cooperatives from 12 districts of the two major coffee producing regions of Ethiopia – Oromia and Southern Nations Nationalities and Peoples (SNNP) regions. Among these, qualifying cooperatives submit loan applications directly to CBO, which undergo normal appraisal and screening procedures of the bank. The bank provides working capital and investment loans (for processing facilities) to eligible cooperatives. It was agreed that Rabo is not involved in verifying whether a qualifying loan included in the credit portfolio meets the loan eligibility criteria. The maximum amount of principal disbursed by CBO under each individual qualifying loan shall not exceed USD 250,000. It was agreed in the document that CBO shall notify Rabo and PEA of the inclusion of any qualifying loan, borrower and loan amount in the credit portfolio by means of reports.

Defaults and Claims Procedure

Defaults and claims procedures are also clearly stated in the agreement. The following statements were outlined in the agreement (CFC, 2011) with regard to credit loss and claims under the risk participation. A loss shall be any amount of a qualifying loan that the CBO could not collect including the principal and interest of (up to a maximum of 1 year accrued at a maximum rate of 15% p.a.) of such qualifying loan. Loss shall be deemed to occur 180 calendar days after default date. In the event of a default, Rabo shall share 50% of risk of loss with CBO, provided that the maximum amount reimbursable by Rabo in respect of the cumulative losses

shall not exceed USD 1,250,000. Upon the occurrence of a loss, CBO shall inform Rabo of such loss and claim for reimbursement of the corresponding risk participation, by submitting an affidavit letter. Rabo shall transfer to CBO the amount of the corresponding risk participation within 15 days of receipt of the loss notice and a written confirmation from the PIA.

1.3. Statement of the problem

Ethiopia is endowed with immense genetic diversity and potential, conducive ecological and socio-economic conditions for coffee production. The country produces various coffee types that are globally cherished for their superior cup qualities and unique flavours. Nevertheless, full potential of the coffee sub-sector has remained hugely untapped both in terms of production/productivity and quality. Though the country is arguably said to have more than 12 million hectares of suitable land for coffee production (Alemayehu and Esayas, 2008), according to official statistics (CSA, 2014) to date coffee area coverage is only 538,467 hectares. Its productivity remained low with a national average yield of 728 kg per ha (CSA, 2014), while Vietnam with a recent history in coffee production has attained a productivity level of over 2000 kg per ha (Admasu *et al*, 2008). In addition, quality of the product and the income generated by millions of smallholder coffee producers could not attain a satisfactory state. Coffee quality problems are largely related to the poor harvesting, processing and post-harvest handling processes employed by smallholder producers. These mainly stem from lack of adequate awareness, knowledge/skill, and finance to acquire improved processing facilities and for related activities, and lack of incentives such as attractive market price. As outlined in the previous section, in Ethiopia, a credit guarantee scheme was designed with the aim of improving coffee farmers cooperatives' access to bank loan to enable them acquire improved coffee processing facilities and to support their coffee trade activities. This was in turn expected to enhance the quality and volume of coffee traded by cooperatives, to help them attract competitive market and thereby improve their income.

In developing such a credit guarantee scheme, there is a general belief and expectation that farm-households and their cooperatives would exhibit effective demand to obtain and utilise bank loans if credit guarantees are provided. Because limited access to and participation by the

resource-poor smallholders and their association in the formal credit market is often believed to be largely due to constraints related to supply. Several studies (e.g. Bastin and Matteucci, 2007; Wolday, 2008a; 2009a) point to the presence of huge potential and unmet demand for rural credit in Ethiopia. Some, however, argue that farmers and the rural poor may not depict effective demand for availed credit facilities as expected due to various reasons. There are substantial obstacles to the transformation of potential demand to revealed demand (Aryeetey, 1996). Some analysts claim that weak demand for credit fund may hinder the participation of smallholder farmers and other rural poor in the credit market. Concurring with this line of argument, Diagne and Zeller (2001) and Komicha (2008) note that a farm household can have access but may choose not to participate in the credit market. A study conducted in Ada'a Liben district of Ethiopia (Admasu and Paul, 2010) shows that only 43 percent of the interviewed farmers expressed need for credit. Berhanu (2005) similarly notes that some MFIs were facing a challenge in getting sufficient demand for their existing loan products mainly due to the mismatch between what the institutions offer and what the borrowers require. This thus calls for rigorous country and context specific empirical studies that closely look at the extent of demand and factors influencing credit demand among farmers' cooperatives operating under diverse natural and socio-economic settings. One focus area of this study is thus to bridge this information gap by systematically examining farmer cooperatives' response to the availed credit facilities under the Ethiopian context, which is characterised by pervasive state intervention and tight regulatory environment.

Another important anticipation in devising such an intervention is that provision of a credit guarantee can effectively address the financial gaps by encouraging banks to improve credit allocations to farmers' cooperatives. Nevertheless, though credit guarantee has been widely used by governments and other agencies in several countries, there are varying views with regard to its actual role and impacts in effectively mitigating credit constraints. Many (e.g. Zhang and Ye, 2010; Cowling and Mitchell, 2003; Kang and Heshmati, 2008) note that comprehensive studies have not been conducted to evaluate the contributions and impacts of CGSs particularly in developing countries. Some (e.g. Green, 2003) maintain that evaluations of individual CGS are often limited in scope and few schemes have been evaluated consistently. Empirical evidence is not only scarce, but the findings of existing studies that attempted to evaluate credit guarantees

are also mixed and inconclusive (D'ignazio and Menon, 2013). Some past studies (e.g. Zecchini and Ventura, 2009; Cowling and Mitchell, 2003; Mafimisebi *et al.*, 2010) reported that it is effective in addressing small entrepreneurs' credit constraints, while others (e.g. Kang and Heshmati, 2008; Zhang and Ye, 2010) came up with findings indicating partial successes or complete failure in attaining its aims. Therefore, examining whether a CGS (whose origin is largely traced back to a purely free-market economy) can demonstrate effectiveness and success under a financial market with strong government intervention and tighter monetary and regulatory environments is one of the focus areas of this study.

Moreover, most of the previous studies on credit guarantees focused on assessing the government-supported schemes for SMEs in Asia and developed countries of Europe and North America, where such schemes have been extensively applied. Apparently private firms (such as SMEs) differ from farmer cooperatives in their philosophy, objectives, principles, nature and location of their businesses. When one looks at the situation of Ethiopia, majority of the studies conducted on rural finance tended to focus on analysing credit supply and supply side constraints among individual farm households. Some studies (e.g. Emanu *et al.*, 2005; Komicha, 2008) attempted to explore sources of loans for smallholder farmers, while others (e.g. Borchgrevink *et al.*, 2005; Wolday, 2009a; Bastin and Matteucci, 2007) tried to analyse the performance, outreach and financial sustainability of the microfinance institutions. Other researchers (e.g. Admasu and Paul, 2010; Anbes and Gowda, 2008) focused on assessing credit use among farmers in non-coffee growing areas and/or government credit service for inputs targeting food crops. Thus there is a critical need for a study that closely and deeply examines the role and impacts of a credit guarantee in improving institutional credit allocations, access and utilisation by coffee farmers' cooperatives and the resultant changes. As far as the current researcher knows, this is the first empirical study that aims to systematically examine the role and effectiveness of a credit guarantee in mitigating coffee farmer cooperatives' credit constraints under the Ethiopian financial market.

In terms of methodological approach, some studies (e.g. Beck *et al.*, 2010) tried to provide descriptions and comparisons of scheme features and operations across countries. A number of studies focused on assessing *ex-post* impacts of the schemes on the firms or on the economy

based on cross-sectional research design and/or secondary sources of data. As some scholars (e.g. Saldana, 2000; Green, 2003) point out, previous studies failed to continuously monitor and analyse how credit guarantees work, their effects on the decisions of the lending banks, and how they benefit both creditors and borrowers. Apparently, such studies have limitations in closely monitoring and examining the processes, the relationships between the three parties (lender, borrowers and guarantors), and intervening factors. Moreover, the effectiveness of credit guarantee programmes varies from place to place as a result of varying political, policy, market, and other socio-economic and institutional factors. This suggests the need for studying the performance and impacts of each guarantee scheme in the context of its operational environment. Such studies require a research design that allows continuous and deeper analysis that is based on a mix of quantitative and rich qualitative data collected at various stages of the intervention. Such an approach would also enable to closely monitor and examine the processes of the guarantee offering, its utilisation and relationships between the parties involved in the scheme, as well as the underlying causes for the success or failure of the guarantee programme. This new methodological approach in assessing the effectiveness and success of a credit guarantee is one of the contributions of the current study.

On the other hand, in theory cooperatives have the potential to contribute to the expansion of financial service provision to the poor in rural areas (ITC, 2011). However, practical experiences from various countries show mixed results when it comes to the role of multipurpose cooperatives in this regard. A World Bank study (1994) reported that multipurpose cooperatives in many countries have generally not been successful in providing savings and credit services. Experience in the Philippines, however, shows that cooperatives can effectively serve as conduits of credit funds to individual members, who assume joint liability (Briones, 2009). Thus another relevant issue for the current study is assessing potential role and suitability of multipurpose cooperatives to serve as intermediaries to channel credit funds to small scale farmers.

1.4. Objectives of the Study

The main aim of the study was to explore the role and effectiveness of the credit guarantee scheme designed for coffee farmer cooperatives in Ethiopia, and to identify factors influencing its effectiveness. The study mainly focused on analysing effectiveness in terms of financial additionality; i.e. its role in enhancing demand for, supply of and access to bank loans, as well as its contributions in improving bank's flexibility in lending procedures, terms and conditions. The study also looked at some aspects of economic additionality such as utilisation of the guaranteed loans and the resultant changes in terms of improving cooperatives' coffee processing, quality and marketing practices, incomes generated from coffee business, changes in institutional and managerial capacities and other related preliminary impacts.

Specific objectives:

- To assess the role of farmer cooperatives in coffee processing and marketing and as intermediaries for channeling bank credit to smallholder farmers.
- To examine demand for institutional credit and factors influencing credit demand among coffee farmer cooperatives, with especial emphasis on demand side constraints.
- To understand how provision of a credit guarantee influences supply of institutional (bank) credit to coffee farmers' cooperatives.
- To examine coffee farmers' cooperatives guaranteed loan utilisation, the resultant changes as well as their loan repayment behavior and factors influencing these practices.
- To make recommendations for policy and practice in terms of credit guarantee scheme.

1.5. Key Research Questions

Does availing the credit guarantee fund enhance demand for, access to, supply and effective utilisation of credit by coffee farmers' cooperatives under the Ethiopian context?

Research sub-questions

- To what extent do coffee farmers cooperatives have the capacity to demand for and utilise credit facilities availed through development interventions?

- What factors do influence demand for, access to and utilisation of credit by coffee farmers' cooperatives?
- How does provision of credit guarantee enable banks to improve allocations of credit and reach small scale coffee farmers and cooperatives?
- What are the lending criteria and conditions of banks with and without the credit guarantee programme for coffee farmers and cooperatives?
- How suitable are primary co-operatives as intermediaries for channeling credit services from financial institutions to smallholder coffee producers?

1.6. Overview of the research design and methodology

The study was conducted in 8 coffee growing zones of Oromia and Southern Nations Nationalities and People's (SNNP) regional states, where the current credit guarantee scheme for coffee farmers' cooperatives has been operating. The study areas represent Western, South-Western, Southern and Eastern coffee growing parts of Ethiopia, with different coffee production systems, agro-ecology, and socio-cultural set-ups. The sampling technique used in the study was largely purposive. A mixed methods approach was used in undertaking the study; data collection process employed both qualitative and quantitative approaches and techniques. Primary data were collected from multiple sources using different techniques and tools. These comprised of a structured questionnaire survey (at two stages), focus group discussions, key informant interviews, observation and literature/documentation review. Some of the data were collected at one point in time (cross-sectional), while data on various issues were gathered at several stages of the scheme implementation (longitudinally) for three years to assess changes and trends. The data were analysed both qualitatively and quantitatively. Details of the study methodology are provided in chapter 4.

1.7. Scope and limitations of the Study

This study analysed the role and effectiveness of a credit guarantee scheme mainly focusing on 12 districts involved in the credit guarantee scheme under analysis, although data were also gathered on some cooperatives from non-project areas for comparison purposes. Coffee growing

areas of Ethiopia and actors involved in the value chain are vast and numerous. Due to the limited coverage of the guarantee scheme, and because of limitations of time and resources, the researcher was unable to include all coffee growing areas and stakeholders which would provide further information. The samples may not fully represent the population of farmers, cooperatives and other stakeholders throughout the coffee growing parts of Ethiopia. The study focused on smallholder farmers' cooperatives and did not cover those involved in large scale coffee farming.

Furthermore, the study had limitations in examining long-term changes and impacts of the intervention in terms of creating sustainable relationship between the lender and borrowers, and in improving the livelihoods of the coffee farming communities as most of the data were generated at early stages of the scheme. In addition, the study closely analysed the case of the Cooperative Bank of Oromia (a partner bank under the scheme), which tends to be more cooperative-friendly. Somehow this may not represent the typical experiences of other mainstream commercial banks in the country. Moreover, the research largely used qualitative and descriptive approaches and methods with non-random sampling, which may have some influence on their representativeness and generalisation of the findings. In particular, limitations in the number of cooperatives participated in the current scheme did not allow econometric analysis of its impacts.

1.8. Definition of the Key Concepts

This section provides clarifications of the key terms that will frequently feature in the study. The definitions have been adapted from different literature sources.

(A) Cooperatives

The International Cooperative Alliance (ICA, 1995) defines a cooperative as “an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise”. In outlining their peculiar nature, Schwettmann (1997) and others highlighted the fact that members of cooperatives make equitable contributions to the capital and accept a fair share of the risks and benefits. In addition, members' active participation in their cooperatives' activities and major

decisions is critical. These definitions imply that a cooperative is a voluntary business enterprise, independent of state, initiated, owned and controlled by its members.

(B) Rural finance

Various authors provided definitions of the term rural finance. According to Klerk (2008) it refers to various forms of financial services provided in rural areas for agricultural as well as non-agricultural purposes. These include savings, lending, insurance and remittance services to rural households and other entrepreneurs. For the purpose of this research, the term “rural finance” is considered mainly in terms of savings and credit services provided to the farm households and their cooperatives.

(C) Formal financial sector

All financial service providers regulated by the banking law of a particular country are taken as the formal financial sector. These consist of banks, registered microfinance institutions (in countries where this sector is regulated) and registered saving and credit associations and unions (Klerk, 2008). Those that are not regulated by the Central (National) Banks are known as informal financial sector. In the Ethiopian context formal financial institutions include banks, insurance companies and microfinance institutions. However, SACCOs are registered and regulated by the cooperative agency. Thus in the context of this research, the term rural finance covers all these financial institutions.

(D) Agricultural credit

Agricultural credit is the chief component of rural financial services. Ozowa (2007, *quoted by* Sebopetji, 2008) states that agricultural credit encompasses all loans and advances granted to borrowers to finance production activities relating to agriculture, fisheries and forestry as well as for processing, marketing, storage and distribution of products produced through these activities. By temporarily transferring purchasing power from one party to another, credit facilitates acquisition of capital/asset among the borrower. The current researcher thus used the term ‘agricultural credit’ to refer to all loans and advances granted to smallholder farmers and their associations to finance and service agricultural (including coffee) production, processing, storage and marketing activities.

(E) Credit rationing

Credit rationing refers to one of the common features of a credit market in developing countries. The borrower household or firm is said to be credit constrained when it completely lacks access to credit or when it cannot borrow as much it wants even if it is willing to pay the interest rate asked for (Rahji and Adeoti, 2010; Dohcheva, 2009; Diagne and Zeller, 2001). Stiglitz and Weiss (1981) note that, among other things, adverse selection, moral hazard and information asymmetry result in equilibrium credit rationing. Some also claim that policy and regulatory frameworks can directly or indirectly induce credit rationing. According to Dohcheva (2009), perception of the agricultural sector (by the lending institutions) as a riskier sector is another factor that exacerbates credit rationing problems. Failure of the loan applicants to provide collateral of required value and quality would further worsen the situation. The current researcher thus uses the term ‘credit rationing’ to refer to a situation where the borrowers are given a loan smaller than they applied for or denied a loan at all.

(G) Loan guarantee

In the literature the expressions credit guarantee and loan guarantee are used interchangeably (Jonson, 2009). Credit guarantee is one of the popular tools used to alleviate financial constraints of farmers and other small enterprises by encouraging financial institutions to improve credit allocations to these groups. Deelen and Molenaar (2004) define a credit guarantee as “a financial product that a small entrepreneur can buy as a partial substitute for collateral. It is a promise by a guarantor to pay to the lender all or part of the loan if the borrower defaults”. Loan guarantees cover an agreed percentage of the loan losses, and can be financed by governments or donor/development agencies. In the context of this study, the primary focus is the partial loan guarantee provided by external development agencies.

(H) Additionality or incrementality

The term additionality or incrementality has been understood and defined in various ways. The former is a term commonly used in Europe, while the latter is used in North America (Riding *et al*, 2007). Additionality can be categorised into two: Financial additionality refers to additional loans extended to targeted borrowers as a result of the guarantee provided to the lender, while

economic additionality refers to the economic and social benefits ultimately realised by the beneficiaries of the guarantee fund (Levitsky, 1997; Saldana, 2000; Green, 2003). The latter may include improvements in the income of borrowers, an increase in the amount of commercial and economic activities in terms of employment, sales, new product development, competitiveness, productivity and economic growth (Green, 2003). Gudger (1998) notes that additionality also refers to a credit provided on a more favourable terms to the target beneficiaries. This research thus adopts the meaning of additionality that encompasses different dimensions such as additional loans obtained, changes in terms and conditions of loans and impacts on the business and economic activities of the borrowers.

(I) Asymmetric information

This is a common phenomenon in the rural credit market and refers to a situation where there is a lack of sufficient information between the borrowers and lenders about each other. Such situation may favour the party with more information or knowledge. Asymmetric information exists when the two parties to a contract (the lenders and borrowers) don't have the same information (Gobeze, 2008). As Yaron (2005; *cited* by Gobeze, 2008) notes, there always exists asymmetric information between the lenders and borrowers which creates problems of adverse selection and moral hazards.

(J) Moral hazard and adverse selection

Adverse selection stems from a situation where the lending institution lacks sufficient information about the loan applicants to establish their risk levels. According to Okurut *et al* (2004), adverse selection occurs when borrowers with safe (and lower default risk) projects decide to opt out of the credit market because of the rising interest rates, while riskier projects (with high probability of default) but with potential higher returns come forward to apply for a loan. In order to avoid such adverse selection problem, as Stiglitz and Weiss (1981) note, banks are often reluctant to raise the cost of borrowing and prefer to reduce the amount of loans provided, which often results in credit-rationing. On the other hand, moral hazard arises when the presence of a guarantee induces reckless conduct by the guaranteed lender or borrower (Freedman, 2004: 8). In other words, because of the presence of the guarantee the lender may show reluctance in properly screening loan applications or in following up loan recovery, while

borrowers may also show opportunistic behavior by going for a riskier project or by deliberately defaulting.

1.9. Outline of the structure of the thesis

Chapter 1: Introduction and background

This chapter presents introduction and background to establish the context of the study. The key issues presented in the chapter include background information about the country, the Ethiopian agriculture sector, the coffee sub-sector, role and significance of rural finance, design and operational features of the credit guarantee scheme for coffee farmer cooperatives. The chapter finally provides statement of the research problem, research questions, objectives of the study, overview of the research design and methodology, scope and limitations of the study, definitions of the key concepts used in the study, outline of the thesis and contents of each chapter.

Chapter 2: Macro-economic and institutional contexts of Ethiopia

This chapter provides an understanding of the underlying theoretical conceptualisation that has shaped the Ethiopian economy over time. The chapter highlights the two dominant economic systems – The socialist's command economy and the free market economic policy. The chapter then discusses the political and macro-economic systems of Ethiopia and their impacts on various sectors and overall performance of the country's economy. The chapter goes on to provide a detailed review of literature and theoretical discussion on farmers' cooperatives as a vital rural institution.

Chapter 3: Intervening in Rural Finance

This chapter presents literature review and theoretical discussions related to rural finance in general and a credit guarantee intervention in particular. The chapter begins with a literature review, theoretical and conceptual discussions on various aspects of rural finance such as rural credit markets, credit demand by farmers, factors influencing credit demand and credit guarantee schemes. The chapter finally presents analytical approaches and frameworks chosen for the current study.

Chapter 4: Study Design and Methodology

This chapter presents design and methodology of the study, including description of the study areas, sampling strategy, data collection and analytical methods. The chapter finally highlights measures taken in relation to research ethics.

Chapter 5: Empirical findings on the coffee and cooperative sectors of Ethiopia

This chapter presents the findings of both qualitative and quantitative studies on Ethiopian coffee and cooperative sectors. These include the significance of the Ethiopian coffee sector, role of cooperatives in its production, processing and marketing, sources of finance for agriculture and the coffee sub-sector and bank's priority areas for lending. The chapter goes on to present the findings on cooperatives' institutional, business and socio-economic characteristics, their access to institutional services, their loan demand and its determinants.

Chapter 6: Empirical findings on the performance and preliminary impacts of the credit guarantee scheme

This chapter presents the findings of the qualitative and descriptive analyses on the performance, contributions and effects of the credit guarantee scheme under analysis. The chapter in particular looks at the findings on the strengths and limitations of the design and operational features of the scheme, its utilisation by banks and outreach, and financial and preliminary economic additionalities attained under the scheme. The chapter finally presents the findings related to its impacts on the lenders' and borrowers' behavior and factors that affect its performance and effectiveness.

Chapter 7: Discussion of the key findings

This chapter presents synthesis and discussions of the key findings of the study in relation to existing literature or theory. Discussions of the key empirical findings are organised according to the specific corresponding objectives set for the study.

Chapter 8: Conclusions and recommendations

Drawing on the theoretical and empirical findings and discussions, this chapter presents the conclusions and recommendations made by the study.

Bibliography

Appendix

CHAPTER 2

2. MACRO-ECONOMIC AND INSTITUTIONAL CONTEXTS

2.1. Introduction

This chapter provides an understanding of the underlying theoretical conceptualisation that has shaped the Ethiopian economy over time. The chapter begins by providing a brief discussion of the two dominant economic systems – The Socialist’s command economy and the free market economic policy. The chapter then goes on to discuss the political and macro-economic systems of Ethiopia and their impacts on various sectors (including the agriculture, coffee and financial sectors, local/farmers’ institutions) and overall performance of the country’s economy. This is followed by a detailed review of literature and theoretical discussion on farmers’ cooperatives as vital rural institutions. The chapter ends with a summary of the key points.

2.2. The Socialist’s Command Economy

The Marxist’s ideology had profound influence in many parts of the world. Several countries especially from Central and Eastern Europe, former Soviet Union, Asia and Africa, including Ethiopia had adopted this ideology to a varying degree. Proponents of Marxism aim at eliminating what is believed to be an undesirable economic system (which is basically capitalism) that results in undesirable societies. This ideology denounces a system that provides fertile ground for accumulating excessive wealth among a small segment of the society at the expense and misery of the majority (working class). It thus wishes to replace such undesirable economic system with a system that abolishes private property and provides a ground for communal ownership of key means of production. To this effect, it promotes the struggle of the workers (the proletariat) exploited by the capitalists (bourgeoisie) and a move to socialism and finally communism, which is believed to be an ideal economic and political system. Under such a system, as Marxists believe, the redistribution of wealth and ensuring communal ownership of means of production would help overcome inequalities, injustice and many of the other problems prevailing in the capitalist system.

While Ethiopia, like some of the other countries that were pursuing this ideology, was often referred to as a Marxist state, it would be more relevant to refer to it as a Socialist state, since the focus was on redistribution of resources (that also involves some elements of the free market) rather than the social ownership of the means of production and fundamental social change. As a move towards communism the socialist ideology is against monopolistic and competitive behaviors which are considered to be the basic features of the capitalist system. Unlike a free-market economy in which production decisions are made by private sector actors through market prices (by the laws of demand and supply), in the centrally planned socialist economic system, economic decisions (what to produce, how resources are allocated, how to distribute, including decisions regarding prices) are made by the central government. Under the socialist's command economic system state-owned (public) enterprises and collectives play a key role in the production of goods and services.

Experiences from various socialist states show that such a move did not succeed in creating the desired ideal economic and social system. The critics of the socialist system argue that its principle is too idealistic. Socialism, as critics and practical experiences reveal, is a system that makes individual citizen and even organisations (including farmers' cooperatives) dependent on the state for everything they need and what they are supposed to do. Another important limitation of the socialist's collective production system is that it undermines the role of incentives and competitive behavior in the economic activities. Such lack of incentives and low productivity was witnessed during the Ethiopian socialist system. According to Butabaev (2015), in centrally planned economies, enterprises were not acting as source of innovation, but rather were treated merely as production units. Butabaev goes on to point out that "absence of competitive environment as selection process, lack of trial and error experimenting through market led initiatives resulted in slow pace of product evolution". Butabaev (2015) and others argue that there was a high degree of inflexibility, heavy and inefficient bureaucracy in the central planning system, which was unable to timely adjust and adapt to technological and social changes and innovations. Some also note that the concentration of power within government creates an environment that undermines the needs and freedom of its citizens.

The problems and limitations of the socialist's centrally planned economic system were not eliminated with merely departing from the system. The legacy and aftermath effects of this system have continued to negatively impact on the performance of the economic and social development of the countries coming out of socialism. For example, Butabaev (2015) notes that "prolonged economic stagnation, which former socialist economies (including Eastern Europe and the former Soviet Union) are facing since the crisis of 2008, suggests that fundamental economic problems inherited from the socialist system have not been properly addressed by the transition reforms". Butabaev goes on to argue that after more than 20 years of market reforms, stagnant centrally planned economies were replaced by stagnant capitalist economies. For example, Flek and Večerník (2004, *cited* by Butabaev, 2015), indicated that though Czech Republic at the beginning of the transition period appeared to be a successful example of structural transformation generated by the transition reforms, since the middle of 1990s there has been no further change in the structure of employment. According to Butabaev (2015), economic stagnation was not only structural and technological, but also extended to institutional and social aspects. The inefficiencies, sense of dependence and lack of innovativeness and entrepreneurial mentality among farmers' cooperatives in Ethiopia is one of the practical examples of the legacies and problems inherited from the socialist system.

2.2.1. The Ethiopian Socialist or command economic system

Before embarking on the socialist economic policy, Ethiopia was under Emperor Haile Sellasie's Feudo-capitalist system. The Imperial regime that existed prior to 1974 was a kind of free-market economy that encourages foreign investment in an attempt to industrialise the country through import substitution industrialisation strategy. During this regime, some efforts were made to encourage expansion of large scale farms and agribusinesses (Chanyalew, 2015). The regime largely adopted pro-capitalist and pro-feudal policies with its typical feature of repression and exploitation of the peasants by landlords. This had ignited mass discontent and a growing pressure particularly from the educated elites. This eventually led to the popular revolution that brought Haile Selassie's regime to an end in 1974.

The *Derg*⁴ regime (1974 - 1991) emerged with a drastic change and adopted a centrally planned and state controlled economic and political system that promotes socialism. Such socialist strategy of the government, as Nega and Nuru (1999) noted, required that most productive activities had to be put under state control. This move led to the nationalisation of all major private undertakings. Unsurprisingly, the socialist government had accorded profound role to the socialised sectors (including the public sector) with marked discrimination against the private sector. The drive to run a centrally planned economy through a highly centralised and undemocratic administrative structure depressed private initiatives and discouraged popular participation in the planning and execution of development undertakings (Demeke, 1999). Moreover, the policy that imposed capital ceilings on private operators had acted as a major impediment to private investments. The 1975 land reform proclamation that declared rural land to be a property of the state also prohibited private individuals from hiring agricultural labour. This had serious detrimental effects on the survival and operations of the private undertakings. The Military government also set up the Agricultural Marketing Corporation (AMC) with a mandate to supervise the production and sale of agricultural outputs. This was mainly used by the government to exercise direct control over the prices of major agricultural products, particularly food grains. In addition, it had monopoly in the distribution of fertilizer and thus was able to directly control its price (Kebret, 2000).

Understandably, owing to its anti-imperialist stands the socialist government did not favour direct foreign investment for promoting supply of financial resources. As Nega and Nuru (1999) point out, this had compelled the government to largely rely on internal sources of finance such as massive domestic borrowing and printing of money, which had its own consequences. As a result of the unfavourable police environment, coupled with the effects of the civil war, the country's economy had severely suffered and continued to march backwards. The Ethiopian economy, as Nega and Nuru (1999) noted, was much worse off in 1991 when the military government was overthrown than when it resumed power in 1974. This alarmingly declining trend of economic performance had forced the military government to eventually adopt mixed economy policy and strategies. However, that did not last long as the regime of the military government came to an end in 1991. Unfortunately, the Ethiopian socialism was orchestrated by

⁴ It is an Amharic term that refers to the 'committee' of soldiers.

military dictators, who hijacked the philosophy and concepts of socialism and headed to a wrong direction with a lot of malpractices. As a result, the system eventually ended with catastrophic outcomes for the country and its citizens.

2.3. The free-market economy

Over the past decades, many countries that had adopted the free-market economic development route were largely embarking on neoliberal economic policy, which as some (e.g. Bresser-Pereira, 2009; Chang, 1999) noted, was a hegemonic ideology from the late 1970s to the early 2000s. According to Harvey (2005), neo-liberalism is:

“a theory of political economic practices which proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterised by strong private property rights, free markets and free trade. The role of the state is merely to create and preserve an institutional framework appropriate to such practices”.

As this definition suggests, neoliberals believe that state intervention in the market is undesirable and should be avoided or kept to a bare minimum. As many (e.g. Bresser-Pereira, 2009; Chang, 1999) comment, neoliberalism is a radical economic liberalism as it advocates minimal state, wholesale liberalisation and self-regulated markets. In other words, neoliberals believe that effective allocation of resources is attained only through market mechanisms; *i.e.* basically through price competition. In general, the neoliberal economic theory concludes that the only viable and desirable path to development, as Chang (1999) and others noted, is through and with the “*invisible hands*” of the market forces. This theory regards the price mechanism as capable of achieving not only optimal short-term allocative efficiency but also optimal long-term dynamic efficiency. Consequently, neoliberals seriously undermine and negate the need for any interventionist policies by the government and even doubt the existence of any positive role that the state could play in the development process.

Although the neoliberal ideology traces its roots in the developed economies of the world, it was largely adopted by developing countries through programmes and initiatives that attempted to copy and introduce economic development models and policies of the developed world to the

less developed countries. Many of the elements of neoliberal policies found their ways to the less developed economies, including sub-Saharan Africa, particularly through the Structural Adjustment Programmes of the 1980s and 1990s. Like in many other parts of the world, the Briton Wood Institution's Structural Adjustment Policies were largely meant to limit the role of the state, enhance privatisation and increase the role of the market in SSA.

Critiques point to a number of limitations of the neoliberal's argument for complete market liberalisation and avoidance of state intervention. As noted by Bresser-Pereira (2009), some argue that neoliberals aspire to have a weak state that allows the national economy to become a playing field for large (including multinational) corporations. Some critics comment that neoliberalism is the ideology that the wealthy used in the late 20th century against the poor, the workers and a social democratic state; which is thus a very reactionary ideology (Bresser-Pereira, 2009). As Chang (1999) and others argue, one of the problems with the neoliberal theory is its tendency to undermine market failures – prevalence of instances when the market mechanism ceases to properly function. Such market imperfections and inefficiency will be more pronounced during the economic crisis, to the point of seeking government's intervention. Many largely attribute the failure of the structural adjustment programmes in several countries to the neoliberal ideas heavily embedded in such policies. In particular, such programmes have had various detrimental effects for several nations in sub-Saharan Africa (SAPRIN, 2004; *cited* in Dadzie, 2012). The critics of such an economic policy, including the Ethiopian government, in their argument generally emphasise its irrationality, its failure in attaining sustained economic growth and development in developing countries, and its effect in concentrating income and wealth among a tiny segment of the population. The declining growth rates, the financial and economic crisis and instabilities encountered by the developed world in recent years have also been increasingly cited as an evidence of the failure of this development path. In this regard, as Bresser-Pereira (2009) noted, the crash of 2008 and the ongoing economic and financial crisis that required government's intervention to rescue indebted banks and companies (of the developed world) has intensified attacks against the neoliberal development policy.

Basically neoliberal economic policies are largely in line with the neoclassical and classical economic theories, but obviously stand against the Keynesian economics. As a concept closely

related to the *laissez-faire* economic market, classical economic theory believes that free-market requires little or no state intervention at all. In terms of making economic decisions, including resource allocations, it proclaims that individuals and businesses should be allowed to act according to their own self-interest. In the views of classical economists rather than government spending, consumer and business expenditures are the most critical component of a national economic activities and growth. In contrary, Keynesian economists argue that private sector decisions sometimes lead to inefficient economic outcomes which require active policy responses by the government or public sector. Keynesian economics basically advocates a mixed economy, whereby the private sector is allowed to play a predominant role with a room for government intervention. According to this theory, such state intervention is especially considered critical during recessions and sluggish economic performance. Evidence shows that Keynesianism served as the dominant economic model in the developed nations since the Great Depression of 1930s and 1940s. During this period Keynes advocated for increased government spending and lower taxes to stimulate demand and to help the economy to come out of the Depression.

As a result of the tendency to move towards a less stringent state regulation on the economy/market, and due to the increasing tendency to focus on economic policies focusing on stability, Keynesianism gradually gave way to neoliberalism which had dominated the macroeconomic policy arena since 1970s. The declining importance of Keynesianism and the rise of neoliberalism in the 1970s shifted the focus of scholarly and practical work in development towards market (in the neoclassical sense) inspired growth (Dadzie, 2012). However, some claim that the financial crisis of the 2008 has led to the resurgence of the Keynesian economic thoughts. While classical economics tend to focus on seeking long-term solutions for economic problems, the Keynesian economics often pay attention to the immediate results with instant corrections to a national economy. In general, classical economists believe that the economy is self-correcting and there is no need for intervention from the government, even when a recession occurs. In contrast, Keynesians argue that it may take too long to realise such self-correction in the economy or market place, if at all. That is why Keynes urge the national governments and monetary policy makers to take immediate actions to help the

economy in the short-run. The development policies of the current Ethiopian Government somehow appears to be in line with the Keynesian economic theory.

2.3.1. The free-market economic system of Ethiopia

Though the Imperial regime of Ethiopia appeared to follow a free market economic policy, its political ideology was far from liberalism as it exercises a monarchical⁵ system of ruling with its autocratic nature. The Emperor was the head of state, holding supreme authority in the country. As discussed in the preceding section, after taking power from the Imperial regime in 1974, the military government adopted socialist's command economic policy direction. However, the political system and economic policy of Ethiopia took entirely a new dimension after 1991, which marks the end of the military regime and departure from the socialist system. Soon after coming to power in 1991, the EPRDF-led government took crucial measures in terms of liberalising the centrally planned and communist-ruled economy, and in shifting to a pro-capitalist and market-oriented economic system.

Since its transitional period, the current government has adopted various macro-economic policy measures as well as sector specific social, economic and financial policies and programmes. The reforms included short-term stabilisation and structural adjustment measures that permit markets to guide resource allocations (Nega and Nuru, 1999). Nevertheless, the current Ethiopian Government did not want to fully embark on the prescriptions of neoliberals, which is against the notion of state intervention. As Nega and Nuru (1999) note, while the Government seems to have reluctantly accepted the capitalist system, it did not seem to be convinced that totally opening up all economic sectors to the market forces and allowing pure market allocation of resources is a viable option for a country like Ethiopia. Because the country's economy was just coming out of a totally controlled system as well as the domestic private sector is at its infant stage. The Ethiopian government is of the view that neoliberalism and liberal capitalism cannot provide the rapid, broad-based, inclusive and sustainable economic development the country aspires to attain. Thus the government has decided to adopt a developmental state model, which allows it to have active participation and intervention in the economy. The Government is pursuing the principles of revolutionary democracy, which is neither pure liberal nor socialist, and combines

⁵ Where the power tends to be transferred by hereditary rights

elements of both capitalism and socialism (Chanyalew, 2015). The development policy of the current Ethiopian government doubts the appropriateness of copying and transplanting Western development models to such countries like Ethiopia with a different tradition, history, socio-economic and cultural set-up. As a result, one of the central elements of its ideology is putting much emphasis on internally crafted development and industrialisation policies and strategies, and providing rooms for government's active involvement in the development process.

The developmental state model adopted by the Ethiopian government is said to be motivated by the successes and experiences of the East Asian countries such as Japan, Korea, Taiwan and Singapore. Taking this development path (with some elements of capitalism and socialism) also seems to be adopted by other countries that were coming out of the command economic system. For example, Bolesta (2007) notes that the process of post-socialist transformation in countries such as Poland involved creation of neither capitalism nor socialism, but a system that combines some elements of both. Based on the works of other scholars, Dadzie (2012: 18) has identified some key attributes of a state that make it developmental: (1) A developmental state is committed to and consistent in its pursuit of developmental objectives, (2) The developmental state is an activist state, and should not take the role of an overseer, (3) A developmental state needs to evolve as the needs of the society or citizen change, (4) A developmental state is well-staffed, risk-taking, socially legitimate and democratic. According to Bolesta (2007: 105):

“A developmental state is often conceptually positioned between liberal open economy model and a centrally planned model. The theory of developmental state isn't capitalist or socialist, and is based on combinations of positive advantages of the private business and the positive role of the government.

In stressing the role of the government in the economy, Dadzie (2012) note that there is a growing recognition among key institutions that the state is not an enemy to development but rather a potential entrepreneur of last resort and an agent of positive social change. Dadzie thus calls for the need to re-integrate and engage the state in the developmental process in SSA. In line with this argument, Ikpe (2008, *cited* by Dadzie, 2012) asserted that the developmental state thinking continues to be a powerful tool in effecting structural changes in the economies of developing countries even in the era of globalisation. Particularly in the early stages of

economic development state intervention is indispensable to induce the requisite savings or initial accumulation of capital for the industrial development process (Bresser-Pereira, 2009).

In discussing the applicability of Developmental State concept in SSA, Mkandawire (2001, *cited* in Dadzie, 2012) highlighted the fact that during the 1960s, in fact SSA had states that were developmental in their aspirations as well as in their economic performance. Citing some practical experiences, Dadzie indicated that in fact the fastest rates of economic growth and development were achieved in the period soon after independence where there was relatively more state involvement. Concurring with other scholars, Dadzie (2012) suggests that SSA need to draw on relevant lessons from the East Asian experience, because that region has been the fastest growing region of the world in the last five decades. This assertion somehow justifies the relevance of the experiences and development model chosen by the current Ethiopian government. Bolesta (2007) suggests that once a country has reached a certain level of development, there are possibilities to consider further liberalisation. Ikpe (2008, *cited* in Dadzie, 2012) in particular emphasises the importance of agricultural development in helping developmental states in SSA to effectively implement their industrial policy and achieve structural transformation. In this regard, the Agriculture Development Led Industrialisation Strategy of the Ethiopian government is in agreement with such views.

Johnson (1999, *cited* by Bolesta, 2007) in discussing the relationship between the government and private businesses under a developmental state model indicated that they become a partner for the government in its developmental endeavours. But private business plays a more important part which makes a developmental state more of capitalist in nature (Bolesta, 2007). Some (e.g. Zewde, 2000) argue that though the pro-private sector policy of the Ethiopian government has had its own merits, the privatisation process may not achieve its desired objective of liberating and promoting the private enterprise unless the state guarantees free and fair competition. Based on observations and some practical evidence, we can realistically conclude that if the non-state actors (both the private sector and civil society) are accorded more space and role, the development of Ethiopia could be further accelerated.

However, despite some challenges and limitations, the favourable policy directions of the current government have led to rapid expansion of private undertakings in recent years. The economic performance of the country has demonstrated remarkable growth rates over the past years. Even international institutions such as IMF and the World Bank have commended Ethiopia's economy as one of the fastest growing economies in the world. In this regard, the role of extensive public investments in infrastructures and social services, and the contribution of the public enterprises can be clearly noticed. Nevertheless, some critics question the sources of this growth and whether it has been translated into sustainable improvements in the wellbeing of the people. One of the obvious limitations is that despite the impressive growth rates recorded in the national economy, such changes have not been accompanied by transformation in the structure of the economy. Though significant shift towards the service sector has been observed in recent years, the country's economy is still dominated by the agricultural sector, which largely relies on smallholder producers and rain-fed production system. The desired growth in the industrial sector could not be attained as planned. Some scholars (such as Butabaev, 2015) argue that the quantitative increase of aggregate outputs is only part of the economic growth. Such quantitative increases have to be accompanied by qualitative and structural changes in order to qualify to be called an economic growth. They go on to comment that the fundamental feature of economic growth is that such process involves shifts in the production and employment from agriculture to manufacturing and then to the service sector. In this regard, Butabaev (2015) notes that the role of the state is to focus on policies which initiate, facilitate and sustain change. Parallel to efforts that aim at promoting large scale industries, there is a need to further strengthen incentive and support mechanisms for expansion of small-scale manufacturing industries that provide the basis for the industrialisation process and for attaining structural transformation. In this regard, the endeavours of the current Ethiopian government is commendable though it needs to be further strengthened and continued with sound and strategic interventions.

2.3.1.1. Policies related to the Ethiopian agricultural sector and their effects

All the different regimes of Ethiopia have recognised the vital role the agricultural sector plays in the country's development endeavors. The orientation of the agriculture policies of the different regimes are directly related to the political and economic systems they pursue. The agricultural

policy of the Imperial regime had a feudal and semi-capitalist orientation while the agricultural policy of the *Derg* regime was absolutely of a socialist nature. During the Imperial regime, commercial agriculture was primarily in the hands of private individuals and companies of both domestic and foreign origin, while farmers were kept in smallholder agriculture, footed on a feudal land tenure system (Chanyalew, 2006). The *Derg*'s policy on agriculture, in contrary, emphasised expansion of collective and state-owned farms. Large-scale collective production system was promoted as a remedy to problems related to fragmented and smaller farm sizes, as well as as a mechanism to promote the socialist production system. As part of the drive to promote collective farming, as Demeke (1999) notes, the government granted special incentives, including reduced fertilizer costs, higher grain prices, lower land tax and interest free loans (from service cooperatives) to producers' cooperatives. On the other hand, the current EPRDF Government has a mixed type, partly pseudo-capitalist and partly socialist, which is footed on what is known as the revolutionary democracy (Chanyalew, 2006).

Land reform policy has remained to be a contentious issue under the different regimes of Ethiopia. Many argue that the land tenure system of the different regimes of Ethiopia have had serious influences on the performance of the agriculture sector. Adal (2002) notes that such disagreement and heightened debates on land policies among politicians, academia and others is not surprising given the agrarian nature of the economy and the role of land in the country's social and political arena. While the land tenure system that existed during the Imperial period was mixed and varied across different regional locations of the country, many (e.g. Adal, 2002; Gebreselassie, 2006) concur on the fact that the land policies under the recent two regimes seem to exhibit some similarities. As Adal (2002) notes, the land tenure system that existed during the Imperial regime of Ethiopia was one of the most complex tenure systems in the world. It took a variety of classifications, which among others include⁶, rist/kinship, private, state, church, and

⁶ Based on the works of others, (Adal, 2002) has described the different tenure systems as follows: "*Rist/kinship tenure – was the most prevalent tenure in the northern part of the country and had two forms of land rights – rist and gult. Rist is the right to claim a share of land based on kinship to a historical ancestor held in common with other rist holders. Gult right was accorded to members of the ruling elite as a reward to loyal service and to religious institutions as endowments. The individual or institution that held land as gult had the right to collect taxes from those who tilled it. They also had judicial and administrative authority over those who lived on it. Gult right does not extend to ownership of land but is limited only to taxes. Private tenure - This landholding system was the most dominant pattern affecting over 60% of Ethiopia's peasants, and was found in the southern and southwestern parts of Ethiopia. The private tenure was created when the crown confiscated land conquered by its armies and granted vast blocks to a wide range of people and institutions including soldiers, northern civil servants who were*

others (Adal, 2002). In contrary, under the recent two regimes (Derg's socialist regime and EPRDF-led government), land has become a public property that is administered by the government. During the *Derg's* socialist regime, the 1975 drastic land reform provided tenants with use rights to operate their lands, but without rights to sell, mortgage or exchange. The change of government in 1991 has not resulted in much change in terms of land policy (Gebreselassie, 2006). Even though the new government embarked on a free market economic policy, it has decided to retain public ownership of all rural and urban lands. The present Constitution of Ethiopia declared that 'Land is a common property of the nations, nationalities and peoples of Ethiopia and shall not be subject to sale or to other means of transfer/exchange'. Those pro-state ownership (mainly the ruling party), as Adal (2002) notes, argue that private ownership of land will lead to concentration of the same in the hands of few individuals or companies (who have the capacity to purchase), eviction of the poor farmers, landlessness and rural-urban migration of peasants who are left without any alternative means of livelihood. Continuing on this line of argument, some (e.g. Fantu, 1994; *cited in* Adal, 2002) comment that given the country's infant industrial base and limited opportunities for non-agricultural undertakings, land is the only productive asset available to the majority of the rural population and thus needs to be dealt with utmost care. On the other hand, critics of the current land policy raise a number of concerns related to the tenure insecurity which has implications for efficiency of land utilisation, commercialisation of production system, long-term investment and land improvement incentives, among others. Gebreselassie (2006) notes that though the current government has made efforts to address the issue of tenure insecurity through the provision of land certificate, insecurity of tenure and its consequences still remain one of the critical land-related problems in Ethiopia. He goes on to argue that given the absence of any contractual or lease agreement with the government and the general belief that the next round of land redistribution will take place any time, the incentive to invest in land improvement would remain weak. In agreement with this view Adal (2002) points out that the poor performance of the

deployed to administer the new areas, peasants moving south because of land pressure in the north, local tribes that did not resist the conquest, local village and clan chiefs, church officials and institutions, and other elites close to the crown. Church tenure - The Ethiopian Orthodox Church used to be an important landholding entity during the pre-revolution period, such church land had been largely obtained through grants from the crown. However, aristocrats and provincial gentry had also transferred land to local institutions and officials. Government tenure - These included arid range lands in the remote lowlands of eastern and southeastern Ethiopia that were occupied by nomads, and those unoccupied arable lands distributed all over the country".

Ethiopian agricultural sector is largely related to the land tenure system. The current researcher is of the opinion that though the social, political and economic importance of tenure security is beyond dispute, arguments against state-ownership of land and its consequences need to be founded on empirical evidence.

As other agriculture related policies are concerned, soon after taking power in 1991, the current government declared collectivisation and villagisation as undesirable policy directions. As stated in the above section, the new government initiated various economic reform programmes in line with the SAP measures of the Bretton Wood Institutions. These among other included removal of substantial taxation of agriculture, market liberalisation and devaluation (Demeke, 1999). Apparently, in many countries, including SSA, most of the measures taken under the SAP package have encountered serious failure. Such limitations and its own developmental state thinking made the current government to focus on internally crafted social and economic development policies and strategies. Overall, the government adopted agricultural development-led industrialisation as its economy-wide development strategy. ADLI and the successive five-year plans of the government consider agriculture as a decisive sector that determines the pace of growth of the other sectors such as industry. Despite a number of challenges, the agriculture sector indeed displayed significant growth in recent years. As many (e.g. Chanyalew, 2015) agree, agriculture has contributed to the recent years' registered economy-wide as well as sector-specific growth in terms of increased revenue and foreign exchange. However, as Yu *et al* (2008) notes, the service sector has been the fastest growing sector since 1960/61, and its contribution to total GDP growth has exceeded that of the agricultural sector since 1992.

2.3.1.2. Policies related to the Ethiopian coffee sector

In respect to the coffee sub-sector, as Ayana (1999) notes, during the seventeen years of centralised economic management of the military government, coffee production suffered from lack of appropriate incentive mechanisms for producers. During this period, coffee producers' were receiving too low prices in general, and even in relation to the prices of cereals. This had apparently depressed farmers' appetite to adopt improved coffee technologies and management practices. Furthermore, the prevailing policy was compelling farmers to sell fresh cherries to service cooperatives (that operate wet mills) with some advance payment. Eventually farmers

were not receiving final payments from their cooperatives. As a result, there were several cases where farmers had decided to uproot their coffee trees and replace with other crops (*Ibid*). On the other hand, the economic liberalisation measures taken under the current EPRDF-led government (1991 to date) have generated a number of incentives for farmers and other actors involved in the production, processing and marketing of coffee. Some of these measures have notable positive impacts in promoting the development of the coffee sub-sector and particularly its export activities. Some of the earlier measures that have direct impacts on the performance of the coffee sub-sector, as Ayana (1999) notes, include devaluation of the Birr, introduction of floor prices for some export commodities (which has been removed at present), liberalisation of trade licensing and introduction of investment incentives. In addition, unlike the situation under the military government, farmers are no longer forced to sell their coffee solely to cooperatives on loan and at low prices.

In particular, as Minten *et al* (2014: 2-4) point out, there have been significant policy reforms in the recent decade that affected the structure and performance of the coffee export sector. In addition, there have been a number of changes regarding the export taxes on coffee, which include removal of entry barriers; the consolidation of all taxes and duties levied on coffee export into a single tax family; and the waiving of all export taxes on coffee exports following the 2002 international coffee crisis. In general, the government has been exercising tight control and regulation on exports of certain key commodities and food crops such as coffee, cotton and *teff*. Having keen interest in the coffee sector, the government also directly intervened in the coffee sector through various measures. For instance, as Minten *et al* (2014) noted, the government directly intervened in the coffee market a number of times in an effort to reduce hoarding by exporters. This includes banning traders involved in such acts from exporting coffee, as well as ceasing their coffee stocks. Furthermore, a policy was devised in 2011 to limit the amount of coffee a particular exporter can keep in the warehouse at a given time.

In addition, the subsequent reforms undertaken by the current government have had substantial impacts on institutions related to the coffee sub-sector. These include frequent restructuring of the institutions dealing with coffee development and marketing, creation of structures and regulations that support and promote farmers' cooperatives, formation of cooperative unions,

creation of new marketing systems and infrastructure (which include creation of coops marketing channel, primary coffee market centres and ECX trading system), emergence of several private financial institutions and policies related to credit provisions. In particular, the frequent changes in structures of institutions that support coffee development and marketing have had detrimental effects on the development of the Ethiopian coffee sector. Looking only at the institutional changes in the recent eleven years will suffice to see how coffee institutions experienced severe instability and frequent changes just in about a decade. Dissolution of the Coffee and Tea Authority (which was affiliated to the Ministry of Trade and Industry) in 2004 marks the end of a full-fledged and dedicated institution to coffee development and marketing in the country. Following the cessation of CTA's existence as an autonomous coffee institution, the responsibility to oversee coffee development and marketing activities was transferred to the Ministry of Agriculture and Rural Development. As a result, two departments (namely: Coffee, Tea and Spice Development Department and Coffee Tea, Spice and Cotton Marketing Department) were created under the MoARD. To make the matters worse, following the major reforms adopted by the MoARD in late 2007, the coffee departments were merged with others and put under the Directorate of Agricultural Extension. This resulted in the absence of specialised and dedicated institutional structure and personnel on coffee development and marketing. The ministry gradually began to realise the consequences of lack of institutions dealing with coffee and created sub-Directorates for Coffee, Tea and Spice Development and Marketing in the MoA. The development wing was affiliated to the Agricultural Extension Directorate while the marketing part was put under the Agricultural marketing wing. The later was finally moved to the Ministry of Trade, which resulted in the complete separation of institutions dealing with coffee development and marketing. In late 2014, the government went on and promoted Coffee, Tea and Spice Development to a full-fledged Directorate level under the MoA, and also created new departments dealing with its marketing aspect under the MoT.

In addition to the gaps and changes observed at national level, coffee institutions experienced similar problems at regional levels, which are responsible for the implementation of day-to-day activities. Such institutional instability and uncertainty obviously has had serious implications for long-term investment, and strategic and sustainable approaches to the development of the coffee sector. Eventually, understanding the challenges and gaps, the government has recently (in

November 2015) decided to reinstate an autonomous and dedicated institution for Coffee and Tea Development and Marketing under the Ministry of Agriculture and Natural Resources⁷. This move has been delightedly welcomed by the coffee sector actors and hoped to take the coffee sector one step further.

2.3.1.3. Policies related to the financial sector

Role and functions of the financial institutions have taken different forms under the different political and economic systems of Ethiopia. Understandably, the governments of the respective regimes intervened in the allocation of financial resources in line with their development policies, strategies and plans. According to Admassie *et al.* (2005), under the Imperial regime interventions in the financial sector took various forms, which include: allocation of credit according to coordinated investment plans, use of differential interest rates, establishment of public commercial and specialised banks, and giving priority to productive projects. Bank credits were directed (both to private and public undertakings) in line with the priorities set in the five-year Development Plans. The Plans identified agriculture as the leading economic activity, and mining, manufacturing and power as the most propulsive sectors (*Ibid*; Chanyalew, 2015). In terms of investment credit, priority was accorded to ‘directly productive’ economic activities (which claim over 90% of the total long-term credit), while short-term credit mainly targeted undertakings that promote exports as well as contribute to production. According to Admassie *et al.* (2005), there was also interest rate discrimination between borrowers by favoring businesses or enterprises that are in conformity with the Development Plan. However, credit supply was not discriminating borrowers by nature of ownership as the plan recognises both private and public sectors as equally important entities. The fact that the plan allows the agriculture sector to receive about half of the bank’s credit demonstrates the importance it attached to this sector. Credit for farm tools and implements had been extended to farmers by the then Development Bank of Ethiopia (DBE) through the Grain Corporation or Farmers Cooperatives. These institutions normally receive credit, procure farm implements and supply to farmers on credit (to be repaid in kind) or lease or sell them on credit if they are expensive (Admassie *et al.*, 2005).

⁷ The new institution is called Coffee and Tea Development and Marketing Authority

Evidence shows that the DBE quitted extending such credit service in 1961 mainly due to problems related to loan recovery, which was not of course unique to small farmers' credit. Poor results were recorded with the DBE's credit to large scale agriculture and cooperatives (*Ibid*). Its successor, the Agricultural and Industrial Development Bank (AIDB) aimed, among others, at mobilising funds and extending medium- and long-term agricultural credit. However, evidence suggests that it did not perform better in terms of reaching out to farmers. Its credit policy discriminated against farmers located far away from the main road; required collateral (asset to be insured at borrowers' expense) and/or personal guarantor, and compelled borrowers to sell their produce to its subsidiary agency at fixed prices as a means of enforcing repayment. According to Admassie *et al.* (2005), the bulk of AIDB's agriculture credit was channeled to dairy development projects, large farmers, cooperatives of commercial farmers and not to peasant farmers.

The *Derg's* socialist regime was an entirely controlled system that made all economic undertakings to be carried out based on the directives coming from the central planning body. Under the socialist regime, like all other economic sectors, financial institutions were basically expected to execute the economic plans outlined by the national planning organ. To this effect, all privately-owned financial institutions (banks and insurance companies) were nationalised in 1975 and reorganised in accordance with the country's socialist ideology and its economic policy (Geda, 1999; 2000; Chanyalew, 2015). This resulted in the formation of one commercial bank (the Commercial Bank of Ethiopia), one National Bank, two specialised banks (the Agricultural and Industrial Bank, and Housing and Saving Bank) as well as one insurance company. During this period, the NBE was directly controlling all financial institutions by fixing deposit and lending interest rates, through foreign exchange and credit allocation (in favour of the public sector), and by directly financing government deficit (Geda, 1999).

Credit policies of the financial institutions were used as one means of strengthening and expanding the socialised sectors. In terms of credit and foreign exchange allocations, the socialised sectors (mainly public enterprises, state farms and cooperatives) were accorded priority, while the private sector was hugely marginalised. As a result, the largest share of the banks' resources was directed to the socialised sector, whereby for example about 68% of

ADB's loan fund was allocated to state farms (Geda, 1999). In addition, state farms and cooperatives were not required to provide collateral to access loans. Moreover, the lending interest rate was discriminatory against the private sector, favoring cooperatives and state owned sectors (Wale, 2000). For instance, the private sector was charged an interest rate of 7% on loan for agricultural undertakings while cooperatives and the public sector were required to pay 5% and 6%, respectively (*Ibid*). The Agricultural and Industrial Development Bank was re-established in 1979 with the aim to avail investment funds to the agricultural and industrial sectors. Thus the bank's main clients were cooperatives, state farms and other state enterprises (Wolday, 2008b). As a result, close to 90% of AIDB's agricultural loans were extended to state farms while the rest went to agricultural cooperatives, while the private peasant sector received a negligible share (Admassie *et al*, 2005). As Demeke (1999) comments, though public investment and institutional credit in agriculture under the *Derg* regime were directed towards the expansion of collective and state farms, disappointingly their total contribution to the agricultural output rarely exceeded six percent. This apparently had serious implications both for the performance of the financial institutions and the private sector undertakings.

The departure from the socialist system and adoption of the new policy in 1991 (market-led economic system) resulted in greater changes in the organisation of the financial sector and its operations. In early 1990s, as part of the SAP packages, Ethiopia has embarked upon various financial sector liberalisation efforts. This, among others, necessitated reorganisation of the state financial institutions to function in a market oriented policy framework. In addition, the new financial sector Proclamation No. 84/1994 allows the private sector to engage in the banking and insurance businesses (Geda, 1999). In fact following issuance of this proclamation the country has witnessed massive proliferation of private financial institutions. Moreover, they are also allowed to serve the private sector, which was previously marginalised by the policies of the socialist government. In line with this, the role of the country's Central Bank (known as the National Bank of Ethiopia) had to be reformulated. However, as many (e.g. Wolday, 2008b; Geda, 1999) note, the government decided to assume a cautious approach towards liberalisation and in reforming the financial sector. Geda (1999) states that the current government adopted a strategy of gradualism (gradual opening up of private banks and insurance companies, etc.) and strengthening domestic competitive capacity before effecting full-fledged liberalisation;

restricting the sector to domestic investors, strengthening the regulatory and supervisory capacity of the National Bank. In support of such policies, some (e.g. Dadzie, 2012) are of the opinion that a policy of gradual trade and financial sector liberalisation might be appropriate for countries coming out of the socialist economies, rather than a sudden shift from a closed economic system to full-fledged economic liberalisation. Despite some drawbacks, the policy directions of the current Ethiopian government in terms of the financial sector development indeed appear to yield substantial positive changes. The country has witnessed expansion of private undertakings including financial markets, and notable economic growth.

Nevertheless, heavy government intervention in the financial sector and tighter regulatory frameworks appear to have some detrimental effects on the activities and performance of the private financial institutions. Above all, it has severely influenced the lending capacity and appetite of private financial institutions, particularly towards rural-based smallholder farmers and their cooperatives. In addition, the policy banks are required to focus on government priority areas such as government development projects and selected private investment activities such as commercial farms, manufacturing and export sectors. In general, such interventions in the financial market are not as such intended to address market failures. They rather seem to stem from the developmental state thoughts of the government which believes that deliberate and direct intervention is needed to mobilise and direct financial resources to realise the desired development of the country.

Various studies document that small-scale farmers are still facing a number of problems that hamper the drive to transform from subsistence to market-oriented and modern production practices. Absence of a financial service that caters for smallholders' credit need is often cited as one of the major constraints. As Chanyalew (2015) comments, a complete neglect of the main engine of the agriculture-led industrialisation transformation process is prevalent in Ethiopia. He goes on to note that most of the benefits gained from the growth of the agriculture sector have been diverted to the service, industry, energy and telecommunications sectors. Wale (2000), based on earlier information obtained from Birritu (1999), reports that agriculture on average received only 3.04% of the loans disbursed by the commercial banks during the period 1991 to 1997. In contrary, the average shares for trade, construction, manufacturing and other sectors

during this period were 63.8%, 14.38%, 13.91% and 4.84%, respectively. Similarly, based on CAADP study (2009), Chanyalew (2015) reported that Ethiopia's agriculture sector receives less than 2% of the capital goods imported as of late 2000s. Thus as Chanyalew notes, the agriculture sector has been deprived the desired modernisation and continued to be exploited to generate revenues from labour- and land-intensive production undertakings to make the service and industry sectors grow. The other severe problem is that, as Wale (2000) comments, most of the formal credit for the rural community in Ethiopia is time biased, mainly being short-term, and for fertiliser loans, while credit for medium- and long-term investments is lacking. He further notes that credit provision is often biased in favour of large and medium-sized enterprises, public enterprises and urban dwellers, but against small scale farmers and other small entrepreneurs. In this regard, Chanyalew (2015: 145) strongly comments as follows: *"What have we done for the agriculture sector to make it grow rather than exploiting it for the growth of the service and manufacturing sector? The sector has not received adequate support in terms of access to capital"*. Chanyalew goes on to urge the government that it is high time to give due attention to the capital requirement of agriculture if the desired modernisation and commercialisation have to be achieved. This, according to him, requires appropriate national agricultural finance system, which is currently lacking.

In terms of credit to the coffee sub-sector, Ayana (1999) points out that until the emergence of private banks in recent years, the Development Bank of Ethiopia and the Commercial Bank of Ethiopia were the only institutions engaged in the financing of coffee processing and marketing. DBE usually financed the investment components, while the CBE concentrated on the short-term working capital components (Ayana, 1999). However, the roles of these two financial institutions in providing finance to the coffee development and processing activities appear to diminish in recent years. As highlighted above, they tend to focus on some priority government development projects and large investment projects and selected enterprises. Among the commercial banks, Cooperative Bank of Oromia appears to be the major financier of particularly farmer cooperatives' activities, especially in the Oromia region. However, being a cooperative bank, CBO does not cater for the credit needs of individual farmers. Moreover, loans of CBO almost solely focus on the marketing component of the coffee value chain.

2.3.2. Credit Guarantee Schemes under the Ethiopian context

As will be discussed at length in the next chapter, the emergence of credit guarantee programmes dates back to the 19th century, when the first generation of guarantee schemes was established in some countries of Europe. Such schemes were later expanded to Asia, North America and Latin American countries. But credit guarantee programmes have short history among African countries. In particular, as many (e.g. Saldana, 2000; Geda, 1999) noted, liberalisation of the financial sector in the 1990s (as part of the reform packages of SAP) removed government's intervention through direct and targeted lending to certain sectors. As a result, Governments and donor backed partial credit guarantees have become popular intervention mechanisms in developing countries in recent decades. Mango and Meyer (1998; *cited* by Saldana, 2000), reported that government's intervention through a credit guarantee complements liberalisation of the financial sector. Various studies tend to claim that unlike other financial interventions, credit guarantees cause little distortion to the credit market as the guaranteed lending activities are more consistent with the banks' normal lending procedures and practices.

The early generation of credit guarantee schemes largely operated under a free-market economic system and strived to address problems of market imperfections. They were particularly devised to mitigate challenges related to loan security and information asymmetry that were acting as a major barrier to small entrepreneurs in accessing formal credit. After coming out of the socialist system and following adoption of the free market economic policy in early 1990s, such intervention in the financial market has started to emerge in Ethiopia. Credit guarantee programmes have become relatively popular over the past decade, especially as one of the preferred mechanisms to back SMEs' business and overall development. Such intervention however tends to largely focus on urban-based SMEs and on creating employment opportunities for the youth. Under the government-backed CGSs that are related to the SME strategy in Ethiopia the government provides 70% guarantee, while borrowers (SMEs) are expected to provide 20% equity. The remaining 10% risk is absorbed by the lending MFIs. Nevertheless, as officials of some MFIs noted, implementation of such a guarantee scheme revealed limited performance and success. Limitations in the capacity of the beneficiary SMEs in terms of running viable business, in providing the 20% equity, and in making effective use of loan fund and repaying the guaranteed loans seem to be among the major challenges. In addition, there

have been some donor-supported loan guarantee initiatives that were involving commercial banks and MFIs in Ethiopia. According to some sources, the loan recovery rate of some of those initiatives was disappointing. This could stem from the tendency to view such external supports as aids to be donated to the target group. It is thus critical to carry out adequate awareness raising and capacity building intervention before such loans are provided.

The Ethiopian context seems to be different from that of the countries where such credit guarantee programmes had originally emerged. Because in Ethiopia such initiatives are expected to operate under the economy and firms coming out of a strictly centrally controlled command economic system. And of course their implementation takes place in an economic/market system that experiences heavy government intervention. Because the EPRDF-led Government's developmental state ideology permits deliberate government intervention in the economy including in the financial sector. In other words, such state intervention and tight monetary and regulatory environment would obviously influence the operations of the credit market. Thus under such financial system and policy/regulatory environment lack of collateral might not be the major or sole limiting factor to farmers and other small entrepreneurs in accessing institutional credit. As a response to such constraints and challenges, financial institutions may tend to restrict their lending activities or decide to make selective lending whereby the borrowers targeted by the current guarantee scheme might be of less interest to the lending banks. Such circumstances would inevitably create challenges that may affect the effectiveness of such a tool unless it is backed by other attractive incentive and support packages for the participating banks.

2.3.2.1. Credit Guarantee Schemes and Farmer Cooperatives in the context of Ethiopia

The economic policies and government interventions in the financial sector during the socialist system in Ethiopia and elsewhere focused on promoting the socialised sectors (collectives, state and public enterprises). As discussed in the preceding sections, cooperatives were among the priority sectors for credit allocation, and were receiving targeted, subsidised and often uncollectable credit. Even cooperatives with weak management, poor governance and technical capacity and unbankable business activities were allowed to receive loans. Such practices resulted in the culture of dependence, widespread defaults and resource misappropriation by self-serving managers or committee members. This poor credit repayment culture has continued to

affect cooperatives' credit worthiness and banks' confidence in the cooperative societies even today. Based on previous experiences, Wolday (2008a; 2009a) warn that credit to cooperatives should not erode the repayment culture of rural households, which has been the case during the *Derg*'s socialist regime.

The reform initiatives launched in the 1990s resulted in removal of subsidies, cheap and targeted loans, and deregulation of the financial and agricultural output markets, leaving cooperatives to operate on their own in the free market environment. In order to qualify for loans, like other private enterprises, they are expected to meet various bank lending requirements. However, farmers' cooperatives have struggled in accessing credit because of their weak institutional capacity, lack of assets of good quality and value (to provide collateral), information asymmetry, and lack of good credit track records. Hence credit guarantee can help to address some of these constraints and improve cooperatives' access to institutional credit. Nevertheless, the challenge of a credit guarantee scheme targeting farmers' cooperatives in countries like Ethiopia is not limited to facilitating better access to bank loans. One of the key issues that need to be critically looked into is how to reconcile the experiences and practices of cooperatives that have their roots in the Marxist system and credit guarantees which trace their foundations in the liberal and neo-liberal economic thinking. It is thus essential to sufficiently address previous shortcomings, bad credit culture, mind-set up and notion of dependence and adequately capacitate the cooperative societies to operate with the spirit of competitiveness under the free market economy. Therefore, credit guarantee programmes targeting cooperatives with such unpleasant experiences and credit history need to devise strategies that would enable them address such longstanding tradition and practices. Assefa (2005) arguably claims that progresses made in Ethiopia demonstrate that the negative attitude towards cooperatives can be reversed and cooperatives designed under socialist ideologies can be successfully rehabilitated and revitalised as market-oriented private business organisation. More importantly, cooperatives need to clearly understand that credit is a commodity that should be acquired to undertake sound and profitable businesses and is eventually repaid as per the contractual agreement. In addition, stated in the preceding section, government's intervention in the financial sector and cooperatives' affairs would inevitably affect their access to guaranteed loans and its effective utilisation as other important constraining factors may come into play.

2.4. Farmers' Cooperatives: An indispensable rural institution

The role of vibrant grass-root peoples' organisations in promoting inclusive and sustainable social and economic development is beyond dispute. Farmer cooperative is one of such fundamental local institutions. This section provides literature review and theoretical discussions on farmer cooperatives, with special emphasis to the context of Africa and Ethiopia.

2.4.1. Overview of concepts, evolution and significance of farmer cooperatives

Today cooperatives assume a central position in the development strategies and programmes of many countries. Their crucial role in fostering self-reliance and empowerment among the poor and in supporting overall socio-economic development has gained prominence. The International Cooperative Alliance (ICA, 1995) defines a cooperative as “an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise”. This definition emphasises that a cooperative is a voluntary business enterprise that is initiated, owned and controlled by its members and not by the state. As Schwettmann (1997) notes, one of the features of cooperatives is that members make equitable contributions to the capital and receive a fair share of the risks and benefits. The larger share of the surplus income is distributed to members in the form of dividend, while certain part of this surplus is kept as a reserve fund and/or can be used to address some social needs of its members and the community. One of the features that distinguish cooperatives from investor-oriented firms, as Ortmann and King (2007) note, is that in cooperatives dividends are given out to members on the basis of their use or patronage of cooperatives and not on the basis of their investment or ownership share.

Another peculiar feature of cooperatives is that they are based on some unique values and encompass certain fundamental principles. Dobrohoczki (2006: 136) notes that cooperative principles combine a community sentiment with a business venture. The seven popular principles are: open and voluntary membership, democratic member control in the form of one member one vote, economic participation from limited return on investment, autonomy and independence to ensure democratic control, cooperation among cooperatives, cooperative education, and a concern for the community. Behind these principles are values such as self-help, equity, social

responsibility, democracy, equality among members and solidarity (ILO, 2003; Dobrohoczki, 2006). In general, their peculiar governance structure and basic principles distinguish cooperative societies from privately owned business firms. They differ from other shareholding firms by their democratic nature, with voting rights being assigned by person rather than by size of shareholding (ILO, 2003: 3). Though cooperatives are not primarily motivated by profit, they are not purely welfare-driven non-governmental aid organisation. As Develtere and Pollet (2008: 41) noted, to qualify to be a cooperative, the organisation has to be operated as an economic or business enterprise and realise its objectives through economic transactions, of course without undermining economic fairness.

Cooperatives generate diverse benefits to its members and the community at large. Apart from their economic benefits, cooperatives have greater social values. Cooperatives help in mobilising and distributing financial resources; in identifying business opportunities for the poor; in empowering them to defend their interests; and in providing security by changing individual risks into collective ones (Wanyama *et al*, 2008). Based on a UN report, Mcloughlin (2011:4) further outlines a number of benefits including their role in promoting entrepreneurial development, providing employment opportunity, raising incomes and helping to reduce poverty, enhancing social inclusion, social protection and community-building. Another critical benefit of cooperatives, as Dobrohoczki (2006: 135) notes, is their role in democratising the market system, thereby helping to overcome the undesirable effects of globalisation. This is due to the fact that cooperative businesses are often undertaken in line with community concerns and social ethics, as they are member controlled and owned organisations. Dobrohoczki goes on to comment that “as they embed social and community concerns and re-inject the surplus back into the community, cooperatives can serve as effective mechanism for the counter-cultural backlash against large profit driven multinational companies”.

Based on ICA (2005) data, Dobrohoczki (2006) reported that cooperatives have over one billion members across the globe and employ 20% more people than large multinational corporations across a range of sectors. According to Wanyama *et al* (2008), cooperatives create employment opportunities in three ways: (1) Through direct wage employment of people who work in different levels of cooperatives and cooperative promoting institutions. (2) By providing self-

employment to cooperative members via their business activities. (3) Indirectly through the spillover effects of their activities on non-members. Emana (2009) and Pollet (2009) reported that cooperatives provide about 82,000 and 115,079 direct⁸ and indirect employments to people in Ethiopia, respectively. This sector generates employment for about 0.24% of the total population of Ethiopia while this is as high as 5.5% in Kenya (Pollet, 2009). Nevertheless, some evidence (e.g. Pollet, 2009) indicates that in many African countries, including Ethiopia, cooperatives performed poorly in terms of advocacy and voicing members' interests. In general, Barton (2000; quoted by Ortmann and King (2007a) noted that although cooperatives are common in many parts of the world, their most extensive and successful use during the last century has been in North America and Europe. However, as discussed below, some vibrant cooperatives have started to emerge in some African countries in recent years.

2.4.2. Cooperatives' role in catalysing agricultural development

Many agree that cooperatives play an important role in providing various services that enhance agricultural productivity and production and returns from this sector. Okwoche *et al.* (2010: 125) note that cooperatives are effective avenues for provision of such services as farm inputs, agricultural credit, extension and education, marketing of members' produce and so forth. They go on to point out that consistent and effective performance of these roles will accelerate the transformation of agriculture and economic development. In the fragmented smallholder agriculture, cooperatives play a decisive role in generating economies of scale, in improving bargaining power and in fostering their market integration. An empirical study conducted in Iran (Motamed, 2010: 1592) found significant differences between members and non-members of cooperatives with respect to the production rate of paddy, technical knowledge, income, reduction of unemployment and increase in annual income. Emana (2009) observed that cooperatives have been assuming an increasing role in agro-processing, marketing and finance in Ethiopia. Moreover, cooperatives can serve as an important avenue for smallholders to get access to certification programmes and other premium markets, such as fair-trade schemes.

⁸ The direct employment includes people employed by cooperative movement institutions such as federation, colleges, and government institutions in charge of cooperatives, and primary cooperatives.

2.4.3. Cooperatives movement in Africa: *Evolution, features and prospects*

In general, cooperative models in Africa are largely imported ones (Develtere, 2008). Various sources (e.g. Schwettmann, 2011) indicate that the introduction of modern cooperatives in the majority of African countries was orchestrated by colonial powers, who tried to transfer their own cooperative systems into their colonies and protectorates. According to Schwettmann (1997:4), in the former British colonies, cooperatives were established in the 1930s, while the French colonial power introduced a parastatal institution called “Societes Indigenes de Prevoyance” in the early 1920s. As a result, cooperatives were often viewed among the local communities as alien institutions imposed by external forces. In fact, many (e.g. Wanyama, 2012; Getnet and Anullo, 2012) agree that the colonial states promoted cooperatives for the sake of achieving their own interests, rather than addressing economic and social problems of the communities in the colonised countries. The primary essence of setting up cooperatives was to facilitate production, marketing and exports of commodities for industries and markets in the colonial states of Europe. For example, Ortmann and King (2007*a,b*) contend that though agricultural cooperatives have played an important role in the development of the commercial agriculture sector in South Africa, small-scale farmers in the former (less-developed) homelands did not have access to these cooperatives and their services under the previous (apartheid) government policies.

Unlike the other African countries, Ethiopia, Egypt, Liberia and Sierra Leone are said to have their own home-bred cooperative development experience with local adaptations of imported concepts (Schwettmann, 2011; Develtere, 2008). Among many of the former socialist African countries such as Ethiopia and Tanzania, cooperative development was considered as a strategy to promote the idea of socialism, collective ownership of production factors and to maintain control over the production and marketing of farm produce (Schwettmann, 1997 and 2011). Cooperatives established with such intention thus largely violated the basic principles of cooperative societies, such as voluntary membership. Though these policies resulted in massive expansion in the number of cooperatives, they encountered widespread failure and discredited cooperative institutions in several African countries (Schwettmann, 2011: 2).

Develtere (2008: 13) notes that after independence cooperatives remained high on the political agenda in most African countries. However, the cooperative system and approaches in promoting cooperatives did not witness much change after the independence. Most African countries continued with the colonial framework that allows the state to intervene in cooperatives affairs, and dictate their development (Wanyama, 2012: 6). Unfortunately, in most Africa countries, including Ethiopia, cooperatives were largely used as a tool to carry out various development and political functions on behalf of the state, and were not given a chance to operate as autonomous, member-initiated and member-controlled organisations. Develtere and Pollet (2008: 38) comment that cooperatives tended to function as semi-public and bureaucratic enterprises rather than genuine, voluntary and private businesses. In some countries, governments even switched from the incentive-oriented policy on cooperative development to employing coercive measures (Wanyama, 2012: 6). In general, the colonial and post-colonial experiences left a tainted perception of cooperatives about the way they are initiated, operated and the mode of interaction with external actors such as governments and the donor agency (ILO, 2008). Based on the works of several scholars, Kodama (2007) noted that evaluation of the performance of the rural cooperatives in Africa, particularly those under the socialist system, was generally negative.

Evidence shows that the economic reforms and market liberalisation measures that were implemented as part of the structural adjustment programme (SAP) had substantial influence on cooperatives development in Africa. As ILO (2008) notes, liberalisation of the economy in the early 1990s was expected to give members the chance to become the real owners of their cooperative business and advance its performance. However, as Schwettmann (1997: 14) observed the impact of SAP was negative in the immediate perspective, though it favored cooperative development in the long-run. SAP induced policy reforms forced the governments to pull out leaving the cooperatives to the forces of the market (Develtere and Pollet, 2008; Schwettmann, 1997; Bernard *et al*, 2010). Government agencies that promote and support cooperatives development were also downsised, which as Develtere and Pollet (2008) noted, resulted in a sharp decline in the number and turnover of cooperatives. Financial and material supports rendered to cooperatives such as subsidised and targeted cheap loans were removed in most African countries. Schwettmann (2011: 2) notes that sudden disappearance of thousands of inefficient, over-protected and politicised cooperatives following the SAP measures temporarily

created a vacuum that neither the emerging informal and self-help organisations nor the private sector were able to fill.

Despite some initial pause particularly in the early 1990s, the cooperative movement in Africa has gained momentum owing to the prevailing favourable conditions in recent decades. Schwettmann (1997) observes that many African governments have embarked on economic, political and cooperative reform programmes which somehow provided the basis for a genuine cooperative movement. Today evidence points to the successes of rural producers' organisations in the region, particularly in agricultural commodity marketing, whereby a typical example includes coffee in Ethiopia (Bernard *et al*, 2010: 6). Evidence (e.g. Develtere and Pollet, 2008; Pollet, 2009) generally shows that today there is a rising trend in the number of cooperatives in Africa due to a more proactive attitude and support by governments. In this regard, Rwanda and Ethiopia are often cited as typical examples where government and external supports have played notable role in promoting the development of the cooperative sector.

Research undertaken by ILO in 2006 and 2007 reports that out of 100 Africans, seven people are members of a formal cooperative, which would mean that the continent has 70 million co-ops members (Develtere and Pollet, 2008; Schwettmann, 2011). A study by Pollet (2009) in nine countries in Africa, including Ethiopia, indicated that the two main types of cooperatives are agricultural (including multipurpose and marketing cooperatives) and saving and credit cooperatives. The former constitutes 40 - 60% of all cooperatives, while the later accounts for 30 - 50%. Some (e.g. Pollet, 2009; Mcloughlin, 2011), however, note that if the renaissance of cooperatives in Africa and elsewhere is to be fully realised and sustained, there is a need for a more favourable policy and institutional environment, greater visibility, a stronger voice, further diversification, improved management and governance, access to credit, more autonomy, a market-driven approach, strong horizontal networks and vertical structures and integration.

Though excessive government intervention and control has been seen as a main problem in the cooperatives development in Africa, there is a consensus on the importance of government support and some facilitative intervention. As Dobrohoczki (2006: 145) notes, cooperative development flourishes best when government actively promotes, facilitates and provides

favourable conditions, but does not control or dictate their formation and operations. Muthuma (2012) based on the experience of Kenyan cooperatives argues that paternalistic policies stunt the development of cooperatives while *laissez-faire* policies tend to neglect them. But facilitative policies and support would promote the development of cooperative sector.

2.4.4. Cooperative movement in Ethiopia: *Evolution and current state*

In general, the emergence of modern types of cooperative in Ethiopia happened after the majority of African countries (Emana, 2009). The first legislation for agricultural cooperatives (No 44/1960)⁹ was promulgated in 1960 (Bernard *et al*, 2010; Benson, 2013). Since then different cooperative laws have been formulated and implemented in an attempt to promote and regulate these institutions in line with the prevailing ideologies and economic systems of the respective regimes. These legislations include: Directive No 44/1960; Proclamations No. 241/1966; 138/1978; 85/1994; 147/1998 and its amendment act No. 402/2004 (Emana, 2009).

Institutions have been part of the political and economic processes of Ethiopia and have experienced frequent changes in the way they are promoted and used by the different governments. For instance, as Zewde (2000) notes, during the *Derg* regime, all institutions inherited from the Imperial regime were looked at critically at least or with downright hostility at worse. The new regimes tended to focus on creating new rural institutions by getting rid of those which had their footings in the former regime. Nevertheless, the governments of the different regimes of Ethiopia, regardless of their ideology, motives and approaches to establish them, put emphasis on cooperatives as important grass-roots institutions that foster the social and economic development of the community.

2.4.4.1. Cooperative movement during the Imperial and *Derg* (Socialist) regimes

Evidence shows that the issuance of the first decree on cooperatives (No. 44 of 1960), which is known as “Farm Workers Cooperatives Decree” marks the beginning of the formal agricultural cooperatives in Ethiopia. In 1966, this legislation was replaced by Cooperative Society Proclamation No. 241/1966. During the Imperial era, cooperatives were primarily created to

⁹ In fact records (e.g. Chanyalew, 2015) show that there was a proclamation (No. 241/58) during the Haile Selassie regime that was used to promote and regulate SACCOs.

support the production of high-value export/industrial crops, such as coffee, sesame and spices (Lemma 2008; Emanu, 2009), and members of cooperatives were farmers with large landholdings, mainly producers of these crops. Some SACCOs were also formed during the Imperial regime by employees of some of the prominent public institutions such as the Ethiopian Airlines and Ethiopian Roads Authority. Various sources show that in the 1960s and 1970s, a few cooperatives were operating in the country. Evidence (e.g. Lemma, 2008; Emanu, 2009) suggests that by the end of the Imperial regime in 1974, there were only 149 cooperatives in the country. These include 94 multipurpose, 19 SACCOs, 19 consumer and 17 handicraft cooperatives. A number of problems obstructed the development and performance of cooperatives during this regime. In particular, as Getnet and Anullo (2012) noted, land tenure system of the regime; shortage of trained manpower, weak marketing infrastructure, shortage of credit service and other institutional supports were identified as bottlenecks to the expansion of the cooperative movement during the Imperial period.

After the 1974 revolution cooperatives became the most preferred forms of institution for rural development in Ethiopia (Adal, 2000). The introduction of a socialist system with a central command economic policy led to a drastic change in the way cooperatives were promoted, regulated and used. As Adal (2000) notes, after embarking on the policy of socialist transformation of agriculture, the military government had aggressively promoted formation of cooperatives, hoping that collective farming is one means of achieving that. The government enacted proclamation No 71/1975 to nationalise all lands, which paved the way for the establishment of peasant associations, service cooperatives and agricultural producer cooperatives. The Socialist government later on issued a new proclamation on cooperatives (No. 138/1978) with the intention of including promotion of other types of cooperatives, of course on the basis of Marxist principles and political ideology of the regime. This proclamation imposes compulsory membership to cooperatives, which violates one of the basic principles of cooperatives – voluntary membership.

There were two types of cooperatives in rural Ethiopia during the *Derg* regime: namely, service cooperatives and producers' cooperatives. The former was basically purchasing and marketing cooperative that was vested with the responsibility of farm inputs supply, provision of credit

services, supply of consumer goods, and marketing members' produce. They were also given the responsibility of promoting socialist philosophy and collective operations to enhance the political consciousness of the peasants and to establish Agricultural Producers' Cooperatives (Adal, 2000). These were just collective production units whose members were put together merely because of the wishes of the socialist government. Many point out that the ultimate goal of the *Derg* government was to establish collective farms, rather than genuine cooperative societies. As Adal (2000) notes, this was expected to be achieved step by step by gradually shifting from service cooperatives to agricultural producers cooperatives, and then to collectives. However, producers' cooperatives were ultimately found to be one-third less productive than individual farms (Kodama, 2007; Bernard *et al*, 2010). There was obvious lack of trust, commitment, incentives and innovativeness among the members of the producers' cooperatives that were critical for boosting productivity. The membership rate was also low, remained around 20% in 1988 and 1989, while that of service cooperatives was as high as about 80% (Kodama, 2007). Some sources (e.g. Chanyalew, 2015) indicate that the number of primary cooperatives was 10,524 by the end of the military regime.

During the *Derg* regime, cooperatives were promoted to be used in implementing Government policies and plans, which were not popular among the community. These among others include collective ownership of properties, putting means of production under the control of cooperatives, collection of grain quotas and compulsory contributions, and building up a socialist economy (Getnet and Anullo, 201; Eman, 2009; Adal, 2000). Cooperatives and their members were required to operate in line with the principle of socialist collectivisation where both production and marketing of produce were conducted collectively (Lemma, 2008). To make the matter worse, cooperatives were used as an avenue to recruit militia and to mobilise resources for the civil war. Board members employed various coercive measures to collect grains and other farm products from members at fixed prices to meet the quota imposed by the government (Tesfaye, 2005; USAID, 2005). Cooperative leaders, which were appointed by the political leaders, were closely associated with the regime, and served as mere conduits of directives from government officials (Tesfaye, 2005). Nepotism, embezzlement and misappropriation of resources of cooperatives were rampant (Tesfaye, 2005; USAID, 2005). The principal agent

problem¹⁰ in a cooperative, as Ortmann and King (2007a) note, are likely to result in member dissatisfaction and lack of confidence. Eventually all agricultural producers' cooperatives were dissolved when the government switched from its socialist policy to that of a mixed economy in 1990. With the end of the military regime in 1991, most of the rural-based service cooperatives were destroyed, looted and neglected (Adal, 2000; Emanu, 2009). As Chanyalew (2015) notes, the cooperative movement was almost vanishing towards the end of the *Derg* regime, and about 99% of them were dissolved when the regime was overthrown. In general, unfortunately, policies of the military regime had far-reaching consequences for institutional development and human capital in Ethiopia.

2.4.4.2. Cooperative development after 1991: *Status, performance and prospects*

The approach towards cooperative promotion in Ethiopia has been changed since early 1990s with the adoption of the free market economic policy. During the initial transition period of the current government, some vacuum was observed in the cooperative movement. Most of the efforts of the new government initially focused on maintaining peace and stability and setting up necessary institutions and administrative structures. Moreover, as Chanyalew (2015) notes the EPRDF Government's pause for a while was also partly in response to the bad reputation and the dislikes the rural communities have shown towards the cooperatives initiated during the *Derg* regime. However, the new government recognised the key role cooperatives could play in the socio-economic development of the country, and gradually demonstrated positive moves towards reviving and promoting them. In general, the emergence of new economic reforms and market liberalisation policies created a favourable environment for the development of the cooperative sector. In particular, as Chanyalew (2015) notes, agricultural cooperatives gained greater attention after the issuance of the leading sector-wide policy and strategy document in 2001. It was stated in the Rural Development Policy and Strategy and the successive five-year development plan documents of Ethiopia that cooperatives of various types are vital instruments in solving the problems of marketing (of inputs and outputs), provision of credit, income generation and so forth.

¹⁰In agency theory in relation to a cooperative structure this problem arises as employed agents or managers may not act in the best interests of the cooperative members (Ortmann and King, 2007a).

In 1994 the Agricultural Cooperative Society Proclamation (No. 85/94) was promulgated, embedding the basic cooperative principles. This created a fertile ground for reorganising, strengthening as well as for establishing new cooperatives in line with the free market economy (Lemma, 2008; Adal, 2000). In the new legislation, the government indicated its desire to avoid unnecessary intervention in cooperatives' internal affairs and to allow them to be formed on the basis of members' free will and to properly operate in the free market economic system. However, when one looks at the actual practices in terms of how cooperatives are formed and their day-to-day operation, it is hardly possible to claim that all the basic principles of cooperatives have been fully respected. The previous proclamation was revised after four years and Proclamation No 147 was issued in 1998. This proclamation warrants that cooperative policy is fully consistent with the universal cooperative principles and the ILO's Promotion of Cooperatives Recommendation 193 (Emana, 2009: Vii). It has been commended for integrating internationally accepted cooperative principles, values and ethics. Many (Assefa, 2005; USAID, 2005; Emana, 2009; Adal, 2000) believe that the new proclamation is fairly comprehensive and provides a more favourable context for the formation of all types of cooperatives, including SACCOs. The new law also permits cooperatives to be organised at various levels such as primary, secondary (union) and tertiary (federation).

In addition, in 2002, the Cooperatives' Commission establishment Proclamation No. 274 provided clear institutional framework for promoting and supporting the cooperative movement in Ethiopia (Emana, 2009: 3). The Federal Cooperative Agency (FCA) was then set up with the mandate of formulating policies and legal frameworks, overseeing proper implementation of relevant legislations, and promoting and registering cooperatives, of course working with and through the regional level structures. Some of the regional states of Ethiopia (SNNPR, Tigray and Amhara) have enacted their own proclamations for the promotion of cooperatives. Further legal reforms were introduced in 2004 to reinforce implementation of the cooperative principles and strengthen membership incentives by improving members' rights (Bernard *et al*, 2010). As a result, currently, cooperatives are at least promoted under one authority and in line with a relatively standard law that governs the promotional and operational activities (Gessese, 2010).

Facilitating creation of cooperative unions and provision of various support measures by the government is another commendable move in the right direction. These supports include initially seconding personnel to manage cooperative unions, especially for the first generation of unions. This, as some comment, in fact has some influence on the unions by making them dependent on and closely associated with the government. The launching of education and training programmes on cooperatives at different universities and colleges further demonstrates government's commitment to support the cooperative sector. As a result of the current fairly conducive policy environment and supports provided by the government, a variety of cooperatives have emerged and their numbers have shown rapid growth. According to the FCA, as of March 2013, there were a total of 48,124 different types of primary cooperatives with 6,635,458 members, out of which 23% are female. Likewise, as of March 2013, a total of 293 unions were formed by 8,411 primary cooperatives. According to the FCA (2012) report, just in one year period (between March 2011 and March 2012) about 2,957 primary cooperatives and 17 unions were formed. In general, over a period of five years (between 2007 and 2012), the number of cooperatives in Ethiopia grew by 87.4% (Bernard *et al*, 2013), which demonstrates massive expansion.

Following various reform programmes and issuance of the cooperative proclamations, somehow autonomous, democratic, and business-oriented cooperatives have started to emerge in Ethiopia. For instance, member farmers have been given the opportunity to democratically elect the leaders of their cooperatives, though some indicate persistence of government's interference in cooperatives' internal affairs. Lemma (2008) argues that although the communities that experienced failure during the previous regime still doubt the viability and benefits of these institutions, the successes of some cooperatives and unions have stimulated the interest of many farmers and other groups. Concurring with these views, Assefa (2005) notes that progresses made in Ethiopia demonstrates that the negative attitude towards cooperatives can be reversed and cooperatives created under the socialist system can be successfully rehabilitated and revitalised as market-oriented private business organisation.

Nevertheless, Bernard *et al* (2010) comments that although the cooperative sector has demonstrated commendable successes in export crops (such as coffee), the achievements in the

staple food crops is negligible. Although efforts made by the Ethiopian government have made notable progress in revitalising the cooperative sector, the reality on the ground shows that still substantial work is needed to convince farmers about the benefits of cooperatives. As a result of the tainted image of the previous state-initiated and controlled cooperatives, many farmers have continued to display distorted perception about cooperatives and still tend to view them with suspicion. A study conducted by Kodama (2007) in Southern Ethiopia indicates that most of the respondent farmers tended to regard the cooperatives in the same way that they viewed the service cooperatives of the previous regime. The same study revealed that cooperatives appear to be customers of coffee farmers, rather than their own organisations. On the other hand, a study conducted by Bernard *et al* (2010) indicates that only 17% of farm households with access to a cooperative in their *Kebeles* participated in it; while only 9% of all farm households participated in cooperatives at a national level. The above two studies suggest that a long process of trust and confidence building is required for cooperatives to overcome persisting suspicion among potential member farmers.

2.4.4.3. Types of cooperatives in Ethiopia

In Ethiopia, cooperatives are engaged in a wide array of activities. While many of them are engaged in the provision of multiple services, some specialise in a single activity. Emana (2009) reports that in Ethiopia cooperatives are engaged in 36 different types of activities. These include, among others: producers' cooperatives, multipurpose and/or marketing cooperatives (of various agricultural and livestock products), SACCOs, consumer cooperatives, handicrafts cooperatives, mining cooperatives, housing cooperatives, construction cooperatives and service cooperatives. According to earlier reports by Lemma (2008), about 80% of the primary cooperatives operate both in rural and urban areas were engaged in the service sector.

Despite the decisive role the agriculture sector plays in the national economy, various reports show that the number of non-agricultural cooperatives outstrips that of those engaged in agricultural activities. According to Emana (2009) about 37% of the primary cooperatives in Ethiopia are engaged in agricultural activities, while others (e.g. Bernard *et al*, 2010) report that agricultural cooperatives account for less than one-third of the cooperatives in the country. A recent report of FCA shows that, as of March 2013, out of the total 48,124 primary cooperatives

(of 20 different types), 10,124 are multipurpose/agriculture, while 11,850 are SACCOs. Housing cooperatives, consumer cooperatives and irrigation cooperatives are 8,162; 2,496 and 1,255, respectively. According to Emanu (2009), multipurpose farmers' cooperative unions (44%) and grain marketing farmers' cooperative unions (24%) are the dominant secondary cooperative structure in Ethiopia. He, however, notes that a rapid increase has been observed in the number of consumers' cooperatives in recent years largely in response to the escalating costs of consumer goods and services.

With regard to the services provided by multipurpose (agricultural) cooperatives, a study by Bernard *et al* (2013) reported that supplying agricultural inputs and credit are the most important activities of multipurpose cooperatives in Ethiopia. About 92% and 72% of cooperatives included in their study were involved in providing agricultural inputs and credit services, respectively. The same study indicates that the main reasons reported by farmers for joining cooperatives is related to accessing farm inputs. Only 7% and 5% of the respondents, respectively, indicated accessing credit and output marketing as reasons for joining cooperatives. Thus it is critical to support and encourage primary cooperatives to aggressively participate in output marketing as well as to undertake value adding activities to members' produce so as to generate attractive returns for their members.

2.4.4.4. Higher level cooperative structures in Ethiopia

Cooperation among cooperatives is one of the fundamental principles of cooperatives, implying the critical need for fostering horizontal links/networks and vertical integration among cooperatives. Many (Develtere and Pollet, 2008; Lemma, 2008; Emanu, 2009) suggest that creation of secondary and tertiary structures would result in a more integrated and effective cooperative sector. These authors maintain that such horizontal links and vertical integration allow cooperatives to pool resources, enjoy economies of scale, share experience, boost their visibility, strengthen advocacy and lobbying capacity to effectively attain their vision and goals.

The cooperative proclamation of Ethiopia (147/1998) provides a ground for the formation of different levels of cooperatives - primary cooperatives, unions, federations and a cooperative league. The second level cooperative structure (union) is formed by primary cooperatives

engaged in similar produce or activity, regardless of their geographical locations. Until the past couple of years, one was able to find only primary level cooperative structure in Ethiopia. However, a number of cooperative unions and a few federations have been formed in the country over the past years. An earlier report by Lemma (2008) indicated that by 2005, there were 104 different types of unions that encompassed only about 13% of the primary cooperatives in the country. However, a recent report by the FCA shows that as of March 2013, there were 293 cooperative unions throughout the country.

In response to the undesirable acts and business mal-practices of private coffee traders (in relation to cooperative societies) in late 1990s, the Ethiopian government decided to establish coffee farmers' cooperative unions to handle cooperatives' coffee export activities (Kodama, 2007; Dempsey, 2006). As a result, a number of coffee farmers' cooperative unions were established following the issuance of Cooperative Proclamation No. 147 of 1998. The first coffee cooperative union, the Oromia Coffee Farmers' Cooperative Union (OCFCU), was established in 1999. This was followed by the formation of Sidama Coffee Farmers Cooperative Union, Yirgachefe Coffee Farmers Cooperative Union, Kaffa Forest Coffee Cooperative Union, Bench Maji Forest Coffee and Tepi Coffee Farmers' Cooperative Unions. More recently some new coffee, multipurpose and SACCO unions have emerged in different parts of the country though most of them exhibit weak financial, managerial and institutional capacities. In particular, the first three coffee cooperative unions (Oromia, Sidama and Yirgachefe) had enjoyed various types of supports from the government and non-governmental agencies (Kodama, 2007; USAID, 2005). For instance, the government recruited staff with experience in cooperatives and coffee business and seconded to unions by paying their salaries for the first two years (Kodama, 2007). The latter generation of unions obviously did not get an opportunity to enjoy such targeted support and privilege. Thus owing to their weak institutional and management capacities, the performance of their business activities do not seem to be as effective as those of the first generation unions.

Issuance of Proclamation No. 147/98 also provided the legal basis for the formation of federations of unions based on their product specialisations. Though the government intends to establish different federations at national level on different areas or sectors, formation of many

vibrant federations does not seem to happen as desired by the government. Recently three agriculture-related federations have been established at regional level: an Agricultural Cooperative Federation in SNNP, a Federation of Grain Marketing Cooperatives in Oromia, and a Multipurpose Marketing Federation in Tigray (that largely focuses on sesame); the former was established in 2008 and while the latter two were created in 2009 (Emana, 2009; ATA, 2012; FCA, 2012). Some sources report emergence of other federations which include federation of mining cooperatives in the Oromia region. However, discussions held with experts of the FCA reveal lack of clarity and mutual understanding among the federal and regional cooperative agencies about whether to promote federations at the regional or national level. Moreover, there appears to be overlapping in the activities and services of unions and regional federations. The new cooperative sector development strategy suggests that by delineating unions as secondary-level structures that exist up to a regional level, and a national federation as a tertiary-level apex, the confusion and problems related to overlapping duties and responsibilities of the two structures can be overcome.

2.4.5. Coffee cooperatives and their role in coffee marketing

One of the significant recent changes in relation to cooperatives is that in 2001 the government allowed creation of a cooperative marketing channel (Dempsey, 2006). This was intended to address the challenges that coffee cooperatives faced in marketing their products through private traders, such as delayed payments and other mal-practices. The new marketing system allows coffee cooperative unions to directly export their members' coffee without passing through the central auction market or ECX trading system. Creation of such a marketing system has provided a great opportunity to cooperative unions to play an important role in marketing members' coffee. As a result, some of the unions were able to demonstrate their potential in enhancing farmers' integration into higher segment of the value chain and thereby generate better return for their members. For instance, the Oromia Coffee Farmers Cooperative Union (OCFCU) was the third largest coffee exporter in 2011, with a total sale exceeding 41 million USD (ATA, 2012). As Minten *et al* (2014) reports, OCFCU in fact accounts for 57% of the export transactions made by cooperatives between 2006/07 and 2012/13. This points to the presence of huge gaps between the different cooperatives unions in terms of capacity and business activities. Out of the 328 market actors taking part in coffee trading at the ECX auction centre, 14 are cooperative unions

while 2 are regional federations (FCA, 2012). Moreover, cooperatives provide a vital avenue to coffee farmers to participate in various certification schemes and Fair-trade markets, which attract premium prices for member farmers.

However, the actual volume of the coffee marketed by primary cooperatives and their parent unions is limited largely due to financial constraints. It is not uncommon for unions to advise primary cooperatives to sell their coffee through other channels when they are short of finance. Consequently, the majority of cooperatives have continued to largely rely on conventional marketing channels. For instance, in 2004/05 YCFCU had purchased 1,036 tons of coffee, constituting 13% of the coffee purchased by member primary cooperatives (7,744 tons). Bagersh (2012) reports that cooperatives and their unions export only 8% of Ethiopia's coffee, while private exporters are responsible for the bulk of the export volume (87.50%). The remaining 4.5% is exported by commercial farms. However, a recent study (Minten *et al*, 2014) reveals that the share of cooperatives in the coffee export was just between 3% and 6% during the period 2006/07 to 2012/13. Thus on the part of the government and other development agencies there is a critical need to step up efforts and supports in terms of building the capacities of primary cooperatives and their unions and in enhancing their access to financial resources.

Moreover, despite the significant achievements recorded in coffee marketing, as Dempsey (2006) notes, coffee cooperatives were still held with bad reputation and lack of trust that had emanated from their political use during the *Derg* regime. ATA (2012) notes that many agricultural cooperative members do not market their produce through their cooperatives. In particular, it is not uncommon for cooperative members to receive better payments in cash for their cherries from local private washing station operators. However, although the actual volume of coffee handled by cooperatives remained low, their presence in the coffee market plays a vital role in stimulating competition and in enhancing market power of producers by providing alternative market outlets. This obviously helps to counter the monopolistic power of private traders and compels them to offer improved prices for farmers produce.

2.4.6. Role of cooperatives in rural finance

There is a growing consensus among many that cooperatives play an indispensable role in enhancing poor people's access to financial services. Experiences from the Philippines show that cooperatives can effectively serve as conduits for credit funds to individual members, who assume joint liability (Briones, 2009). In this regard, the development strategies and plans of the different regimes of Ethiopia have recognised cooperatives' crucial role in rural finance service provision. For instance, during the Socialist regime, one of the key functions of the Service Cooperatives was provision of loans to priority sectors at lower interest rates. Similarly, the current Rural Development Policy and Strategy of Ethiopia explicitly states that cooperatives could play a vital role in the delivery of financial services particularly to the poor by linking their activities with formal banks and MFIs (Wolday, 2008a; 2009a).

In particular, saving and credit cooperatives have become popular in this regard. According to Schwettmann (1997) SACCOs or their unions have been successful in Africa, which could be attributed to the fact that they are a kind of formalised rotating saving and credit associations which are widespread across the continent. As Chanyalew (2015) notes, in Ethiopia RUSACCOs are expected to be the main sources of agricultural finance services to smallholder farmers and multipurpose cooperatives. However, though Ethiopia has recently seen rapid expansion of (RU)SACCOs, most of them are at an infant stage and suffer from lack of financial capacity (have struggled to raise sufficient savings). Thus as of now they are not in a position to meet the financial needs of member farmers and sister multipurpose cooperatives. Chanyalew (2015) underscores that RUSACCOs' financial products and services are currently very limited and lack diversity.

In terms of the role of agricultural/multipurpose cooperatives in this regard, experiences from various countries reveal mixed outcomes. Many scholars tend to conclude that involvement of MPCs in the provision of credit service may result in additional load, complication and resource misappropriation. According to Chanyalew (2015), multipurpose cooperatives in Ethiopia have been involved in the service of credit provision, especially to meet emergency needs to close the gap preceding the harvest season. He, however, noted that their involvement in the provision of

financial services has been carried out haphazardly and its delivery often focused on periodical problem solving. Chanyalew goes on to point out that some MPCs have continued with such traditional practice of credit provision although RUSACCOs have been established in many parts of the country. In his view, this is being practiced by not strictly observing the existing regulatory acts that leaves such credit services to RUSACCOs, as well as due to the low capital base of RUSACCOs. This calls for the need to create necessary awareness among MPCs on relevant policy and regulations.

Concurring with the above argument, Wolday (2008a; 2009a) warns that since sustainable delivery of financial services requires specialised financial institutions engaged in banking activities, commodity-based or multipurpose cooperatives may not be able to effectively render such services. An earlier World Bank study (1994) similarly reported that MPCs in many countries have generally not been successful in providing saving and credit services, due to their lack of specialisation in financial services and because of their involvement in other diverse activities. The same study noted that MPCs in sub-Saharan Africa traditionally provided short-term crop advances to members; but such transactions were often not properly managed and controlled, and resulted in substantial losses to many cooperatives. In view of such challenges, (Chanyalew, 2015) suggests that engaging multipurpose cooperatives in the agriculture finance delivery should be based on best international practices and should not also be considered as a substitute to MFIs and RUSACCOs. In other words, credit provision should not be taken as the main function of multipurpose cooperatives. Cognisant of this reality, the government of Ethiopia has set a direction to support agricultural/multipurpose cooperatives to form their own sister SACCOs in order to enable them render better financial services to their members. Such efforts need to be accompanied by adequate supports in terms of creating favourable regulatory framework, capacity building and other complementary services as most (RU)SACCOs currently have weak institutional, managerial and financial capacities. Parallel to these efforts, the existing cooperative bank needs to be provided with a more favourable policy and regulatory environment that promotes its lending services to the cooperative sector.

Summary

The main focus of this chapter was to provide an overview of the macro-economic and institutional contexts of Ethiopia, focusing on the underlying theoretical conceptualisation that has shaped the Ethiopian economy over time. The chapter has discussed the different features of the socialist's command economic system, which had detrimental effects on the development of the private sector, including the coffee sector. The system did not allow the creation of genuine, autonomous and vibrant farmers' organisations. The legacy and aftermath effects of such a closed and stagnant economy have continued to persist for some time after the end of the regime. The current Ethiopian government has embarked on a free-market economy in the context of a developmental state paradigm. Rather than adopting the neoliberal ideology which prescribes a wholesale liberalisation process, the Ethiopian government has decided to take a cautious and gradual approach towards liberalization by maintaining heavy intervention and regulation on key sectors of the economy. Unlike the post-socialist situation in most other transition countries, the Ethiopian economy has shown impressive growth which could be largely attributed to the heavy government spending and indigenous development policies and strategies. The policy reforms of the current government in line with the free market economy appeared to favour expansion of the private sector, including the financial sector.

The chapter also discussed that cooperatives are indispensable rural institutions that play a great role in the socio-economic development of the community and country at large. However, the development of the sector in developing countries, including Ethiopia has been constrained by a number of factors which are largely related to the way they were promoted and formed as well as due to the effects of the political and economic environments in which they were formed and operating. Cooperatives play a crucial role particularly in coffee marketing in Ethiopia. Literature suggests that multipurpose/agricultural cooperatives are not ideally suitable to be involved in the provision of credit services to farmers. The experiences of Ethiopia generally reveal that cooperatives thrive best under a free market economic environment that allow them to operate as an autonomous, competent and market-oriented private business organisation. Of course without undermining the spirit of sound and fair business activities, social values and services.

CHAPTER 3

3. INTERVENING IN RURAL FINANCE

3.1. Introduction

This chapter provides literature review and theoretical discussions related to rural finance in general and a credit guarantee intervention in particular, with the aim of providing a theoretical and conceptual framework for the study. The chapter begins with a literature review and theoretical discussion on rural finance, rural credit markets, credit demand by farmers and factors influencing credit demand. This is followed by theoretical and conceptual frameworks on credit guarantee schemes. Before concluding with a summary of key points, the chapter presents analytical frameworks for determining credit demand as well as in evaluating the performance and impacts of a credit guarantee scheme.

3.2. Rural Finance

Intervening in rural finance has become a central issue in the development strategies and programmes of many countries. Rural finance refers to those financial services provided in rural areas (by various actors) for agricultural as well as non-agricultural purposes (Klerk, 2008). Such services include: savings, lending, insurance and remittance services to rural households and entrepreneurs. In general, improving access of resource-poor people to appropriate financial services has been increasingly recognised as one means of breaking the vicious cycle of poverty they are trapped in. This section provides literature review and theoretical discussions on issues related to rural finance.

3.2.1. Role and impacts of access to rural finance

Like many other sectors, access to appropriate financial services is of profound importance for stimulating the development of the agricultural sector. KIT and IIRR (2010) underscore that

access to adequate and timely financial services for all actors in the agricultural value chain is a key factor for success. Credit in particular plays a pivotal role in the drive to transform smallholder agriculture from subsistence level to commercial and market-oriented farming. Agriculture generally relies heavily on credit more than any other sector because of the seasonal variations in the farm income and a changing trend towards commercial and mechanised farming (Mahmood *et al.*, 2009). Drawing on experiences from different contexts, the World Bank (2006) argues that efficient financial markets can play a decisive role in accelerating agricultural growth and in ensuring food security. Several empirical studies reported the impacts of having access to credit on farm households and its contribution to the national economy. In their study in Pakistan Mahmood *et al* (2009) found that access to credit service increased farm family's per month income from livestock sector by 181%. A study conducted by Sial *et al* (2011) found that availability of agricultural credit removes financial constraints and increases technical efficiency, resource allocation and profitability of farmers. Similarly, Iqbal *et al* (2003) found a positively significant relationship between institutional credit and agricultural GDP in Pakistan. In line with these findings, a study in Vietnam (Barslund and Tarp, 2008) reported the fact that households with access to credit were more willing to pursue promising but risky technologies as credit access increases their risk bearing capacity. Unfortunately, farm households in developing countries have continued experiencing severe credit constraints.

Several studies reported the adverse effects of credit constraints on the farm households and rural community at large. For example, in Peru Fletschner *et al*, (2010) reported that farms which experienced financial constraints on average attained 27% less profit than those who had adequate access to credit. A study conducted in Africa (Mafimisebi *et al*, 2010) similarly reported the fact that shortage of institutional credit is a major contributor to the persistent poor performance of Nigeria's agriculture sector. Muayila and Tollens (2012), in their study to investigate the effects of credit constraints in the Democratic Republic of Congo found that credit constrained households had lower welfare outcomes than unconstrained ones. Credit constraints affect not only the output and efficiency of rural households, but also their capacity to adjust to the major policy reforms of recent years and the aftermath of the exchange rate crisis (Chaves *et al*, 2001:35). Cognizant of this reality, many (e.g. Mahmood *et al*, 2009; Olagunju

and Ajiboye, 2010; World Bank, 1994) underscore that credit is a key ingredient in the effort to modernise agriculture and commercialisation of the rural economy.

3.2.2. Rural financial markets and the rural poor: *challenges and constraints*

Rural financial markets in developing countries are often segmented into formal, semiformal and informal sectors. These different sectors have peculiar features and often target different segments of the rural population. Many (e.g. Emana *et al*, 2005; Komicha, 2008; Chaves *et al*, 2001; Barslund and Trap, 2008) point out that the informal sources often dominate the credit markets in rural areas of most developing countries, including Ethiopia. However, such informal sources have a number of limitations among which the exorbitant interest rates charged on loans is the chief one. In general, smallholder farmers and the rural poor often experience severe credit rationing¹¹ problems.

The formal financial institutions do not favour lending to rural based resource-poor farmers and other small entrepreneurs for a number of reasons. Analysts (e.g. Olagunju and Ajiboye, 2010; KIT and IIRR, 2010) note that most commercial banks prefer to channel credit to less risky enterprises, and often tend to eliminate or severely restrict their loan allocation to smallholder farmers. For instance, a World Bank study (1994) shows that rural credit from the formal financial institutions is less than 10% in most Sub-Saharan African (SSA) countries. Credit allocated to trade activities is much larger than the share of agricultural production, agro-processing or other rural enterprises (World Bank, 1994; Klerk, 2008). Even among the rural/farming community in most SSA countries, as World Bank (1994) noted, the larger share of commercial banks' loan portfolio is channeled to large-scale agricultural enterprises or to the better off section of the community. As a result, the rural poor are often forced to revert to informal sources to meet their credit requirements.

¹¹ Credit rationing often emanates from a situation where the demand for loans exceeds its supply at the prevailing interest rate. It mainly refers to two scenarios whereby farmers receive credit, but smaller than amount demanded or they are completely denied a loan at all even if they are willing to pay the required interest rate (Dohcheva, 2009; Rahji and Adeoti, 2010). Credit rationing can also be categorised as external and internal rationing. The first one refers to a situation whereby farmers apply for a loan, but do not get it, while the later represents the case where farmers for various reasons do not apply for a loan although they wish to obtain.

When one talks of the thinness of financial services that go to the smallholder agricultural sector in most African countries, Ethiopia is no exception. Several studies (e.g. Admasu and Paul, 2010; Admassie, 2004; Chanyalew, 2015) indicate that, as compared to other economic sectors, in Ethiopia the financial resources that flow to the smallholder agriculture is generally low. Though there have been substantial improvements in expanding financial markets in Ethiopia in recent years, evidence (Admassie, 2004; Bastin and Matteucci, 2007; Komicha, 2008; Chanyalew, 2015) shows that there are substantial gaps in the rural and agricultural finance. Earlier study by the World Bank (1994) suggests that in Ethiopia, lending by the Commercial Banks to agriculture has been less than 5% and it has stagnated. Admassie (2004) reports that in Ethiopia the share of agriculture in the total credit disbursed by banks between 1991 and 1998 was less than 15%. Recent literature on issues related to credit supply to the Ethiopian agriculture sector shows persistence of similar trends. For instance, Wolday (2008*b*) notes that out of the total 2.7 billion Birr loan disbursed until 2007 by Awash International Bank, one of the pioneer private banks in Ethiopia, only 172 million Birr (15.70%) was allocated to the agricultural sector. The last Plan for Accelerated and Sustained Development to End Poverty of Ethiopia indicated that only 6% of smallholder farmers in Ethiopia had access to financial services (Wolday, 2010). Moreover, almost all of the agricultural credit is of short term nature, with little impact on long-term investment and in effecting transformation of the agriculture sector (Admassie, 2004). In addition, existing financial services are too costly and often not tailored to the Ethiopian farmers' needs (Bastin and Matteucci, 2007). Problems related to financial capacity of the lending institutions and the prevailing tighter monetary and regulatory environments appear to largely contribute to the limited flow of loan finance to stallholder farmers. Because under such circumstances lenders tend to channel their limited credit fund to selected urban-based borrowers and to those who can generate other benefits for the banks (such as foreign currency earnings and cash deposit).

3.2.3. Credit demand by smallholder farmers

As discussed in the preceding section, the popular assumption in the literature is that farm-households' and small scale firms' demand for credit excessively exceeds supply and as a result they are often credit rationed by financial institutions. This assumption implies that all or most households and firms show positive demand for credit facilities from the formal sector, and their

participation in credit service is normally determined by the lending institutions. As a result, most of the theoretical and empirical literature on rural credit and government policies have largely focused on the supply-side constraints, with little attempt to explore household's or firm's demand for the services (Mpuga, 2010; Karlan et al, 2011). Among the studies conducted in Ethiopia, Bastin and Matteucci (2007) investigated the demand and supply of financial services for coffee producers in two districts of Jima area in Ethiopia. The findings indicate that there is substantial gap between demand and supply of financial services in that only 42% of the demand was satisfied. Their study concluded that the entire sample of farmers had a potential demand for credit services. This study however focused on services of microfinance institutions in two districts and the findings may not reflect the situation in other areas and services of the banking industry. A study by Pombo and Herrero (2001, *cited* by Green, 2003), reported that up to 80% and 95% of investment needs of small and medium enterprises and micro-enterprises, respectively, remains unsatisfied in some Latin American and African countries. A study carried out in China (Rui and Xi, 2010) similarly showed that 71% of the rural households were rationed in the credit markets. Similarly, Muayila and Tollens (2012) in their study in the Democratic Republic of Congo (DRC) reported that 71% of the farm households experienced credit constraints. A closer look at the findings of these studies suggests that credit rationing, limited access to and participation in credit services is a common challenge across the different regions; i.e. Africa, Latin America and Asia.

Contrary to these findings, some empirical evidence indicates that the demand for loan among the farming community and rural poor might not be that strong. As Aryeetey (1996) argues, there are various obstacles to the transformation of potential demand into actual demand. Zeller (1994) suggests that participation in borrowing is a function of the household's or individual's demand for credit and its access to a market. Apparently demand for credit is related to price which involves interest rates and other costs associated with obtaining credit. Various authors (*e.g.* Diagne and Zeller, 2001; Komicha, 2008; Dohcheva, 2009; Chaves *et al*, 2001) attest that even if the farm households have access to a particular source of credit and at the same time lack sufficient capital for their investment project or operations, they may decide not to participate in borrowing from that source. A study conducted by the World Bank (1994) suggests that many people avoid being in debt, while others might not have a worthwhile activity to be financed by

borrowed funds. Therefore, as Diagne *et al* (2000) argues, participation in a credit programme is something households or firms choose to do, while access to a credit service is a limiting constraint put upon them, such as eligibility criteria and lending requirements. This discussion points to the critical importance of both supply and demand side constraints in influencing demand for credit.

Chaves *et al* (2001) in a study in Rural Romania reveals that the observed scarcity of credit transactions in rural areas was caused by factors which weakened both the supply of and demand for rural credit. The study negates the commonly held assumption that the unwillingness of the banking sector to lend to rural entrepreneurs (i.e. a weak supply) is the cause of insufficient credit flows to rural areas. Weak demand for loans is an important determinant of the limited participation of rural households and small entrepreneurs in credit markets. According to this study, only 31% of the rural households reported having a demand for loans. This study goes on to point out that the demand for loans was not uniform, but varied by key characteristics of the agents such as size, economic sector, ownership, and agro-region. Some authors (e.g. Klerk, 2008) argue that due to their limited economic activity and capacity, households in marginal areas do not need much capital. Fear of being rejected due to their perception that they do not meet the lending criteria can also be one of the limiting factors.

The findings of some of the studies conducted in Ethiopia are consistent with the above arguments. For instance, in their study in Ada'a Liben district of Central Ethiopia, found out that only 43% of the respondent farmers were in need of credit, while the remaining 57% did not express need for credit. This study however focused on input loans in food crop growing areas, and may not depict the credit demand and supply situation in cash crop growing areas such as coffee. Similarly, Berhanu (2005) reported that some microfinance institutions in Ethiopia were struggling to secure sufficient demand for their existing loan products mainly due to the misfit between what the institutions offer and what the customers require. In view of this reality, Chaves *et al* (2001) and others emphasise that deepening financial markets in rural areas and increasing their outreach requires both stronger credit supply and demand. The above discussions thus suggest the critical need for identifying and addressing both supply and demand side

constraints if smallholder farmers have to effectively demand for, access and benefit from institutional loans.

3.2.3.1. Credit demand as related to loan attributes and sectoral choices

Studies discussing credit sectoral choices by farmers suggest that farm households borrow from different sources; but the informal source of credit appears to dominate. Komicha (2008) in analysing sectoral choice of farm households' and its determinants in two districts of Southern Ethiopia reported that about 55% of the interviewed households borrowed from different sources, whereby the informal credit sector is the dominant one. Studies report that various household and farm characteristics, loan attributes and lending requirements influence sectoral choice of credit. Khan and Hussain (2011) in examining the determinants of demand for formal and informal credit by cotton growers in Pakistan found that educated farmers and big farmers take loans from the formal sector, while the distance from the formal lending institution, number of visits to take the loan, high transaction costs and bribery and corruption appear to push farmers towards informal sources. According to Barslund and Trap (2008), the determinants of credit demand from the two sources in Vietnam were distinct. They also found massive differences across regions in terms of demand for credit.

Komicha (2007) notes that imperfect financial markets adversely affect credit sectoral choice. Among the household characteristics, according to Komicha (2007), the choice of formal sector was positively affected by gender (male had higher probability for demanding loan), household labour, farm size, credit information and extension visit. This implies that women tend to rely on informal credit sources, if at all, which has important policy implications. According to Komicha's study, non-farm income, dependency ratio and interest rate had negative influence on credit demand from formal source. Credit rationing by the formal financial institutions is often cited as one of the factors that force farmers and other small entrepreneurs to switch to the informal credit sources to meet their credit needs. Thus formal financial institutions need to adapt their lending policies and products in line with the credit needs of the farm households' if their share in formal credit market is to rise.

Exploring the loan attributes preferred by the borrowing farm households, some studies suggest that farmers often require different kinds of loans for various purposes - both for productive and

non-productive purposes. A study conducted by Komicha (2007) in Southern Ethiopia reports that farm households need credit both for production and consumption purposes, whereas the formal credit sector targets credit for production purposes. Klerk (2008) indicates that while the poorer groups might need micro-credit to cover production costs and emergency expenses, farmers and their organisations involved in cash-crop production often require larger amounts of credit to finance production, inputs, processing and marketing. Schwettmann (1997) similarly notes that farmers' cooperatives need loans for two purposes: to finance their own business operations (pre-financing of crops, input purchase, export financing, purchase of assets), and to provide short-term loans to their members. Glenk *et al* (2009) tried to examine farmers' preferences for different rural credit systems in one region of Georgia, in relation to the implementation of credit unions or cooperatives. The results of this study show that segments of the farming population differ in their preferences for loan attributes. Farmers expressed huge demand for small loan with individual liability, but with long-term duration. Their study indicated that two-thirds of the respondents were interested in investing in agricultural production. Unfortunately, as some analysts (*e.g.* Bastin and Matteucci, 2007; Wolday, 2008a) comment the terms and financial products of most financial institutions are not appropriate for agricultural activities and smallholder farmers. Financial services with diverse and flexible products and terms are needed if the financial requirements of the different segments of the farming community and other rural entrepreneurs are to be properly met. In particular, credit facilities extended to the farming community need to take into account the cycle and nature of the agricultural enterprises.

3.2.4. Factors influencing demand for credit

Evidence shows that farmers' and other rural entrepreneurs' borrowing behavior, participation¹² in and efficient utilisation of credit facilities are influenced by an array of socio-economic, technical, institutional and environmental factors. Nevertheless, analysts (*e.g.* Swain, 2007) claim that the empirical evidence on the factors influencing rural credit demand is quite limited. In support of this argument, Atieno (1997) pointed out that though credit programmes have been

¹² *An individual or a household is said to be participating if it is borrowing from a source of credit, while having access to credit implies the possibility to borrow from that particular source, although the household may decide not to borrow due to a number of reasons (Diagne and Zeller, 2001).*

used as important components of rural development in many developing countries, the limited success recorded in many of such interventions is largely attributed to the failure to properly identify the credit needs of the target groups. Atieno goes on to comment that such programmes have tended to allocate credit according to the perceived needs, rather than on the basis of the amount of funds that farmers are able to manage and/or demand. Evidence (e.g. Karlan *et al*, 2011) also shows that farming communities generally face a complex set of risks and uncertainties that complicate the decision to borrow. According to Swain (2002), the limited number of households demanding loans from the formal sector appears to be a choice decision of the household. Farmers with small-scale and fragmented holdings with poor infrastructural facilities often have limited access to new technologies, markets and various support services and possibly a low return on investment. This can obviously restrict their demand for loans even if they have access to them. In general, some authors (e.g. Atieno, 2001) outline that, among other things, weak entrepreneurship capacity, lack of viable enterprise to finance, risks associated with agricultural production and markets for outputs, poor infrastructure and other support services, inability to meet collateral requirement, perceived low chance of application success, loan attributes (such as inappropriate loan duration, loan amount and terms of payment), and high costs of borrowing can have profound influence on farm households' and small firms' borrowing decisions.

Various studies attempted to determine factors that have an influence on farm household's or firm's demand for credit in different countries, by focusing on the key characteristics of the borrowing households or firms. Although some argue that the main challenge confronting the poor is lack of access rather than the interest rate, the findings of most studies, regardless of their regional and geographical focus, reported that interest rates charged on loans negatively influence credit demand. For instance, studies conducted in the Philippines (Briones, 2009), Ghana (Akudugu, 2012), Ethiopia (Komicha, 2007) and Thailand (Wiboonpongse *et al*, 2006) found that increasing effective lending rate had a negative influence on credit demand. Thus demand side attributes and response need to be taken into account in determining the interest rates of financial institutions that aim to reach out to small-scale farmers. In general, high transaction costs were found to negatively influence formal credit demand in Ethiopia (Komicha,

2007) and China (Tang *et al*, 2010). Likewise, collateral requirement and/or value had understandably a negative influence on credit demand in Romania (Chaves *et al*, 2001).

Understandably, distance to the lending financial institutions was reported by several studies to have a negative influence on loan demand. For instance, studies conducted in Nigeria (Oni *et al*, 2005; Akpan *et al*, 2013), Ghana (Akudugu, 2012), Pakistan (Khan and Hussain, 2011) and China (Bing *et al*, 2008) found a negative and significant relationship between distance to the lending agency and loan demand. This is not surprising as distance to the lending agency is directly related to costs of borrowing, information asymmetry and accessibility. This has important policy implications for government and financial institutions in terms of improving infrastructure and distribution of financial institutions' networks so as to improve rural peoples' access to financial services.

Though most studies tended to report presence of a positive association between educational level and demand for loan, there are inconsistencies in the findings conducted in different countries or regions. For instance, educational status was found to have a positive influence on credit demand in Nigeria (Oni *et al*, 2005; Akpan *et al*, 2013), Kenya (Messah, 2011), Uganda (Mpuga, 2010), Pakistan (Khan and Hussain, 2011), China (Rui and Xi, 2010; Tang *et al*, 2010), Ethiopia (Girma and Abebaw, 2015) and Ghana (Akudugu, 2012). Surprisingly, another study from China (Bing *et al*, 2008) reported that education had a negative, but significant influence on credit demand, while a study conducted in Thailand (Wiboonpongse *et al*, 2006) reported absence of a significant relationship between the two variables. Overall, studies show that education is one of the key variables in influencing the decision to take loan by farm households and small entrepreneurs. This calls for efforts to enhance farm households' awareness, knowledge and skills if they have to effectively demand for, access and utilize loan funds.

With regard to the influence of age, conflicting findings were generated by studies conducted in different countries. For instance, contrary to the longstanding belief that as age progresses farmers would be more conservative and reluctant in coming forward and demanding for credit, studies conducted in Uganda (Mpuga, 2010) and Nigeria (Akpan *et al*, 2013) reported that age of the household is positively related to their loan demand. In other words, older farmers were more

likely to demand for credit. Possibly this might be related to resource endowment as older farmers often tend to have better access to some critical assets such as land, especially in the African context. However, Bing *et al* (2008), in their study in China, found a negatively significant relationship between age and credit demand, while studies conducted in Ethiopia (Girma and Abebaw, 2015) and India (Swain, 2007) did not find a statistically significant association between the two variables.

Another important factor in determining loan demand was gender of the head of household or entrepreneur. Like many other variables, inconsistent results were reported with regard to the influence of gender. For instance, some studies reported that women were less likely to demand for credit from formal credit sources in Ethiopia (Komicha, 2007), Uganda (Mpuga, 2010), Nigeria (Ajagbe *et al*, 2012), while a study from Ghana (Akudugu, 2012) surprisingly reported that men were less likely to seek loan. Another study conducted in Ethiopia (Girma and Abebaw, 2015) did not find a significant association between gender and credit demand. This calls for further context specific investigation across countries and even across various cultural groups or communities as influences of gender is likely to be context specific. Another critical variable in influencing credit demand was farm size. For instance, farm size was found to positively influence demand for formal credit in Pakistan (Khan and Hussain, 2011), Ethiopia (Komicha, 2007), China (Bing *et al*, 2008; Tang *et al*, 2010), India (Swain, 2002; 2007), Vietnam (Barslund and Trap, 2008), Kenya (Atieno, 1997) and Ghana (Akudugu, 2012). This could suggest the fact that farmers with larger farm: (1) are in a better position to provide assets required for collateral, (2) need external loan to finance their farm activities or expansion. The insignificance of the effect of land in some of the studies however requires further investigation in relation to that particular context. In this regard, Barslund and Trap (2008), in their study in Vietnam, found that though land was a statistically significant determinant of overall credit demand, there was substantial difference across regions in the demand for credit.

Expenditures for children education and medical care were reported by some studies (e.g. Komicha, 2007; Bing *et al*, 2010; Rui and Xi, 2010) as an important factor in influencing loan demand in different countries (such as Ethiopia, China). Likewise, production and management expenditure was reported to positively influence loan demand in China (Bing *et al*, 2008). A

study conducted in Romania (Chaves *et al*, 2001), however, shows that the demand for loans at the household level was associated with highly inelastic consumption needs rather than with investment opportunities. Though household or family size was expected to have strong and somehow similar effects across countries, it has shown inconsistencies in different countries. For instance, family size was reported to have a positive effect on credit demand in India (Swain, 2007; 2002) and China (Tang *et al*, 2010), while it had a negative influence in Kenya (Messah, 2011), Uganda (Mpuga, 2010) and Nigeria (Akpan *et al*, 2013). Thus the reason behind the positive influence of family size in the Asian context and its negative effects in the African countries in terms of influencing loan demand could be related to variations in socio-cultural aspects which need further investigation. Some studies did not find a significant relationship between family size and credit demand in some countries such as Thailand (Wiboonpongse *et al*, 2006) and Ethiopia (Girma and Abebaw, 2015). On the other hand, dependency ratio had some influence on credit demand. In this regard, Komicha (2007) and Messah (2011) found a negative influence in Ethiopia and Kenya, respectively, while Swain (2007) found a positive association between number of dependents and credit demand in India.

Sector of primary engagement was also found to influence credit demand. But the findings in different countries were not consistent. For instance, engagement in non-farm activity positively influenced credit demand in China (Bing *et al*, 2008) and India (Swain, 2007). In Uganda, Mpuga (2010) found a negative relationship between credit demand and engagement in agriculture as a primary activity. The same study reported a positive association between credit demand and involvement in industry, administration and commercial activities. In contrary, engagement in farming was found to have a positive influence in Ethiopia (Girma and Abebaw, 2015). Similarly, a study conducted in the Philippines (Nagarajan *et al*, 1998) found that loan demand was influenced by the ability and capacity of a borrower to specialize in farming. On the other hand, Kudugu (2012) found a positive association between cultivation of cash crop and credit demand in Ghana, which might be the case in coffee growing areas of Ethiopia. This is not surprising as production, processing and marketing of cash crops require substantial capital. Use of fertilizer was also reported in Nigeria (Oni *et al*, 2005) to positively influence credit demand.

Another variable with inconsistent effects is non-farm income. Studies conducted in Ethiopia (Komicha, 2007) found a negative influence of non-farm income on credit demand, while Bing *et al* (2008) found a positive association in China. Other studies from Ethiopia (Girma and Abebaw, 2015) and Kenya (Atieno, 1997) did not find a significant association between non-farm income and credit demand. Likewise, some studies found that income (total) of farm household has a positive influence on credit demand in Nigeria (Oni *et al*, 2005) and Kenya (Messah, 2011). Similarly, studies conducted in India (Swain, 2007), China (Bing *et al*, 2008), Uganda (Mpuga, 2010), Nigeria (Ajagbe *et al*, 2012) reported that value of asset and/or net wealth significantly and positively influence credit demand. This is in agreement with existing literature, which argues that farmers with better capital often reveal higher demand for credit due to two reasons: (1) they are confident and/or able to provide collaterals required by banks, (2) they often need additional external finance to support their operations or further expansion. Moreover, liability was reported by some studies to positively influence credit demand in China (Rui and Xi, 2010; Bing *et al*, 2008). This is in line with available literature which claim that households with higher liabilities may look for additional fresh loans to settle their outstanding loans (that may approach maturity date) and/or for additional business undertakings. On the other hand, membership of social group/organization had a positive influence across countries – Ghana (Akudugu, 2012) and Nigeria (Akpan *et al*, 2013).

The above findings show that studies conducted in different countries and regions appear to report inconsistent findings with regard to factors influencing credit demand. Surprisingly, even some of the studies conducted in the same countries at times generate conflicting findings in this regard. However, some variables were found to influence credit demand across countries. Among these, size of farm holding, distance from lending institutions, education of the household head, level of assets or net wealth, education and medical expenditures, age of the head of household, gender of head of household, sector of primary activity, among others, appear to influence loan demand across countries in different ways. In general, we were not able to establish a clear distinction between variables that influence credit demand in different regions. The review also points to the thinness of such studies in the African context (with the exception of Nigeria and a few countries) as compared to countries in Asia. The inconsistencies among the findings of the studies carried out in different countries suggest the need for conducting country

and context specific studies as national policies and regulatory frameworks and other socio-economic and environmental circumstances have considerable influence on demand for credit. In particular, empirical evidence on factors influencing farmer cooperatives' credit demand is scarce as existing studies tend to focus on individual farm household's or SME's.

3.2.5 Estimating loan demand and its determinants: Conceptual and analytical framework

In designing a credit guarantee scheme, it is normally anticipated that both the borrowing firms and lending banks would demonstrate strong interest and positive response. Evidence suggests that improving credit supply through such an intervention may not necessarily generate effective demand due to a number of reasons. Mpuga (2010) notes that there is a complex set of factors related to the borrowers' attributes that can greatly influence demand for credit. As outlined in the preceding sections, empirical studies generate inconsistent results with regard to factors influencing loan demand by farm households. In general, literature suggests that the empirical evidence on factors influencing rural loan demand is quite limited. Thus many authors such as Mpuga (2010) and Otieno (2007) underscore the need for carefully analysing factors influencing the borrowing behavior of households or firms if the extent of demand for loans and underlying causes for low demand are to be properly understood. Kanoh and Pumpaisanchai (2006: 2) suggest that analysing credit demand and credit supply separately helps in avoiding the simultaneous problem, which is a contentious issue in assessing changes in lending activities and behaviors of banks. It is therefore necessary to model farmers' and their cooperatives' demand for institutional credit in order to provide better explanations on underlying relationships between borrowing decisions and factors influencing that behavior.

Literature documents that existing studies adopted different approaches in measuring loan demand. There is a general consensus that measuring credit demand is a complicated undertaking as demand is reflected in different ways. As Atieno (2001) points out, a number of conceptual problems are identified in estimating credit demand, particularly in such fragmented and imperfect rural credit markets. Nagarajan *et al.* (1998) argue that estimates of loan demand are often biased and inefficient due to use of models that do not properly address selectivity bias or use of data that do not capture loans from multiple sources. Some studies tend to base their

analysis on the observed loan amounts or approved loan applications, while others use the sum of loans approved and loans rejected by banks. Several scholars (e.g. Atieno, 2001; Wiboonpongse *et al.*, 2006) argue that it is misleading to identify a loan demand based on information for observed loan amount only since this reflects merely the existing supply. They note that data truncation by omitting non-borrowers and loan size rationing have been undermined by some of the previous studies that attempted to estimate loan demand in a number of developing countries.

Sharing similar views, Barslund and Tarp (2008: 490) state that in instances where only matched (approved) loan applications are observable, the researcher cannot identify the factors affecting real credit demand by households. Even with data on rejected loan applications, identification of 'self-constrained' households or firms is a challenging task. Thus in their analysis of credit demand, they categorised households as demanding credit if they: (i) obtained a loan; (ii) had a loan application rejected; or (iii) did not apply even if they wanted credit. Fletschner *et al* (2010) affirm that identifying the level of constraints of non-applicants of loan is more challenging as this group likely consists of heterogeneous individuals or households including: (a) those who do not want a loan due to lack of profitable business requiring external finance; (b) those who want loans but do not apply because they think that their request will be rejected; (c) those who believe they qualify for a loan but are discouraged from applying by transaction costs, lenders requirements and associated risks and constraints. Kanoh and Pumpaisanchai (2006) note that survey data that include both borrowers and non-borrowers provide several benefits in analysing loan demand as it provides qualitative information about the credit market that cannot be obtained from the observed credit data.

The common aspects often assessed by studies that look at loan demand are examining whether the household or firm wants to borrow (including preferred sources) and extent or volume of loan demanded and factors influencing them. Several empirical studies (e.g. Mpuga, 2010; Zeller, 1994; Messah and Wangai, 2011; Okurut *et al*, 2004; Tang *et al*, 2010; and Zapata, 2006) used binary choice Probit model to examine the determinants of household's or firm's decisions to apply for a loan and/or which sector (formal versus informal) to borrow from. Some studies such as Frangos *et al* (2012) used logistic regression, which is obviously very much similar to the Probit model in assessing factors affecting decision for taking institutional loans.

Nevertheless, the borrowing choice between the formal and informal sectors has not been considered a relevant issue in the present study. This is due to the fact that contrary to the case of individual households, it is not a common practice for farmer cooperatives to take loans from informal credit sources. Thus the central focus of the current study was examining probability of demanding for loans and volume of loans demanded by cooperatives and their determinants.

On the other hand, a number of studies (e.g. Mpuga, 2010; Nagarajan *et al*, 1998; Ajagbe *et al*, 2012) used Tobit model to estimate the determinants of the amount of loan demanded by households or small entrepreneurs, while Wiboonpongse *et al*, (2006) estimated Tobit model type II to investigate factors affecting decision to borrow and volume of loan demanded. As Ukurut *et al* (2004) note, where the dependent variable measures values, ordinary OLS regression is subject to possible sample selection bias. The common approach for dealing with such sample selection bias is the use of the Heckit or Heckman two-step selection model¹³ which accounts for sample selection problems¹⁴ (Ukurut *et al*, 2004; Bushway *et al*, 2007; Sigleman and Zeng, 1999). Sigelman and Zeng (1999: 167) note that the Heckit model has emerged as the de facto default alternative to the Tobit model when values cluster at zero due to selection bias rather than censoring. Heckman (1979) argues that those who decide to participate in borrowing constitute a self-selected sample and not a random sample. Moreover, standard Tobit model imposes an assumption which is often too restrictive: exactly the same variables affecting the probability of a non-zero observation determine the level of a positive observation and with the same sign (Verbeeck, 2004: 227). However, Heckman estimation assumes that different sets of variables govern the probability of demanding for a loan and the intensity of loan demand. Thus Heckman two-step selection approach provides a mechanism to correct for non-randomly selected samples by accounting for information on those who decided not to participate in borrowing. In other words, it does not consider the demand of those who did not participate completely as zero (Gronau, 1974; Heckman, 1976). We, therefore, employ Heckman's two-step selection model in the current study, where selection into the sample of those who need loan is

¹³Heckman's sample selection model is also referred to as "Tobit-2" model by some (e.g. Amemiya, 1994 as cited by Toomet and Henningsen, 2008)

¹⁴Sample selection bias may arise in practice for two reasons. First, there may be self-selection by the individuals or data units being investigated. Second, sample selection decisions by analysts or data processors operate in much the same fashion as self-selection (Heckman, 1979: 153).

first modeled and in the second step we incorporate the inverse Mills ratio (λ) generated in the selection equation into the equation of interest to overcome the sample selection bias.

Existing studies used a mixed set of quantitative and qualitative variables in the models used to examine factors influencing borrowing decisions. These include among others: attributes of the borrowing households or firms, attributes of the loan and lending institutions, and other exogenous factors. With regard to small firms, owners or managers' attributes and characteristics of the firm/enterprise appear to be given greater emphasis as important factors in determining their borrowing behavior.

3.2.6 Analytical approaches employed in examining determinants of loan demand under the current study

The factors that may affect cooperative's propensity to borrow and amount of loan to borrow can be broadly grouped into: (1) Cooperative's attributes (institutional, managerial, business and economic), (2) loan and lending institutions characteristics (3) Proxies for other exogenous factors. This study focuses on examining the associations between cooperatives' loan demand and their institutional, business and managers' attributes. Literature affirms that owner/manager's attributes (such as age, level of education, etc.) are firms' institutional and business attributes (such as resource endowment, human resources, economic and business activities, etc.) are important factors that greatly influence borrowing decisions, access to and effective utilisation of loans. Thus factors related to cooperative's institutional, business and managers' attributes are the explanatory variables that are used in the econometric model presented in the next section.

In view of their expected limited influence on loan demand in the current context, some variables (which were considered in other previous studies) have not been included in this study. For instance, though several studies report that gender of the head of the household or owner/manager of a firm is an important determinant of demand for and access to credit, it has not been included in the current analysis. This is due to the fact that none of the cooperatives had reported having female management committee chairperson or manager. Moreover, the number of employees of a firm can logically have an influence on its loan demand. The descriptive data

however shows that the vast majority of the cooperatives have only one or two full-time employed workers, who are mainly security guards. Thus this variable too was not included in the current loan demand analysis. In addition, though participation in the current guarantee scheme is expected to enhance cooperatives' demand for and access to bank loan, the data on loan demand was collected at the beginning of the intervention. Thus this variable was not expected to have significant influence on cooperatives' loan demand at the beginning of the intervention.

The loan demand process basically follows two logical stages. In the first stage, the cooperative decides to demand (apply) for institutional loan or not. In the second stage, the cooperative decides on the amount of loan to apply for. In this study, we adopted two approaches in measuring loan demand (i.e. both the decision to borrow and the amount to borrow). With the first approach, cooperatives' actual loan applications were considered, whereby we asked cooperatives whether they had applied for a bank loan (directly or through their union) during the year 2011. This is a dummy variable taking on two values; i.e. if a cooperative responded "Yes"; it will take a value of 1, or 0 otherwise. We then posed a follow up question to cooperatives that replied 'Yes' by asking them the volume of loan they applied for in 2011. The dependent variable (amount of loan demanded) in this case is a quantitative variable. We designated the credit demand identified through the first approach as Demand-A. We recognise that this apparently does not reflect the true loan demand as most cooperatives are likely to be self-constrained or self-credit rationed for various reasons. Given the current limited participation of cooperatives in the credit market, neither loan applications submitted by cooperatives nor loan requests approved by banks can provide a true picture of the loan demand among cooperatives. Therefore, with the intention of considering the potential demand of self-constrained cooperatives as well as to compare this potential demand with the actual demand they revealed in 2011, we further employed a second approach. In the second approach, we posed a question to a cooperative if they seriously and genuinely demand for a loan during the following year (2012 coffee season). A value of 1 is assigned to cooperatives that answered 'Yes' to these questions and 0 otherwise. We went on and asked those who responded "Yes" to this question the amount of loan they demand. In our analysis, the loan demand captured through the second approach was referred to as loan Demand-B. The later approach tends to reflect their

desire and potential to demand for loans which may not be necessarily transformed into actual or revealed demand without further interventions.

As indicated above, in our empirical analysis of loan demand, we employed the Heckman two-step selection approach. In step 1, we estimated the probability of a cooperative's demand for a loan, which is done on the basis of the probit model. Though the probit model offers important information about the decision to demand for credit, it does not tell us anything about the volume of credit demanded by a cooperative in relation to its institutional, business and managerial characteristics. Thus in the second stage, using the Heckman two-step selection model, we investigated factors affecting volume of loan demanded by cooperatives, which in this context is defined as the amount, in ET Birr, cooperatives reported to demand. This was carried out by including the inverse Mill's ratio derived from the probit estimates into the second stage estimation. The specification of the Heckman two-step selection model is as follows.

The Heckman correction takes place in two stages. In the first stage, we formulate a model for the probability of borrowing. The participation or selection equation can be specified with a probit regression of the form:

$$C_i = 1(Z_i\gamma + u_i > 0) \quad (1)$$

Where i is the indexes of cooperatives ($i = 1, \dots, N$), C_i represents the decision to borrow ($C_i = 1$ if the cooperative decides to take credit and zero otherwise), Z_i is a vector of explanatory variables assumed to explain the probability of borrowing, γ is a vector of the parameters to be estimated, and u_i is the idiosyncratic error term.

In the second stage, we correct for self-selection by incorporating a transformation of these predicted individual probabilities as an additional explanatory variable. The demand equation can be specified as follows:

$$Y_i = x_i\beta_1 + \varepsilon_{li} \text{ if } C_i = 1 \quad (2)$$

x_i denotes a vector of explanatory variables and Y_i denotes amount of loan demanded by cooperative i . The volume of loan demanded is not observed for cooperatives that do not demand loans.

The term $\phi(Z_i'\beta)/\Phi(Z_i'\beta)$ ¹⁵ is known as the inverse Mill's ratio or Heckman's lambda. The first step is to estimate the correlation term (Heckman's lambda) by maximum likelihood probit model. The next step is to estimate the model using ordinary least squares with the estimated bias term as an explanatory variable using only the observations in the truncated sample with $Y_i > 0$.

Under the assumption that the error terms are jointly normal, we have,

$$E(Y_i/X, C=1; Z) = X\beta + \rho_i \lambda(Z) \quad (3)$$

Where ρ is the correlation between unobserved determinants of propensity to borrow and unobserved determinants of credit demand and λ is the inverse Mills ratio.

Description of variables and working hypotheses

Review of literature and empirical findings of research on rural credit and the current researcher's knowledge of the study areas/issues were used in structuring working hypotheses for this section. Description of explanatory variables related to cooperative managers, institutional and business attributes, which are hypothesised to influence borrowing decisions of cooperatives in the study areas, on a *priori* grounds, are outlined below. These variables were included in the Heckman two-step selection model.

Cooperative's manager/chairperson age (AGCHAI): There is a general belief that as age progresses, individuals may become more risk averse, conservative and skeptical. Mpuga (2010) suggests that the young may tend to save and/or borrow more for investment while the old may be less inclined to borrow. It is hypothesised that cooperative manager's age and probability of borrowing and amount to borrow from formal institutions are inversely correlated.

¹⁵ $\phi(\bullet)$ is the standard normal probability density function and $\Phi(\bullet)$ is the standard normal cumulative density function

Educational level of cooperative manager/chairperson (EDUCATN): This represents the level of schooling attended by the person heading the cooperative. For the purpose of the current analysis, educational status has two categories which are expressed as a dummy variable represented by zero for no or only informal education and 1 for attending formal schooling. Several studies (e.g. Ajagbe *et al*, 2012; Mpuga, 2010; Zapata, 2006) report that education positively affects entrepreneurs' decision to apply for, the amount of loan applied for and the chances of accessing loans. Higher educational level can, for example, enable the manager to prepare sound business plans and loan applications that can convince the lender. Thus education of the coops leader is expected to increase borrowing decision and the amount to be borrowed.

Having professional manager (PROMANG): Having full-time employed professional manager could be a crucial factor that influences the nature, magnitude and scope of business activities, and overall performance of the cooperatives and their demand for credit. Having full-time paid professional manager is thus expected to increase the probability of demanding for loan and the volume of loan demanded.

Age of the cooperative (COOPAG): Age of the cooperative refers to the number of full years since their formal establishment up to the date of this survey. It is normal to expect that older cooperatives have better experience and well established business activities (that may require additional financing), better opportunity to form links with various institutions as well as to accumulate assets that can be used as collateral to access loans. Some (e.g. Zapata, 2006) argue that the length of the firms' existence affects the lender's rationing behaviors. It is therefore anticipated that the age of the cooperative is positively correlated with its loan demand.

Cooperative's member size (MSIZE): It can be argued that the member size of a cooperative can reflect farmers' interest and confidence towards cooperatives. It can also be related to the magnitude of business activities because agricultural cooperatives mainly depend on incomes generated by marketing members' produce. Cooperatives with large member size are therefore expected to depict higher demand for bank loans (both in terms of seeking loans and volume of loan demanded).

Total capital (TOTCAP): Total capital (in Birr) is the proxy for the initial endowment for cooperatives and is calculated as the sum of physical assets, equipment, share/bonds, cash in bank and cash on stock. Several studies (e.g. Zapata, 2006; Mpuga, 2010; Aga and Reilly, 2011) reported that firms that have better assets are more likely to seek and/or secure formal credit. This could enhance their ability to provide viable collateral and is likely to boost lenders' confidence to extend loans. Zapata (2006) notes that businesses with smaller asset size and lower daily sales experience greater rationing from lenders. Though in certain cases, the effect is ambiguous as it can be argued that businesses with higher capital can meet at least part of their financial needs, we hypothesise that the level of total capital is generally positively associated with higher probability of demanding loan.

Liability (LIA2012): This refers to the sum of all outstanding loans (when the survey took place) that the cooperative has to repay to the creditor. It can be logically expected that cooperatives with large outstanding liabilities may refrain from taking additional loans, or lending institutions may be reluctant to provide additional credit. On the other hand, cooperatives with outstanding liabilities may look for more loans to settle their outstanding loans and for additional business undertakings. It was therefore hypothesised that liability would have either positive or negative effects on demand for loan.

Total annual income (TOTINC): This refers to the total annual sales revenue generated both from coffee and non-coffee business activities during the year (in Birr). This can reflect the level of business activities of the cooperative. Mpuga (2010) argues that economic activities, needs and expenditure increase with an individual's/household's income. Entrepreneurs with higher income may also have a better chance to accumulate sufficient asset that can serve as collateral to acquire more loans as well as may aim to further expand their business. It can thus be expected that a higher value of cash income increases the probability of demanding for additional finance. On the other hand, earning higher income may also enable cooperatives to self-finance at least part of their financial requirements.

Total expenditure (TOTEXP): This represents the sum of all kinds of expenditures incurred by the cooperative during the year 2012 both for productive business activities and social and other purposes. The level of expenditure can reflect the magnitude of business activities of the

cooperative. It is therefore expected that the greater the level of expenditure the more likely the cooperative is to demand credit - both probability of borrowing and amount demanded.

Experience in coffee business (LENBUSS): Coffee business (in terms of processing and marketing) requires substantial amount of capital. Cooperatives with longer experience in coffee business are more likely to establish links with various institutions and may undertake better and larger business activities. Moreover, experience enhances the technical and managerial skills of cooperatives. It is thus anticipated that the length of experience in coffee business (in years) increases the probability and amount of loan demands.

Primary activities of the cooperative (MBUSACT): The primary activity/sector in which the borrower is engaged, as Mpuga (2010) notes, can influence its demand for credit. Moreover, lenders may relate the growth or riskiness of a firm to the nature and riskiness of the sector which it operates in (Aga and Reilly, 2011). On the other hand, involvement in various business activities may enable cooperatives to generate cash that would help them self-finance and relax their financial constraints. It is also possible that engagement in diverse business activities can raise their appetite for loan. Thus the association of this variable with loan demand can be positive or negative. This is a dummy variable that takes the value of 1 if the cooperative is engaged in coffee and other trade activities, and 0 if only involved in coffee trade.

Membership to union (UNIMEMB): A study in Ethiopia (Aga and Reilly, 2011) reports that a firm that is a member of a business association is more likely to have access to credit. This could be due to the fact that membership of such organisations can increase links, information flow and trust among member (sister) firms and with others. Experience also shows that cooperatives affiliated to unions appear to have better business activities than non-members. This variable is thus expected to positively associate with demand for loan – both probability of demand for and volume of loan demanded.

Regional Location (LOCSNNP and LOCOROMO): The location of the firm could be an important factor that determines its demand for and access to credit. This can be related to population density, loan scarcity, market opportunity, and spatial distribution of financial institutions (Aga and Reilly, 2011). In relation to coffee production, location can also be related

to water availability (which influences productivity and choice of processing method), coffee farming system, infrastructure, service provisions (extension, finance, etc), union's strength and operations, and economic activities. Barslund and Tarp (2008) found huge regional difference in the demand for credit in Vietnam. However, a priori expectation about the sign of this association is not clear. Taking the cooperatives in the SNNP region as a reference dummy variable, dummy for cooperatives in Oromia (LOCOROMO) was considered in the model. In other words, a value of 1 was assigned to cooperatives from the Oromia region and 0 otherwise.

Distance from banks (DISBANK): The distance from the lending financial institution could be an important factor determining access to loans. It can have implications for awareness about the service, trust between the lender and borrower, and transaction costs. Several studies (e.g. Khan and Hussain, 2011; Barslund and Tarp, 2008) report that the demand for a loan is negatively related to the distance between the borrower and the lending institution. This was however not expected to have significant impact on the volume of loan demanded.

Previous default (DEFAULT): This is a dummy variable whereby a value of 1 was assigned if a particular cooperative had ever defaulted and 0 otherwise. Cases of previous default can prevent cooperatives from accessing new loans. Therefore, it was hypothesised that those cooperatives which defaulted on previous loans would have less probability of demanding for loans. This was however not expected to significantly affect the amount to borrow.

3.3. Intervening Through a Loan Guarantee

This section provides literature review and theoretical discussions on issues related to various aspects of loan guarantee interventions.

3.3.1. What is a loan guarantee and why it is chosen?

Small scale farmers, urban poor and small entrepreneurs often encounter difficulties in accessing financial resources which largely emanate from imperfect financial markets. Governments, donors and other agencies often intervene in financial markets through various measures to address the financial constraints facing the poor and small enterprises. The major tools used to foster flow of financial resources to small enterprises include direct and special lending programmes, government-funded wholesale credit, credit guarantee scheme, interest subsidy and regulative subsidies (Tunahan and Dizkirici, 2012; Saldana, 2000). Many scholars (e.g. Tunahan and Dizkirici, 2012; Zecchini and Ventura, 2009; Kuo *et al*, 2011; Back *et al*, 2010; Kang and Heshmati, 2008) posit that credit guarantee is the most popular measure accepted as an effective mechanism to alleviate SMEs' financing constraints, and help to attain national economic and social development goals. Some (e.g. Saadani *et al*, 2010) note that partial credit guarantees cause less market distortions compared to other financial intervention measures due to their limited interference in credit allocations of financial institutions. Though the origin of credit guarantees is traced back to the developed countries of the West and North, donor agencies and national governments have widely supported the set-up of such schemes across many developing world in recent decades. Cowling and Mitchell (2003) note that loan guarantee is a central element of Governments' SME policy in both developed and developing countries. Apart from national governments, donors, non-governmental organisations and private agencies have been widely involved in supporting loan guarantee programmes that target small entrepreneurs.

A credit guarantee¹⁶ is “a financial product that a small entrepreneur can buy as a partial substitute for collateral; it is a promise by a guarantor to pay to the lender all or part of the defaulted loan amount” (Deelen and Molenaar, 2004: 11). According to Beck *et al* (2010), a

¹⁶ In the literature the expressions of credit guarantees and loan guarantees are used interchangeably (Jonson, 2009).

partial credit guarantee fund is a risk transfer and risk diversification mechanism. Loan guarantees cover an agreed percentage of the loan losses, depending on the risk coverage arrangement. In case of any default, the lending institution under such an arrangement claims the value of the guaranteed loan loss from the guarantee fund based on the agreed coverage level. Credit guarantees primarily aim at encouraging financial institutions to boost their lending to those sectors that are traditionally perceived as risky and/or without adequate assets to pledge as collateral. Many (e.g. Deelen and Molenaar, 2004; Green, 2003; Tunahan and Dizkirici, 2012) note that the main target group for a loan guarantee programme are small and micro entrepreneurs who have feasible projects and repayment capacity, but who cannot obtain bank loan due to limitations in meeting lending requirements such as loan security. The reluctance on the part of the lenders to extend loans to rural-based smallholders and other small enterprises could be mitigated at least in part by introducing a credit guarantee (World Bank, 1994). Saldana (2000) indicates the need for credit guarantees to support three types of firms, namely: those with insufficient collateral, those with insufficient credit history and for start-up projects. Deelen and Molenaar (2004) however argue that a guarantee fund should not be normally needed at start-up phase of an enterprise. They go on to suggest that the aim of CGSs is to support productive loans that promote enterprise development that generate income, and not to promote consumption loans. Designers of a guarantee programme thus need to carefully consider the objective of the intervention as well as critically analyse the situation of the targeted borrowers in deciding appropriate loan and target group eligibility criteria and whether to promote initiation of new projects/businesses or to support operations of existing ones.

Some studies (e.g. D'Ignazio and Menon, 2013; Green, 2003; World Bank, 1994) claim that in addition to mitigating credit rationing, loan guarantees have a role in improving the terms of a loan as well as in reducing borrowing costs. In addition, some analysts (e.g. Kuo *et al*, 2011; Craig *et al*, 2009) suggest that loan guarantees can minimise problems of adverse selection and moral hazard. Because the lower interest rate (expected to be offered because of the guarantee) encourages or allows less risky borrowers to participate in the borrowing activities. Likewise, some (e.g. Levitsky, 1997; DFID, 2005; Freedman, 2004) suggest that credit guarantee schemes can be an effective tool in changing lender's behavior as it allows them to test and check that lending to this market segment may not be that risky. In other words, through learning-by-

lending, credit guarantees offer banks an opportunity to gain a better understanding about small entrepreneurs, their businesses, their financial requirements, challenges, and better ways of dealing with them. Another important contribution of a credit guarantee, as Green (2003) notes, is that it may induce some sort of competition in the banking sector, which can improve credit allocations with better terms. In addition, some (e.g. Deelen and Molenaar, 2004; Green, 2003) claim that credit guarantees can rectify information asymmetries that often lead to credit market imperfections and the resultant credit rationing. However, as Beck *et al* (2010) noted, this informational advantage can be realised only when the guarantor has better information about the borrower than the lender, which might not be the case in many guarantee programmes.

Moreover, Deelen and Molenaar (2004) argue that many banks in developing countries are over-liquid but do not put their funds to use because of the perceived high risk of potential borrowers (such as small entrepreneurs). Guarantee funds can thus help to channel such un-utilised resources into the economy. However, in reality this does not seem to be the case under the Ethiopian context where most banks experience problems related to limited financial position. Riding and Haines (2001) note that loan guarantee programmes are an efficient means of creating jobs. Such merits of loan guarantee funds are usually used by governments to justify their expenditure in such programmes, especially as a job creation mechanism for the youth. According to Green (2003), in addition to their role in enabling investments in physical capital, through consultancy, training and other services, such intervention can contribute to the development of human capital. Moreover, supporting enterprises and entrepreneurs in rural and marginalised areas can contribute to regional development and help to reduce rural-urban migration. Green further states that CGSs can pursue social goals, such as reducing social tensions, empowering marginalised groups or assisting in post-war reconstruction efforts.

3.3.2. Typology, design and modes of operation of Loan Guarantee Schemes

Although all credit guarantee schemes aim at improving access of small enterprises to institutional credit, they often differ in their design features, mode of operation, funding source, target group and so forth. All loan guarantee programmes involve at least three parties who take part with different motives (Riding *et al*, 2007) - borrower, lender and guarantor. According to Deelen and Molenaar (2004), credit guarantee programmes date back to the 19th century, when

the first CGSs were set-up in Europe in 1840s. Those early schemes were essentially mutual guarantee associations, whereby several entrepreneurs come together and contribute their own funds to provide guarantees for each other. At present, the number of credit guarantee programmes across the globe has shown substantial growth (Tunahan and Dizkirici, 2012). Green (2003) reported that there were more than 2250 CGSs in 100 countries, and the largest and well-established schemes were operating in OECD countries and Asia. Deelen and Molenaar (2004) note that a series of guarantee fund programmes were tried in developing countries in the 1970s and 1980s, which were largely donor-driven initiatives. Evidence shows that many of them encountered failures, which caused some pause among the donor communities and development agencies in promoting them. The failures, as Davies (2007; *cited* by Panetta, 2012) argues, were mostly due to deficiencies in the wider institutional environment as the schemes were highly politicised and undermined financial criterion or economic conditions affecting the borrower's ability to effectively utilise and repay. However, interest in and support for credit guarantee programmes were revived in 1990s (Green, 2003; Deelen and Molenaar, 2004). This could be, at least partly, attributed to the removal of other forms of financial intervention following adoption of the SAP measures in the 1980s and 1990s.

Based on data from 76 countries, Beck *et al* (2010) reported that while many countries have such schemes, their ownership, pricing, risk assessment, management and funding structures vary. Likewise, reviewing the experiences of various schemes, Levitsky (1997) reported variations in eligibility, leverage, risk sharing, guarantee administration, fees and claim procedures across different schemes. Studies (e.g. Beck *et al*, 2008) show prevalence of various specialisations in partial credit guarantee programmes, whereby most of them were restricted to certain groups (such as small enterprises) or specific regions or sectors. Green (2003) argues that the key distinction of loan guarantee programmes should not be the terminology assigned to them but the operators of the scheme. Green (2003: 18) outlines five major types of guarantee systems based on the operators of the schemes: mutual guarantee associations, publicly operated national schemes, corporate schemes¹⁷, schemes initiated through bilateral or multilateral cooperation and those operated by NGOs. Several authors (e.g. Tunahan and Dizkirici, 2012; Navajas, 2001; Green, 2003) discussed various classifications of credit guarantee programmes operating in

¹⁷ *Corporate associations are established, funded and operated by the private sector (Beck et al, 2010).*

various countries. The major types include: mutual versus non-mutual programmes; closed/targeted programmes versus open programmes; partial guarantee programme versus those with full guarantee; funded versus unfunded programmes; direct guarantee versus indirect guarantee programmes; guarantee based on business versus guarantee based on portfolio; and ex-ante versus ex-post programmes¹⁸. Navajas (2001) notes that since these classifications are related to different aspects, they are not mutually exclusive. Many (e.g. Deelen and Molenaar, 2004) argue that in reality any single CGS combines features of the different models. One of popular classification of a credit guarantee scheme is related to the role and responsibility in screening eligible borrowers, i.e. individual versus portfolio approach. In some schemes lending institutions are responsible for credit decisions (screening and approval of loans), while in other cases guarantors (guarantee administrators) play an active role in evaluating each and every application for guaranteed loans. Evidence (e.g. Beck *et al*, 2010) suggest that guaranteeing individual loans (as opposed to the portfolio approach) has the advantage of reducing risk for the guarantor, while such undertaking obviously involves substantial costs.

Deelen and Molenaar (2004) underscore that there is no blueprint or one particular model that always works better than others under all situations. The most important thing is choosing and devising the most relevant model for that particular context. Deelen and Molenaar suggest that when designing a guarantee scheme, the existing financial landscape, the socio-cultural set-ups, and the prevailing rules and regulations have to be taken into account. More importantly, CGSs have to exhibit some flexibility and be adapted and changed based on the experience gained and changing situations during the course of their actual implementation (Levitsky, 1997).

¹⁸ *In the case of Direct Guarantee, the donor agency acts as the guarantor and pays the agreed percentage upon default. The borrower is presented for guaranteeing by a lender and the guarantor decides whether to guarantee the loan or not. In the case of Indirect Guarantee, a third party administers the fund established by the donor agency and the claim is debited to the fund by the third party and can take place without direct involvement of the donor. In the Individual model, each borrower is approved by the guarantor, while the borrowers still have to fulfil the lender's requirements. In the Portfolio model, the guarantor does not approve single loans, but negotiates the criteria for the portfolio it is guaranteeing. All loans meeting these criteria will be automatically guaranteed by the fund. The funded and unfunded schemes classification relates to the funding of the scheme. Funded schemes can be financed only by the central bank, or by banks participating in the fund; or by banking and non-banking institutions. In the case of Unfunded schemes, the government finances the guarantees and pays claims on loan defaults. On the other hand, commercial banks administrate the fund and decide if a loan is to be guaranteed or not. If there is no special requirement for the target group, the scheme is said to be open. But the Targeted (closed) scheme is introduced to support a particular target group. But not every member of the target group will be automatically guaranteed. In Ex-ante schemes, the borrower presents his/her project and request to the guarantor. If the guarantor agrees to guarantee, it issues a letter of guarantee favouring the borrower. In the case of Ex-post schemes, the lender evaluates the borrower and once the loan is approved, the latter is referred to a CGS and applies to the guarantee. The Intermediary model is especially suitable for micro finance. It consists of a guarantee from a bank to a non-bank micro finance institution. Then, the micro lender uses the funds to loan or finance a line of credit for micro entrepreneurs (Navajas, 2001).*

3.3.2.1. Risk sharing in a loan guarantee scheme

There are many variations in the risk sharing arrangements of credit guarantee schemes designed in different countries. The common practice is a partial guarantee scheme whereby the lender and the guarantor each bear a fixed portion of the loan loss. There are also some schemes that require the guarantor to cover all of the loss up to some fixed portion of the total guaranteed loans. Each approach and type has different incentives and costs (Honohan, 2010). Deelen and Molenaar (2004) recommend that in all guaranteed lending arrangements it would be good if all the three parties involved in the scheme have something at stake. This would motivate them to exert genuine efforts in minimising the risk of loan loss. Levitsky (1997) similarly argues that a 100% risk coverage is liable to moral hazards on the part of both the lending bank and the guaranteed loan borrower. The author notes that at present, a 100% guarantee coverage is mainly confined to countries like Canada, Japan, Luxembourg, Spain and, to a certain extent, to South Africa, where the financial sector and banking system are well developed. Based on the experiences from a credit guarantee programme in Japan, Iichiro *et al* (2006) argue that a 100% risk coverage had a number of undesirable effects by reducing the efforts of the borrower firms to improve their capacity and eligibility. Moreover, such high risk coverage resulted in moral hazard both among lenders and borrower firms (who tried to strategically default).

A number of factors dictate the level of risk coverage that the guarantor of a guarantee programme should absorb. In general, the risk sharing arrangement needs to take into account the loan screening, delivery and recovery mechanisms, and the nature of the targeted borrowers and their enterprise, among others. Deelen and Molenaar (2004) propose that if a lender has consistently extended poorly performing guaranteed loans, the guarantor should lower the percentage of risk coverage on future loans or increase its fees. A study based on the Canadian scheme (Riding and Haines, 2001) shows that tiny reduction in the level of a guarantee coverage could lead to substantial reductions in default rates. Deelen and Molenaar (2004) however warn that lenders are unlikely to find an offer of less than 50% risk coverage attractive as they have to undertake the loan appraisal, follow up and recovery process. Under schemes with other attractive incentives for the participating banks, a reasonably low level risk-sharing may not cause significant reluctance in extending guaranteed loans. Most of the CGSs reviewed earlier by

Levitsky (1997) have guarantees of between 60% and 80% of the loan amount, while few (25%) had 50% cover and just 11% were providing 100% coverage. In general, as Freedman (2004) notes, choosing the level of risk coverage represents a trade-off between minimising moral hazard and maximising the ability of the intervention to promote additional lending activities. Thus, as Deelen and Molenaar (2004) suggest, the level of risk coverage has to be carefully negotiated with the lending bank and mutually agreed up on. In some schemes, the borrowers are also required to have some contribution in the form of equity. The level of such equity contribution may differ from country to country depending on the conditions of the financial markets and the internal regulatory environment (Deelen and Molenaar, 2004).

3.3.3. Additionality and loan fund leverage

Many agree that one of the primary contributions of a credit guarantee is generating additionality or incrementality¹⁹. Providing a precise definition of additionality is not that easy as it is understood and expressed in various ways. In its simplest form, additionality refers to the additional loans extended to targeted borrowers as a result of the guarantee provided to the lender or the amount of loans that the lending bank has in its portfolio that it would have rejected were it not for the guarantee (Levitsky, 1997: 14; Saldana, 2000: 42). This definition however appears to focus only on one aspect of additionality, i.e. *financial additionality*²⁰. In short, financial additionality measures the direct effect of the credit guarantee scheme on the relationship between the bank and the borrowing firm (Panetta, 2012). Various authors (Green, 2003; Meyer and Nagarajan, 1996; Levitsky, 1997; Panetta, 2012) maintain that the presence of a loan guarantee may improve the loan terms and conditions, which can be taken as another form of financial additionality. These include a longer repayment period, larger loan size, a less stringent collateral requirement, reduction in interest rate, faster loan processing time, and provision of loans on a more-timely basis. Thus studies that attempt to assess financial additionality should not solely concentrate on the additional loans extended to the target beneficiaries. Another important aspect is that credit guarantee schemes finally aim to achieve

¹⁹The term additionality is popularly used in Europe, while incrementally is used in North America (Riding *et al*, 2007). But both refer to the same concept.

²⁰Financial additionality refers to an increase in access to institutional loans by targeted borrowers that would have not been possible in the absence of a scheme.

economic additionality, which refers to the outcomes and long-term impacts such as improvements achieved in borrowers' business activities and economic returns and in the overall economy. Such impacts may include an increase in the income, profit, survival rates of firms, employment, wages, sales, new product development, competitiveness, productivity, output, investment, economic growth and increase in tax revenue for the government (Green, 2003; Panetta, 2012; Saadani *et al*, 2010). Economic additionality can take two dimensions: direct and indirect economic additionality. The former refers to the direct impacts of the guaranteed loans on the borrowers, while the later implies the indirect and wider benefits generated as a result of the business and economic activities of the users of the guaranteed loans.

More importantly, a credit guarantee can act as a lever for generating substantial loan funds with limited volume of guarantee funds. This can be realised by encouraging banks to channel more loan funds to small entrepreneurs than they would normally have done. Thus leverage helps to measure the amount of funds that have been supplied to borrowers because of the provision of such loan guarantee. It is expressed as a ratio that is obtained by dividing the amount of loans extended by the capital of the scheme. Tunahan and Dizkirici (2012) note that one of the key indicators in evaluating financial sustainability of a credit guarantee programme is its leverage ratio. Given the partial risk sharing nature of the guarantees and the unlikelihood of defaulting on all disbursed guaranteed loans, guarantee funds are able to generate large amount of loans compared to their capital (*Ibid*). For instance, a CGS with leverage ratio of 5 and 50% risk coverage, can provide 5 USD guarantee by its 1 USD equity. Thus it provides 10 USD of loan because of the 50% risk sharing. Deelen and Molenaar (2004: 54) provide an example of a guarantee fund that has a capital of 1 million Euro. They report that past experiences show that the average loss rate on guaranteed loans extended to small entrepreneurs is not more than 20%. Thus for every 100 Euro loaned, not more than 20 Euro will be lost. That means banks can safely extend loans up to five times the size of the guarantee fund with 100% coverage. So with a one million Euro guaranteed fund, a total of five million Euros loans can be guaranteed even with 100% risk coverage, i.e. can generate a leverage of 5.

Many (e.g. Deelen and Molenaar, 2004) generally claim that the higher the leverage, the greater the achievement of the guarantee fund. Tunahan and Dizkirici (2012) however suggest that a

healthy guarantee programme has to keep its leverage ratio under a certain level without heavily reducing the ratio as it will restrict borrowers benefiting from the guarantees. Many (e.g. Levitsky, 1997; Deelen and Molenaar, 2004) point out that with a well-functioning guarantee fund, it is possible to generate a reasonable level of leverage (5:1 or 10:1), i.e. a loan portfolio of 5 to 10 times the amount of the guarantee fund within a period of about 10 years of its operation. They however warn that the default rate has to be taken into account before determining the most appropriate level of leverage.

3.3.4. What do critics say about loan guarantees?

There is no consensus about the effectiveness and impacts of a credit guarantee scheme in enhancing financial flow to the small enterprise sector and its outcomes. Evidence is not only scant, the findings of available studies are also inconsistent. Zecchini and Ventura (2009) maintain that it is still subject to debates whether state-funded CGS is an effective instrument to promote lending to small enterprises. Some scholars (e.g. Riding *et al*, 2007; Craig *et al*, 2009) note that though in theory loan guarantees are said to reduce credit rationing, presence of market imperfection may not necessarily need government intervention to correct it. Some argue that lack of collateral is not a decisive factor in discouraging banks from widely reaching out to small enterprises (Levitsky, 1997). In particular, under a financial market that experiences heavy state intervention and operate in tighter monetary and regulatory environments, such schemes may fail to generate substantial financial additionality. Some (e.g. Craig *et al*, 2009) even argue that such selective credit allocation is likely to be an inefficient and possibly counterproductive policy instrument. Green (2003: Vii) highlights the arguments advanced by critics against governments' efforts to intervene in the financial market through publicly-funded schemes. Firstly, we are not sure whether CGSs are a first-best measure to address the credit market failures. Secondly, it is doubtful whether CGSs effect the desired changes in the financial sector and result in substantial financial and economic additionality. In addition, others (e.g. Zecchini and Ventura, 2009; Navajas (2001) posit that credit guarantees are costly instruments and may not be sustainable over time. An assessment by Levitisky (1997) shows that transaction costs of such interventions appear to be much higher than losses through defaults. Levitisky thus warns that credit guarantees should not be taken as a substitute for correcting financial market or failure in the

legal system that often lead to credit rationing. In discussing potential drawbacks of the government-supported partial CGSs Honohan (2010: 1 - 2) states that:

“while the market can find uses for partial credit guarantees, the attractions for public policy can be illusory. Politicians can easily underestimate the true costs of such guarantees. Lack of clarity in the goals of these schemes complicates a cost-benefit analysis. Thus with many competing demands for public funds, the argument that such schemes would increase credit allocations might not be strong enough to justify the need for a subsidised credit guarantee system. Moreover, although CGS can help address the adverse information problem that causes credit rationing, government-funded guarantee administrators might not be at a better position in this regard. However, despite this vulnerability of the CGSs to opportunistic politicians, they can offer genuine advantages over direct government lending”.

Oh *et al.* (2008) on their part argue that the too generous and non-selective guarantee provision may generate undesirable effects by impeding the development of an innovative financial market and by making small entrepreneurs highly dependent on external interventions. The authors warn that access of weak firms to guaranteed loans may prevent competitive firms from getting loans, which inevitably result in a decline in the market share and economic returns of such competitive and innovative firms. Likewise, as Craig *et al.* (2009) note, critics of the US’s Small Business Administration (SBA) programmes claim that they unfairly benefit the financial institutions that participate in the guaranteed lending programmes. Furthermore, some (e.g. Levitsky, 1997; Posey and Reichert, 2011) warn that loan guarantees may introduce moral hazard if the lending banks relax their screening, loan disbursement and recovery processes. Likewise, being aware of the presence of such a loan guarantee may have an influence on the will and commitment of the borrowers to properly repay the guaranteed loans. Levitsky (1997), however, noted that moral hazard may not be a real danger since lending banks are zealous of their reputation for high loan-portfolio performance, and will exert genuine efforts to avoid loan defaults. Moreover, though borrowers are also aware of the fact that failure to repay their current debt will prevent them from accessing future loans, they may still exhibit some degree of reluctance and opportunistic behavior (for example by strategically defaulting). Some (e.g. Meyer and Nagarajan, 1996) argue that since lending requires capital, which is often scarce, the excessive demand for guaranteed loans by the targeted borrowers may surpass the amount of available loanable capital. Thus credit guarantees may struggle to produce sufficient additionality due to lack of adequate loanable fund.

3.3.5. What do empirical studies say about the role and impacts of loan guarantee schemes?

Several studies attempted to measure the role and effectiveness of credit guarantee programmes in alleviating credit constraints of small enterprises and their impacts on the economy. The findings of most of such studies have been inconsistent and at times conflicting. Panetta (2012) asserts that such notable variations in the findings of the different studies could be attributed to the differences in the structure of the credit guarantee scheme analysed, in the nature of the economy/market in which they operate and in the research methodology employed in analysing it. Overall, a number of studies (e.g. Zecchini and Ventura, 2009; Mafimisebi *et al*, 2010; Craig *et al*, 2007; Riding *et al*, 2007; 2008; Cowling and Mitchell, 2003; D'Ignazio and Menon, 2013; Allinson *et al*, 2013) reported positive contributions and some successes of credit guarantee schemes in various countries. For instance, Zecchini and Ventura (2009) in their study to assess the impact of Italy's public guarantees for SMEs reported that the scheme was effective in easing SMEs' financing constraints and in reducing their borrowing costs. The same study reported a cost reduction between 16 and 20%, and an estimated additional loan of about 12.4%. A review of various guarantee schemes (by Levitsky, 1997) reports that at least 30 to 35% additionality is realised in all CGSs that were properly designed and implemented. Levitsky suggests that additionality of at least 60% should be the minimum acceptable target for justifying existence of a credit guarantee scheme. In their study of the Nigerian Agricultural CGS, Mafimisebi *et al* (2010) found that, among other things, there has been growth in maximum amount of loan obtainable by farmers, number and value of loans guaranteed, volume and value of loans fully repaid and volume and value of default claims settled. More interestingly, they found that there was a long-run convergence between the number and volume of guaranteed loans and the Gross Agricultural Product.

A study by Craig *et al* (2007) assessed whether or not the USA's SBA guaranteed lending has generated a significant impact on local economic performance. They found a positive and significant relationship between the levels of SBA's guaranteed lending in the local market and the future per capita income growth in that market. Posey and Reichert (2011) similarly tried to examine the role of a loan guarantee in lines of credit granted to small businesses in the USA. The findings confirm that the presence of a loan guarantee is indeed associated with lower

interest rates and smaller lines of credit. A study conducted in Korea (Oh *et al*, 2008) attempted to evaluate the effect of the credit guarantee policy on various aspects. The results suggest that credit guarantees significantly influenced firms' ability to maintain their size as well as increased their survival rate, but did not increase their R & D, investment and growth in productivity. A study by Cowling and Mitchell (2003) on a CGS in the UK reported that the scheme has successfully addressed the financial constraints of the majority of small businesses who obtained loans under the scheme.

Some studies reported that the evaluated CGSs had partially achieved their goals. For instance, Kang and Heshmati (2008), in their study to examine the effects of a credit guarantee scheme on survival and performance of SMEs in Republic of Korea, reported that the scheme enhanced performance of the beneficiary firms. On the contrary, they found that the effect of the guarantee amount is ambiguous due to the difference between the contemporary effect and lagged effect. They conclude that CGS partially attained its goal of alleviating SMEs' difficulty in acquiring finance and in stabilising employment. On the other hand, some studies revealed a total failure or ineffectiveness of credit guarantee schemes in a number of countries. For example, a study by Boocock and Sharif (2005; *quoted* by Oh *et al*, 2008) concluded that a Malaysian CGS in general failed to satisfy financial additionality. Similarly, Zhang and Ye (2010) in their study of the credit guarantee system for SMEs in China found complete inefficiency and failure of the scheme in facilitating flow of financial resources to the SME sector, which severely hindered the development of SMEs in China.

3.3.6. Factors influencing effectiveness and success of a credit guarantee scheme

The effectiveness of a credit guarantee programme could be enhanced or impaired by a host of factors such as regulatory framework, financial situations of the lending banks, design and operational features of the scheme, situations of the borrowing firms, input and output markets, among other factors. Many (e.g. Green, 2003; Deelen and Molenaar, 2004; Honohan, 2010) emphasise that proper functioning and success of a guarantee scheme is largely determined by its operational design. These include, among others, whether the objectives are clearly defined or not, procedures of extending the guarantees, eligibility criteria, risk sharing arrangements, fund administration, and internal control and reporting systems. Particularly setting clear and precise

goals, realistic pricing, and integrating incentive features for the creditors are among the critical conditions for such schemes to be able to achieve significant impacts (Honohan, 2010; Saldana, 2000). Thus in designing such a guarantee scheme efforts should be made to align the social and economic incentives of the guarantor and the lending banks. In this regard, Green (2003) notes that incentives for the lenders and borrowers to actively participate depend on the scheme's marketing efforts, risk sharing arrangement, presence of additional accompanying services, cost effectiveness in screening and monitoring, level of fees, credibility of the guarantor and their relation with the lender.

Green (2003) suggests that in order to achieve additionality, CGSs need to effect changes in the banking sector, which may include influencing their risk perception of small firms or enterprises and developing institutional capacity in small business lending. Some analysts (e.g. Hansen *et al.*, 2012) highlight the importance of selecting the right partners for the scheme and the complementary role of capacity building. Experiences of other countries suggest that one of the challenges of the guarantee programmes established in developing countries is persuading the banks to participate in the programme (Tunahan and Dizkirici, 2012). According to Deelen and Molenaar (2004) often banks can promise to participate in a CGS but eventually may fail to actively participate in the actual lending activity. They claim that this is largely due to the attitude of the bank officers, who are trained to deal with asset-based collateral and expect borrowers to provide full coverage. In the views of Tunahan and Dizkirici (2012) ownership structure of the banks can also influence their participation in such credit guarantee programmes. They go on to suggest that participation of many banks whereby each one will have only a few guaranteed loans can cause complications and increase the cost; thus the preferred approach could be to include bigger banks with larger shares in the market. However, some have reservation in that such an approach can discriminate the emerging, more innovative and enthusiastic banks. In addition, the financial status of the participating banks obviously influences its lending capacity. In order to overcome such a challenge, some (e.g. Deelen and Molenaar, 2004) suggest that guarantees have to be liquid or have to have a relatively high liquid value. These would allow the lending institution to obtain sufficient cash to meet its depositors' cash withdrawal needs.

More importantly, Deelen and Molenaar (2004: 20) underscore that guarantee programmes are not intended to mitigate the problems of weak entrepreneurship or poorly performing banks. They argue that guarantee funds cannot automatically turn a bad investment into a viable one and emphasise that CGSs are only likely to be successful when the four Ps are all present: well-prepared entrepreneurs who present good projects to good performing banks that have professional staff to carry out an evaluation. Levitsky (1997) similarly remarks that CGSs can only work when there are competent and financially sound banks with experienced and competent staff that can effectively manage such guaranteed loan portfolios. DFID (2005:4) outlined a range of key factors influencing the success or otherwise of a CGS in effectively promoting financial sector deepening. As outlined in Table 3.1, the factors for success and failure were categorised as macro and micro level factors.

Table 3.1: Factors contributing to successes and failures of a credit guarantee programme

<i>Some macro factors for success</i>	<i>Some macro factors for failure</i>
<ul style="list-style-type: none"> • An open and competitive banking environment • A conducive monetary and regulatory environment • A dynamic and expanding business sector with viable opportunities • Supportive political, policy and regulatory framework that is supportive for businesses 	<ul style="list-style-type: none"> • A thin banking sector that is controlled by a few powerful vested interest • Restricted liquidity among the lending banks; high interest rate • A weak business sector that is not under pressure to change or reform • Corruption or incompetence that distorts or restricts the operation of market forces
<i>Some micro factors for success</i>	<i>Some micro factors for failure</i>
<ul style="list-style-type: none"> • An influential ‘champion within the lending institution who actively participate in the CGS for commercial reasons • A financial sector approach to CGS design that strives to deepen the financial sector • An understanding of the market forces • A long-term approach that emphasises institutional and financial sustainability 	<ul style="list-style-type: none"> • Lack of support or understanding of the commercial logic of the CGS among lender • A social sector approach that focuses exclusively on a short-term goal of pushing finance to the SME sector • Focus on the social obligation of lenders or compliance with regulations or policies • A project approach that focuses on short-

<ul style="list-style-type: none"> • Transfer of appropriate lending technology with necessary technical assistance • A participative approach with a balanced partnership between the three actors • Ownership by the lending institutions that stems from significant benefits 	<ul style="list-style-type: none"> term objectives • Focus on achievement of project lending objectives without regard for sustainability • Coercion of lenders through a non-transparent benefits or pressure from political and regulatory authorities
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Source: Extracted from DFID (2005)

Earlier credit guarantee schemes emerged in countries that largely pursue liberal economic thinking, which had a vibrant private sector and a strong tradition of associations of people engaged in different sectors. When one looks at the Ethiopian context, the government exercises heavy intervention in the key sectors of the economy (including the financial sector) with accompanying tighter regulatory systems, which may significantly influence the effectiveness and successes of such a guarantee scheme. Because such state interventions and control would inevitably alter normal operations of the market forces. For instance, tighter regulation may discourage commercial banks from lending to the marginalised groups such as farmers and their cooperatives. As Green (2003) notes, earlier experiences with such initiatives in Latin America and Africa demonstrate that political interferences, business and economic environments affect guarantee funds' proper utilisation and repayment. Green suggests that such shortcomings can largely be overcome through private sector involvement in funding and management of such schemes. However, evidence (Green, 2003; Levitsky, 1997) suggests that though globally there has been an increasing trend in the participation of private sector actors in such programmes, most of the guarantee schemes in Africa were government or multilateral initiatives. In particular, under the Ethiopian context, limitations in the development of the private sector can pose severe challenges in this regard. Despite such limitations and challenges, at least in the long-run, heading towards that direction in promoting credit guarantee is critical and inevitable. In other words, if such programmes have to be expanded and sustained, participation of the private sector should be nurtured and seriously promoted in terms of guarantee fund provision (at least by making some contribution), fund administration and, of course, in the guaranteed lending activities.

3.3.7. Analytical Approach in Evaluating Loan Guarantee Schemes

Several scholars (e.g. Cowling and Mitchell, 2003; Kang and Heshmati, 2008; Green, 2003) concur on the fact that, despite their widespread use and massive resource commitment, evaluations of CGSs have not been granted adequate attention. Green (2003) notes that though there are a number of evaluations of individual guarantee schemes, they are often limited in scope and few schemes have been evaluated consistently. Consequently, many schemes often continue operating despite massive losses, poor performances and little economic and social contributions. This section presents the analytical and methodological approaches employed in evaluating credit guarantee schemes. The section finally provides the analytical approach chosen for analyzing the performance and impacts of the credit guarantee scheme under analysis.

3.3.7.1. Measuring additionality

Despite its popularity in assessing the impacts of credit guarantees, many scholars (e.g. Riding *et al*, 2007; Meyer and Nagarajan, 1996; Levitsky, 1997; Tunahan and Dizkirici, 2012; Vogel and Adams, 1997) allude to the difficulty of measuring additionality, particularly the challenges related to methodological complexity and costs of such an assessment. These scholars argue that it is not easy to determine correctly how much less lending would have occurred if there were no guarantee schemes. Some (e.g. Honohan, 2010) argue that, if not all, some of the loans might have been forthcoming even in the absence of the guarantee. Moreover, measurement of additionality is not straight forward as it is expressed in various forms (Riding *et al*, 2007; Green, 2003). Problems related to definition of additionality, clarity of their objectives and targets further complicate evaluations of guarantee schemes. Green (2003) comments that particularly measuring economic additionality is costly since the post-intervention activities of the borrowers and their outcomes need to be closely monitored in terms of increased outputs, sales, profits, employment, improvements in living standards, etc. Honohan (2010) underscores that it is even more challenging to evaluate the social benefits generated by the credit guarantee as the volume of loans guaranteed is not sufficient to measure such a benefit.

With regard to aspects that should be measured in evaluating a credit guarantee scheme, the common and most obvious approach is measuring additional loans extended to targeted borrowers as a result of the guarantee provided to the lender. This aspect is normally known as

financial additionality. Many agree that improvements in the terms of loans should also be considered as another dimension of additionality. Thus studies that aim at assessing financial additionality should also look into improvements in the terms and conditions of loans, which are often neglected in such studies. D'Ignazio and Menon (2013) argue that even if no financial additionality is achieved, replacing short-term debt with long-term debt can improve the firm's financial structure, avoid diversion of short-term loans to long-term investment activities and eventually lower their probability of default.

Several scholars (e.g. Navajas, 2001; Meyer and Nagarajan, 1996; Green, 2003) highlighted a number of issues that need to be analysed in addition to financial additionality. These include the impacts on the three actors, namely: the guarantor, the lender and the borrowers. The authors note that the relevant variables to monitor in assessing CGSs in relation to the three parties vary. In examining the impacts on the guarantor, scheme design, its management, cost effectiveness and sustainability are crucial aspects that need to be evaluated. The authors further note that the impact on the lenders may include assessing changes in awareness and behavior of lenders, improved relationships with small scale borrowers and improvements in their lending terms and requirements. With regard to the impact on borrowers, additionality (financial and economic additionality) is often taken as an important aspect. Such studies should also look into whether the ultimate aim of the scheme (i.e. economic additionality) is achieved or not. This refers to the outcomes and long-term impacts on the borrowers and in the overall economy, which may include an increase on the commercial and economic activities of the borrowers in terms of income, profit, survival rates of firms, employment, sales, new product development, productivity, output, investment, economic growth and increase in tax revenue for the government (Green, 2003; Panetta, 2012; Saadani *et al*, 2010). In this regard, Panetta (2012) stresses that although economic additionality refers to the indirect benefits of a CGS, its assessment is of great importance in helping policy-makers decide whether or not to continue supporting such schemes. Apart from additionality, Honohan (2010) suggests that it is also important to consider default rates as it affects the effectiveness and sustainability of the scheme, and the perception of the lending banks towards such small enterprises.

In its simplest form, as Meyer (1992; *cited* by Saldana, 2000) points out, a currently accepted method to measure the impacts of such a programme is to assume a positive impact if the beneficiaries access the loan, fully repay and repeat the transaction cycle. D'Ignazio and Menon (2013: 9) summarised the aspects that need to be considered in assessing the effectiveness of a CGS into four groups. (1) Whether this measure led to an increase in the amount of credit granted to the targeted firms; (2) whether the CGS resulted in lower interest rate; (3) Whether the CGS improved the financial structure of the beneficiary firms; (4) Whether the CGS led to an increase in the level of output, investments and employment. Likewise, Dalberg (Hansen *et al*, 2012: 43) proposed an analytical model in assessing the performance of a credit guarantee scheme, which focuses on four aspects - inputs (credit guarantee offer); output (bank utilisation); outcome (borrower access); and impact (bank exposure). On the other hand, in analysing the effectiveness and outcomes of a credit guarantee scheme, Saadani *et al* (2010) looks into three main dimensions: outreach, additionality and financial sustainability. Overall, the implication of the above discussions is that there is no single and best way of evaluating a credit guarantee scheme. The choice of tools and approaches depends on the aspects that need to be assessed, the time and resources available to the researcher, among others. In general, as Navajas (2001) notes, since additionality is more complex than it appears, a simple research is not enough to confirm that CGS in fact yields these results.

3.3.7.2. Focus areas of past studies on credit guarantee schemes

Most of the studies that attempted to evaluate loan guarantees focused on schemes in developed countries such as **USA** and **Canada** (Riding and Haines, 2001; Riding *et al*, 2007; Graig *et al*, 2007 and 2009; Posey and Reichert, 2011), **Europe** (Cowling and Mitchel, 2003; Zecchini and Ventura, 2009; Tunahani and Dizkirici, 2012) and **Asia** (Saldana, 2000; Iichiro *et al*, 2006; Kang and Heshmati, 2008; Oh *et al*, 2008; Zhang and Ye, 2010; Kuo *et al*, 2011). A few examined schemes in Africa (Okon and Nkang, 2009; Mafimisebi *et al*, 2010; Hansen *et al*, 2012), while others (DFID, 2005; Beck *et al*, 2010; Honohan, 2010) explored global practices. Although Beck *et al* (2010) analysed typologies of partial credit guarantees around the world taking samples of 76 credit guarantee funds in 46 countries, their study included only one scheme in Africa.

In terms of areas of focus, though different studies examined various aspects of credit guarantee schemes, majority tended to narrowly focus on assessing the financial additionality achieved as a result of the guarantee intervention. A number of studies (e.g. Cowling and Mitchel, 2003; Iichiro *et al*, 2006; Kang and Heshmati, 2008; Mafimisebi *et al*, 2010; Posey and Reichert, 2011; Athreya *et al*, 2011; Tunahani and Dizkirici, 2012) tried to identify financial and economic additionality. Others (e.g. Riding *et al*, 2007; Okon and Nkang, 2009; Zecchini and Ventura, 2009) focused on financial additionality. A few studies (e.g. Oh *et al*, 2008; Craig *et al*, 2007; 2009) concentrated on exploring the economic additionality realised by the borrowed firms, and/or the impact of the intervention on the economy at large. In addition, a few studies (e.g. Saldana, 2000; Tunahani and Dizkirici, 2012) looked into the economic value of credit guarantee schemes to creditors.

DFID (2005) argues that studies related to the impact on the guarantor and lender has been restricted to the extent to which additional lending took place, and the mechanisms, design and management of guarantee schemes. In particular, little emphasis has been placed on the medium- to long-term impacts on the lending institutions involved in the scheme and the wider financial sector. In addition, most of the past studies focused on assessing the impacts of a credit guarantee scheme on the SME sector. Very few studies (e.g. Okon and Nkang, 2009; Mafimisebi *et al*, 2010) looked into CGSs that explicitly targeted the agricultural sector. Moreover, some studies (e.g. Iichiro *et al*, 2006) tended to focus their analysis on the successful and surviving firms. Nevertheless, including poorly performing borrowers and defaulters in the study and closely analysing their situation could have provided a better understanding of their experience, bottlenecks and challenges.

A significant number of past studies (e.g. Levitsky, 1997; Beck *et al*, 2010; Zhang and Ye, 2010; Honohan, 2010; Kuo *et al*, 2011) were devoted to describing design features and modes of operations of CGSs across countries. Apparently such studies have limitations in providing deeper understanding and lessons on the processes and context specific results. As Beck *et al* (2010) and Panetta (2012) point out, such studies do not allow proper assessment of the effects of operational contexts and the impacts of the different characteristics of the schemes on their performance and effectiveness. Mthimkhulu and Aziakpono (2012: 5) similarly comment that

across country studies face the challenge of a universally acceptable benchmark since each scheme will be uniquely designed to treat context-specific credit market problems making it difficult for definitive comparisons to be established. In general, as Panetta (2012) notes, most studies that attempted to compare the outcomes of credit guarantee schemes across different countries empirically suffer from poor data quality. The above discussion points to the need for context specific studies (in terms of target sector and country) that systematically generate comprehensive and reliable data on all relevant aspects of the scheme.

3.3.7.3. Methodologies used by past studies on credit guarantee schemes

Various studies cited the challenges related to the complexity of evaluating a credit guarantee scheme, especially in terms of methodology. A review of literature shows that studies that attempted to evaluate the effectiveness and impacts of CGSs used various methodologies. Even those studies that attempted to assess common aspects of credit guarantees such as financial additionality at times employ different methodologies and approaches. Some of the studies employed quantitative approaches (econometric models and/or descriptive statistics) to measure the effectiveness and impacts of a credit guarantee scheme (often based on cross-sectional data and/or data obtained from secondary sources). Others employed qualitative approaches, especially to provide descriptions of the different design and operational features of the schemes. According to a review work by Panetta (2012), researchers mainly used the following methods in measuring financial additionality: Analysis of guarantee programme files (the most commonly used method); structured and semi-structured interviews with borrowers and/or lenders (the second most commonly used method); analysis of bank and surveys of lenders; analysis of lending activity under loan guarantee programmes as compared to lending activity to small entrepreneurs in general. Studies that rely on a single tool and data collected at a single point in time have obvious limitations in providing continuous and in-depth analysis of the process, complex realities, variations in the operational contexts, and underlying causes for the successes recorded or failures encountered.

The discussions in the following paragraphs provide the different methodological approaches employed by previous studies in assessing the effectiveness and impacts of CGSs in different countries. In a macro-econometric analysis of the operation of Nigeria's Agricultural credit

guarantee fund, Okon and Nkang (2009), used vector auto-regression methodology, modeling the volume by number and value of loans guaranteed and repaid, with the addition of a credit-determining policy instrument. Likewise, Mafimisebi *et al.* (2010), in undertaking an assessment of the performance of the Nigerian Agricultural partial CGS, tried to calculate growth rates of various variables. Time-series data were analysed with exponential growth function to examine the rate of growth in relevant variables, and multiple co-integration to determine whether or not there is a long-run relationship between agriculture GDP and credit-related factors. In assessing incrementality of the Canadian loan guarantee programme, Riding *et al.* (2007) used a two-stage process. Initially, they estimated a logistic regression-based model of loan outcomes, a credit-scoring model. The model was then used to classify a sample of borrower firms under the scheme. The proportion of loan guarantee recipients that the model classified as turndowns was considered as a direct measure of incrementality.

Ichiro *et al* (2006) examined the impacts of the government-backed credit guarantee programme on credit allocation and economic efficiency in Japan. Using a panel data set of firms, they empirically tested the theoretical predictions of Makiw's (1986) adverse selection model. Zecchini and Ventura (2009) applied a new econometric approach to test whether Italy's CGS is an effective tool in promoting SMEs' access to bank credit and in decreasing borrowing costs. They carried out a fixed-effect panel data estimation using data on financial statements of beneficiary SMEs and compared them with the non-guaranteed firms. To account for temporal variation in the relationship, a Difference-in-difference approach was applied and tested for time trends. A study by Athreya *et al.* (2011) provides another quantitative assessment of the prices, allocation and welfare-related outcomes of the household guaranteed loans. They used a model that incorporates both a meaningful private information and limited commitment problem into a rich life-cycle model of consumption and savings.

On the other hand, Oh *et al.* (2008) carried out an evaluation of credit guarantees using propensity score matching methodology to construct a comparison group to overcome the problems of selection bias and counterfactuals. They compared key institutional, business and economic characteristics of a sample of guaranteed firms and matched non-guaranteed firms. Craig *et al.* (2007), using time series loan specific data and data on economic conditions from

three sources in the USA, tried to assess whether or not the SBA-guaranteed lending has generated a significant impact on local economic performance. To test the null hypothesis, they extended the analysis of Craig, Jackson & Thomson (2005), who used weighted least squares to estimate a regression model (stacked regression) relating measures of local economic performance to past economic performance, measures of SBA loan guarantees. To this effect, they estimated a similar regression model, using classic Arellano-Bond Panel regression estimation.

Saldana (2000) tried to examine the economic value of a CGS to creditors by analysing creditor's loss function. Cowling and Mitchell (2003) tried to empirically test the default specification outlined in Stiglitz and Weiss (1981), using a dataset of small firms who were credit rationed prior to successful application for guaranteed loans. They adopted an econometric modeling of defaults which focused on two aspects: probit models to investigate the type of firms and loan parameters most likely to default and duration models to investigate the factors that determine the default probability. Riding and Haines (2001), on their part, tried to conduct cost-benefit analysis of the Canadian LGS, using an equation that predicts the default rate as a function of the loan guarantee. In their study, two measures of default rates were employed. The first was long-term default rates on guaranteed loans, while the second default measure was the rate of default during the initial year of the intervention. Moreover, based on structured questionnaire and some descriptive statistics, they tried to determine the impacts of the guaranteed loan on revenue, profit, employment and survival.

In analysing the features and performance of guarantee schemes in four African countries (Ghana, Kenya, South Africa and Tanzania), Hansen *et al.* (2012) used a descriptive framework that consists of three basic dimensions: (1) targets - guarantee model, borrower type and loan characteristics; (2) processes - initiation, utilisation, reporting, claims, capacity building; and (3) financial terms - risk sharing, fees and funding. They further tried to assess the performance of the credit guarantees using a simplified logical framework in terms of input (guarantee), output (bank utilisation), outcome (borrower access), and impact (bank exposure). As Riding *et al* (2007) remarks a notable attempt to evaluate incrementality was that undertaken by KPMG (Clark *et al*, 1998) in their evaluation of the LGS in the UK, which used two complementary

approaches. The first approach entailed a series of in-depth interviews with borrowers and their loan account managers with regard to the processes of loan application, approval and disbursement. The authors comment that these approaches were useful in providing accurate information and as a means of understanding about the lender-borrower relationship based on rich qualitative data. They, however, note that as a mechanism of assessing incrementality, the approaches entail shortcomings in that they reflect recollected data which has obvious limitations. In addition, the costs of such in-depth interview data restrict the sample size. The second approach used by KPMG was based on a survey of owners of the guaranteed loan recipient firms. They argue that while allowing for higher accuracy, this approach also relied on recollected data and was subject to the biases resulting from the potential optimism exhibited by the firms.

3.3.7.4. Issues requiring precautions in evaluating a credit guarantee scheme

Several scholars outline a number of issues that need precautions in conducting evaluations of a credit guarantee scheme. Riding *et al* (2007) and Green (2003) point out that the effects of intra-portfolio substitution and inter-lender substitution²¹ can lead to an overestimation of additionality during evaluations. The authors argue that under such a situation, little net changes of the loan extended to the target borrowers are likely to occur and additionality will be overestimated. They also warn that lenders might employ ‘Column-shifting’, moving poorly performing loans into the guaranteed loan portfolio, which distorts the accuracy of real loan additionality. Many agree that the most obvious challenge is to distinguish between the scheme’s contributions and other factors that might have influenced the borrowers’ performance and lenders’ activities and decisions. Thus in order to measure the true impacts of the guaranteed loans, the counter-factual has to be systematically identified. In other words, one needs to know what the borrowers would have done without the guarantee and compare this to what they actually did with the guarantee (Green, 2003; Vogel and Adams, 1997). Many, however, note the difficulty of correctly estimating the counter-factual for both borrowers and lenders. The commonly used approach to overcome such a problem, as Green (2003) notes, is to collect baseline information on borrowers

²¹ The former emerges when a lender transfers part or all of the qualifying portion of its existing loan portfolio to the guarantee programme and then expands lending in non-targeted areas. The later refers to a situation where small enterprises serviced by other banks are captured by those banks operating under a guarantee scheme (Riding *et al*, 2007; Green, 2003).

prior to the implementation of the scheme and to compare with their situation some time later (after participating in the scheme). Alternately, a control group of borrowers with similar characteristics but without a guarantee intervention can be taken to simulate the counter-factual. More importantly, many (e.g. Levitsky, 1997; Green, 2003) recommend the need to carry out regular monitoring and evaluations of borrowers and lenders activities and behavior. Levitsky (1997) suggests that such sample studies can take place every two to three years to ascertain the degree of additionality achieved as a result of the intervention.

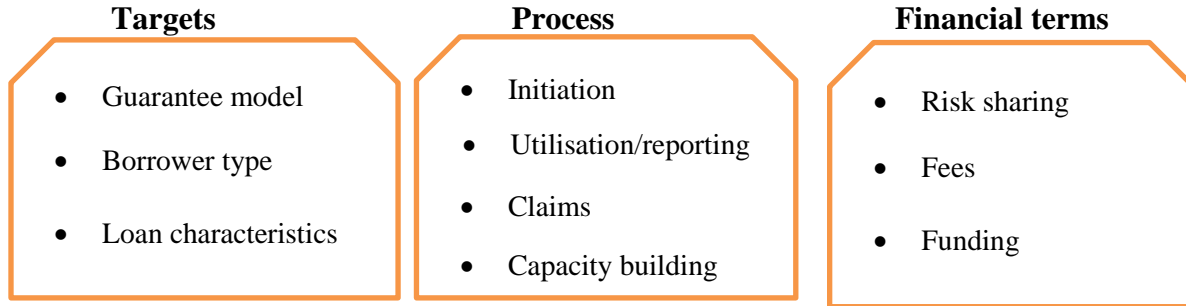
3.3.7.5. Analytical approaches used by the current study

The present study adopted different components of the approaches and methods used and/or proposed by various researchers. In undertaking the current analysis, as outlined in the next chapter, both quantitative and qualitative approaches and tools were employed. Though financial additionality was one of the major aspects assessed in the current study, efforts were made to examine other dimensions of additionality as informed by the theoretical and conceptual framework. Among others, the study explored loan additionality and related benefits; number of cooperatives received guaranteed loans; volume of granted loans; improvements in terms and conditions of loans; borrowing/lending relationships established between the banks and the cooperatives; changes and improvements in business activities of cooperatives; new investment activities realised; improvements in cooperatives' institutional capacity, and other relevant issues. Among others, some of the relevant elements of the analytical frameworks proposed by Dalberg (Hansen *et al*, 2012) and Saadani *et al* (2010) were adapted and used to guide both qualitative and quantitative assessments of the performance and preliminary outcomes of the credit guarantee scheme under analysis.

Dalberg proposed two simple analytical frameworks for assessing the features and performance of a credit guarantee scheme (see Figures 3.1 and 3.2). While we borrowed some components from the first framework in analysing the features of the current credit guarantee scheme, in the second framework emphasis was placed on the first three components of the model – input (credit guarantee offer), output (bank utilisation); outcome (borrower access and utilisation). In addition, from the three components of the analytical approach proposed by Saadani *et al* (2010) (outreach, additionality and financial sustainability), the current analysis focused on the first two

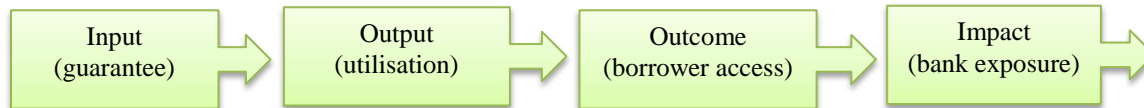
components. However, it was not possible to comprehensively assess long-term economic impacts as the scheme has been operated for a few years and was still ongoing when the write-up of this thesis took place. Details of the analytical approaches and methodologies used in the current study are outlined in the next chapter.

Figure 3.1: Framework for assessing the features and performance of guarantee schemes



Source: Dalberg Analysis (Hansen *et al*, 2012).

Figure 3.2: Simplified logical framework for assessing credit guarantee performance



Source: Dalberg Analysis (Hansen *et al*, 2012).

Summary

The main thrust of this chapter is to review relevant literature and provide a theoretical and conceptual framework for the analysis of various dimensions of rural financial systems in the context of developing countries, and particularly as related to agriculture and coffee cooperatives in Ethiopia. The chapter provided comprehensive discussions of relevant concepts, features, challenges and other aspects of rural finance. The chapter has explained that rural financial markets in developing countries are highly segmented and imperfect. Literature also argues that limited participation by rural households in the formal financial market is not solely attributed to gaps in the supply end. Demand side constraints also play a profound role even though they are often overlooked. The chapter also highlighted that a number of factors affect farmers' credit

sectoral choice and overall credit demand. Analytical approaches in estimating credit demand and its demands were also outlined.

The chapter went on to discuss credit guarantee schemes as one of the popular instruments used by governments and non-governmental agencies to intervene in the financial markets. They have been designed in various forms and widely used across the globe. The chapter argues that having their roots in the liberal and neoliberal economic systems, credit guarantees may have limited impacts in financial markets that operate under tight monetary and regulatory frameworks. Different studies that attempted to evaluate credit guarantee schemes used various methods and approaches. Assessing additionality (especially financial additionality) was among the aspects that have been widely addressed by most existing studies. Literature report mixed findings regarding the effectiveness and impacts of credit guarantees in different countries. Some of the factors that influence the successes of a CGS were also discussed. The literature study concluded that there are appreciable methodological and information gaps and highlighted the need for further investigation on some aspects using a combination of tools and approaches. The chapter finally provided analytical frameworks for assessing additionalities achieved under the current credit guarantee scheme.

CHAPTER 4

4. DESIGN AND METHODOLOGY OF THE STUDY

4.1. Introduction

This chapter presents the research design and methodologies employed by the present study, including description of the study area, sampling strategy, data collection and analytical methods used by the study. Measures taken in relation to research ethics are also explained.

4.2. Description of the study areas

The study was conducted in eight zones of the two major coffee growing regions of Ethiopia – Oromia and Southern Nations Nationalities and Peoples’ (SNNP). The main considerations in choosing the two regions were their involvement in the present coffee cooperatives’ credit guarantee scheme, and their potential in terms of coffee production. Oromia and SNNP regions account for the bulk (99%) of the coffee produced in Ethiopia; whereby the former and the later claim 64% and 35% of the national share, respectively (CSA, 2014). The two regions are known for producing the reputable coffee types of Ethiopia that are renowned for their unique taste and flavor. The country’s remaining forest resource is predominantly found in the two regions. The coffee forests that harbor diverse Arabica coffee genetic resources in the South-west and South-Eastern parts of Ethiopia are also located in the two regions. Arabica coffee grows wild in some parts of the forests of the highlands of these regions, which evidently demonstrates the fact that these areas are the original home for coffee *arabica*.

Oromia is the largest National Regional State in Ethiopia both in terms of population size and area coverage. With its elongated shape, Oromia stretches from the Western border across central parts of Ethiopia to the South and South-east corner of the country. Oromia shares common borders with all national regional states except with the Tigray region. According to the Oromia Bureau of Finance and Economic Development (2012), the estimated area of Oromia is about 363,375 square kilometers, which accounts for over 34% of the country’s total area.

According to the CSA's population projection for 2014, Oromia has a total population of 32.82 million. On the other hand, the SNNP region covers most of the South-western and Southern parts of the country. The SNNP region borders Kenya to the South and South Sudan to the West, and the Gambela region to the northwest, and the Oromia region to the north and east. The SNNP region has a projected total population of 17.84 million (CSA, 2014), which constitutes about one-fifth of the country's population. Various sources indicate that SNNP has a total land area of about 112,000 square kilometer. In fact SNNP is one of the regions with the densest rural populations in Ethiopia.

Administratively, the regions are divided into zones, districts (woredas) and kebeles²². Oromia regional state is classified in to 18 zones and 304 districts (265 rural and 39 urban districts) (OBoFED, 2012). Out of these, 13 zones and 153 districts are coffee producers to a varying degree. According to the CSA report (2014), about 1.68 million smallholders produce coffee in the Oromia region, with a total coffee land coverage of 359,728 hectares and annual production of 251,824 tons. Likewise, SNNP region is divided into 14 zones and 136 districts. Out of these, 113 districts produce coffee widely, while 47 of them specialise in coffee production. In total, in SNNP about 162,767 hectares of land is covered by coffee with annual production of 137,347 tons (CSA, 2014).

Some features of the study zones

The study was conducted in eight zones where the credit guarantee scheme under analysis has been implemented. These are West Wellega, East Wellega, West Hararge, East Hararge, Kaffa, Wolayita, Hadiya and Kembata Tembaro zones. The zones represent Western, South-Western, Southern and Eastern parts of the country, and possess different coffee production systems, agro-ecological conditions and socio-economic set-up. Some of the zones (such as Kaffa, West Wellega, East and West Hararge) are among the major coffee producing zones of the country that specialise in coffee production. Kaffa represents the typical forest and semi-forest coffee producing parts of the country, and is among the areas that receive high rainfall throughout the year. Hararge produces one of the finest coffees of the country under an entirely different production system. In Hararge, coffee grows without shade and is intercropped with other food

²² Kebele is the lowest administrative unit

crops. Hararge experiences severe moisture shortage, problems of coffee berry disease and an increasing threat from expansion of another competing crop (*khat*)²³. The problem related to coffee berry disease mainly stems from shortage of improved coffee varieties for that particular area. The recently released new varieties for Hararge are yet to be widely disseminated and reach the coffee farming community.

Wolayita is among the areas in Southern Ethiopia that produces coffee under different production system. In addition to coffee, different spices, fruits and cereal crops are grown in the zone. Kembata Tenbaro and Hadiya are among the marginal coffee producing areas. In addition to coffee, they widely grow food crops such as cereals. East Wellega has seen recent introduction and expansion of coffee production, while West Wellega is among the prominent coffee producing zones of the country with its peculiar coffee farming system.

Table 4.1: Some features of the study zones (2014/15)

Zone	Population as of 2014	Number of rural districts	Coffee area (ha)	Annual coffee production (Tons)	Number of primary cooperatives	
					All types	Coffee/multi purpose*
Kaffa	1,029,807	10	12,872	9,577	665	30
Wolayita	1,808,548	12	7,820	6,798	1082	64
Hadiya	1,478,305	11	6,786	3,816	1012	92
Kembata Tembaro	833,832	7	2,724	1,177	370	59
West Hararge	2,260,649	14	14,170	11,600	1100	337
East Hararge	3,286,338	19	6,389	3,302	1052	449
West Wellega	1,637,663	19	70,538	44,592	888	418
East Wellega	1,477,953	17	9,446	6,656	615	265

*Multipurpose does not include those specialised coops, e.g. irrigation, apiary, dairy coops

Source: Population, coffee area and production data were based on CSA 2014 report.

Cooperatives data were obtained from respective zonal Coops Promotion Offices (2013)

²³ *Khat* is a stimulant crop widely produced in the area; its vegetative tips and leaves are chewed as stimulant

The study was conducted in 12 districts drawn from the 8 zones, where the credit guarantee scheme under analysis has been implemented. The below table provides some basic information and features of the study districts.

Table 4.2: Some features of the selected study districts (as of 2014)

District	Population	Number of rural <i>Kebeles</i>	Coffee area (ha)	Annual coffee production (Tons)	Number of primary cooperatives		Coffee producing farm families
					All type	Coffee/multi purpose	
Gewata	82,608	30	32,823	5,294	75	8	7,576
Sasiga	96,688	27	7,997	1,030	53	26	12,000
Genji	71,852	18	14,665	19,064	31	18	9,079
Lalo Asabi	92,123	27	26,537	15,630	53	22	11,565
Boloso Sore	244,501	29	3,175	2,480	87	6	24,000
Sodo Zuria	183,229	31	2,945	2,205	105	6	21,497
Tenbaro	124,103	20	2,903	360	42	6	10,600
W/Badwacho	95,428	22	1,991	783	33	6	116,932
Mesela	181,446	22	12,617	2,000	48	20	12,300
Bedeno	286,228	40	11,023	2,365	75	39	12,321
Melka Belo	213,037	22	12,692	2,400	56	22	25,390
Boke	181,242	22	17,085	2,400	52	17	15,549

Source: Population data were based on the CSA, 2014 population projection. The rest are obtained from reports of respective zonal and district agriculture and cooperative promotion offices.

Figure 4.1: Distribution of coffee growing areas and study zones by production level

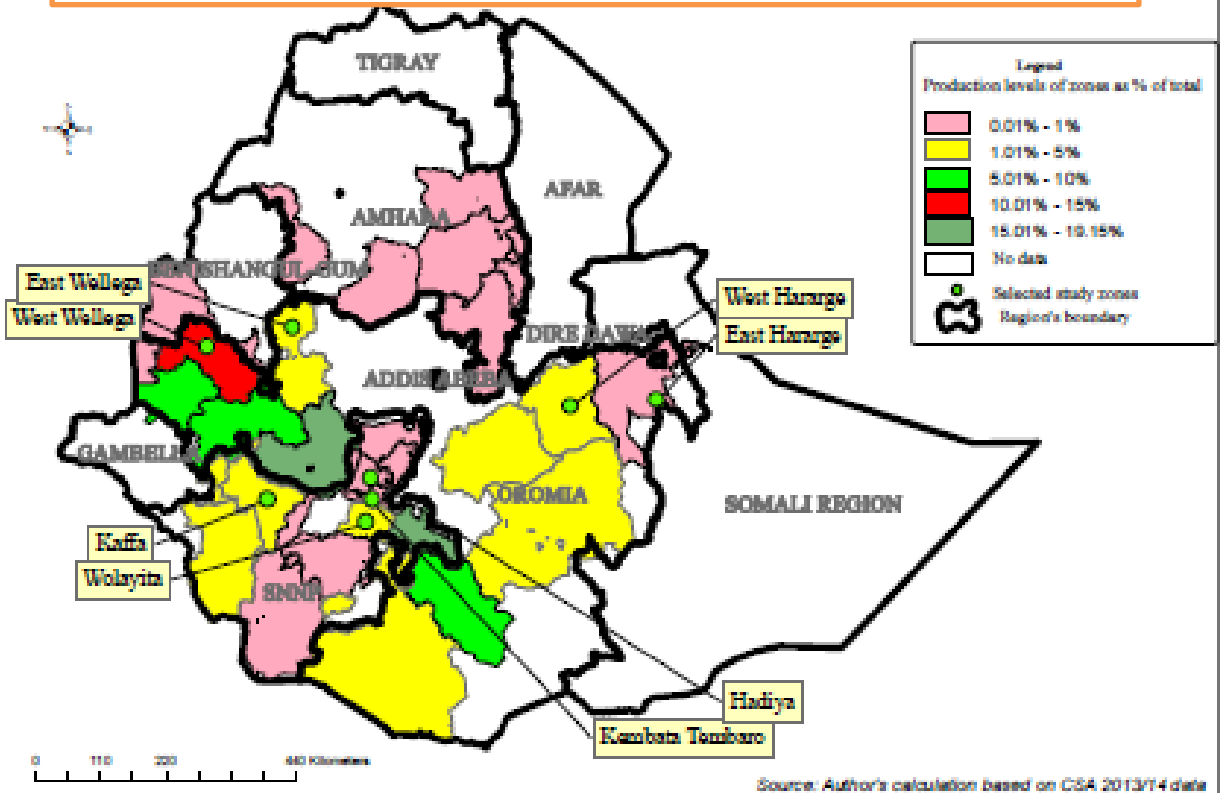
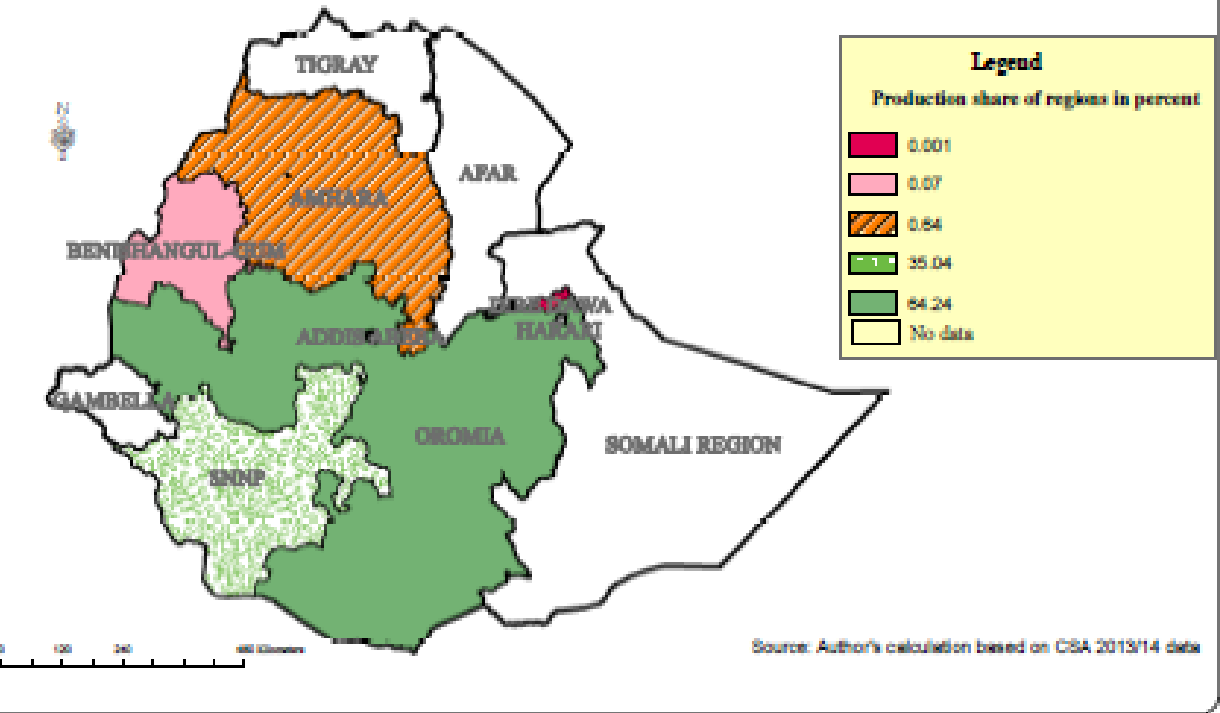


Figure 4.2: Production share of coffee producing regions of Ethiopia



4.3. Sampling Design, Data Collection and Analysis

4.3.1. Research method and approaches employed by the current study

As discussed in the preceding chapter, the methodologies and approaches used by past studies that attempted to assess loan demand, and the effectiveness and impacts of credit guarantee schemes do widely vary. Most of the studies tend to heavily rely on different econometric models and other quantitative approaches to measure the effectiveness and impacts of CGSs based on cross-sectional research design and/or secondary data collected for other purposes. Apparently, these approaches have limitations in providing opportunities to continuously monitor and closely analyse the processes, complex realities and relationships between the parties involved in the scheme, and in adequately understanding the operational contexts and underlying causes for the success or failure of the schemes. Navajas (2001) notes that due to the complex nature of additionality a simple research approach does not suffice to confirm that CGS really yielded such outcomes. This particular research therefore employed a mixed-method approach with data collection activities undertaken at different stages of the intervention. Thus in carrying out such analysis, the use of a combination of tools and techniques and continuous data collection process at different stages of the scheme is one of the significant lessons this study has contributed to knowledge in terms of methodological approach.

A mixed method refers to a study that incorporates both qualitative and quantitative methods of data collection, analysis and reporting findings in a single study (Creswell, 1999). This type of study, according to Creswell, enables the researcher to understand complex phenomena qualitatively as well as to express them quantitatively through numbers, charts and various statistical analyses. Creswell outlines three key reasons for employing a mixed method. Firstly, more or better information can be obtained from converging or triangulating the results from qualitative and quantitative methods. Secondly, the results generated using one method can be extended by using another method. Thirdly, quantitative measures and instruments grounded in the views of study participants can be developed. In the context of this study, the first two aspects are the main motives in choosing this approach.

Quantitative research involves gathering numeric and close-ended information through instruments or a structured form of interviewing and observing, while qualitative research involves collecting text (e.g. interview data, field notes of the researcher) or visual information from participants at a site or setting (Creswell, 1999; 1994). Quantitative approaches often aim at testing pre-determined hypotheses and generating generalisable results. As Marshall (1996) notes, such studies are useful for answering more mechanistic ‘what’ questions, while qualitative studies are most useful for answering humanistic ‘why’ and ‘how’ questions. Though quantitative studies are more standardised and allow systematic comparisons and generalisation, this technique lacks flexibility and does not allow the researcher to deeply understand the motivations, attitudes, behaviors and practices of the study participants. In contrary, many agree that qualitative research approach allows more flexibility, providing opportunities for in-depth probing and for adapting the interactions between the researcher and the study participants. One of the limitations of the qualitative method is that generalisation and comparison of the findings is often not easy. In addition, realistically biases cannot be eliminated in such a research process. Thus when used together, most of the limitations of each method can be overcome. For instance, when applied in combination with the quantitative method, qualitative research can help to interpret, explain and better understand the complex reality of a given situation and the implications of quantitative data (Mack *et al*, 2005). Though some critics comment that such research approaches are cumbersome and demanding in terms of resources and time, many generally agree that if combined properly they complement each other and jointly address their deficiencies.

According to Creswell (1999), researchers might apply the methods either sequentially or concurrently. If the purpose is to build from one method to another or to develop an instrument from qualitative data, the sequential approach is used. If the intent of the study is to converge or triangulate the findings, the methods can be administered at the same time. Additionally, the methods can be used independently as in a sequential approach, or dependently by administering to the same group of people. The latter two approaches were adopted in this particular study. As Creswell notes, analysis of the data for the quantitative methods can proceed independently from the analysis of data obtained through qualitative methods. Thus combining the two components of the study takes place during the data interpretation and report writing stages.

4.3.2. Sampling procedure

A sampling method is the process of choosing a sample from the population with the aim of obtaining information on the study issues in a way that represents the population of interest (Brink, 1996). In general, the sampling method used in this study is predominantly purposive. Purposive sampling technique (also known as judgmental sampling) is the deliberate choice of informants or respondents due to the experience, attributes or qualities they possess (Tongco, 2007). The selection of study units or participants is carried out on the basis of personal judgment rather than randomisation, which still in some way, as ILO (2009) notes, can be representative of the population.

Purposive sampling strategies allow researchers to select information-rich and the most productive individuals, groups or institutions that provide detailed insight about the research issues (Devers and Frankel, 2000; Marshall, 1996). Another advantage is that, as Brink (1996) points out, this sampling technique is more convenient and economical than other sampling methods. Tongco (2007) argues that the inherent bias of this sampling technique contributes to its efficiency, and it remains robust even when tested against random probability sampling. As such there is no blueprint for determining the sample size needed, especially for a qualitative study. Marshall (1996) suggests that appropriate sample size for a qualitative study is one that adequately answers the research question. In practice, the number of required subject or study participants becomes clearer as the research progresses, as new categories, themes or explanations stop emerging from the data, which is often known as data saturation. This calls for a flexible research design and an iterative, cyclical approach to sampling, data collection, analysis and interpretation in such research process (Ibid).

Sampling of the study area

Initially the two major coffee growing regions of the country (Oromia and SNNP) were selected. Then all the eight zones that have been involved in the coffee cooperatives credit guarantee scheme under analysis were purposively selected. For the structured formal survey, all the 12 districts participating in the scheme and 26 non-participant coffee producing districts were purposively selected from the eight zones. The decision to include non-scheme participant districts was made for comparison purpose. In addition, lack of sufficient number of cooperatives

involved in coffee business only from the districts participating in the scheme necessitated inclusion from other nearby districts. The main criteria in selecting the non-scheme participant districts were their potential for coffee production, activities of the primary cooperatives, and their presence in the zones participating in the guarantee scheme. In addition, various institutions related to cooperatives, coffee, extension and rural finance were purposively chosen to provide information for the qualitative study.

Sampling study units for the quantitative research

This study takes primary cooperatives as a basic unit of analysis. The quantitative component that involved formal questionnaire surveys focused on obtaining information from the management of primary cooperatives. For the initial baseline questionnaire survey, a total of 100 primary cooperatives were chosen from the 38 districts identified above. These include all the 22 cooperatives that were selected to participate in the credit guarantee scheme under analysis and another group of 78 non-participant cooperatives. This number accounts for close to 12% of the coffee/multipurpose cooperatives engaged in coffee trade in the selected zones. Either their managers (where available) or management committee chairpersons were chosen for the interview. After two years, a group of 80 cooperatives (22 participant and 58 non-participant coops) were purposively chosen for another round of survey among the previously interviewed 100 cooperatives. The fact that the number of cooperatives targeted by the current guarantee scheme was small (only 22) posed a challenge in sampling for the quantitative study. The number of cooperatives that actually obtained guaranteed loans was even smaller than the targeted ones. We were thus obliged to include all the 22 scheme-participant cooperatives in our sample. This did not allow use of econometric models in analysing the impacts of the scheme intervention. In order to compensate for this, in-depth qualitative analysis and inclusion of non-participant cooperatives were taken as complementary approaches.

Sampling of study units for the qualitative research

For the in-depth qualitative study, selection of study participants for key informant interviews and focus group discussions were carried out in a purposive manner based on their experience and knowledge of the study issue. Representatives of all relevant stakeholder groups who are involved in coffee production, processing, marketing, finance, extension and cooperative

promotion were selected and involved in key informant interviews and/or focus group discussions (see Table 4.3).

Table 4.3: Samples of stakeholders included in the study

Samples	Number covered	Remark
Farmers' FGD	4 groups (8 - 10 members in each group)	In total, 35 participants
Primary cooperatives' management FGD	4 groups (4 – 5 members in each group)	In total, 18 participants
Extension/coffee staff KII	8	At different levels (field, district, zone, region, national)
Senior bank officers/officials KII	8	Credit managers and loan officers of 8 banks
Representatives of MFI KII	2	Senior Directors of MFIs
Staff of coops promotion agency KII	8	At various levels (national to field level)
Baseline questionnaire survey of primary coops	All the 22 scheme participants and 78 non-participant coops	Completed by interviewing coops management and reviewing their records
Second round questionnaire survey	All the 22 scheme participants and 58 non-participant coops, out of the previous 100 coops	Took place after 2 years by interviewing coops and by reviewing their records
Informal interactions and discussions with key stakeholders	Over 65 individuals representing diverse stakeholder groups	Took place throughout the research process and scheme implementation

4.3.3. Data collection

The data collection process employed both qualitative and quantitative approaches and techniques. Some of the data were collected at one point in time (cross sectional), while data on various issues were gathered at several stages of the scheme implementation (longitudinally), for three years to assess changes and trends. In particular, changes in credit supply, access, utilisation and repayment; cooperatives' coffee processing, quality improvement and marketing practices, and economic benefits generated; and changes in cooperatives' institutional capacity were assessed over time. In addition, the instruments were designed in such a way that they allow data collection retrospectively on situations before the scheme intervention, as well as at

the beginning and over three years of the intervention. Primary data were collected from multiple sources using the following techniques and tools.

Structured questionnaire survey

Structured questionnaire is one of the popular instruments used to collect data in a coherent manner. One of the prominent advantages of using a questionnaire is that it allows the researcher to systematically collect data from large, diverse and scattered groups of people (Wilkinson and Bhandarkar, 1992). In the present study structured questionnaires were used at two stages. The first round survey was administered at an early stage of the scheme implementation (in the last quarter of 2012 and first quarter of 2013) both for scheme participants and non-participant cooperatives. This survey covered 22 cooperatives that were targeted by the current scheme and 78 non-scheme participants. It aimed at collecting detailed baseline data on cooperatives profile; resource ownership, business activities (including coffee processing and marketing practice); infrastructural and institutional services (such as extension and credit); operations and services of cooperatives; and other relevant variables (questionnaire attached under Appendix - 3).

The second round questionnaire survey was carried out after two years (in 2015) to obtain data on some selected variables with the aim of analysing the progresses and changes achieved as a result of the credit guarantee intervention. These include changes in terms of access to loan and its utilisation, cooperatives' institutional capacity, business activities and economic benefits gained (See Appendix - 3). These were administered to 22 scheme participants and 58 non-participant cooperatives out of the previously interviewed 100 cooperatives. Senior zonal and district level cooperative promotion and coffee experts were trained and used as enumerators to administer the questionnaires during both rounds. Completing the questionnaires involved interviewing cooperatives' management committee chairperson or managers (where available), reviewing cooperatives records and various documents – such as coffee trade, audit reports and other financial records. With regard to reliability and validity, the researcher made various efforts to ensure the accuracy of the measurement and to enhance validity. One of the measures was that the questionnaires were pre-tested on five cooperatives and amended based on the lessons and feedbacks obtained. Trainings and clear instructions were given to the enumerators of the surveys. In addition, exhaustive consultations of literature, relevant experts and the

researcher's promoter were made to ensure that the instrument is appropriately designed to capture all relevant data.

Key informant interviews

Key informant interview is a qualitative in-depth interview with knowledgeable and well informed individuals about that particular topic or problem and who can provide information about the history, practices, processes and trends of the study issue and area. Many (e.g. USAID, 1996; Morris and Copestake, 1993) outline several advantages of key informant interviews. These include that KIIs are inexpensive and simple to conduct; provide flexibility to explore new ideas and issues that were not anticipated at the outset; allow the researcher to seek information from various sources. Careful listening, probing and note taking are vital components of the key informant interview process. The current researcher used interview guides that list the questions or issues to be explored during the interview (interview guides are attached to Appendix - 2).

As indicated in Table 4.3, carefully selected individuals representing diverse stakeholder groups were used as key informants. This technique was mainly used to obtain information on: changes in, experiences and constraints of coffee production, processing and marketing; operations and services of cooperatives; credit services (credit sources, access, lending terms and conditions, challenges, etc.); views about the role and significance of a loan guarantee scheme; history of the area and so on. KIIs were carried out by the present researcher himself in local languages. But interview notes were taken in English language. Due to the sensitivity of tape recording of interviews and lack of popularity of this method under the rural Ethiopian context, we relied on detailed note taking process during the KIIs.

Focus group discussions

A focus group is a qualitative data collection method in which the researcher or facilitator and carefully chosen members of the group meet as a group to discuss specific research topics. Focus group, unlike individual interviews, provides additional value in promoting interactions among members (Wong, 2008). Focus groups allow the researcher to generate substantial amount of information over a relatively short period of time (Mack *et al*, 2005). Apart from enabling tapping of knowledge and collective views, this technique also allows cross-checking of the

information obtained from different sources. Many scholars underscore the critical importance of using ideal group size in such group discussions. Because a group with too many people may not be able to realise active participation of members, while a group with a few members may fail to generate deeper ideas and insight. Though the number of participants depends on the objective of the study, most focus groups consist of 6 to 12 people (Wong, 2005). Mack *et al* (2005) suggest that FGD session often lasts from one to two hours and should include time for participants to take a break.

In the current study, FGDs were conducted with groups of coffee farmers and cooperatives' management committee members. While conducting a FGD, the present researcher acted as a moderator and facilitated the discussion by asking participants to discuss and respond to open-ended questions using semi-structured discussion guide. In most cases the researcher himself took the notes on the discussion, while at some of the places a second person from the local extension or cooperative office assisted in taking notes. The focus group discussions were held in local languages, and the issues were captured in Amharic. These were later translated to English. The use of this technique mainly focused on analysing the following issues: Coffee production, processing and marketing experiences; credit services (sources, demand, access and utilisation); views about cooperatives and their services; loan security and role of a loan guarantee; and other emerging or contentious issues (FGD guide attached to Appendix - 2).

Observation and informal interactions

Observation technique refers to direct observation of the processes, practices and behaviors of the individuals and institutions participating in the guarantee scheme under analysis. This technique allows seeing and recording of behavior and practices as they happen as opposed to many other research methods which depend on people's retrospective or anticipatory reports of their situation (Wilkinson and Bhandarkar, 1992). Apart from generating new information, observation can be a vital tool to check what people subjectively report about themselves during interviews and focus group discussions, and help to address inconsistencies (Mack *et al*, 2005). This method is especially useful for gaining a better understanding of the physical, socio-cultural and economic contexts of the participants' which influence their actions, relationships and behavior.

The current researcher mainly carried out non-participant observation both in a structured (using simple structured observation form) and non-structured manner. The fact that the present researcher was participating in the implementation of the guarantee scheme under analysis provided a great opportunity to carry out some sort of participant observation. The researcher has made close observations of the behavior and practices of the borrower cooperatives, participating (lending) banks, guarantor, cooperative promotion and extension institutions. These include loan application, approval, disbursement, utilisation and recovery processes; coffee processing and marketing practices; operations of cooperatives, and supports provided by other institutions. Participation in the project meetings, workshops, monitoring visits and other events also provided greater opportunity to make observations. The researcher recorded relevant information in the form of observational notes on the spot or immediately after the event. Extensive and detailed field and observational notes were generated over three years. The following steps, as suggested by Creswell (1998: 125), were adapted and used in carrying out some of the observation activities:

- Select a site/event to be observed and obtain permissions (when necessary).
- Identify who or what to observe, and for how long.
- Determine a role as an observer.
- Design an observational protocol.
- Conduct the observation with proper prior self-introduction where needed,
- Record various aspects of the informants, the physical setting, events and activities, and researcher's own reactions.
- Finalise the observation and withdraw by thanking the participants, informing them of the use of the data and the findings of the study.

In addition, a series of informal interactions and discussions were carried out with officials and experts of zonal and district agriculture and cooperative promotion offices, field level extension agents, primary cooperatives and unions' management. These were carried out in different ways and on various occasions during the course of scheme implementation and research process. In fact such kind of extensive and continuous interactions with key stakeholders and close observation of their behavior and practices is among the unique features of the research

techniques and approach used by the current study. This indeed served as a vital mechanism to understand the processes and complex reality.

Literature and documentation review

Reviewing and analysing relevant literature, documents, statistics and records obtained from various sources was one of the data collection techniques. These supplemented the primary data and helped in providing necessary background information as well as to establish theoretical and analytical frameworks. In addition, during the formal survey review of cooperatives' records provided useful information on cooperatives' institutional, business and financial activities.

4.3.4. Data analysis procedure

The data were analysed both qualitatively and quantitatively. As the study adopted a convergence model of a mixed method, analysis of the quantitative and qualitative data were carried out independently from each other. Based on the works of Caracelli and Greene (1993), Creswell (1999) suggests that with this method an integration of data takes place at the interpretation stage of the study, rather than at the analysis stage.

4.3.4.1. Qualitative data analysis

Data analysis is the process of bringing order, structure and interpretation to the mass of collected data (Marshall and Rossman, 1999). As Creswell (1998) notes, though there are some common features and approaches, generally there is no consensus regarding the analysis of the qualitative data. In analysing such data, the researcher undertakes a process of analytical circles rather than pursuing a fixed linear process. Many agree that in qualitative study, data collection, analysis and report writing are interrelated processes that largely take place simultaneously. This overlapping of processes, as Creswell (1998) notes, is mainly due to the iterative and emergent nature of the qualitative research process. According to Marshall and Rossman (1999: 152), typical analytic procedure for qualitative data involves six phases, namely: organising the data; generating categories, themes and patterns; coding the data; testing the emerged understandings; searching for alternative explanations; and writing the report. Marshall and Rossman (1999) state that analysis of such data is fairly complete when the key categories are defined, the relationships between them are established, and they are integrated into an elegant and sound interpretation.

Likewise, in the present study, analysis of some of the qualitative data was started during the actual research process. The researcher carried out a continuous process of fine tuning the collected information through probing, exploring, revising and triangulation throughout the course of the research. The bulk of the qualitative data set was however analysed as Creswell (1998) suggests using multiple levels of abstraction. The data were summarised and thoroughly examined from particulars to general perspectives with the intention of generating key issues and themes, and establishing relationships and clearer patterns. As Marshall and Rossman (1999: 152-153) note, each phase of data analysis entails data reduction as the masses of collected data are brought into manageable pieces as the researcher brings meaning and insight to the words and acts of the study participants. In general, a combination of some basic steps of qualitative data analysis proposed by Creswell (1998) and Mouton (2001) were used with some adaptation:

- Initially the hand written interviews were transferred into electronic form. While typing the text, interviews conducted in Amharic were translated into English. The researcher then printed and went through all the information several times, jotting down notes in the margins of the text. In addition, the researcher wrote the key findings in the form of memos and reflective notes as a process of initial sorting-out process.
- The researcher then carried out the process of reducing the data by developing codes and categories and through sorting text into categories, which apparently involved discarding some information. The categories were generated from research questions, interview guides and responses of the interviews and group discussions. A simple template was developed to facilitate extraction, sorting and categorisation of the information. A combination of colour and letters coding was used to mark and distinguish the different categories and themes emerging from the information. Then all the materials from all the informants who provided similar responses or highlighted similar themes were put into one category or theme.
- Finally, the researcher went through the summarised and categorised information to see the convergence and divergences between the views of the different categories of key informants and focus groups. Finally the various categories or themes were related and these themes and concepts were then integrated into a narrative description. This process largely involved comparing materials within categories to look for variations and similarities in meanings; and comparing information across categories to discover links and relations between themes, and

critically identifying emerging patterns. The bulk of the materials generated through the qualitative data analysis was eventually compared against and were largely integrated with relevant sections of the findings of the quantitative data analysis. However, some of the findings of the qualitative research were separately reported on.

In addition, the analytical framework proposed by Dalberg (Hansen *et al*, 2012: 33 & 43) and Sadaani *et al* (2010) were adapted and used to guide both qualitative and quantitative assessments of particularly the features, performance and effectiveness of the credit guarantee scheme. As outlined under the analytical framework in chapter 3, in assessing the features of the credit guarantee, Dalberg's framework focuses on three aspects: (a) Targets (guarantee model, borrower type, loan characteristics); (b) Processes (Initiation, utilisation and reporting, claims, capacity building); (c) Risk sharing, type, fees and funding. In assessing the performance of the guarantee scheme, the framework focuses on the following four aspects. The current analysis however placed more emphasis on the first three components.

- (1) Inputs (credit guarantee offer);
- (2) Output (bank utilisation);
- (3) Outcome (borrower access – additionality);
- (4) Impact (bank exposure - if lending bank maintains its increased exposure to target borrowers even after the scheme expires).

On the other hand, in analysing the effectiveness and outcomes of a credit guarantee scheme, Saadani *et al* (2010: 8) looks into three main dimensions: *outreach*, *additionality* and *financial sustainability*. Outreach refers to the scale of the guarantee scheme, as measured by the number of guarantees issued to eligible borrowers and the amount of outstanding guarantees. Additionality looks into the impact of the guarantee scheme in terms of extending credit to borrowers that are credit constrained and the economic benefits such loans have generated. The sustainability aspect looks at risks involved, financial losses and costs in extending loans to credit constrained borrowers. In our analysis, emphasis was placed on the first two aspects – outreach and additionality.

In addition, the current research adopted various measures to overcome possible problems of biases and distortions. Various techniques were employed to maintain a high degree of validity

and credibility. These include interviewer corroboration, triangulation, informant debriefing and feedback, and negative cases analysis.

4.3.4.2. Quantitative data analysis

SPSS 17 and Stata 12 were used to analyse the quantitative data collected through structured questionnaires. This set of data was analysed using a combination of descriptive statistics and econometric model. Conventional descriptive statistics such as frequency tables, mean and percentage distribution were used to summarise and provide descriptions of various relevant variables. T-tests and chi-square tests were carried out to make comparisons and explore univariate differences and associations between some selected variables. These particularly focused on analysing additionality and other changes and preliminary impacts of the intervention by comparing the performance of scheme participants against non-participants, and with their situation before the intervention. During the course of this study the scheme has operated only for three years. Thus it was not possible to comprehensively assess long-term impacts such as its economic additionality, defaults and other long-term effects.

Table 4.4: Aspects of additionality and associated benefits that were analysed include:

- Loan additionality and outreach in terms of:
 - number of cooperatives received guaranteed loans under the scheme
 - number and volume of guaranteed loans granted to cooperatives.
 - additional volume of loans obtained by the beneficiary cooperatives;
- Improvements in borrowing/lending relationships and terms and conditions of loans, which include changes in:
 - Term, type and purpose of the loan granted (e.g. long-term investment loan versus short-term working capital),
 - length of time of loan processing, and timeliness of loan approval and release;
 - collateral and other lending requirements;
 - interest rates charged;
- Sustainability
 - Relationships established with lending banks,

- repetition of lending, graduation of borrowers to non-guaranteed loans,
- loan recovery and default rates (if any occurred in the early stage), etc.
- Changes in commercial and economic activities of cooperatives in terms of:
 - volume and quality of coffee processed and traded;
 - access to alternative market outlets,
 - new products developed or traded, if any.
 - value of coffee and income generated by cooperatives,
 - profits generated and dividends distributed to members;
 - project additionality - new project/investments such as processing or storage facilities acquired, and whether this would have occurred in the absence of the scheme.
- Cooperative's institutional capacity development in terms of:
 - management (e.g. hiring professional manger, accountant),
 - growth/trends in number of workers employed by cooperatives,
 - infrastructural facilities and assets acquired,
 - growth in membership of cooperatives and members' participation
 - relationships established with various organisations

The econometric model was particularly used to examine determinants of loan demand among farmers' cooperatives. In this regard, we adopted Heckman two-step selection model to determine the impacts of cooperatives' institutional, managerial and business attributes on their demand for credit. In the first step, we carried out a Probit model based estimation to examine factors influencing decision to borrow, while the second step estimation analysed determinants of the amount of credit demanded by cooperatives. In the first stage, the dependent variable is a dichotomous or dummy variable, while the dependent variable in the second stage is a continuous variable. The explanatory variables in both cases are a combination of nominal and scale measurements. As outlined in the analytical framework, formation of the model was influenced by a number of working hypothesis. The variables described in the previous section were hypothesised to influence the decision to borrow and the amount of loan to be borrowed by farmers' cooperatives. The Heckman two-step selection model for the present study is expressed as follows:

Using the explanatory variables outlined in the previous section, loan demand (size of loan demanded) is specified as:

$$\text{Log(Loan Demand)} = \beta_0 + \beta_1 \text{LOGAGCHAI} + \beta_2 \text{EDUCATION} + \beta_3 \text{LOGCOOPAG} + \beta_4 \text{LOGMSIZE} + \beta_5 \text{LOGTOTCAP} + \beta_6 \text{LOGLENBUS} + \beta_7 \text{LOGTOTINC} + \beta_8 \text{MBUSACT} + \beta_9 \text{UNIMEMB} + \beta_{10} \text{LOCOROM} + \beta_{11} \text{LOGTOTEXP} + \beta_{12} \text{PROMANG} + \beta_{13} \text{LOGLIA 2012} + u_1$$

and we assumed that loan demand is observed if

$$\gamma_0 + \gamma_1 \text{LOGAGCHAI} + \gamma_2 \text{EDUCATION} + \gamma_3 \text{LOGCOOPAG} + \gamma_4 \text{LOGMSIZE} + \gamma_5 \text{LOGTOTCAP} + \gamma_6 \text{LOGLENBUS} + \gamma_7 \text{LOGTOTINC} + \gamma_8 \text{MBUSACT} + \gamma_9 \text{UNIMEMB} + \gamma_{10} \text{LOCOROM} + \gamma_{11} \text{LOGTOTEXP} + \gamma_{12} \text{PROMANG} + \gamma_{13} \text{LOGLIA2012} + \gamma_{14} \text{LOGDISBANK} + \gamma_{15} \text{DEFAULT} + u_2 > 0$$

Where u_1 and u_2 have correlation ρ .

The elasticity of the k^{th} element of x on its conditional expectation is,

$$\frac{\partial E(Y/Z^* > 0, X)}{\partial x_k} = \beta_k - \gamma_k \rho \sigma_\epsilon \delta(-w\gamma)$$

$$\frac{\partial E(Y/Z > 0, X)}{\partial Z} \frac{Z}{Y} = \beta_k$$

Description of the dependent variables:

Demand for loan-A for the selection equation (Aplon11) – is the dummy dependent variable captured from a response to the question “Did your cooperative apply for a bank loan in 2011?”

Demand for loan-A for the outcome equation (Amn11) – is the continuous dependent variable captured from the response to the question “If your cooperative applied for a bank loan in 2011, what was the amount applied for?”

Demand for loan-B (Needblon3) for the selection equation – this is the dummy dependent variable captured from the response to the question “Does your cooperative seriously and genuinely need bank loan for the 2012 coffee season?”

Demand for loan-B (Lonrq12) for the outcome equation – this is the continuous dependent variable captured from the response to the question “If your cooperative seriously/genuinely needs a bank loan in 2012, what is the amount you would like to obtain?”

Table: 4.5: Description of explanatory variables and how they were used in the model

Variable name	Definitions and how these variables were measured
<i>AGCHAI</i>	Age of cooperative's manager or chairperson in years
<i>EDUCATN</i>	Educational level of cooperative chairperson/manager (no and informal schooling = 0, attending formal education = 1)
<i>COOPAG</i>	Age of the cooperative in years (since its establishment)
<i>MSIZE</i>	Number of members of the cooperative
<i>TOTCAP</i>	Total capital (in Birr), is the sum of physical assets, equipment, shares/bonds, cash in bank and cash on stock
<i>LENBUSS</i>	Cooperative's experience in coffee business in years
<i>TOTINC</i>	Total income generated from coffee and non-coffee business activities during the year (in Birr)
<i>MBUSACT</i>	Primary activity of cooperative (Coffee and other trade activities = 1, and coffee only = 0).
<i>UNIMEMB</i>	Membership to cooperative union (Member = 1, and 0 otherwise)
<i>LOCSNNP</i> and	Regional location (taking the cooperatives in the SNNP region as a reference dummy variable, 1 for locations in Oromia, and 0 otherwise)
<i>LOCOROM</i>	
<i>DISBANK</i>	Distance from the nearest banks (in Km)
<i>TOTEXP</i>	Total expenditure incurred by the cooperative during the year 2012 (Birr)
<i>PROMANG</i>	Having professional manager (have manager = 1, and 0 otherwise)
<i>LIA2012</i>	<i>Liability</i> , which is the sum of all outstanding loans to be repaid by the cooperative (in Birr)
<i>DEFAULT</i>	Previous case of default (Defaulted on previous loan = 1, and 0 otherwise)

Note: Continuous variables have been converted to natural logs.

4.4. Ethical measures

Research ethics deals primarily with the interaction between researchers and the participants of the study. Whenever we conduct research on people, the well-being of the research participants must be our top priority (Mack *et al*, 2005). Thus while undertaking the current study ethical measures have been seriously considered and ensured through the following approaches:

Informed consent

Informed consent is a mechanism for ensuring that people understand what it means to participate in a particular research study so they can decide in a conscious, deliberate way whether they want to participate (Mack *et al*, 2005). Thus the purpose of the current study was explained to the participants, which is a fulfillment of a PhD study programme, and the fact that no immediate benefit is gained from participating in the study. They were clearly informed that participation in the research is completely on a voluntary basis and withdrawal or refusing to provide information does not entail any unfavourable actions against them. The researcher also assured the participants about the confidentiality of the information provided by them. Written permission was obtained from the individuals participated in the survey before they provide the information. In addition, the Ministry of Agriculture in Ethiopia gave written consent to the researcher to conduct this research.

Anonymity and confidentiality

Care was taken in presenting the information to avoid possibilities of tracing back to individuals and institutions participated in providing the information. The identity of the respondents or informants in relation to the opinions they provided was not revealed, especially when it appeared sensitive.

Management of information

The original interview scripts and questionnaires were handled with maximum care. Moreover, names of respondents were not included in the questionnaires and discussion/interview notes.

Summary

This chapter dealt with the study design and methodologies employed to undertake the study. The chapter started by providing descriptions of the study areas. It then discussed the selected research approach for the present study and the merits of a mixed method. This was followed by a section that describes sampling techniques which were mainly purposive. Data sources and

data collection methods and tools were also outlined. These include both structured questionnaire survey and semi-structured qualitative techniques such as key informant interviews, focus group discussion, observation and document review. In fact data collection process was a demanding task in this research. This was due to the vastness and remoteness of the study areas; diversity of the data sources and data collection techniques used, and the need to collect some data over a couple of years. The process however enabled the researcher to generate comprehensive and rich data. In fact this is one of the unique features and contributions of the current study in terms of methodological approach. The chapter then went on to discuss the procedures and processes of data analysis, which include qualitative and quantitative methods. Analysis of the qualitative data basically involved summarising and thoroughly examining from particulars to general perspectives with the intention of generating key issues and themes, and establishing relationships and clearer patterns. Analysis of the quantitative data employed both descriptive statistics and econometric model. Based on the experiences with the current study, we can conclude that if the effectiveness and impacts of a CGS and intervening factors are to be clearly understood, it is essential to employ a research design that allows continuous and deeper analysis that is based on comprehensive quantitative and qualitative data collected at various stages of the intervention. Finally, the chapter highlighted the ethical measures taken in undertaking the study.

CHAPTER 5

5. EMPIRICAL FINDINGS ON THE ETHIOPIAN COFFEE AND COOPERATIVE SECTORS

5.1. Introduction

This chapter presents the findings of both qualitative and quantitative studies on the Ethiopian coffee and cooperative sectors. The chapter begins by providing the findings on the Ethiopian coffee sector in terms of its socioeconomic significance, production, processing and marketing and cooperatives' role in this regard. Then the findings on sources of finance for agriculture and the coffee sub-sector, banks' priority areas for lending, terms and conditions of institutional loan are presented. This is followed by the findings on farmer cooperatives' institutional, business and socio-economic characteristics; access to institutional services and other relevant issues. The chapter then presents the findings on cooperatives' loan demand and its determinants.

5.2. The Ethiopian Coffee Sector

This section starts by providing the perspectives of various stakeholders with regard to the significance of the Ethiopian coffee sector. Then the findings on coffee production, processing and marketing practices and systems are presented.

5.2.1. Significance of the Ethiopian coffee sector

Unsurprisingly, all the key informants and focus groups of various stakeholder groups concur on the great role coffee plays in the livelihood of its producers, other actors in the value chain and in the national economy at large. All emphasised that coffee is of considerable economic, social, cultural and environmental significance to Ethiopia. In particular, coffee is a major cash crop in many parts of Oromia and SNNP regions, which account for 99% of the national production (CSA, 2014). Key informants reiterated that coffee enables farmers to generate cash income and improve their livelihoods, to educate their children and to make various investments. The

study suggests that coffee is a commodity that generates better income with fairly limited investment. More importantly, coffee globally generates huge reputation for the country and will continue to play this remarkable role in the future. It plays a great role in strengthening networks, communication and social ties among neighborhoods and the community at large. Coffee is one of the most valuable offers to welcome visitors and to present to relatives as a cherished gift. According to one farmer focus group, *“Saying let’s take or go for coffee is the beginning of any interaction, friendly offers and hospitality. In our culture, even if one intends to offer someone food or other drinks, it is a common practice to say let’s take coffee. So if someone says (s)he does not take coffee, (s)he will miss all those complementary offers”*.

Farmers’ focus group members pointed out that women in particular attach greater importance to coffee than their male counterparts do. Women largely depend on incomes from coffee to cover household expenditures, as well as to welcome their visitors. However, almost all expressed with concern that the Ethiopian coffee sector has been denied adequate support, and underscored that this prominent national resource deserves serious attention at various levels, particularly in terms of policy and institutional supports. Such concern seems to be partly addressed as the government has recently took an important step in setting up an authority that deals with coffee development and marketing.

5.2.2. Coffee Production Practices and System

Though coffee is a dominant crop in most of the study areas, farmers grow various crops based on the agro-ecology of that particular area. As in other parts of the country, coffee production activities in the study areas are predominantly undertaken by small-scale farmers using both family and hired labour. The coffee production systems in the study areas are diverse and do vary from place to place. For instance, coffee production in such areas as Wolayita, Hadiya and Hararge takes place around garden and homestead and is often being intercropped with other crops. In contrast, forest and semi-forest coffee production and sole cropping of coffee are widespread in Kaffa. In general, in most parts of Ethiopia, coffee grows under shade of selected suitable trees, while in Hararge area the crop grows without shade. Farmer focus groups in Kaffa area indicated that previously, they used to widely rely on coffee that is naturally grown in forests. However, in recent years, there have been upsurge in plantations and garden coffee

production systems. The rise in market demand for coffee (despite some fluctuations), on the one hand, and government's effort to promote production of improved seedlings, on the other hand, motivated farmers to plant improved varieties with enhanced productivity. Farmers, however, indicated that though the improved coffee varieties provide higher yield, they obviously require intensive management practices, which is one of the challenges in the face of labour shortage.

All categories of key informants indicated that, in general, adoption of improved coffee varieties and associated management practices is limited. In particular, hybrid varieties have not been widely promoted among coffee farmers. However, the varieties released through selection of landraces appear to reach most of the recommendation domains in South-Western Ethiopia. However, farmers of such areas as Hararge and Wolayita still predominantly grow local varieties. As a result, Coffee Berry Disease (CBD) still stands as a major problem in these parts of the country. East Wellega and Walayita are among the zones that have recently witnessed expansion of new varieties. Key informants indicated that local coffee varieties grown in various areas are given various local names. As regards use of inputs, farmers in all of the study areas rarely apply inorganic inputs. Apart from its cost implications, this is related to the tendency to produce organic products though there appears to be lack of clearer understanding and direction with regard to production of organic coffee, and the extent of benefits and opportunities associated with such products.

With respect to its gender dimension, key informants and focus groups noted that women generally play multiple roles in coffee production. Though planting coffee fields are mainly the duty of men, women play an important role in managing coffee farms and in harvesting activities, especially for garden coffee. As related to labour supply, farmers indicated that coffee production is labour intensive and farmers are often obliged to hire wage labourers, while a few rely on their family members. In particular, the recent massive migration of youth to towns/cities has become an alarming situation in terms of accessing farm labour-force. Interviewed stakeholders identified a number of problems that constrain coffee production in various parts of the country though the degree of importance varies across regions. The major constraints, according to key informants, include: lack of awareness, skills and motivation to adopt improved coffee management by farmers; diseases and pests such as CBD and coffee wilt disease; shortage

of seed/seedling and other improved technologies; price fluctuation and lack of alternative market outlets; aging coffee trees; shortage of labour; climate change; and weak extension and other institutional support services.

5.2.3. Coffee harvesting and processing practices

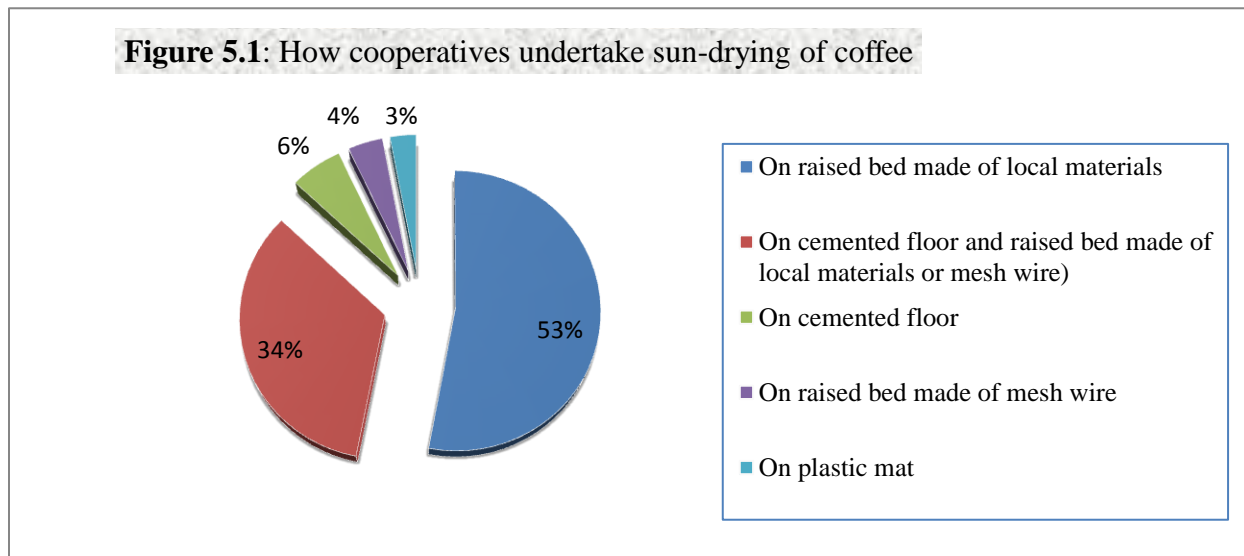
All key informants and focus groups indicated that coffee harvesting and processing in most coffee growing areas of Ethiopia is predominantly carried out in a traditional way. However, there are notable improvements in recent years. In particular, indiscriminate stripping of cherries is becoming less prevalent in all study areas. Key informants reported that most farmers pick red ripe cherries; while farmers in some areas let the cherries to dry on the trees. In its labour perspective, farmers use both family and hired labour for harvesting coffee. Shortage of labour during coffee harvest season was cited as a critical problem. Low local prices and lack of differential prices based on quality appear to influence farmers' effort and motivation in adopting improved harvesting and drying practices.

In general, all key informants reported that sun-drying of cherry is the dominant practice both among individual farmers and cooperatives in the study areas. It was also reported that many cooperatives are engaged in buying and selling dry coffee, though some have recently started purchasing fresh cherry and drying at their centres. The results of the questionnaire survey show that only 34%; 47% and 33% of the cooperatives were carrying out some sort of primary processing (sun-drying or washing) during the year 2010; 2011 and 2012, respectively. Likewise, substantial amount of the coffee traded by the cooperatives does not undergo any processing activities. This could be largely related to lack of adequate awareness, necessary skill and processing facilities and/or finance to acquire such facilities. Unlike the case in its production end, cooperatives have some important role in coffee processing activities.

Table 5.1: Percent of cooperatives and volume of coffee processed over years (N = 100)

Year	Percent of coops processed coffee	Amount processed (sun-dried or washed)	
		Range of volume processed (kg)	Average volume processed (kg)
2010	34	735 – 87,667	5,905
2011	47	716 – 600,000	19,681
2012	33	568 – 210,000	8,106

Members of different focus groups indicated that previously farmers were drying coffee in different ways including on the ground. However, such practices were reported to be on the decline in recent years. As a result of the intensive awareness raising activities carried out by the government and other agencies, at present most farmers dry their cherries on raised bed made of local materials or on plastic mats. The findings of the formal survey shows that out of the 98 cooperatives responded to this question (Figure 5.1), 53% reported drying on raised beds made of local materials, while 34% indicated using both cemented floor and raised beds made of local materials (and at times mesh wire). A few cooperatives reported drying on raised bed made of mesh wire and on plastic mats. Given the situation of primary cooperatives, the widespread use of drying beds made of local materials is somehow commendable.



The results reveal that the vast majority of the primary cooperatives do not have proper drying and storage facilities. As indicated in Table 5.2, the number of available processing facilities in the different zones and districts is limited. Some districts such as Tembaro reported complete absence of washing and hulling facilities in the entire district. However, such areas as Kaffa and Wolayita have witnessed expansion of wet processing facilities in recent years. Most cooperatives in South and South-western parts of the country expressed their interest to acquire and use wet-processing method. However, coffee and cooperative experts in West Wellega and Wolayita zones indicated that though the government favours promotion of wet processing, cooperatives in the areas tend to maintain the longstanding practice of sun-drying of cherry.

Likewise, cooperatives in East Wellega prefer sun-drying method because of short harvesting season and due to lack of experience with wet processing technique. Similarly, all interviewed experts were of the view that owing to shortage of water sources, problems in mucilage development (that would facilitate pulping) and fragmented nature of coffee farms, wet-processing method is not feasible for Hararge areas. Moreover, the topography of most parts of Hararge is not suitable for promoting large scale washing facilities. On the other hand, natural sun-dried Hararge coffee has been fetching higher prices, at times, higher than that of washed coffee coming from other areas. Key informants were of the opinion that this practice should not be undermined and discouraged. All interviewed coffee experts concur on the fact that promotion of improved drying facilities and small-scale hulling machines are more relevant for Hararge. However, a few experts indicated that perhaps wet processing machine with mechanical demucilager or manually operating small pulper can be piloted and tested on small-scale.

Table 5.2: Number of coffee processing facilities available in the study zones and districts

Zones	Wet mill		Hulling facility		Ownership	
	As of 2011/12	At end of 2014	As of 2011/12	At end of 2014	Coops/union	Private traders
East Wellega	1	1	2	3		All
Kaffa	13	18	10	15	7 WM	11 WM; all HM
Wolayita	13	18	7	9	5 WM & 1 HM	13 WM; 8 HM
Hadiya	3	6	1	1		All
East Hararge	0	0	3	5	3 HM	2 HM
West Hararge	0	0	32	32	1 HM	31 HM
West Wellega	21	21	131	142	14 WM; 6 HM	7 WM; 136 HM
Kembata T.	16	17	6	8	1 WM	17 WM; 8 HM
Districts						
Gewata	4	6	2	5	2 WM	4 WM; all HM
Boloso Sore	5	4	1	1	2 WM	2 WM; 1 HM
Melka Belo	0	0	3	3	1 HM	2 HM
Mesela	0	0	3	3	1 HM	2 HM
Boke	0	0	4	4		All HM
Bedeno	0	0	1	1	1 HM	
Tenbaro	0	0	0	0		
Genji	0	0	6	9		All HM
Lalo Asabi	3		12	12		All HM
Sodo Zuria	3	4	0	1	1 WM; 1 HM	3 WM
W/Badwacho	1	4	0	0		All
Sasiga	0	0	0	0		

WM = Wet mill

HM = Hulling machine

Key informants indicated that though traditional hulling of coffee using mortar or by crashing on the ground (*merbush* preparation) is on the decline, such a problem still persists in some parts of West Hararge, East Hararge and Wolayita zones. In particular, the findings show that farmers in East Hararge were reluctant to sell their coffee as dry unhulled cherry (*jenfel*). Because the husk, locally known as *ashara*, is brewed and used for household consumption. Limited or non-use of available hulling facility by local farmers was also reported as a major problem. For instance, farmers of Mesela were observed to largely practice such traditional coffee hulling practice (*merbush* preparation), while the hulling facilities of the union and private traders were operating under capacity. In fact, Hararge farmers grow a few coffee trees in their garden and each farmer produces small lots of coffee (one or two sacks) which are normally sold in small quantities in the form of *merbush* as cash need arises. In addition, farmers were of the opinion that big hulling machine alters the taste of *ashara* (burns it), making them reluctant in using such modern processing facility. Interestingly, key informants were of the opinion that private traders deliberately avoid use of the cooperatives union's hulling facility as a strategy to weaken it. Likewise, a key informant from Wolayita indicated that *Merbush* coffee preparation is reviving due to illegal trade expansion. Such undesirable practices appear to have serious detrimental effects on coffee quality in those areas.

During the formal survey, overall, 68% of the surveyed cooperatives showed preference for sun-drying cherry, while only 21% showed preference for wet method. The rest 11% want to use both processing techniques. In terms of regional location and preferred coffee processing method, the majority of cooperatives in the Oromia region (88%) preferred sun-drying method as compared with less than half (47%) for those in the SNNP region (Table 5.3). The association was also statistically significant ($X^2 = 19.561$; Sig. = 0.001). This could be due to the fact that most of the study cooperatives drawn from Oromia were located in Hararge and Wellega, which traditionally employ sun-drying technique.

Table 5.3: Relationship between regional location and preferred processing method (N=99)

Processing method	Region	
	Oromia No. (%)	SNNP No. (%)
Sun-drying	44 (88%)	23 (47%)
Wet processing	3 (6%)	18 (36.5%)
Both methods	3 (6%)	8 (16.5%)
Total	50 (100%)	49 (100%)
$X^2 = 19.561$	DF = 2	Sig. = 0.001

Likewise, the results of the formal survey indicate that (Table 5.4), the vast majority of the cooperatives require mesh wire and other drying facilities alone or together with other processing facilities. Close to a-third expressed having demand for big hulling machine together with drying facilities. Close to 20% indicated preference to acquire wet mill and drying facilities, while about 10% reported that they need both hulling and washing facilities as well as drying materials. Some reported that they want to have small hullers or small hand pulpers alone or together with drying materials. The findings indicate that agro-ecological conditions of the areas, potential for coffee production, cooperatives' experience in coffee business and their institutional capacity largely influence their demand for coffee processing facility and technique.

Table 5.4. Coffee processing facilities cooperative need most

Facility/materials needed	Number of coops responded (N=98)	Percent of coops responded
Big hulling machine, mesh wire and other drying materials	28	28.5
Mesh wire and other drying materials	19	19.5
Wet mill, mesh wire and other drying facilities	19	19.5
Hulling machine and washing facility as well as mesh wire and other drying materials	10	10
Small hullers	8	8.2
Mesh wire, other drying materials and small huller	7	7.1
Drying materials, small hand pulper and small huller	7	7

5.2.4. Coffee marketing system and practices

The coffee sector of Ethiopia in general, and its marketing system in particular, have witnessed major changes in recent years. The notable changes include frequent restructuring of institutions dealing with coffee development and marketing, creation of institutions and regulations that support and promote cooperatives, formation of cooperative unions, creation of new marketing systems (including creation of cooperatives' marketing channel, primary coffee market centres and ECX trading system), emergence of several private financial institutions and policy related to credit provision. According to the new proclamation on coffee quality control and marketing, all private traders and primary cooperatives are expected to purchase coffee at primary market centres. Nevertheless, interviewed coffee experts indicated that so far primary market centres have been mostly used by private traders in areas where they have gone operational. Our assessments in the study areas reveal that primary coffee marketing centres have not been fully functional in most of the districts (see Table 5.5).

Farmers sell their coffee either to private traders or to their cooperatives. Farmer focus groups indicated that some farmers even sell their coffee to unlicensed traders who often trap coffee on the way to local market, while others sell at primary market centres. Some still sell at farm-gate to those traders who move house-to-house and collect coffee. Key informants indicated that some licensed traders at times tend to be involved in some form of illegal trade. Cooperatives also tend to collect members' coffee at their own centres. For instance, the findings of the formal survey shows that out of the 97 cooperatives responded to this question, only 22% indicated collecting coffee at primary market centre, while a larger proportion (42%) reported buying at their coops' centres. Close to 28% said they procure coffee both at primary market and cooperative centres. A few cooperatives reported buying in various villages and at local markets.

Table 5.5: Status of primary market centres in the study zones and some districts

Zones/districts	Number of planned centres	Number of centres completed by 2014/15
Wolayita	79	78
Hadiya	10	6
Kaffa	101	54
Kembata Tembaro	40	20
West Hararge	65	14
East Hararge	DN	9

East Wellega	23	18*
West Wellega	72	60
Boke	6	1
Melka Belo	8	4
Bedeno	8	6*
Mesela	5	2
Gewata	20	16
W/Badewacho	3	1
Tenbaro	4	3
Genji	4	3
Lalo Asabi	8	5
Sasiga	4	6

*Some of them do not meet required standard, while many of them did not fully go operational
DN = Data not available

Cooperatives in turn sell their coffee to their parent union or at times to a federation, who then exports the coffee. Primary cooperatives can't sell their coffee through the ECX auction as they do not have seats with the ECX. Cooperatives management indicated that their market outlets depend on their experience in coffee trade and their union's performance in terms of coffee marketing and returns to members. Primary cooperatives affiliated to a relatively strong union sell their coffee to parent unions, while a few (especially those with weak unions) dispose it through ECX by paying commissions to those who possess seats. The coffee quality control and marketing regulation does not permit primary cooperatives to sell their coffee to private traders. The regulation allows producers or cooperatives to directly export their coffee. But primary cooperatives are not making use of this opportunity due to limitations in their capacity.

As indicated in Table 5.6, the vast majority of primary cooperatives reported selling their coffee to their unions. Likewise, when asked about the volume they sell to their unions, 88% of the interviewed cooperatives reported that they sell all of their coffee to their parent unions. The remaining 12% reported selling about half or less of their coffee to the cooperative union. In general, majority of the primary cooperatives seem to merely serve as local buying agents for their parent unions. During marketing, the quality of coffees of primary cooperatives has to be assessed and given grades at local ECX centres before it is delivered to Addis Ababa. Private traders sell their coffee with warehouse bond system, which avoids physical delivery of coffee to Addis Ababa before selling it at ECX centre.

Table 5.6: Where did cooperatives sell their coffee over the following years?

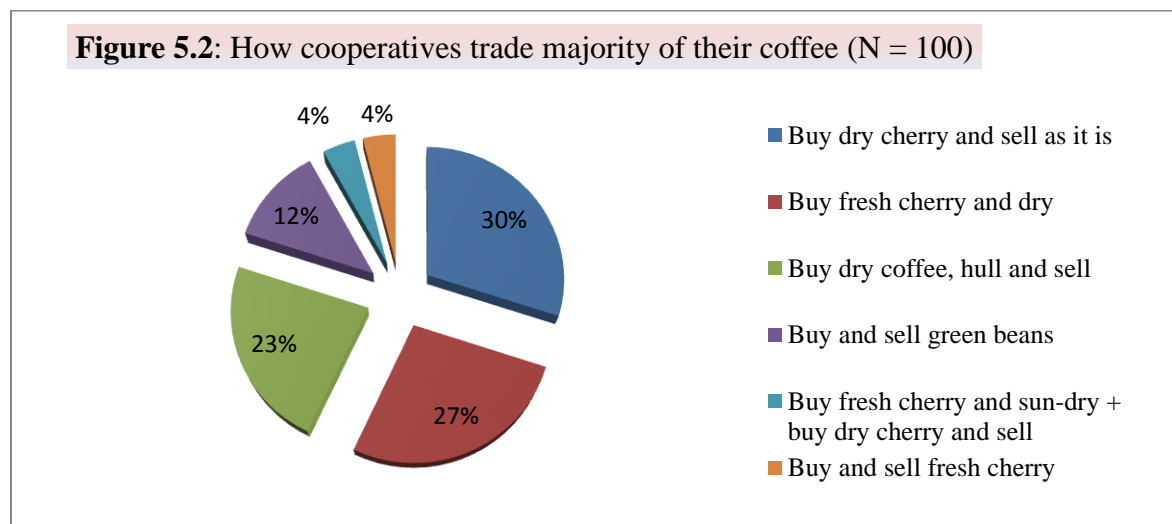
Year	Percent of cooperatives		
	To coop union	To local traders	At ECX
2010 (N= 56)	95	3.5	1.5
2011 (N= 82)	96	4	-
2012 (N = 52)	92	2	6

Almost all categories of key informants reported that cooperatives generally handle a small proportion of the coffee traded in the areas. In this regard primary cooperatives are less efficient than the private traders. Cooperatives lack capital and often start buying coffee late in the season after receiving some loan from their unions. It is also not uncommon for cooperatives to tell member farmers that they are not in a position to buy their coffee due to shortage of finance. Similarly, most of the newly created unions are not strong enough to effectively deal with member cooperatives' coffee. Some farmer groups indicated that since their cooperative does not provide cash on spot nor collect their coffee in time, they end up selling to private traders. In contrary, private traders act in a more competitive and strategic manner. In other words, they undertake necessary preparations and enter coffee market early in the season. Moreover, they are also more flexible in revising and setting coffee prices (often upwards), mainly with the intention of stopping farmers from delivering their coffee to cooperatives. For instance, one of the experts from a major coffee producing zone, Kaffa, indicated that out of the coffee that enters ECX quality tasting centre, cooperatives' share accounts only for 20 - 30 %. The rest is supplied by private traders and large scale private producers. Likewise, despite the presence of favourable policy environment and government support, the export volume via this avenue has remained too low (less than 6% of the total export). The findings show that most cooperatives are not in a position to make proper use of the privilege and opportunity.

However, in general, most cooperative and coffee experts underlined that the union marketing route is shorter and more favorable for farmers. One of the advantages is that cooperatives' participation in the market would shorten the chain and enhance returns for producers. In addition, involvement of cooperatives in the market creates a competitive environment and reduces the monopolistic acts of private traders. Moreover, the cooperative marketing channel

would enable farmers to get entry to alternative markets that offer better prices such as Fair-trade market. In addition, cooperatives also provide dividends and other additional services to members and the community. Key informants underscored that cooperatives need to be engaged in trading value added coffee, as currently only 1% of the total export of the country's coffee is value added product.

In terms of type of coffee traded, the normal and predominant practice, at least in the current study areas, is that cooperatives purchase fresh cherry or sun-dried coffee and pass it over to their respective unions. The results of the formal survey show that as of end of 2012, more than half of the cooperatives were involved in dry coffee trade. Out of these, 30% were buying and selling dry cherry, while 23% were buying dry cherry, which were then hulled and sold. About 12% reported buying and selling green beans, which demonstrates prevalence of *merbush* coffee preparation and trading in some areas. Only about a quarter reported buying fresh cherry and undertaking sun-drying, which offers cooperatives an opportunity to dry their coffee with necessary cares and handling. In particular, key informants in Hararge area indicated that purchasing fresh cherries and drying at cooperative centres is not a common practice. Some cooperatives such as Chefe Lelisa of Boke district indicated that they normally purchase some fresh cherries, semi-dried (locally known as *lezaza*) and dry coffee. Fresh cherries are immediately delivered to the union and dried in their facility.



When we asked cooperatives how they make payments for the coffee they collect from members, the vast majority (91%) reported making full cash payment upon receiving the coffee from farmers. Only nine percent reported that they make partial payment upon receiving coffee from farmers and settle the rest latter after sale of coffee. Likewise, coops' management committees were asked if member farmers were willing to deliver their coffee to their cooperatives and receive the payment latter after sale. Only 28% were of the opinion that farmers are willing to supply their coffee on loan, while close to three-quarters (72%) felt that they are not willing. This implies lack of trust and commitment among member farmers. We also asked cooperatives when they normally dispose of their coffee. As indicated in the below table, the vast majority of the cooperatives were selling their coffee right during the harvest season or soon after. On average, cooperatives keep their coffee in warehouse for about two and half months. Some reported selling their coffee immediately in one or two weeks' time which could be attributed to lack of proper warehouse, shortage of finance or due to the conditions imposed by their unions.

Table 5.7: Time cooperatives sold their coffee over the three years (2010 – 2012)

Year	Percent of cooperatives		
	Immediately during harvest - (buy and sell small quantities at a time)	At the end of harvest season	Latter when price becomes attractive
2010 (N= 56)	25.00	43.00	32.00
2011 (N= 81)	17.50	49.50	33.00
2012 (N = 49)	24.50	55.00	20.50
	Length of storage of coffee in cooperatives' warehouse (in months)		
Year	Minimum storage time	Longest storage time	Average length of storage time
2010 (N= 56)	0.50	8	2.42
2011 (N= 79)	0.25	12	2.56
2012 (N = 49)	0.25	12	2.48

On the other hand, almost all coffee extension and cooperative experts indicated that the local market price of coffee is often not based on the quality of the product. As a result, there appears to be lack of incentives for producers to invest time and extra resources to improve coffee quality as there is no meaningful differential price at farm-gate. For instance, when asked if their

cooperative offers different prices for coffees of different quality, the majority (74%) reported paying similar prices for all the coffee they collect from members. However, some cooperatives indicated that they purchase coffee that appears to be of good quality, and reject those which have not been properly harvested or dried. Private traders who operate washing stations at time pay higher prices to those farmers who properly harvest fully ripe red cherries. In terms of setting coffee market price for cooperatives, it was noted that unions or cooperative promotion office propose prices to cooperatives. Unlike private traders, cooperatives cannot flexibly change prices from time to time. As a result, they often fail to compete with private traders on the basis of daily coffee prices. Cooperative experts indicated that though daily coffee prices are supposed to be set based on local and ECX prices, private traders tend to deliberately manipulate and dictate it. Some cooperative experts indicated that setting of coffee prices at primary cooperatives level is subjective, liable to corruption and manipulation. The current researcher also practically observed such undesirable practices where the management committee of one cooperative unrealistically raised the coffee purchase prices.

5.2.5. Challenges and constraints of the coffee sector

Different stakeholders outlined a number of problems and constraints facing the various actors in the coffee sector. As presented in the below table, the prominent ones are related to coffee marketing (price, outlet, etc.), illegal coffee trade, poor coffee harvesting and processing practices, lack of proper processing and storage facilities, lack of finance and access to credit, diseases and pests, lack of improved seeds and other technologies, shortage of labour, weak capacity of cooperatives, weak extension support and infrastructural facilities, among others. Different stakeholder groups tended to put special emphasis on the problems prevailing in certain components of the value chain. For instance, coffee extension experts appear to focus on the problems/constraints directly related to the production and processing sides. On the other hand, cooperative promotion experts, cooperatives' management and farmers tended to pay more attention to those on the marketing end, followed by processing component.

Table 5.8: Major challenges and problems of the coffee sector in the views of stakeholders

Major challenges and problems	Number of KIs & FGs cited				Total score	Rank
	Coffee extension experts KIs	Coops promotion staff KIs	Coops mangt FGs	Farmers' FGs		
Market problem* (MR)	5	6	3	4	18	1
Illegal coffee trade** (MR)	4	5	2	2	13	2
Poor harvesting and processing practices*** (HP)	5	4	-	4	13	2
Lack of finance; lack or delay in getting loan & entering market (MR)	2	4	3	4	13	2
Diseases and pests (such as coffee berry disease) (PR)	4	-	3	4	11	3
Weak capacity& poor management of coops and/or new unions (MR)	2	4	1	4	11	3
Lack of proper processing and storage facilities (HP)	4	2	1	1	8	4
Weak extension and support services & infrastructure (PR, HP, RM)	4	1	-	-	5	5
Shortage of labour (PR & HP)	1	-	1	3	5	5
Lack of improved variety & seeds (PR)	5	-	-	-	5	5
Lack of improved management practices and inputs, reluctance to adopt recommendations (PR)	4	-	-	1	5	5
Lack of awareness, knowledge & skills among farmers (PR + HP)	4	-	-	-	4	6
Climate change and/or frost (PR)	2	-	1	-	3	7
Aged coffee trees (PR)	2	-	-	-	2	8
Declining soil fertility (PR)	1	-	1	-	2	8
Scarcity of land to plant new varieties (PR)	-	-	1	1	2	8
Fluctuating coffee quality (HP, MR)	1	-	-	-	1	9

PR = Production; HP = Harvesting and processing; MR = Marketing

*Low or fluctuating prices, bulk purchase & lack of differential price; limited market outlet, long market chain, primary markets not functional or not being used.

**Smuggling, adulteration, lack of price difference, locally purchasing in various ways, involvement of traders without license, crop advance by illegal money lenders, etc.

***Poor harvesting practices (due to theft, high cost or shortage of labour) and poor processing practices (poor drying, hulling on ground or with mortar (*merbush*), old machines & technical problem with wet processing).

In terms of agro-regions, there seems to be variations in the nature and magnitude of the problems and constraints outlined by various stakeholders. Table 5.9 shows the importance of some of the problems facing the sector or actors across the different study areas. Key informants, for instance, underscored that Hararge coffee has faced a great danger as a result of moisture

scarcity, coffee berry disease, and stiff competition from rapid expansion of other crops such as *khat*. For example, in West Hararge, about 70,873 hectare of land is under coffee production, while its close competitor, *khat*, claims 65,000 hectare of land and this has been on the rise. In addition, experts indicated that dry method seedling production has become difficult due to extended dry spell. Shortage of farm tools was also cited as one of the major constraints in coffee production, especially in such areas as Hararge. Problems related to coffee harvesting and processing, illegal trade, and shortage of finance are among the problems one would come across all the study areas.

Table 5.9: Major problems facing the coffee sector across some of the study areas in the views of zonal and district coffee experts

Problems/constraints	Gewata (Kaffa)	Wolayit a	East Hararge	West Hararge	East Wellega
Poor harvesting practices	x	x	X	x	x
Lack of capital/finance (farmers, coops & traders)	x	x	X	x	x
Lack of capacity among legal private traders	x				
Lack of improved varieties and seed/seedling		x	X	x	x
Lack of conducive institutional structure, strong extension, budget, human-power	x	x	x	x	x
Shortage of farm inputs, tools, sacks		x	X	x	
Pests/diseases* and lack of resistant varieties	x	x	X	xx	
Illegal trade, and competition among traders	xx	xx	Xx	x	xx
Prevalence of traditional coffee hulling using mortars (<i>Merbush</i>)		x	X	x	x
Lack of coffee drying and/or processing materials	x	x	X	x	x
Lack of price difference locally and narrow price margins with ECX's grading system			X	x	x
Aged and exhausted coffee trees			X	x	
Labour and land shortage		xx			
Water shortage; erratic and inadequate rainfall			Xx	xx	
Coffee price fall or fluctuation pushing farmers to other crops			X	x	x
Weak operations of primary market centres				x	x

*Scale insect in Sodo Zuria; coffee berry disease in Hararge, Kaffa, Wolayita and Tembaro.

X = on the decline

5.2.6. Views about coffee or multipurpose cooperatives' operations, services and benefits

The findings show that different stakeholders have mixed views about cooperatives and their services. However, in general, almost all the interviewed key informants understand that despite some setbacks, cooperatives are important agents to catalyse socio-economic development among smallholders and the community. They noted that cooperatives have a potential to help members in accessing various services such as extension information, market, credit, education, critical assets, inputs and other external supports. More importantly, cooperation boosts farmers' bargaining power, shields them from exploitation and opportunistic acts of private traders, stabilises market, generate economies of scale advantage, and promotes self-help and social cohesion. Key informants noted that Ethiopia's development strategy recognises that cooperatives are instrumental in addressing problems of scale and fragmentation. It was noted that though the pace and scope is not yet satisfactory, in Ethiopia cooperatives have started generating some notable benefits in recent years. In particular, their performance and contribution in marketing members' coffee were mentioned as a remarkable achievement. Coffee and cooperative experts in particular commended cooperatives' role in improving coffee quality, in helping farmers to access better and alternative markets such as certification and fair-trade markets, which help them earn better income for their members and country at large. But such an important role appears to be limited only to cooperatives with strong capacity and substantial experience in coffee business.

According to the cooperative experts, the major services provided by coffee and/or multipurpose cooperatives include: output marketing, supply of farm inputs and tools/materials, education of members, supply of consumer items and flour mill services, among others. Key informants however indicated that though cooperatives are expected to provide multiple services to members, they often tend to concentrate on supply of farm inputs such as fertilizer with the government intervention. As a result, their involvement in distributing fertilizer is more valued by farmers in some areas than their role in marketing members produce. However, key informants noted that in some of the coffee growing areas such as Kaffa, coffee cooperatives are not encouraged to be involved in supply of fertilizers. If coffee cooperatives are wishing to provide fertilizer, they need to have separate warehouse for such items. Cooperatives in marginal coffee producing areas such as Wolayita indicated that their operations are diverse, which

include trading root crops, fruits, maize, haricot bean, fertilizer, consumable items, improved seeds and coffee.

In general, almost all key informants pointed out that majority of the cooperatives in Ethiopia have weak capacity (finance and management). This has severely hindered their access to various services as well as limited their role in marketing members' output and capacity to sustainably generate benefit for their members. One farmer amongst the groups in Wolayita said *“I joined my cooperative long time ago, but have never received any dividend. Currently, let alone providing other significant services, most of the cooperatives in the area are not in a position to collect all members' coffee”*. The manager of one of the new unions indicated that primary cooperatives do not operate with proper and strategic planning. According to him, the common practice is that unions provide some loan to primary cooperatives and instruct them to get to the market and purchase coffee, which they then pass on to the union with no or little value adding activities.

In general, almost all key informants indicated that despite some shortcomings, cooperative unions play a more active role in marketing members' coffee than primary cooperatives. The current researcher also observed that cooperatives play an important role where there are stronger and vibrant unions. Such cooperatives were able to attract more farmers because of the dividends and other services rendered to members and their community at large. However, some cooperative management and farmers groups reported that unions sometimes tend to monopolise and retain most of the returns and benefits. In other words, the popular principal-agent problem arises as the unions or their managers sometimes fail to act in the best interest of member cooperatives. It was emphasised that it would be of little use if unions focus on developing themselves without supporting and benefiting primary cooperatives. The need to support primary cooperatives and grow together was said to be critical. Though they commended the attention rendered by the government in recent years, most key informants and focus groups were of the opinion that primary cooperatives still were not receiving sufficient support. Farmers' focus groups suggested that like the unique marketing system put in place for cooperatives, the government needs to provide privileges and improved access to institutional finance as well. All

key informants emphasised that further efforts need to be exerted in terms of strengthening and making cooperatives more effective, beneficial and vibrant development actors.

In terms of trust and members' participation in their cooperatives, there appears to be mixed views. Most of the cooperative management focus groups and some cooperative experts were of the view that members' confidence in their cooperatives and commitment of cooperatives' management is commendable. Other stakeholder groups however argue that there are substantial gaps in members' confidence, sense of ownership and participation in their cooperative's business and affairs (meetings, elections and key decisions). Despite some improvements in their organisation, management and operation in recent years, almost all key informants noted that most primary cooperatives still experience poor governance and management. Their management is led by non-professional (is committee-based), who often lack competence, transparency and commitment. For instance, none of the 33 coffee cooperatives operating in Kaffa zone has a professional manager. Key informants noted that some self-serving management committee members and managers still tend to misuse cooperatives' resources and this has continued to affect farmers' attitude towards cooperatives. Moreover, some experts were of the opinion that the government took an interventionist approach in promoting the cooperative sector. They went on to note that the government has maintained interference in cooperatives' internal affairs, which include influencing election of management committee members and the type of businesses to be undertaken by cooperatives.

In general, members' confidence and participation largely depends on the performance of cooperatives business and management, which vary across cooperatives. Well established and strong cooperatives with committed management appear to enjoy better confidence and interest among farmers because of the benefits generated for members. Those cooperatives which undertake value addition have good market linkage, provide dividend, and other services are well accepted among members. Key informants indicated that the member size of such strong cooperatives is on the rise. It was reported that in some districts of Kaffa and Wolayita a few member farmers have started delivering coffee to their cooperatives on loan. In addition, even if they could not collect all members' coffee, farmers in some areas continued delivering to their cooperatives the volume they are able to purchase. However, majority still prefer to sell their

coffee to private traders. This is mainly due to the fact that private traders often have the opportunity to enter coffee market in time (early in the season) as well as have the capacity to flexibly, sometimes irrationally, change coffee prices. Key informants and focus groups indicated that the recent cooperative restructuring and reforms have played an important role in boosting farmers' confidence in cooperatives and their management. Key informants also underscored that the effectiveness of cooperatives largely depends on the presence of committed professional cooperative promoter.

5.3. Are coffee/multipurpose cooperatives suitable to act as intermediaries for bank loans?

We tried to find out views of the various stakeholders with regard to coffee or multipurpose cooperatives' potential and suitability to serve as intermediaries for bank loans. In general, though all agree on the benefits and advantages of channeling loan funds (such as cherry advance) to individual cooperative members, there was no consensus on whether primary cooperatives can effectively serve as intermediaries for such loans. Out of the interviewed 100 cooperatives' chairperson or managers, a large majority (62%) were surprisingly of the opinion that cooperatives cannot handle such responsibility, while 38% felt that they can take on such roles. Likewise, various key informants pointed out that such task is a delicate and complicated duty that may cause problems to primary cooperatives as they are non-professionals in this area. However, some key informants said cooperatives know their members very well as well as have strong roots in the community, thus can effectively play such intermediary role depending on the strength of their institutional and managerial capacity. They however warn that as it is a sensitive undertaking, such responsibility should be assumed by carefully selected and strong cooperatives, preferably with the involvement or guarantee of unions. For instance, in the views of key informants, unions may take bank loan and pass on to primary cooperatives, who then lend to individual farmers. Moreover, prior to their involvement in such tasks, their capacity needs to be properly built and effective system needs to be put in place for loan delivery, monitoring and recovery. Parallel to these efforts, member farmers need to be sensitised and educated on proper loan utilisation and repayment.

Some key informants pointed out that even if it is carried out in an informal way, some cooperatives are already involved in such activities. When we asked multipurpose/coffee cooperatives if they ever gave loans or advances to member farmers, half of them said yes, while the rest had never provided any advance/loan. Most key informants however noted that currently many cooperatives provide loans to members in kind; i.e. in the form of farm inputs such as fertiliser and improved seeds. It was noted that farmers are in dire need of cash in September/October and start selling immature cherries to meet their financial needs. Coffee and cooperatives experts thus emphasised the significance of providing crop/cherry advance to cooperative member farmers. One interviewed expert noted that provision of such crop advance previously worked well during the Wolayita Agricultural Development Unit programme. Key informants were of the opinion that such an intervention can address some emergency cash needs among primary cooperatives. This would in turn help cooperatives to overcome the challenges posed by private traders (informal money lenders²⁴) and enable them to get sufficient access to members' coffee.

On the other hand, key informants of microfinance institutions do not support such involvement of multipurpose cooperatives in financial service delivery. They pointed out that it is illegal for the commodity-based cooperatives to provide lending services nor to mobilise savings. One MFI key informant emphasised that they also previously tried to provide such services and failed. He was of the opinion that specialised cooperatives have to be used if such services have to be effectively delivered. In general, most stakeholder groups were of the opinion that such financial intermediary roles should be handled by special institutions such as SACCOs or MFIs.

5.4. Challenges and constraints of coffee or multipurpose cooperatives

During the qualitative in-depth analysis, different stakeholders outlined a range of problems and constraints faced by primary cooperatives (Table 5.10). Among others, cooperatives' weak capacity (financial, governance/management, technical, business, etc.), shortage of capital and lack of access to loan, lack of infrastructure and critical facilities, and government interference and lack of adequate support and weak market linkage were identified as the major challenges

²⁴ Some local traders or informal money lenders provide loan to farmers during the months preceding the harvest season when farmers face critical financial gap with the agreement to collect their cherry during the harvest season.

and constraints of cooperatives in the study areas. As the number of informants in the below table suggests, the importance attached to each of them vary across stakeholder groups. For instance, poor governance and management and shortage of capital were considered as a critical challenge by cooperative and bank experts, while farmers and coffee experts appear to view overall weak institutional capacity of cooperatives and lack of sound business enterprise and skill as the major limiting factors. The management of cooperatives understandably failed to view poor governance and management as a major problem. They rather strongly complained about lack of access to loan finance and adequate external support.

Table 5.10: Challenges and constraints of cooperatives as outlined by different stakeholders

Challenges and constraints of cooperatives	Number of coffee experts cited	Number of coops experts cited	Number of coops mangt FGs cited	Number of farmers FGs cited	Number of bank KIs cited
Weak institutional and operational capacity and skills*	4	5	3	4	4
Problem of governance or management**	3	7	-	3	6
Shortage of capital, and lack of access to credit (on time)	2	7	4	3	5
Market problem (lack of alternative market outlets; price fluctuation; illegal trade, pressure from private traders)	2	2	2	2	5
Lack of facility/infrastructure – warehouse, processing facility, transport	2	1	3	2	4
Government intervention, lack of adequate monitoring, commitment and support from the promoting agency	4	2	1	3	3
Members’ poor participation and lack of awareness and commitment	1	2	-	1	2
Weak link with and support from union	1	1	3	-	1
Lack of collateral	1			1	4
Lack of strategic plan and vision	1				3
Coffee yield reduction and/or nature of agricultural enterprise	1	1			2

*Includes marketing, management, finance, documentation, technical and business, etc.

**Includes lack of professional manager (committee-based management); lack of commitment; resource misuse; lack of managerial and financial skills.

5.5. Credit for Agriculture, Coffee and Cooperatives

5.5.1. What are the priority areas for banks' lending activities?

This section presents the views of various key informants and focus groups with regard to credit supply to agriculture, coffee and cooperative sectors, with special focus on priority sectors for bank lending. Banks provide different loan products and loans with different terms. Among the Government Commercial Bank (CBE), short-, medium- and long-term loans are for up to 3, 7, and 15 years duration, respectively. The terms are up to 3, 5 and 10 years among the private banks. The recent directive of the National Bank however compels banks to limit the maturity of short-term loan to one year, and this component should not account for less than 40% of their loan portfolio. Most banks expressed preference for extending short-term loan because of its low perceived risk level. As one bank officer indicated, long-term loan can also bring about fund mismatch; i.e. a situation whereby depositors want to withdraw money but banks face liquidity problem. Exceptionally, one private bank officer indicated preference for long-term loans because of the high interest rate it attracts. This key informant was of the opinion that with the disbursement of long-term loans, they are not required to purchase NB bill²⁵ every year as they do with short-term loans.

All categories of key informants concur that there is limited supply of financial resources to the coffee sub-sector and to the agriculture sector in general. They were of the opinion that agriculture, primary cooperatives and smallholder farmers are not treated as priority sectors, particularly among the private banks. In its sector perspective, export, agriculture (especially mechanisation and agro-industry), manufacturing and domestic trade have been mentioned almost by all bank informants as priority sectors in that order. This, however, appears to be a national policy direction, rather than actual priority lending areas for all banks. In reality understandably private banks heavily focus on profit maximisation. Agriculture claims a tiny proportion of the loan portfolio of most commercial banks. As presented in Table 5.11,

²⁵ Most banks indicated that the directive of National Bank restricts their loan disbursement capacity. For every disbursement they undertook, they have to purchase government bond of five years at 3% interest rate. This appeared to affect their liquidity and profit. Banks stated that they are devising strategies to overcome the challenges, indicating that they will shy away from making conventional lending, and focus on selected areas such as importers and exporters, and those who can make some deposits.

information extracted from the annual reports of the major private banks reveals that less than 3% of their loan portfolio goes to agricultural production. Domestic trade and services, international trade and construction enjoy the lion's share of the loan portfolio of private banks. Private banks divulge that at present they highly focus on export-oriented activities in an attempt to generate foreign currencies. As a result, the export sector enjoys lower interest rate, around 9% amongst most private banks. Services come second in terms of lending preference of banks as this sector is more liquid with high turn-over, as well as involves some saving deposits. Almost all key informants, including bank officers, were of the view that banks are reluctant and hardly make efforts to reach out to smallholder farmers and their cooperatives.

Key informants noted that though CBE and DBE²⁶ used to be the major sources of finance for cooperatives, in recent years their focus has shifted to financing major government development projects, export promotion and selected priority private investments. Institutional loans for coffee are mainly channeled to private coffee traders (suppliers and exporters) and unions. In general, in terms of credit allocation, the production end of the coffee supply chain has been suffering. It was noted that even the loans provided to farmers' cooperatives (by the state owned commercial bank) are usually for non-coffee activities such as input for food crops with government's guarantee. The key informant from the government commercial bank indicated that their bank focuses on large scale commercial farmers (with over 30 ha coffee plantation), irrigated and mechanised farming, traders who supply coffee to the ECX centre and exporters. Among all commercial banks, CBO appears to undertake a commendable work in reaching out to cooperatives, at least through their unions. However, since it is a cooperative bank, individual farmers request cannot be considered by CBO. Some key informants comment that though three-quarters of the share of CBO belongs to cooperatives, there is a tendency to favour private traders when it comes to loan supply.

²⁶ DBE is a policy bank and focuses on project financing and on new business developments. It primarily supports government's policies and regulations, focusing on high priority areas such as export-oriented and manufacturing industries, skin and hide and flower. The production side of coffee falls under the non-priority areas.

Table 5.11: Sectoral distribution of loans and advances by economic sector for some private banks for the period July 2011 - June 2012

Economic sector	Percent						
	CBO	Abyssinia Bank	Oromia Int. Bank	NIB Bank	United Bank	Awash Int. Bank	Dashen Bank
Agricultural (production)	2.05	0	2	3		2.41	2.07
Domestic trade and services, including hotel and tourism	83.64	43	37	22.40	21.6	27.59	33.09
International trade (Import and export)	9.80	33	16	30.20	39.40	32.67	15.29
Building/construction	0.71	14	17	18.50	12.20	21.27	18.56
Industry/manufacturing	1.93	6	7	12	17	6.95	21.30
Transport & communication		2	5	2.2	4.70	5.58	6.34
Financial institutions			4.2				
Others/personal	1.87	3	1.5	0.7	5.10	2.53	3.87
Total	100	100	100	100	100	100	100

Source: Extracted and converted from annual reports of the respective banks (July 2011 – June 2012)

Almost all bank key informants understand that cooperatives are vast and important market segments. They were however of the opinion that at present there are plenty less risky, more lucrative and premiere urban-based borrowers, whose demand has not been met. Given the current situation of cooperatives and tightness of the financial system, most of the interviewed bank officers doubted the profitability and feasibility of lending to farmers cooperatives unless they are linked to export markets. In contrast, two bank and MFI officers and most cooperative experts were of the opinion that lending to this sector is indeed profitable and feasible as long as their business is feasible and well managed. They, however, emphasised the need for enhancing cooperatives' awareness and strengthen their management, business and institutional capacity. This should be complemented by proper screening during approval of loan application.

Key informants identified a number of factors that constrain banks' loan supply to the cooperative sector and cooperatives' access to such loans. These among others include: lack of collateral, liquidity problem (among lending banks), cooperatives' poor financial system/record, lack of credit history, lack of awareness and knowledge about lending institutions and their requirements, failure to repay loans in the past, high perceived risk level of the agriculture and

coffee sector, problems related to output markets and cooperatives' weak business, leadership and management capacity. In particular, bank officers tended to largely attribute the gaps to limitations in bankability of cooperatives' business and their poor management and institutional capacity, lack of credit history, lack of viable collateral, remoteness and associated costs of lending. Discussions with some key informants highlighted allegations of bribes among some bank managers and/or loan officers in allocating loan, and noted that cooperatives cannot be involved in such acts. In addition, government's intervention in cooperatives' business, lengthy and complicated bank requirements and processes, lack of alternative lending institutions in rural areas and loan products of their choice were highlighted by cooperatives as additional constraints in accessing commercial loans.

5.5.2. What are the sources of loan for cooperatives?

The findings show that most primary cooperatives never received loans directly from banks. For instance, officers from Mesela district in West Hararge indicated that primary cooperatives in their district never had direct access to bank loan prior to the launch of the current credit guarantee scheme. Unions were almost the sole providers of loans to primary cooperatives. Similarly, a cooperative promotion expert from Kaffa indicated that prior to the initiation of the current guarantee scheme, the sole source of credit for coffee cooperatives in the zone was their coffee farmers' cooperative union. In other words, unions act as intermediaries for bank loans as they have better facilities (assets of better quality and value) and market linkage that boost confidences of the lending institution. However, unions provide small amount of loans (often about two to five thousand Birr to each member cooperative), which is of short-term (for few weeks or months) and often reaches cooperatives late in the season. In addition, cooperatives that have not been affiliated to any union cannot access such loans. Some of the unions were struggling in obtaining bank loans due to their poor business performance and/or weak institutional capacity. In this regard, the younger unions seem to suffer most. For instance, discussion with Kaffa union reveals that during the 2013/14 coffee season, they submitted a loan application of 20 million Birr to four banks. However, their request was not favoured by all the banks. Consequently, this union failed to supply any loan to its member cooperatives during that entire season. The amount of loan applied for was also so meager as compared to the number of cooperatives they are supposed to cater for (33 cooperatives). This particular union was obliged

to retain the previously generated profits and to use for coffee purchase instead of distributing it to member cooperatives as dividends.

Almost all key informants were of the opinion that MFIs do not cater for financial needs of cooperatives at present. For instance, the Oromia MFI, which is the second largest MFI in the country, reported that they have not reached out to farmers' cooperatives yet. MFIs often provide short-term loans with high interest rates, while their loan volume is too small for cooperatives' business. In general, the loan products of MFIs do not seem to be suitable for cooperatives dealing with cash crops such as coffee, which requires substantial amount of money. A senior official of one MFI indicated that paradoxically at times cooperatives and MFIs tend to view each other as competitors. Moreover, in order to qualify for loans of MFIs, borrowers need to deposit 50% saving. Interviewed managers of some MFIs admitted that their large loan portfolio share goes to the livestock sector. In addition, one senior official of MFI was of the opinion that their services tend to focus on urban community such as SMEs, youth and other urban poor. Consequently, MFIs were cited by most key informants as the least preferred option of loan source for farmer cooperatives.

Almost all key informants and focus groups indicated that the main and preferred sources of loan for agriculture and coffee are still remain to be banks. In particular, some of the key informants from Oromia region were of the opinion that CBO is a preferred source of loan since it is more coops-friendly. Some key informants mentioned RUSACCO as potentially suitable source of loans for farmers and cooperatives in the future. The government expects that RUSACCO should cater for the financial needs of the rural community, and there seems to be a direction for having one rural SACCO in one Kebele. However, as of now most of the RUSACCOs are at their infant stage and have weak financial and managerial capacities. One key informant emphasised that diverse sources and providers of finance should compete and serve the rural population. This plays an important role in improving efficiency as well as helps to overcome monopoly.

5.5.3. Cooperatives experience with credit services

5.5.3.1. Cooperatives' loan access

When asked if they were able to obtain loan during 2010, 2011 and 2012, only 39%, 61% and 41% of the cooperatives, reported receiving loans from some sources over the three years, respectively. The mean amount of loan cooperatives were able to receive over the three years (2010; 2011 and 2012), was 347,901; 486,015 and 580,847 Birr, respectively. Some of them received as small as 20,000 and 50,000 Birr which is too meager to undertake coffee trade activities. In this respect, when we asked cooperatives if the amount of loan they had received was adequate for the purposes they needed for, less than 10% believe that the amount was indeed sufficient.

Table 5.12: Summary of cooperatives' loan access

Year	Did take loan? (N=100)*		If took loan, how much (Birr)		
	Yes	No	Max	Min	Mean
2010	39 (42%)	61 (58%)	1,873,858	20,000	347,901
2011	61 (62%)	39 (38%)	3,467,104	43,250	486,015
2012	41 (44%)	59 (56%)	2,182,549	50,000	580,847

*Some of these loans were obtained from their respective unions

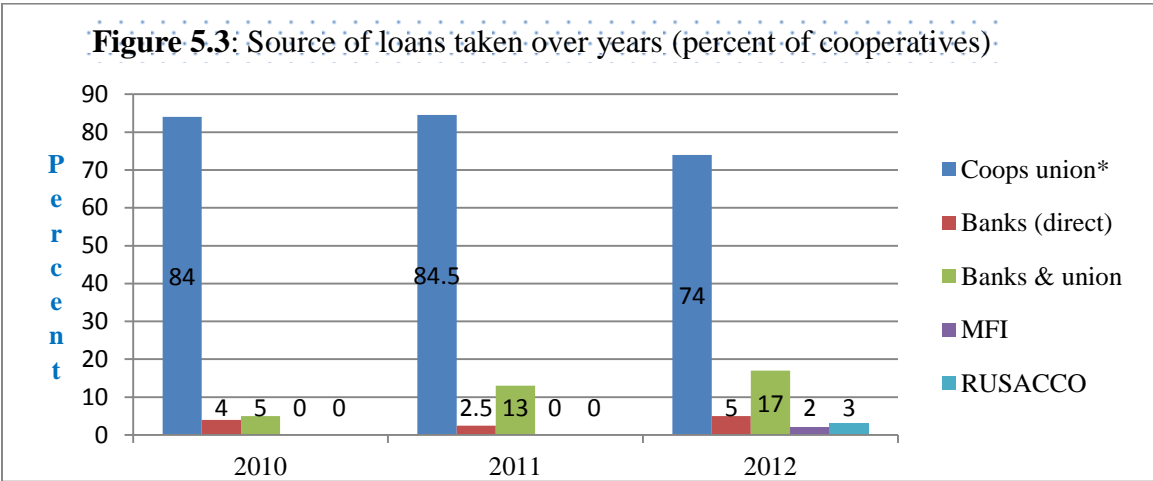
When we analysed the differences in accessing loans among cooperatives located in the two regions, over three-quarters of the cooperatives in the Oromia region were able to receive loans in 2011 (immediately before the launch of the current scheme), as compared with 44% for those located in SNNP region (Table 5.13). The association between the two variables was also statistically significant ($X^2 = 12.148$; $P = 0.001$).

Table 5.13: Relationship between regional location and loan access in 2011 (N = 100)

Received loan in 2011	Cooperatives' regional location	
	Oromia (No and % of coops)	SNNP (No. and % of coops)
Yes	39 (78%)	22 (44%)
No	11 (22%)	28 (56%)
Total	50 (100%)	50 (100%)

$X^2 = 12.148$ DF = 1 Sig. = 0.001

We also asked cooperatives the sources of loans they had obtained over years (2010 to 2012). The vast majority (74 – 84.50%) indicated receiving loans from their respective unions. In addition, 10%, 13% and 17% reported receiving loans both from unions and banks over the three years under analysis. As indicated in Figure 5.3, a few cooperatives reported receiving loans directly from banks. The survey similarly shows that MFIs and RUSACCOs were not serving cooperatives for various reasons, such as lack of financial capacity and suitable loan products.



*Union loans are also coming from banks through the mediation of unions

5.5.3.2. Purpose for which loan was taken

When asked the purpose for which the cooperatives used loan they had acquired, they reported using it for trading various types of coffee and other commodities. As indicated in Table 5.14, about 58 – 63% of the cooperatives used the loans to purchase dry cherry during the period 2010 to 2012. In addition, some reported purchasing dry coffee alongside red cherries or other commodities. Another interesting aspect of this finding is that a few cooperatives used the loans to acquire processing facilities or to undertake long-term investment. This could be due to the fact that the loans were of short-term nature and do not allow such long-term investments.

Table 5.14: Purpose for which previous loan was used

Purpose of loan	2010 & 2011 (N = 76)	2012 (N = 69)
	No. and percent of coops	No. and percent of coops
To purchase fresh cherries	13 (17%)	8 (11.50%)
To purchase dry coffee	44 (58%)	43 (63%)
To buy and sell both fresh & dry cherry	5 (6.50%)	4 (6%)
To purchase dry coffee and/or inputs	2 (2.50%)	6 (9%)
To purchase & sell grains and/or spices	5 (6.50%)	4 (6%)
To buy dry/fresh cherries and/or drying material	4 (5.50%)	2 (3%)
To buy fresh & dry cherries, install wet mill	3 (4%)	1 (1.50%)

5.5.4. Terms and conditions of institutional loans

5.5.4.1. Loan duration, loan repayment schedule and length of loan processing

The findings show that the duration of the bulk of the loans obtained over the three years (2010 – 2012) ranges between 1 and 12 months. More than half of the cooperatives who received loans over the three years indicated obtaining loans with one year maturity period. The rest reported receiving loans of six month and shorter maturity period. However, only three cooperatives reported obtaining loans with repayment period of 18 to 48 months. This seems to refer to the three cooperatives that were able to acquire medium-term loan in 2012 under the current scheme.

Bank key informants indicated that loan repayment schedule depends on the nature of the business of the applicant and is normally aligned with cash generation and inflow. The shortest repayment schedule for bank loan is one month. Bank officers indicated that loans for agriculture and coffee trade activities are usually paid back annually or sometimes semi-annually. In particular, working capital for cooperatives is often repaid once annually, while loan for processing machinery is repaid once per annum over some years. Key informants and focus groups were of the opinion that an annual lump-sum repayment arrangement at the end of the harvest season is more suitable for coffee cooperatives. They further pointed out that repayment schedule should be aligned with proper time of marketing of coffee to avoid the price fall during

the harvest season. One of the challenges raised by cooperatives is that bank loan often tends to be of shorter duration, and does not allow them to undertake long-term investment activities.

On the other hand, interviewed cooperatives indicated that loan processing for the loans obtained over the three years (2010 to 2012) took less than a week and up to 6 months. The average loan processing time for the three years was 5 to 6 weeks. The findings of the qualitative study confirm that loan processing time with unions is often shorter than the time taken to directly obtain from banks. This is due to the fact that unions obtain loans from commercial banks and pass on to member primary cooperatives even without the request of those cooperatives. But it was reported that such union loans arrive late in the season and are small in amount.

5.5.4.2. Interest rate

Bank key informants indicated that the interest rate charged on loans depends on tenure of the loan, type of loan product, economic sector, collateral type, and time horizon (increases with time because of risk and uncertainty). In general, private banks reported that they charge interest rates that vary between 8.5% and 15%. Long term-loans extended by private banks for such sectors as agriculture usually attract high interest rate of up to 14% or 15%, while that of export is as low as 9%. The interest rate charged by the state commercial bank appears to be lower; i.e. loans for agriculture and manufacturing attract about 9.5% interest rate, while that of final export is 7.5%. Cooperatives participating in the current credit guarantee scheme are charged 12% for the short-term working capital and 13% to 14% for the medium-term loans acquired for coffee processing machine. This was in fact viewed by some key informants as a relatively higher rate. Some key informants indicated that one of the attractive features of SACCOs is their low interest rate. In contrary, the study found that the interest rate of most MFIs is too high (i.e. as high as 26%), which may make them potentially preferred source in the future.

5.5.4.3. Collateral and other lending requirements

In terms of collateral requirement or coverage level, there seems to be flexibility based on borrower type (customer reputation and relationship with the bank), nature of the project or business (profitability and riskiness), collateral type, financial standing of the borrower and other factors. Some bank officers indicated that there could be instances when clean-based loans are

provided to reputable and premiere customers, which are in fact minute as compared to the proportion of other borrowers. Among the state commercial bank, low risk grade projects are expected to provide a collateral coverage of up to 75%, while medium risk grade is required to cover 85%. Moreover, investment projects are expected to contribute 30% equity, with some flexibility depending on the nature of the collateral provided. Banks pointed out that provision of loan security is relatively easier with cooperative unions and exporters, who have better facilities that can be pledged as collateral. In addition, their sales contract can serve as collateral.

At present CBO is the sole provider of clean based-loans to carefully screened (their) shareholder cooperatives. In this instance, a support letter from the cooperative promoting government body has to be furnished. It was however noted that many cooperatives are not shareholders of CBO, thus do not qualify for such borrowing facilities. The findings show that collateral requirement for private banks are often in the range of 100 to 120%. For instance, CBO requires a collateral security of 80 to 120% coverage when lending to private borrowers. In terms of collateral type, banks prefer fixed assets such as buildings, though vehicles and machines can also be taken as collateral. Collateral requirement could be up to 80% for buildings and 200% for vehicle or machine. On the other hand, if a cooperative wants to purchase coffee processing machine, the lending bank may cover only up to 50 - 70% of the cost, while the borrowing cooperative is expected to provide the rest as an equity. In general, various key informants indicated that collateral requirement is generally a serious impediment to farmers' cooperatives in accessing loans from private banks, apart from the CBO.

In addition to collateral, banks ask for other documents such as legal entity, license (for private traders), up-to-date financial statements, support letter from government body, business plan, proforma invoice (if the loan is for purchase processing machine), among others. In addition, screening criteria for cooperatives' loan application may consider credit track records, governance and strength of management of the cooperative and viability of their business. Cooperative promotion experts and cooperatives' management were of the opinion that banks often put forward lengthy, cumbersome and prohibitive lending requirements and procedures,

some of which are unclear. In particular, securing TIN²⁷ numbers and lengthy negotiation process with the bank were the major challenges in obtaining loans from CBO even under the current guarantee scheme. One cooperative management focus group emphasised that lending criteria and requirements for cooperatives have to relax and differ from other borrowers since cooperatives serve the community, and have unique mission and objectives. On the other hand, MFIs representatives pointed out that loan security or issue of collateral is not a major problem with their service. Because they follow the Grameen model which is based on group approach (6 to 60 people); i.e. social guarantee or cross guarantee system.

5.6. Cooperatives’ Institutional, Socio-economic & Business Characteristics

5.6.1. Profile of study cooperatives

The cooperatives included in the formal survey were selected from 38 districts of the eight zones of Oromia and Southern Nations Nationalities and Peoples (SNNP) regions that have been involved in the credit guarantee scheme under analysis (See Table 5.15). Out of the total 100 cooperatives included in the baseline study, half were drawn from Oromia, while the remaining half were selected from the SNNP region. The study areas represent different coffee farming systems, agro-ecological conditions and socio-economic set up.

Table 5.15: Regional locations of the primary cooperatives included in the (baseline) study

S.N.	Zones (location)	Region	Number of coops surveyed
1	East and West Wellega (Western)	Oromia	25
2	Kaffa (South West)	SNNP	18
3	Wolayita (South-1)	SNNP	12
4	K/Tembaro and Hadiya (South-2)	SNNP	20
5	East and West Hararge (Eastern)	Oromia	25
Total			100

²⁷ Borrowing cooperatives have to produce two TIN numbers (one in the name of the coops and another one by the name of one of the members of the management committee). Every loan applicant has to be recorded in the system of credit centre of the NB. The bank needs to provide up-dates (to the system) on loans released and additional loans provided. It is basically a means of credit information sharing. Such requirement was introduced in late 2012. It has no tax implication as cooperatives are exempted from tax.

As regards their age distribution, some of the cooperatives were as old as 43 years, while a few were just 2 years old during the survey (as of late 2012 and early 13), with a mean age of about 13 years. More than half (54%) of the cooperatives were 10 years old and younger. The sampled cooperatives were established between 1970 and 2010, out of which close to 85% were established after 1989, towards and after the end of the military regime. Out of these, 37% were formed just between 2003 and 2005, which seems to overlap with the creation of the Federal Cooperatives Agency, a government body that promotes and regulates cooperatives.

The member size for the study cooperatives varies from 44 to 2500 farmers, with a mean of 579 farmers. As regards variation across regions, on average, cooperatives in the SNNP region appear to have larger number of members than their counterparts in the Oromia region (Table 5.16). The T-test results however show that the difference between the member size of the cooperative's located in the two regions is not statistically significant ($P = 0.132$).

Table 5.16: Relationship between regional location & cooperatives' member size (N = 100)

Regional location	No of respondents	Mean member size	SD
Coops in Oromia	50	499	392
Coops in SNNP	50	660	641
Total	100		
<hr/>			
T-value = -1.520	DF = 81	Significance = 0.132 (NS)	

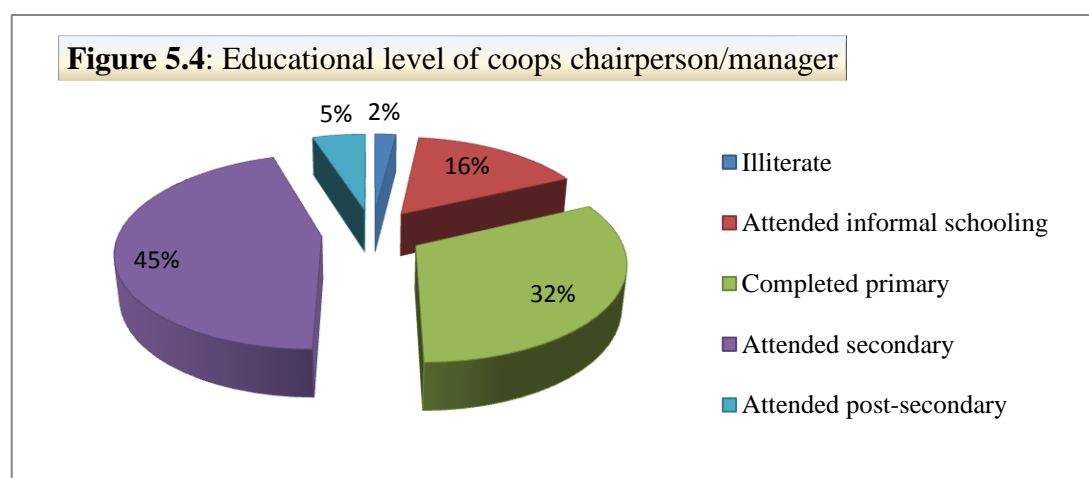
In its gender dimension, the number of female cooperative members varies between zero and 650, with an average of 72 female members per cooperative. Interestingly, one of the cooperatives did not have any female member at all. Age and educational status of the people managing cooperatives are among the variables presumed to influence quality of cooperatives' management and performance of their business activities. The findings show that the mean age of cooperatives' chairpersons is 41 year, and ranges between 27 and 62 years. The vast majority (close to 81%) are found in the age group of 32 to 50 years, which seems to be ideally productive as well have acquired adequate experience.

Table 5.17: Summary of some demographic characteristics of the study cooperatives

Attributes	Min	Max	Mean
Age of cooperatives (year)	2	43	13.40
Cooperatives member size	44	2500	579
Age of cooperative chairperson (year)	27	62	41

In terms of educational status, only the chairpersons of management of two cooperatives were illiterate, while 16% can just read and write (i.e. attended some form of informal education). The vast majority of the cooperatives' chairpersons or managers (82%) attended formal education. Out of these, 32% and 45, respectively, completed primary school and attended secondary school, while only five of them (5%) attended post-secondary education.

5.6.2. Economic/business activities and resource ownership



5.6.2.1. Type of cooperatives and their main business activities

The sampled cooperatives reported that their experience in coffee business varies from 1 to 15 years, with a mean of about 6 years as of end of 2012. With respect to coops type, out of the total 100 cooperatives included in this analysis, six are exclusively coffee cooperatives, while the vast majority (94%) are multipurpose ones, who are also engaged in coffee trade. As regards sector of primary occupation, three-quarters (76%) of the cooperatives reported being involved in diverse business activities including coffee and grain trade (such as wheat, beans, etc.), input supply and other trade activities. About a quarter were involved only in coffee trade. However, nearly all of

the study cooperatives were engaged either solely in coffee trade or in combination with other business activities. When we examine the difference across regions, SNNP had relatively more cooperatives that were solely dedicated to coffee trade than Oromia. The *Chi-Square* test shows that cooperatives located in the two regions do differ significantly at 10% ($X^2 = 2.837$; $P = 0.092$) with regard to their type. Nevertheless, observations and interactions of the current researcher with cooperatives in the Oromia region reveals that though they are named multipurpose coops, most of those located in coffee producing areas are predominantly engaged in coffee business.

Table 5.18: Relationship between regional location and type of cooperatives (N = 100)

Type of coops	Regional location	
	Oromia No. (%)	SNNP No. (%)
Coffee coops	1 (2%)	5 (10%)
Multipurpose coops	49 (98%)	45 (90%)
Total	50 (100%)	50 (100%)
$X^2 = 2.837$	DF = 1	Significance = 0.092

5.6.2.2. *Employed workers and manager*

As of September 2012, the sampled cooperatives had 0 to 7 employees with a mean of 2 employed workers. A substantial proportion of the surveyed cooperatives (20%) did not have any permanent workers, while more than half had 1 or 2 workers. Only 8 cooperatives reported having 5 and more employees. It is important to note that the majority of these workers are security guards who have limited direct professional contribution to cooperatives' business operations and management. It was however noticed that most of the cooperatives involved in coffee business hire a number of seasonal wage laborers. On the other hand, as of September 2012, only 11 cooperatives reported having full-time professional manager, while the vast majority (89%) were being managed by part time committee. This has serious implications for the performance and quality of their organisation and business management. When we examine the difference across regions, as indicated in Table 5.19, though more cooperatives in the Oromia region appear to have professional managers than their counterparts in the SNNP region, the difference was not statistically significant ($X^2 = 2.554$; $P = 0.110$).

Table 5.19: Relationship between coops regional location and having manager (N=100)

Having professional manager	Regional location	
	Oromia No. (%)	SNNP No. (%)
Have manager	8 (16%)	3 (6%)
Do not have manager	42 (84%)	47 (94%)
Total	50 (100%)	50 (100%)

$X^2 = 2.554$ DF = 1 Sig. = 0.110 (NS)

On the other hand, the majority of the surveyed cooperatives (55%) reported having an accountant as of September 2012. It was however noticed that most of the persons working as accountants are not qualified professionals; they are rather local people with some sort of formal education.

Table 5.20: Summary of cooperatives' human resources as of September 2012

Human resource	Min	Max	Mean
Number of permanent employees	0	7	2
Percent of coops with no employed workers		20%	
Percent of cooperatives with 1 - 2 employees		Over 50%	
Percent of cooperatives with 1 – 3 employees		64%	
Percent of cooperatives with 5 – 7 employees		8%	
Percent of coops with professional manager		11%	
Percent of cooperatives that have accountant		55%	

5.6.2.3. Cooperatives' asset/capital ownership

In terms of capital ownership, as of September 2012, the cooperatives included in the analysis have a maximum total capital that is worth 12.86 million Birr, while some had no capital at all. The mean total capital of the cooperatives was 1.19 million Birr. Likewise, the interviewed cooperatives on average had 119,393 Birr in bank, whereby 10 cooperatives had nothing in the bank while a few had up to 1.24 million Birr. The value of capital in stock ranges between zero and 11.5 million Birr. Over 20% did not have any capital in stock. It is important to note that some of the items in stock are fertilizers received on credit, while the rest are coffee, grain and

spices (such as ginger) collected from members. On the other hand, the amount of outstanding liabilities cooperatives had to repay varies from zero to 2.18 million Birr. In fact more than half of the interviewed cooperatives did not have any outstanding liability. This possibly shows the fact that primary cooperatives have limited participation in borrowing.

In terms of physical asset ownership, as of September 2012, the vast majority (98%) had their own offices and office facilities. In addition, 95% and 92% have some kind of warehouses (mostly substandard) and weighing scale, respectively. Moreover, some have house/rooms for rent (23%), shop (27%), flour mill (22%), coffee wet mill (5.5%) and coffee huller (1%) alongside other items. A few cooperatives reported having vehicle (3%), motor bike (2%), safe box (3%), power generator (1%), water pump (1%), and pharmacy (1%). In terms of value, the average estimated value of physical assets owned by cooperatives range between zero and 3.74 million Birr, with a mean of 441,567 Birr. Surprisingly, we came across a cooperative with an asset of no book value, and a cooperative without any fixed asset apart from one weighing scale.

Table 5.21: Cooperatives' capital ownership as of September 2012

Capital owned	Min	Max	Mean
Amount of total capital	0	12,862,549	1,186,100
Amount of capital cooperatives have in bank (Birr)	0	1,247,245	119,393
Value of capital cooperatives have in stock (Birr)	0	11,500,000	625,096
Amount of outstanding liabilities of cooperatives (Birr)	0	2,182,549	216,276
Value of physical assets owned by cooperatives (Birr)	0	3,735,000	441,567

In terms of regional location, cooperatives located in the Oromia region reported having more total capital; i.e. on average, 1.4 million Birr as compared with 0.97 million Birr for those from the SNNP region. However, as indicated in Table 5.22, the difference between the cooperatives located in the two regions was not statistically significant (T-value = 1.184; P = 0.239).

Table 5.22: Relationship between regional location and amount of total capital (N = 100)

Region	No of respondents	Mean total capital (Birr)	SD
Oromia	50	1,404,000	1,632,010
SNNP	50	968,074	2,027,830
Total	100		
T-value = 1.184		DF = 98	Significance = 0.239 (NS)

5.6.2.4. Expenditures and financial management

The total expenditure incurred by the interviewed cooperatives during the year 2012 ranges between zero and 4.5 million Birr, with a mean of 375,201 Birr. It was reported that since their operations and business activities are very limited, most of the study cooperatives did not incur substantial costs. The major types of expenditure were related to processing (of coffee), transport and marketing of products; input supply; salary and per diem; investment on capital goods (such as warehouse, coffee processing machine and office), social services and rent in that order.

Contrary to other official reports and the findings of previous studies, the vast majority of the study cooperatives (95%) reported that their accounts have been regularly audited. However, personal observations and experiences of the current researcher show that the majority of the cooperatives in Ethiopia do not have regular audit services for their financial accounts. Reports of the FCA (2012) reveal that the Federal Cooperative Agency had planned to provide audit service for 24,183 primary cooperatives during the year 2011/2012. However, they were able to reach only 6,478 primary cooperatives in nine months. This is meager as compared to the total number of cooperatives in the country.

5.6.2.5. Income generated by cooperatives

Out of the 100 cooperatives we interviewed before the launch of the current scheme (in 2012), 31% did not get any income from non-coffee activities, while the rest (69%) reported generating 844 to 711,215 Birr. On average, cooperatives received 56,932 Birr from non-coffee income. On the other hand, only 53%; 75% and 31% of the cooperatives reported obtaining income from coffee sale over the three years (2010 - 2012). We observed that some of the cooperatives did not receive feedback from the union on their coffee sale for the year 2012 when this survey took

place. As indicated in Table 5.23, though fluctuations were observed across years, the volume of income generated by cooperatives on average showed a rising trend over the three years.

Table 5.23: Income generated through coffee business in Birr

Year	Minimum	Maximum	Mean
2010 (N= 53)	2,000	9,062,638	888,475
2011 (N= 75)	1,400	8,160,644	962,057
2012 (N = 31)	6,000	12,005,825	1,728,100

5.6.2.6. Distance from institutional service providers

The distance between the cooperatives and various service providers such as banks, extension office, market centres and others apparently affects access to services such as credit, information, market, new technologies, etc. Access to these services also involves costs related to the distance from their providers. We find that the majority of the cooperatives are located far away from the local bank branch offices. In this respect, on average, cooperatives have to travel close to 18 Km to reach the nearest bank, while the farthest cooperatives are located up to 89 Km away from the nearest bank. When we examine the difference across regions, we found that cooperatives in the Oromia region were relatively closer to the local bank branches (Table 5.24). The T-test result, however, shows that the difference is not statistically significant (T-value = -0.858; P = 0.393).

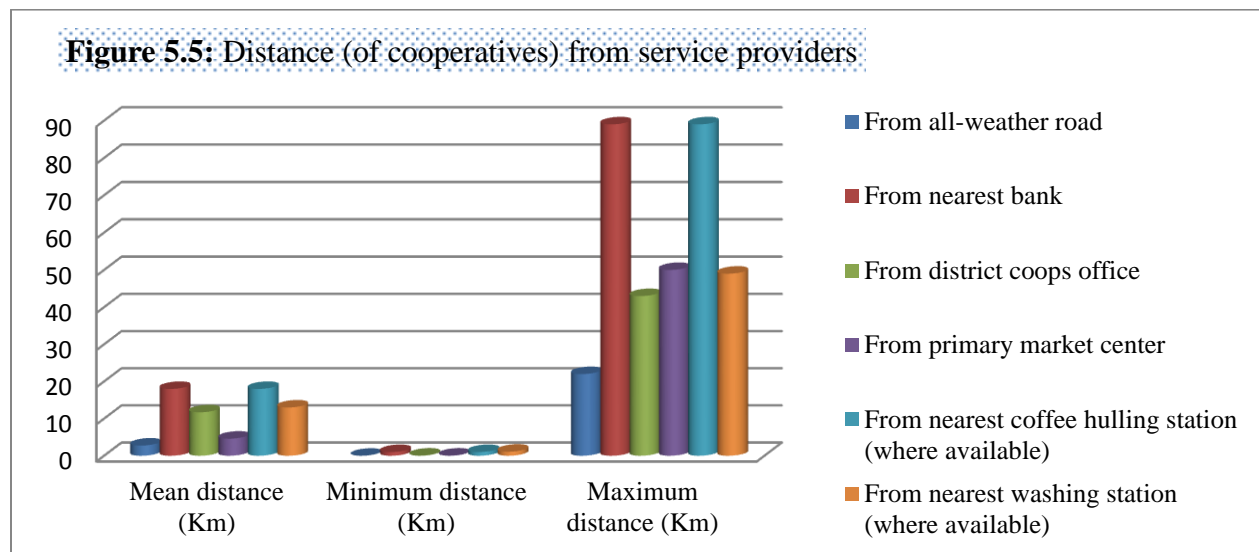
Table 5.24: Relationship between regional location and distance to nearest bank (N = 100)

Region	No of respondents	Mean distance (Km)	SD
Oromia	50	16	13
SNNP	50	19	20
Total	100		

T-value = -0.858 DF = 98 Significance = 0.393 (NS)

On average, cooperatives are located about 2.8 Km away from all-weather road. The majority (about 70%) are located within 2 Km distance from all-weather road, while some have to travel up to 22 Km to get to all-weather vehicle road. The average distance from a cooperative centre to the district office is close to 12 Km, while the farthest cooperatives are 43 Km away from the district head quarter. Similarly, the average distance from the nearest primary coffee market

centre (where available) is 4.6 Km, while close to half are located within up to 1 Km distance. The longest distance to the primary market centre is 50 Km. Similarly, the average distance from the nearby coffee hulling station is 18 Km, while the farthest is 89 Km. Over two-thirds (68%) of the cooperatives can access hulling facility within 20 Km distance. As regard the distance from coffee washing stations, only 48 cooperatives indicated having washing facilities somewhere in their district. These facilities are owned either by private traders or primary cooperatives. The average distance to the nearest washing station is about 13 Km, while the farthest is 49 Km.



With respect to access to extension service, over 98% of the cooperatives indicated that they had contacts with local cooperative/extension agent during the year 2012. In terms of frequency of contact, on average, the agents visited the interviewed cooperatives 78 times during the year. In other words, the extension agent visits a cooperative more than 6 times a month, which indicates presence of a close interaction. On the other hand, when asked if they think that their cooperative has received adequate support from the cooperative promotion office and agents, the majority of the cooperatives' management (81%) confirmed that they indeed got sufficient support, while 19% felt that they did not.

In terms of union membership, 90% were members of a cooperative union, while the rest 10% were non-members. As regards regional differences, 96% and 84% of the cooperatives from Oromia and SNNP regions, respectively, are members of a cooperative union (Table 5.25). The

Chi-Square results show that the association between cooperatives' regional location and union membership is statistically significant ($X^2 = 4.00$; $P = 0.046$). In respect of service provision, according to the respondents, union provides the following services at varying degrees. These include provision of loan, marketing of coffee, education and advice, farm inputs (fertilizer), access to fair-trade and coffee processing facilities. The vast majority of the cooperatives (94%) reported that loan supply is the major service they receive alongside some other supports. Over three-quarters of the cooperatives reported that marketing (alongside some other services) is the major service they receive from their parent unions. About 64%, 35.5% and 6.5%, respectively, reported having access to education and training, farm inputs, and fair-trade market along with other services. When asked if they think that unions are beneficial for member primary cooperatives, almost all the respondents were of the opinion that unions indeed offer some benefits to their members.

Table 5.25: Relationship between regional location and union membership (N=100)

Union membership	Regional location	
	Oromia No. (%)	SNNP No. (%)
Member of a union	48 (96%)	42 (84%)
Not member of union	2 (4%)	8 (16%)
Total	50 (100%)	50 (100%)
$X^2 = 4.00$	DF = 1	Sig. = 0.046

We also wanted to know if the study cooperatives had experience with other projects previously. Out of the 100 cooperatives who responded to this question, the vast majority (87%) indicated that they never participated in any project that targeted improving coffee quality or access to credit. The remaining 13% reported receiving certain support from some agencies in the form of coffee drying materials or other service. On the other hand, we observed that a number of agencies have been involved in supporting coffee development and/or financial service provision, which mainly target individual farmers or higher level cooperative structures.

5.7. Cooperatives' Demand for Institutional Credit and its Determinants

This section presents the views of various key informants and focus groups with regard to farmer cooperatives' loan demand, as well as examines determinants of loan demand with relevant econometric model based on the survey data.

5.7.1. Cooperatives' loan demand: *views of the key informants and focus groups*

We found that external loan tends to be the only source of finance for the vast majority of primary cooperatives for running their operations such as collecting, processing and selling members' coffee. This is due to the fact that most cooperatives have very limited capital of their own to undertake coffee and other business activities. Cooperatives particularly stressed that lack of access to long-term investment capital is a severe constraint and acts as one of the major constraints to their growth and further development. Though some of the cooperatives obtain small amount of seasonal working capital through the mediation of their union, banks seem to be reluctant to provide long-term loans to primary cooperatives. All the interviewed cooperatives concur that lack of access to appropriate financial resources is a major impediment to the growth of their business and institutional development.

Majority of the key informants and focus groups were of the view that most cooperatives need to acquire loan at the current market price. They believe that cooperatives can undertake a profitable business if loans are accessed in time and put into proper use. All stated that various aspects of coffee business (production, processing and trade) require substantial amount of money. In particular, the emergence of a large number of new cooperatives in recent years has resulted in increasing demand for loans. For instance, according to a cooperative promotion officer from East Hararge, during the 2010/11 coffee season, cooperatives in his zone applied for 90 million Birr loan from different sources. However, finally they were able to secure only less than 15 million Birr. Similarly, one bank officer gave an example whereby farmers borrow from micro-finance institutions with high interest rates of up to 22%, and still make profit out of it. A cooperative management focus group in Wolayita said “*We got organised to undertake effective business, to provide various services to our members and to transform ourselves. In order to effectively attain this goal, we need finance because our cooperatives have weak financial*

capacity’’. One of the farmer focus groups in Kaffa zone indicated that if their cooperative is adequately supported in accessing loans in the right volume and time, they will be able to generate considerable benefit from their coffee business. They feel that this allows them to acquire washing facility, to undertake proper coffee processing and supply good quality coffee that fetches better return.

Some key informants were however of the opinion that limitations in their institutional and managerial capacity and other internal and external factors may restrict cooperatives from effectively demanding for, accessing and utilising loans. In particular, one bank loan officer expressed doubt about the presence of high demand for credit among primary cooperatives. He argues that it is not only scarcity of a loan supply which limits cooperatives’ access to loans. A number of micro and macro factors such as reduction in coffee yield, decline in coffee market price and weak capacity of cooperatives can depress their demand for institutional loan. Moreover, some bank officers mentioned that primary cooperatives have not been coming forward to approach their bank for loans for various reasons. They speculate that this may emanate from the perception that they cannot meet banks’ lending requirements. One cooperative expert in fact indicated that many primary cooperatives often struggle to fulfill banks’ cumbersome lending requirements.

In respect of the purpose for which loans are needed, key informants and focus groups indicated that cooperatives have various finance requirements in terms of volume, duration and purpose for which loan is required, including for non-coffee activities. However, most bank key informants think that cooperatives require working capital for fresh cherry or dry coffee purchase, while a few mentioned loans to acquire processing facilities and crop advance to member farmers. Most of the bank officers in particular do not seem to favour extending loans for crop/cherry advance to cooperative members. They feel that such lending activity is of high risk venture. Cooperative and coffee experts, however, underscored that cooperatives equally need long-term loans to acquire washing, drying and hulling facilities. In terms of loan duration and repayment schedule, as discussed in the above section, key informants suggest that the working capital could be of one year to be repaid once annually or semi-annually after coffee sale. Investment loan for coffee processing facilities could be of medium-term of about 3 years with annual installments.

In terms of amount of loan needed by cooperatives, one key informant from the private bank reported that cooperatives may need about 8 to 10 million Birr loan. This in fact seems to be on the higher side for an average coffee or multipurpose cooperative located in the current study areas. The majority of the bank key informants generally lack an idea about the volume of loan needed by primary cooperatives since they have never worked with such groups. Majority of the interviewed cooperatives' management and experts indicated that cooperatives in the current study areas, on average, need one to four million Birr loan per year depending on their institutional capacity and level of business activity, while a few may even require as high as five million Birr and above. Key informants noted that non-coffee business such as grain trade require less amount of capital, probably a loan size of less than one million Birr. It was noted that there are huge variations in terms of the volume of loans needed by cooperatives located in different areas. For instance, we observed that cooperatives in East Hararge were more active in seeking loans from banks than their counterparts in West Hararge, who often depend on their union in accessing small amount of loans. Moreover, cooperatives in Kaffa and Wolayita zones revealed demand for larger volume of loan than their counterparts in Hadiya and Kembata Tembaro zones.

5.7.2. Quantitative analysis of cooperatives' loan demand

5.7.2.1. Descriptive findings of the formal survey

As outlined in the analytical framework, we employed two approaches to capture cooperatives' loan demand. When we look at the actual number of cooperatives applied for a bank loan during the period that precedes the launch of the guarantee scheme under analysis, the findings show that a small proportion submitted loan requests. As indicated in Table 5.26, only 29% in 2010, 45% in 2011 and 38% in 2012 reported applying for loans directly or through their union. In terms of volume of loan applied for, as shown in Table 5.26, the amount applied for over the three years (2010 to 2012) appeared to show a rising trend. The amount applied for by an individual cooperative varies between 50 thousands and 7 million Birr. When we look at the actual amount cooperatives asked for during 2011 (the year preceding the launch of the current scheme), it ranges between 100 thousands and 5 million Birr, with a mean of 1.31 million Birr

Table 5.26: Summary of cooperatives' previous applications for bank loans

Year	Applied for loan (N = 100)		For those responded yes, amount applied for (Birr)		
	Yes	No	Max	Min	Mean
2010	29 (32.5%)	71 (67.5%)	5,000,000	50,000	1,190,000
2011	45 (47%)	55 (53%)	5,000,000	100,000	1,310,000
2012	38 (36%)	62 (64%)	7,000,000	100,000	2,180,000

When we examine the difference among regions for the year 2011, the majority (70%) of the cooperatives in the Oromia region applied for bank loans (directly or via their union), while only 20% of those in the SNNP region applied for the same (Table 5.27). The difference between the cooperatives in the two regions was statistically significant ($X^2 = 25.253$; $P = 0.001$). This could be possibly due to the presence of the Cooperative Bank of Oromia in the region.

Table 5.27: Relationship between regional location and decision to apply for bank loan (N = 100)

Loan application in 2011	Regional location	
	Oromia No. (%)	SNNP No. (%)
Applied for bank loan	35 (70%)	10 (20%)
Did not apply for bank loan	15 (30%)	40 (80%)
Total	50 (100%)	50 (100%)

$X^2 = 25.253$ DF = 1 Sig. = 0.001

When we examine regional differences with respect to loan amounts requested by cooperatives during the year 2011, we found a significant association (T-value = 2.227; $P = 0.028$). As presented in Table 5.28, cooperatives located in the Oromia region, on average, applied for larger volume (837,067 Birr) than their counterparts in the SNNP region (342,000 Birr). This seems to reflect the differences in the institutional and business activities and capacities of the cooperatives in the two regions.

Table 5.28: Relationship between regional location and amount of loan applied for in 2011

Region	No of respondents	Mean amount of loan applied for (Birr)	SD
Oromia	50	837,067	1,164,490
SNNP	50	342,000	1,055,420
Total	100		

T-value = 2.227

DF = 98

Significance = 0.028

In addition, as outlined in the analytical framework, with the aim of capturing the loan demand of self-constrained cooperatives, we asked all study cooperatives if they would seriously and genuinely need a bank loan at the prevailing market interest rate for the 2012 coffee season. The vast majority (88%) reported that they would seriously need a loan, while only 12% expressed lack of demand for credit during that particular year. The amounts demanded by a cooperative vary from 120 thousands to 7 million Birr, with a mean of 1.47 million Birr.

5.7.2.2. Purpose and duration of the loan needed

As indicated in Table 5.29, when asked the purpose for which cooperatives need loan, close to 40% said they would use to trade dry cherry. The rest indicated that they would use the loan for marketing dry and/or fresh cherry as well as to obtain processing and other facilities. In terms of preferred time to receive loans, out of the 89 cooperatives responded to this question, 78% want to obtain between September and December which is a peak coffee harvest season. A significant number of cooperatives reported that they would need loan after January which implies that they need it for traditional trade activities that does not add value to their coffee.

Table 5.29: Purpose for which loan is needed (as per the views obtained in April/May 2013)

Purpose of loan	Percentage of coops responded (N = 100)
Purchase and sell dry coffee	40
Purchase & sell or dry fresh cherry, trade dry coffee, buy wet mill, drying materials & hullers, purchase inputs (and grain)	22
Purchase and sell dry coffee, install wet mill	14

Purchase and dry fresh cherry	10
Purchase hulling machine alongside coffee	4.50
Purchase drying materials alongside coffee	4
Purchase and immediately sell fresh cherry	2
Purchase & sell fresh cherry, purchase and sell dry coffee	2
Build office/warehouse	2
Total	100

On the other hand, when asked for how long they would need loan, cooperatives reported seeking a loan with 3 to 48 month maturity period. In general, the majority (70%) expressed demand for a loan with 4 to 12 months duration. A good proportion (29%) indicated that they would need a loan of one year duration. About 11% prefer a loan with maturity period of 3 to 4 years. In terms of loan repayment schedule, as indicated in Table 5.30, the larger proportion (67%) favour annual repayment schedule, at the end of harvest season. Only 4%; 14.5% and 14.5%, respectively, preferred monthly repayment (during harvest time), quarterly or biannually.

Table 5.30: Preferred time of loan repayment

Preferred time of repayment	Number and percent of coops (N=97)
Monthly during coffee harvest time	4 (4%)
Quarterly	14 (14.5%)
Every six months	14 (14.5%)
Annually at the end of harvest season	65 (67%)

When asked how they determine their cooperative's loan requirement, 95% of the respondent chairpersons or managers indicated that it is based on their business plan. In reality, this does not seem to be practiced as majority of the cooperatives rarely annually develop up-to-date business plan. The remaining 5% said it is estimated by the management committee or cooperative promotion agent. Other key informants and focus groups indicated that cooperatives' loan requirement is mainly estimated by committee members, cooperative promotion agents or unions. We observed that some cooperatives submit unrealistically high loan request which failed to convince the lending banks.

5.7.3. Results of the Econometric Analysis

This section examines farmer cooperatives' loan demand and its determinants – both decision to borrow and the volume of loan needed. The section particularly focuses on presenting the findings of the Heckman two-step selection model. Discussions and explanations of the findings in relation to existing literature will be provided later in chapter 7. As outlined in the conceptual framework, various explanatory variables were identified to capture cooperatives' institutional, managerial and business attributes that may influence their loan demand.

5.7.3.1. Factors affecting cooperatives' loan demand

As outlined in the analytical framework, we employed two approaches to capture cooperatives' loan demand. In the first approach, we considered cooperatives actual applications for loan during the year 2011 (directly or through their unions) and amount applied for as proxies for probability of demanding loan and volume of loan demanded, respectively. Apparently, this approach tends to underestimate loan demand among cooperatives as it fails to capture information on self-constrained or self-credit rationed cooperatives. Because a number of factors prevent cooperatives from transforming their potential demand into revealed demand. In the second approach, we asked cooperatives if they would seriously and genuinely need a bank loan and the amount they would like to obtain during the following year (2012 coffee season). The later approach tends to reflect their desire and potential to demand for loans which may not be necessarily transformed into actual or revealed demand without further interventions. We denote the first and later demands as loan-A demand and loan-B demand, respectively.

We run a Heckman two-step selection model to examine factors influencing cooperatives' loan demand. This section presents the results of the empirical analyses and the outcomes of the two approaches. Table 5.31 presents the results from the Heckman two-step selection model based on the loan applications submitted by the cooperatives in 2011, loan-A demand. The empirical findings of loan-B demand are provided in Table 5.32. In addition, it is important to note that natural logs were considered in the model for all continuous variables to identify their likely relative effects on credit demand. Thus coefficients on continuous variables measure elasticity in

percentage points on amount of credit demanded by cooperatives. The following formula was used to get the expected relative effects for all continuous variables $(\text{Exp}(\text{Coef})^{-1}) * 100$.

As one can see from Table 5.31, the results reveal that out of the variables included in the model, five and two variables significantly influenced decision to demand for loan-A and amount of loan-A demanded by cooperatives, respectively. Among these, interestingly, outstanding liability significantly (at 1%) and positively affects the probability of demanding for loan-A. In other words, cooperatives with higher liability are more likely to demand for a new loan. Likewise, as expected, amount of total capital positively and significantly (at 1%) influences the probability of demanding for loans. This implies that as the value of total capital increases, cooperatives are more likely to seek and successfully access institutional loans. Similarly, education and regional dummies for Oromia positively and significantly affect probability of demanding for bank loans at 10% and 5%, respectively. Cooperatives that are managed by persons with formal education are more likely to demand for loans than the ones managed by illiterate or person with only informal education. Age of cooperatives was found to significantly and negatively affect probability of demanding for a bank loan-A. Primary activities of the cooperative, age of its chairperson/manager, being a member of union, total expenditure, member size, total income, experience in coffee business, distance from the nearest bank, previous case of default and having professional manager did not significantly affect the likelihood that cooperatives seek for a bank loan-A.

In respect of factors influencing its amount, our analysis found a few variables to significantly affect volume of loan-A demanded by cooperatives. Consistent with the theoretical framework, cooperative's member size and affiliation to a cooperative union positively and significantly (at 10%) influence the volume of loan-A demanded by cooperatives. In other words, membership of a union, on average, increases the amount of loan demanded by a cooperative by 331%, while one percent increase in member size of a cooperative raises the volume of loan-A demanded by that particular cooperative by 54%. The remaining variables were not statistically significant at any conventional level of significance in influencing volume of loan-A demanded by the study cooperatives.

Table 5.31: Heckman two-step selection model for amount of loan demanded and decision to borrow (A)

Variable	Coefficient	Std. Err.	P-value
Volume of loan demanded (Amn11)			
PROMANG	0.1403885	0.5209796	0.788
MBUSACT	-0.5801692	0.5378829	0.281
UNIMEMB	1.461634	0.8464569	0.084
EDUCTN	-0.5825352	0.5081276	0.252
LOG(LIA2012)	-0.0431383	0.0442716	0.330
LOG(EXP2012)	-0.0055172	0.057115	0.923
LOG(LENBUSS)	-0.0724728	0.2934427	0.805
LOG(MSIZE)	0.5399392	0.2871611	0.060
LOG(TOTINC)	-0.0481375	0.052126	0.356
LOG(COOPAG)	0.3234241	0.3781674	0.392
LOG(TOTCAP)	0.2541119	0.2222774	0.253
LOG(AGCHAI)	-1.169952	1.081376	0.279
LOCOROM	0.143685	0.6233337	0.818
Constant	11.39548	5.439346	0.036
Probability of borrowing (Aplon11)			
PROMANG	0.2681765	0.7202767	0.710
MBUSACT	-0.4841777	0.8397229	0.565
UNIMEMB	1.263913	0.9083927	0.164
EDUCTN	0.9243091	0.5431939	0.089
LOG(LIA2012)	0.115598	0.0399705	0.004
LOG(EXP2012)	0.058677	0.0831454	0.480
LOG(LENBUSS)	-0.4937549	0.3932849	0.209
LOG(MSIZE)	0.322028	0.2731652	0.238
LOG(TOTINC)	-0.0167971	0.0642681	0.794
LOG(COOPAG)	-0.8257904	0.3639598	0.023
LOG(TOTCAP)	0.527875	0.2035161	0.009
LOG(AGCHAI)	-0.9114622	1.280513	0.477
LOCOROM	1.254774	0.5055682	0.013
LOG(DISBANK)	-0.0797994	0.2224735	0.720
DEFAULT	0.9383014	0.7089079	0.186
Constant	-6.274852	5.375091	0.243
Lambda	-0.973634	0.7766501	0.210
sigma	0.97363396		
Number of observations	100		
Censored observations	55		

Uncensored observations	45
Wald chi ² (13)	25.74
Prob >chi ²	0.0184

As stated above, we further examined cooperatives' potential demand for loan by asking them if they seriously and genuinely need loan during the following year (2012 coffee season). We found that the number of cooperatives reported demanding for loan-B and the amount demanded were much greater than the actual number of cooperatives applied for a loan and the amount requested for during the year 2011. In particular, regardless of their institutional, managerial and business characteristics and capabilities, most cooperatives appear to show potential demand for a loan. As Table 5.32 shows, among the variables included in the model analysis, three variables were found to significantly affect probability of demanding for bank loan-B, while four variables showed statistical significance in influencing amount of loan-B demanded. Among these, understandably age of the cooperative manager or chairperson significantly (at 1%) and negatively influence probability of demanding for loan-B. Another interesting finding is that the statistically significant, but negative association between the probability of demanding for loan-B and being located in the Oromia region (at 1%) and educational level of the cooperative manager or chairperson (at 10%). The aforementioned finding of loan-A demand analysis however revealed a positive relationship between locations in Oromia and probability of demanding for loan. Surprisingly, the results of model-B indicate that cooperatives with less educated chairperson were more likely to demand for institutional loan.

As regards factors significantly affecting amount of loan-B demand, the results of the Heckman model reveal that total capital, total expenditure, member size and being located in the Oromia region significantly (all at 5%) and positively affect the amount of loan demanded by cooperatives. One percent increase in cooperatives' total capital results in an increase of loan-B demand by 17%. On the other hand, a one percent increase in the cooperative's expenditure raises its loan demand by 14%. Discussions with cooperatives and personal observations by the current researcher reveal that those cooperatives with little business activities were incurring very minimal costs. Similar to its effects on amount of loan-A demanded, member size was found to positively relate to the volume of loan-B demanded by cooperatives. One percent increase in member size of a cooperative leads to an increase in its loan-B demand by 45%. More

interestingly, contrary to its effect on the probability of demanding for loan-A, cooperatives in the Oromia region appear to demand for larger volume of loan-B than their counterparts in the SNNP region. Being located in the Oromia region, on average, increases cooperatives' loan-B demand by 162% as compared to their counterparts in the SNNP region. In other words, whenever they decide to apply for loans, cooperatives found in Oromia region appear to seek for larger volume.

Table 5.32: Heckman two-step selection model for amount of loan demanded and decision to borrow (B)

Variable	Coefficient	Std. Err.	P-value
Volume of loan demanded (Lonrq12)			
PROMANG	-0.138373	0.3452198	0.689
MBUSACT	-0.5187034	0.3214322	0.107
UNIMEMB	-0.1323564	0.4121789	0.748
EDUCTN	0.0107203	0.3801742	0.978
LOG(TOTACAP)	0.1675386	0.0683333	0.014
LOG(LIA2012)	-0.0016561	0.019319	0.932
LOG(EXP2012)	0.141438	0.0670573	0.035
LOG(LENBUSS)	-0.1829646	0.164264	0.265
LOG(MSIZE)	0.4466184	0.1789763	0.013
LOG(TOTINC)	-0.0372878	0.0255494	0.144
LOG(COOPAG)	-0.062153	0.1859289	0.738
LOG(AGCHAI)	1.082387	1.133738	0.340
LOCOROM	0.9647641	0.4481761	0.031
Constant	4.410085	4.156586	0.289
Probability of borrowing (Needblon3)			
PROMANG	0.5271658	0.8258265	0.523
MBUSACT	0.2898444	0.6568349	0.659
UNIMEMB	-0.0694663	0.8176807	0.932
EDUCTN	-1.325225	0.6925296	0.056
LOG(TOTACAP)	-0.117231	0.1096042	0.285
LOG(LIA2012)	0.0166001	0.0401665	0.679
LOG(EXP2012)	0.1047639	0.0901406	0.245
LOG(LENBUSS)	-0.0572499	0.3291322	0.862
LOG(MSIZE)	0.2004843	0.2830207	0.479
LOG(TOTINC)	0.0163903	0.053449	0.759
LOG(COOPAG)	0.1066444	0.3979884	0.789
LOG(AGCHAI)	-3.528254	1.256949	0.005

LOCOROM	-1.527995	0.5658038	0.007
LOG(DISBANK)	0.2796042	0.2287041	0.221
DEFAULT	0.6749462	0.6741069	0.317
Constant	13.95016	5.22519	0.008
Lambda	-0.7542114	0.8904642	0.397
rho	-0.90731		
sigma	0.83126135		
Number of observations	100		
Censored observations	20		
Uncensored observations	80		
Wald χ^2 (13)	52.74		
Prob > χ^2	0.0000		

Summary

This chapter has presented the findings of both qualitative and quantitative research on the Ethiopian coffee sector and the role of farmer cooperatives in coffee production, processing and marketing as well as their suitability for credit service provision to member farmers. The results underscore the critical role coffee plays in the livelihood of its producers and other value chain actors and in the national economy at large. The study shows that smallholder farmers who produce the bulk of Ethiopia's coffee predominantly employ traditional coffee production and processing practices and technologies. However, there have been substantial improvements in recent years. The findings reveal that at present cooperatives do not play a meaningful role in the production end of the coffee value chain, but they play an important role in the marketing aspect. In particular, higher level cooperative structures such as unions have a vital role in this regard. Cooperatives are uniquely entitled to privileged marketing system; but they have not been able to fully utilise this opportunity. Their role and contribution in coffee marketing has been constrained by a number of factors including lack of finance and weak institutional, managerial and business capacity. The findings show that cooperatives undertake little or no value adding activities to the coffee they trade. It was also revealed that demand for coffee processing methods and facilities vary across regions depending on a number of factors.

The findings show that the agricultural sector in general and the coffee sub-sector in particular are suffering from shortage of financial resources, currently claiming a tiny share of institutional loans. Though there have been rapid expansion in the financial sector of the country, the

regulatory and monetary environments do not seem to favour flow of financial resources to the smallholder agriculture in general and to the cooperative sector in particular. The findings suggest that multipurpose cooperatives as such are not ideally suitable to serve as intermediaries for bank loans. The chapter went on to present the study cooperatives' institutional, socio-economic and business characteristics which exhibit huge variations. Most primary cooperatives generally have weak institutional, business and financial capacities, and limited access to various institutional services, including credit. The finding shows that the vast majority of the cooperatives included in the study have potential demand for bank loans, which are required for various purposes. Nevertheless, the actual or revealed demand was found to be very low. Finally, the findings of the econometric model that examines factors influencing cooperatives' loan demand were presented. Different sets of variables with different signs were found to affect the decision to borrow and the volume of loan demanded by cooperatives. Among the internal (demand side) variables member size, age of cooperative, age and educational level of co-ops chairperson, regional location, union membership, expenditure and total capital are the significant factors that influence credit demand in different ways. These factors appear to vary with the approaches used in estimating loan demand. In addition, some external factors such as natural factors that influence coffee yield, national policy and regulatory framework, bank's lending requirements, access to infrastructure, market (and attractive price) and other services were identified as the main influencing factors for cooperatives' loan demand.

CHAPTER 6

6. EMPIRICAL FINDINGS ON THE PERFORMANCE AND PRELIMINARY IMPACTS OF THE CREDIT GUARANTEE SCHEME

6.1. Introduction

This chapter presents the findings of the qualitative and descriptive analyses on the performance, contributions and effects of the credit guarantee scheme under analysis and factors influencing its performance and effectiveness. The credit guarantee scheme under analysis was still ongoing and has operated only for a few years. Thus we carried out a preliminary assessment of its performance and the effects and benefits generated as a result of this intervention. In addition to cooperatives' self-reported assessment of the contribution and benefits of the scheme, the study generated information from diverse stakeholders using a variety of techniques.

6.2. Views about the role and benefits of the Ethiopian coffee credit guarantee scheme

Almost all key informants and focus groups of various stakeholder groups underscored that cooperatives are in dire need of loan fund as coffee business (production, processing and marketing activities and facilities) require substantial amount of money. They noted that today coffee business and cooperatives' demand for loan have grown with improvements in the capacity of cooperatives and because of the rising coffee price. On the other hand, it is increasingly becoming difficult for primary cooperatives to get access to bank loans. In particular, a significant proportion of the cooperatives are new and have little or no credit history and valuable assets. A focus group of cooperative management in Wolayita indicated that without such an intervention, they would not have any opportunity to directly access bank loans. For example, during the 2011/12 season, they submitted loan application to the state commercial bank (CBE) and after repeatedly visiting and following up with the bank (for 3 months), their application was eventually turned down. Almost all interviewed non-bank key informants and focus groups were of the opinion that intervening through such a credit guarantee is helpful in easing credit constraints among primary cooperatives. Some key informants were, however, of

the opinion that there is huge demand for bank loans among various borrower groups and lending banks may encounter liquidity problem. This inevitably leads to credit rationing which obviously favours urban-based and economically better off borrowers.

The views and attitudes of the mainstream commercial banks towards such partial guarantee arrangements were quite variable. Four of the eight interviewed bank officers were of the view that loan guarantee can somehow enhance loan allocations to cooperatives as it partially addresses concerns related to loan security. About half of the bank key informants were, however, of the opinion that though in principle CGS can help banks to widely reach out to such groups, in reality it may have limited impact. This is in view of the prevailing tight financial and regulatory system, limitations in the capacity of lending banks, limited time span of the scheme, extra admin and reporting works, follow up and loan recovery with rural-based farmer cooperatives, cost of utilisation fee, lack of experience in lending to cooperatives, presence of other priority areas for lending and banks' tendency to link loan to other benefits such as export and saving deposits.

Among the eight interviewed bank officers, only two private banks indicated possibilities of participating in such a partial guarantee scheme for farmer cooperatives with 50% risk sharing. Even there is no evidence if such willingness can be practically realised when it comes to actual implementation of the scheme. The rest were of the opinion that banks will not be satisfied with the 50% risk sharing. Some bank officers indicated that banks might initially show interest in such a guarantee scheme, especially in a bid to promote strategic partnership, to get access to other incentive packages (such as training and foreign currency); but they will not be attracted solely in the partial guarantee itself.

6.3. Scheme design and operation

The design and operational features of the scheme have been outlined in chapter one. Our assessment reveals that most of the scheme design features are in line with international practices and experiences. However, some design features and operationalisation of the scheme appear to have some limitations and gaps.

6.3.1. Views about design and operation of the current guarantee scheme

While some of the bank key informants felt that the design of the current guarantee scheme is fairly good, majority expressed reservations regarding its ability to attract and motivate lending banks. The latter group was of the opinion that the 50% risk sharing is not attractive enough to open up their appetite unless it is backed by other incentive packages. All private banks, apart from CBO, indicated that if they are to participate in such schemes, they would expect borrower cooperatives to provide additional collateral to cover the remaining 50% risk, a requirement that is evidently not easy for most cooperatives to meet. Almost all of the interviewed bank officers suggest that risk sharing coverage has to be increased (to about 70 or 80%), at least during the initial stage of scheme implementation. One bank key informant said “*There are many risk free borrowers; there is no reason for banks to be interested in taking 50% risk*”. However, one bank officer indicated that 50% risk sharing could be acceptable for lending to reliable and strong cooperatives.

Moreover, four of the ten interviewed banks and MFIs officers indicated that paper guarantee may not be attractive enough to banks. In contrary, one bank key informant said that such arrangement (of keeping the guarantee fund in third party’s account) is a normal and acceptable practice. In line with this, another bank officer stated that a guarantee scheme normally provides guarantee, and not fund to be deposited in the lender’s account. They, however, emphasised that the guarantor has to be reputable institution that meets certain standards. In this regard, the representative of the participating bank (CBO) expressed his conviction that the guarantee administrator under the current scheme is reputable and reliable with extensive experience in the areas of agri-finance. On the other hand, most of the other key informants and focus groups, such as coffee and cooperative experts, cooperative management and farmers could not comment on the strengths and limitations of the design of the scheme under review. However, a few (who responded) were of the opinion that design features and components of the current scheme appear to be fairly good and acceptable.

One of the important components of a scheme design is its guarantee fee. One bank officer pointed out that if banks have sufficient loanable capital and could not lend due to fear of risk,

they will be willing to absorb the utilisation fees levied on such guaranteed loans. But with the current limited financial supply in the banking system of Ethiopia, banks do not seem to be interested in paying utilisation fees. Such fees may rather act as additional disincentive for banks in lending to farmers' cooperatives. In this respect, the majority of the interviewed bank officers said annual guarantee utilisation fees have to be transferred to and absorbed by borrowers. Though the bank officers were of the opinion that the fees associated with guarantee schemes make the loan more expensive, they however viewed it as a normal and inevitable practice in such arrangements. But they prefer to pay such fees upon disbursing the loan, and not on the total guarantee amount. Some of the interviewed banks mentioned having experiences with other guarantee schemes that involved various forms of fees including initiation fee, agreement fee, utilisation fee, etc. Our study found that the participating bank under the current scheme appears to be reluctant in paying annual guarantee fees. In other words, they did not pay any fee over the three years of lending. In general, the lending bank was not notifying the guarantee administrator about the lending activities which could be related to reluctance to pay annual risk fees. Moreover, though the verbal agreement and understanding among the lending bank is that the annual guarantee fee is to be paid on the basis of disbursed loan amount, analysis of the guarantee contract, however, shows that such fees will be charged on the total guarantee volume. This appears to be one of the gaps under the agreement of the current scheme. Consequently, the study found that the lending bank tended to increase unguaranteed loans to the targeted cooperatives through their unions.

6.3.2. Strengths and drawbacks of the design and operations of the current scheme

Observations and experiences of the current researcher during the course of the scheme's implementation and through discussions held with various key informants highlighted a number of strengths and limitations/gaps of the credit guarantee scheme under analysis. Table 6.1 presents the summaries of these findings.

Table 6.1: Strong/effective design and operational features and shortcomings of the Ethiopian coffee guarantee scheme

Strong or effective design and operation features	Shortcomings of design features and operations that affect scheme performance
<ul style="list-style-type: none"> • All vital scheme design features and terms and conditions were clearly set out in the guarantee contract signed between the two parties. These include: its objective, eligibility (target group, sector, type and purpose of guaranteed loans, maximum volume of guarantee, individual loan limit, loan tenure), responsibilities and rights of both the guarantor and lending bank, screening procedure, claims procedure, etc. • Given the location of the guarantor (remotely located in the Netherlands) and other advantages, the portfolio model adopted by the scheme can be taken as the right choice. • The fact that the guarantee fund is resident in the Rabo Bank (guarantee administrator) account has helped the scheme to avoid creating separate administrative structure and to reduce overhead costs that are needed to manage/run it. • The ceiling for the maximum 	<ul style="list-style-type: none"> • The agreement was signed with the head quarter of the participating bank. There have been gaps in properly informing branch managers and local loan officers about the procedures and arrangements. • There was a gap in information transfer and reporting between the lending bank and the guarantee administrator; the lending bank failed to share information on new guaranteed loans, status of loan portfolio and defaults. Surprisingly, the lending bank (especially the headquarter) did not have complete and accurate records of all the loans disbursed under the scheme. • The level of risk coverage has been considered low by most banks; it is also on the lower side as compared with the most of the international practices. With the mainstream commercial banks such 50% risk sharing does not seem to effectively work. • Involvement of and reliance on a single lending bank was another important gap, which has resulted in lack of alternative and competition (when this particular bank showed reluctance to widely and timely extend guaranteed loans to the targeted cooperatives) • The scheme lacks mechanisms that would address liquidity problem among the lending bank. Under the prevailing financial market in Ethiopia, many (private) banks face shortage of loanable fund.

<p>amount of individual guaranteed loan to be disbursed by the lending bank under the scheme is USD 250,000. This is in line with the volume of loan demand of most of the study cooperatives, though periodic revision of such a ceiling is necessary.</p> <ul style="list-style-type: none"> • The scheme makes use of bank's existing lending procedures, requirements, expertise and experiences. Thus moral hazard such as deliberate default among borrower cooperatives does not seem to be a serious problem. • Follow ups are carried out by a number of parties such as PEA, PIA, Coops Promotion Agency and the lending bank. These combined efforts somehow contributed to the effectiveness of loan utilisation and its recovery. • The capacity building component embedded in the scheme both for the lending bank and borrower cooperatives is one of the greatest assets of the scheme. • Involvement of CBO, which is a more coops-friendly bank, with 	<ul style="list-style-type: none"> • The scheme did not seem to pay sufficient attention to market linkage (especially to those high in the value chain) for the participating coops. • The scheme is of five year duration with effective lending period²⁸ of less than four years which was indeed short. It did not take into account the time required for ground work and capacity building prior to extending loans to such groups. • There was some gap with regard to the guarantee fee. It was stated in the guarantee contract that the local bank will pay 1.50% annual risk fee on the total risk participation. But the understanding among the lending bank is that the fee is to be paid on the amount of disbursed guaranteed loans. The agreement states that the first annual risk fee shall be paid 30 working days after the signing date, which implies that it was to be paid on the total guarantee fund. However, no risk fee was paid after 3 years of lending under scheme. • It was spelt out in the agreement that the local bank will undertake monitoring of performance of the guaranteed loans. In practice the lending bank had limited involvement in monitoring and supervising proper utilisation of the loans disbursed to cooperatives. • Some cooperatives tried to finance long-term investment (such as warehouse construction) using the short-term loans received under the guarantee. This can lead to problems in loan recovery can
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²⁸ In the agreement it was stated that loan maturity date shall fall at least a hundred and eighty business days before the expiry date of this agreement.

<p>expertise and experience in lending to such a group, is one of the commendable decisions in the arrangements of the scheme.</p>	<p>cause delays in loan repayment.</p> <ul style="list-style-type: none"> • The targets and eligibility criteria (targeted coops, type of activity, single loan limit, etc.) have witnessed no change and adaptation over time
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Source: Author's analysis

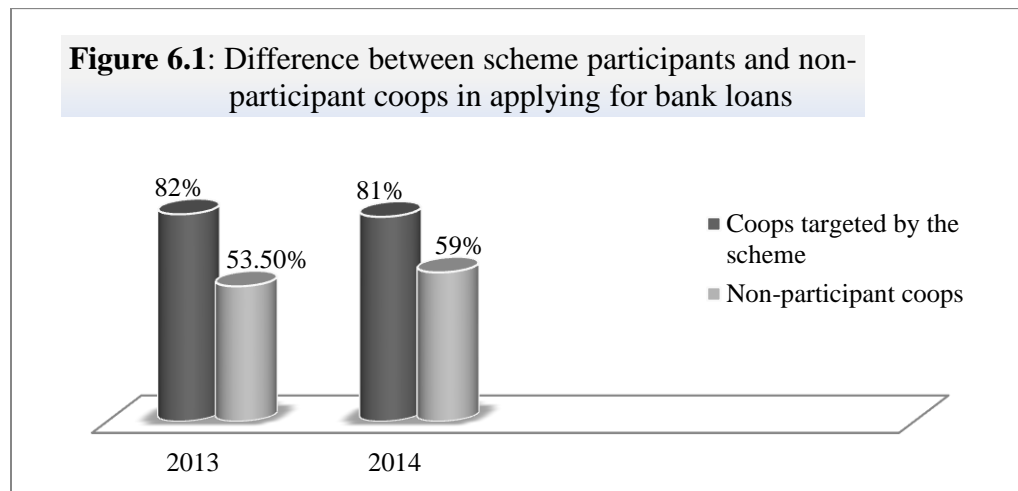
6.4. Utilisation of the loan guarantee and coverage of the scheme

Utilisation of the guarantee fund by banks is one of the essential aspects in such guarantee arrangements. For a guarantee scheme to be effective and impactful, banks have to be willing and interested to actively participate in the guaranteed lending activities. We tried to assess the performance of the scheme under analysis in terms of its outreach; *i.e.* number and volume of guaranteed loans disbursed to targeted cooperatives. There is some evidence that the current credit guarantee scheme has contributed in enhancing bank's lending to the targeted cooperatives. Those cooperatives which were formerly denied access to formal credit markets have been able to directly access bank loans. However, the findings show that outreach of the guarantee scheme was limited, particularly in terms of number of cooperatives reached. At the outset, a total of 22 primary cooperatives were selected to benefit from the current guarantee scheme. Out of these, eventually 14 cooperatives have accessed guaranteed loans since the inception of the scheme. Two, eleven and four of the targeted cooperatives had accessed guaranteed loans from the partner bank during the second (2012/13), third (2013/14) and fourth (2014/15) seasons²⁹, respectively. These figures, however, do not include the number of cooperatives that gained improved access to loans provided by parent unions. One of the positive indirect contributions of the current scheme is that it had triggered sense of concern and motivation among unions and made them increase their loan allocations to the primary cooperatives targeted by the scheme. Consequently, during the third year of lending (2014/15 season), 13 of the scheme participant cooperatives were able to receive substantial amount of loans (7,347,000 Birr) from their parent unions. In addition, some of the cooperatives were

²⁹ The first year of the scheme (2011/12 season) was dedicated to preparations and necessary ground works such as awareness raising and capacity building activities, and engagement of relevant stakeholders.

granted extension of loan maturity duration by the lending bank for loans received during the 2013/14 season.

We also tried to assess the role of the scheme in encouraging cooperatives to demand for bank loans. As indicated in Figure 6.1, cooperatives targeted by the scheme seemed to aggressively move forward in applying for bank loans. Overall, 82% and 81% of the cooperatives targeted by the scheme applied for a bank loan as compared with 53.5% and 59% for the non-participants during 2013 and 2014, respectively. Further probing with the non-participant cooperatives reveals that even most of those who reported applying for a loan approached the banks through their parent unions.



When we examine the changes in loan applications among the cooperatives targeted by the current scheme, as expected, the percentage of those applied for bank loans substantially increased after launch of the scheme. As indicated in Table 6.2, only 36% and 59% of the cooperatives targeted by the scheme applied for bank loans, respectively, in 2010 and 2011 (before the launch of the scheme). When one looks at the percentage of cooperatives targeted by the current scheme, 77% to 82% submitted loan applications (to banks) over the period 2012 to 2014; i.e. during the scheme operation.

Table 6.2: Changes in decision to apply for bank loans after being chosen to participate in the scheme

Loan application	Before the scheme		After launch of the scheme		
	No. & percent of coops		No. & percent of coops		
	2010	2011	2012	2013	2014
Applied for bank loan	8 (36%)	13 (59%)	17 (77%)	18 (82%)	17 (81%)
Did not apply	14 (64%)	9 (41%)	5 (23%)	4 (18%)	4 (19%)
Total	22 (100%)	22 (100%)	22 (100%)	22 (100%)	21 (100%)

In terms of volume of guaranteed loans, the agreement signed between the guarantee administering body and the lending bank indicates that the scheme will provide a total of partially guaranteed loan of up to 60 million Birr. However, a total of 18.40 million Birr worth guaranteed loans were provided to the borrower cooperatives over the first three years of lending (2012/13 – 2014/15). In other words, 61% of the total guaranteed fund was disbursed to the beneficiary cooperatives. This is only about 31% of the loanable fund under such a partial guarantee scheme with 50% risk sharing. The total guaranteed loans disbursed under the scheme during 2012/13; 2013/14; 2014/15 coffee seasons, respectively, were amounting to 2.37 million; 13.8 million and 2.20 million Birr. In respect of individual loan size, the smallest amount was 200,000 Birr, while the larger loan volume was 3 million Birr. On average, loan volume of 1.32 million Birr was granted to individual beneficiary cooperatives over the three years of lending. We found that though 20 cooperatives (out of the 22 targeted cooperatives) had submitted loan applications at least once over the first three years of lending (2012/13 – 2014/15), close to two-thirds (70%) were able to access guaranteed loans. On average, 11.76%; 61% and 30% of all applications were accepted by the banks over the three years (2012/13; 2013/14 and 2014/15). This shows improved acceptance level during the second year of lending (year 2013/14). It is important to note that the above figures did not include the increased volume of loans extended by unions following the launch of the scheme.

There were some obvious signs that most of the participating bank branches still tend to avoid the risk of lending to cooperatives that have never borrowed before, as well as appeared to be hesitant to provide a new type of loan product such as long-term investment loans. We also observed that even after the cooperatives fulfilled all the lending requirements and submitted their loan applications, banks kept delaying loan approval and disbursement. For instance, during the 2012/13 season, out of the 17 cooperatives who submitted their loan applications, only two cooperatives were able to meet the rigorous screening criteria and lending requirements and accessed bank loans. Some cooperatives with viable business plans and complete loan applications were not able to benefit from the guarantee scheme mainly due to the reluctance of and constraints facing the lending banks.

The findings also reveal that there were shortfalls when one compares the volume of loans applied for with the actual amount of guaranteed loans disbursed to beneficiary cooperatives. Given the institutional capacity and current state of business activities of the targeted cooperatives, the volume of loans requested by most of them was considered both by the lending banks and other experts unrealistically high. We observed the case where some weak cooperatives were applying for a loan amount of as high as 10 million Birr. Interviewed bank officers noted that such exaggerated loan request would lead to rejection of cooperatives' loan application. Discussions with cooperatives' management and promoters reveal that failure of a substantial number of cooperatives to get access to guaranteed loans is largely attributed to the lengthy, cumbersome and complicated bank lending requirements; liquidity problems among banks and their officers' reluctance to lend to primary cooperatives. Bank key informants on their part emphasise that weak institutional, managerial and business capacities of cooperatives, poor coffee production during some years, coffee market fluctuations or decline and national policy and regulations of the NB are among the constraints preventing banks in widely reaching out to cooperatives. According to some bank officers constraints related to the regulatory framework and monetary environment will continue to hinder commercial banks' outreach to this kind of target group.

6.5. Loan fund leverage ratio

One of the significance of such a credit guarantee scheme is its role in leveraging substantial amount of loans with limited volume of guarantee fund. This refers to a ratio that is obtained by dividing the amount of guaranteed loans extended under the scheme by its guarantee capital. When we assess this aspect under the current scheme, we found a leverage ratio of 0.61:1 for the bank loan, and a ratio that is slightly over 1:1 when loans obtained through their unions are included. Moreover, the fact that unions³⁰ have started showing renewed interest in lending to cooperatives participating in the current scheme can be taken as a positive step in this respect. It is also important to note that, possibly in an attempt to avoid guarantee fees, the partner bank has started increasing non-guaranteed loan allocations to scheme participant cooperatives through their unions.

6.6. Assessment of Additionalities attained under the current scheme

As the case with most studies that attempted to evaluate the performance and effectiveness of a credit guarantee scheme, the current study focused on assessing additionality as one of the crucial aspects. The research primarily focused on exploring the role of the scheme under analysis in improving financial additionality and other related benefits, including preliminary outcomes in terms of economic additionality. The scheme was still ongoing and has operated for a few years, which makes a comprehensive analysis of economic additionality and other long-term impacts difficult.

6.6.1. Financial additionality: *in terms of additional loans obtained*

Overall, initial results demonstrate that despite some challenges and limitations, there are positive contributions in improving credit allocations to cooperatives that have never had direct access to bank loan before. The scheme somehow enabled those cooperatives without adequate collateral and/or credit track record to directly get access to bank loans. The findings suggest that

³⁰Unions appear to intervene by providing unusually high amount of loan to the coops targeted by the scheme. They have started providing record high loan of up to 2.1 million Birr to individual scheme cooperatives.

the vast majority of the bank loans that were accessed by the beneficiary cooperatives are additional finance which would have not occurred in the absence of the guarantee scheme. In other words, 11 of the 14 beneficiary cooperatives (78%) previously had never had direct access to bank loans. Therefore, in the current analysis, we considered all the loans obtained from the banks by those 11 cooperatives as financial additionality. Even the remaining three cooperatives indicated that they would have not been able to receive such substantial volume of loans if it was not for the support of the scheme. They were not even sure if they would have been able to obtain bank loans during those particular years (scheme period) in the absence of the scheme's support. In general, about 87% of the total loans disbursed by the participating bank branches (to the scheme cooperatives) over the three years can be taken as additional loans that were made possible because of the scheme's intervention.

We tried to examine the difference between scheme participants and non-participant cooperatives in terms of succeeding in accessing bank loans. As indicated in Table 6.3, though this might not be entirely attributed to the scheme, cooperatives targeted by the scheme had better access to loans in that 82% of the cooperatives targeted by the scheme obtained loan as compared with 68% for the non-participants in 2013. The difference is however not statistically significant ($X^2 = 1.418$; $P = 0.234$). However, little difference was observed during the 2014 coffee season in that 86% of the scheme participants acquired loans as compared with 80.5% for their non-participant counterparts. Further discussion with the study cooperatives and in-depth analysis of the loans obtained show that the vast majority of the non-participants accessed small amount of loans through their unions while majority of the cooperatives targeted by the scheme were able to directly approach and access loans from banks (especially during 2013).

Table 6.3: Difference between scheme participant and non-participants in accessing loan

Access to loan	Participants		Non-participants		X^2 – value
	N	%	N	%	
Took loan in 2013					
Yes	18	82%	39	68%	1.418 (NS)
No	4	18%	18	32%	
Took loan in 2014					
Yes	18	86 %	46	81%	0.262 (NS)

No	3	14%	11	19%
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The changes among the cooperatives targeted by the scheme after participating in the scheme are examined in Table 6.4. The analysis shows that the vast majority (82% and 86%), respectively, took loan during 2013 and 2014 as compared with 32% and 68% before participating in the scheme (2010 and 2011, respectively). However, we were not able to see statistical significance of the association because of the insufficient number of cases.

Table 6.4: Difference in accessing loans before and after participating in the scheme

Access to loan	Before the scheme		After (during) the scheme	
	2010	2011	2013	2014
Took loan	7 (32%)	15 (68%)	18 (82%)	18 (86%)
Did not take loan	15 (68 %)	7 (32%)	4 (18%)	3 (14%)
Total	22 (100%)	22 (100%)	22 (100%)	21 (100%)

As regards amount of loan borrowed, as expected, the cooperatives targeted by the scheme, on average, received almost two-folds of the amount obtained by non-participant cooperatives during 2012 to 2014 (Table 6.5). The difference between the two groups was also statistically significant ($T = 2.201$; $P = 0.037$), which can be largely attributed to the intervention.

Table 6.5: Difference between participants and non-participants in the amount of loan obtained (2012 - 2014) (N = 68)

Participation status	Number of coops	Mean amount of loan obtained (Birr)	SD
Participants	20	1,992,900	1,828,650
Non-participants	51	1,018,300	1,214,010
Total	71		

T-value = 2.201 DF = 25 Significance = 0.037

Similarly, we tried to analyse if there is significant change in terms of amount of loan accessed by the cooperatives targeted by the scheme following the guarantee intervention. The T-test results show that the annual volume of loans obtained by scheme participants between 2012 and 2014 was significantly ($P = 0.003$) higher than the mean volume of loans they were annually receiving before they were selected to participate in the scheme (during 2010 and 2011).

Table 6.6: Difference between amount of loan obtained by scheme participants before (2010 and 2011) and after participating in the scheme (2012 – 2014) (N = 17)

Period	Number of coops	Mean annual amount of loan obtained (Birr)	SD
Before the scheme	17	393,024	368,805
After (during) the scheme	17	740,736	631,333
T-value = -3.515		DF = 16	Significance = 0.003

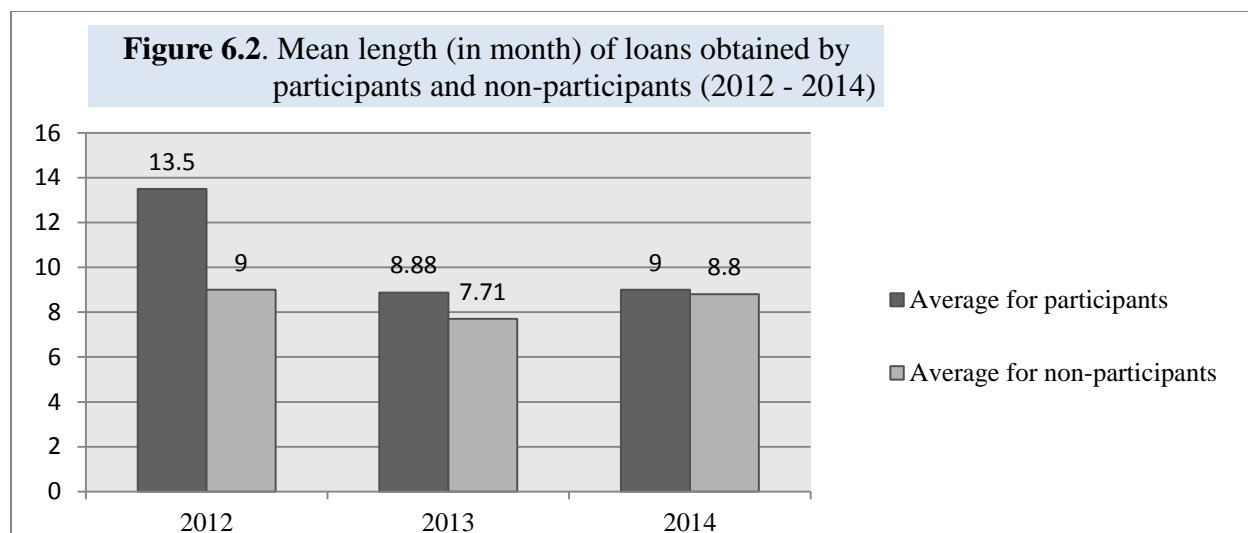
In addition, as discussed in the above section, the scheme indirectly influenced unions to channel large volume of loan to the primary cooperatives targeted by the current scheme. When we examine the sources of loans obtained in 2013, out of the 19 scheme-participant cooperatives who reported receiving loans, nine (41%) obtained from banks (CBO and CBE), three (13.5%) received both from bank (CBO) and union, while seven (31.5%) got only from unions. Likewise, during the 2014 coffee season, five (23%) of the cooperatives targeted by the scheme obtained loan from banks (CBO and CBE), three (13.5%) received both from bank (CBO) and union, and 14 (63.5%) sourced only from unions. It is important to note that the loans taken from CBE refer to those obtained for fertilizer distribution to member farmers. On the other hand, out of the 44 non-participant cooperatives who reported taking loan during 2013, the majority (over 55%) took loan from unions, while only eight (13.5%) received from banks. Three cooperatives (5%) took loan both from union and bank, while one cooperative got from SACCO. Similarly, during the 2014 season, out of the 51 non-scheme participant cooperatives, over two-thirds (67%) reported taking loan from their union, while only seven (12%) received from banks. Five cooperatives (8.5%) took loan both from banks and unions. This has implications for the terms and conditions attached to loans and marketing outlet for their coffee.

6.6.2. Other aspects of financial additionality: *improvements in the terms and conditions of loans*

Gudger (1998) notes that guarantees can modify the terms of the loan, for example, by allowing banks to extend larger volume of loan for a longer period. From this perspective, we tried to assess whether the current scheme has improved the terms and conditions of the guaranteed loans. One of the aspects we looked at is changes in the purpose and duration of the loans granted. Prior to the introduction of the current guarantee scheme, banks appeared to be hesitant to extend loans of longer maturity to primary cooperatives³¹. Primary cooperatives underlined that lack of access to long-term investment capital is severe and had constrained their growth and further improvement. Experiences with the current scheme demonstrate that in the absence of long-term loans, cooperatives tend to divert short-term working capital loans to long-term investment activities, which eventually affects their loan repayment capacity. In this regard, despite its limited outreach, the current scheme has played an important role in introducing medium-term loans of up to three years, which have promoted investment in critical facilities such as wet mills and storage facilities.

When we examine the length of loans received during 2012 (first year of guaranteed lending), scheme participants had obtained loan for a longer period (on average 13.50 months) than their non-participant counterparts, whose average loan length was nine months. When we further look at the situation for the year 2013 and 2014, though the cooperatives selected to be reached through the scheme tended to have loans with slightly longer duration, the difference between the two groups was not statistically significant. Lack of a statistical significance could be related to the small number of cooperatives that benefited from such lending activities. In general, short-term loans of one year duration dominate the lending activities under the scheme both in terms of number of loans granted and total volume of loans provided. Among the three years lending activities under the scheme, medium-term loans of three years accounted for less than 4% of the total loans granted and 21% of the cooperatives received guaranteed loans.

³¹Banks tend to consider such loans as very risky venture in the absence of collateral of sufficient value and quality



As other lending terms and conditions are concerned, evidence suggests that the current scheme had no or little impacts. The terms and conditions of bank lending to the targeted cooperatives have not seen much change following the intervention of the scheme. For instance, the intervention did not make credit accessibility processes simpler and shorter as the lending bank has not adapted its lending approaches, procedures and requirements³². The speed of loan application screening and approval process, and timeliness of loan release is critical in terms of facilitating effective and efficient utilisation of the disbursed loans. In this regard, cooperatives applied for the guaranteed loan complained about the slow, lengthy and cumbersome loan application and approval processes. We generally found that in most cases guaranteed loans were not timely disbursed, with a waiting time of up to 3 and 4 months among some beneficiary cooperatives³³. Banks often grant loan approval in late November and December, which had forced cooperatives to use the loan funds to mainly purchase dry cherries. In addition, we observed that some branch managers were deliberately delaying the screening process of loan applications as a strategy to discourage cooperatives.

³² Cooperatives need to fulfill the following requirements in applying for bank loans. Minutes of general assembly indicating that they need loan and those committee members (with list of names) will represent them; TIN number (2 TIN - for the coop and management committee member); business plan; license to establish and operate washing station; certificate of legal entity and bylaw of the cooperative; support letter from the zone/district coops promotion office; audit report, financial statements of recent years and invoice quotation if needed for processing machine.

³³ There were also cases where cooperative applications were lost on their way to the head office (for approval).

When we empirically examine the length of loan processing time for scheme participant cooperatives over the past years, we found that some were obtaining loan in less than a week while others took as long as 20 weeks (5 months). In-depth key informant interviews with cooperative management and their promoters indicate that union loan is normally obtained in a few days as it does not face all the bank requirements and procedures. In other words, unions deal with the bank processes and obtain loans which they pass on to member cooperatives. However, union loans normally arrive late in the season as they often take substantial time in dealing with banks and acquiring the loans. Such loans are also small in amount as unions attempt to thinly distribute to all or most member cooperatives. In general, the mean length of loan processing time for scheme participant cooperatives somehow showed a declining trend over years from 6.18 weeks in 2010 to 3.42 weeks in 2014.

Table 6.7: Changes in length of loan processing time after participating in the scheme

Length of loan processing time	Before the scheme (week)		After launch of the scheme (week)		
	2010	2011	2012	2013	2014
	(N = 8)	(N = 17)	(N = 14)	(N = 21)	(N = 19)
Minimum	0.40	0.40	0.20	0.05	1
Maximum	12	12	20	12	12
Mean	6.18	4.88	7	4.33	3.42

Surprisingly, as outlined in Table 6.8, when we compare the experiences of cooperatives targeted by the scheme and non-participant cooperatives, the mean length of loan processing time for the former group is much longer than that of the latter. The differences are also statistically significant, particularly for the years 2013 (at 5% significance level) and 2014 (at 10% level). This shows the fact that the loans directly obtained from banks have longer processing time as compared with that of the loans obtained from unions (on which most of the non-participant cooperatives rely).

Table 6.8: Difference between participants and non-participants in terms of length of loan processing time (between 2012 and 2014)

Year	Participants			Non-participants			T-value
	N	Mean length of loan processing time (week)	SD	N	Mean length of loan processing time (week)	SD	
2012	14	7.07	6.70	33	4.79	5.55	1,212 (NS)
2013	21	4.33	4.05	52	2.29	2.50	2.153**
2014	19	3.42	3.33	55	2.12	2.34	1.848*

** Significant at 5%;

*Significant at 10%;

NS = Not significant

In terms of collateral requirement, being a cooperative bank, the participating bank does not require additional collateral apart from the 50% risk sharing covered by the guarantor. This particular bank rather asks for expression of commitment and support letter from the cooperative promoting agency (government body). Nevertheless, we noted that CBO's clean-based loans are highly rationed and provided to critically screened cooperatives. They are often channeled through the mediation of unions and are hardly accessed by individual primary cooperatives. Other banks indicated that if they have to participate in such an arrangement, the remaining 50% needs to be covered by the borrower cooperatives. Most banks require a collateral coverage of 100% to 120% for such high perceived risk group or sector. On the other hand, the scheme had little or no impacts in reducing the lending costs such as interest rate. The 12% and 14% interest rates charged on short-term and medium-term loans, respectively, were viewed as high rate among the borrower cooperatives and their promoters. This, in the cooperative management view, somehow affected the profitability and benefits of the borrower cooperatives.

6.6.3. Economic additionality under the current guarantee scheme

It is a fact beyond dispute that attaining substantial economic additionality requires sufficient time in terms of accessing and making use of the loans. However, the guarantee scheme under analysis has operated for a few years. As a result, we were not able to obtain adequate data to draw comprehensive and firm conclusions in terms of economic additionality and other long-

term impacts. Moreover, in-depth analysis of the wider economic impact was far beyond the aim of this study, and could be a subject for further research after some time. However, the results of preliminary assessments show that there have been some economic gains at least at the borrower cooperatives level. Both self-reported information from the beneficiary cooperatives and empirical assessments of their actual performance (from the records of cooperatives) demonstrate some improvements in their business activities and institutional capacity. This section presents some of the early indicative impacts of the scheme in terms of economic additionality and associated benefits.

6.6.3.1. Changes in the commercial and economic activities of cooperatives

6.6.3.1.1. Changes in the volume and type of coffee traded

We tried to assess the volume and type of coffee traded by the participating cooperatives as compared with the non-participants, as well as with their situation before the intervention. As presented in Table 6.9, we found that the majority of both scheme participants and non-participant cooperatives were engaged in trading dry cherry, without undertaking processing activities. The number of cooperatives (both scheme participants and non-participants) involved in buying fresh cherries did not show much change over time. Even the number of scheme participant cooperatives did not show significant change after participating in the scheme in terms of purchasing fresh cherry. However, the number of cooperatives involved in purchasing dry cherry has shown a rising trend with participation in the scheme. Out of the 22 cooperatives selected to participate in the scheme, 14 reported purchasing dry cherry during the year 2010 and 2011, while this figure was raised to 17 after participating in the scheme (2012 to 2014). In fact the number of non-participant cooperatives involved in trading dry cherry has also shown a rising tendency.

Table 6.9: Difference between scheme participant and non-participant cooperatives in terms of type of coffee traded

Coffee type traded	Participants (Number)		Non-participants (Number)	
	Before	After	Before	After
	(2010-2011)	(2012-2014)	(2010-2011)	(2012-2014)
Fresh cherry	10	9	18	18
Dry cherry	14	17	32	39

Likewise, when we compare the volume of fresh cherry purchased by the scheme participant cooperatives before and after participating in the scheme, we did not find a significant change in the mean volume annually bought over the two periods (Table 6.10). However, there was a statistically significant ($P = 0.028$) change in the mean volume of dry cherry purchased by the cooperatives participated in the scheme in that, on average, they annually bought 16,037 kg during the year 2010 and 2011 (before the scheme), while this volume reached 54,036 kg after participating in the scheme (2012 to 2014).

Table 6.10: Relationship between participation in the scheme and volume of coffee bought by coops – before (2010 – 2011) and after participating in the scheme (2012 – 2014) (N = 22)

Coffee bought	Before (annual			After (annual			T-value
	N	mean in kg)	SD	N	mean in kg)	SD	
Fresh cherry	8	65,535	99,131	8	67,837	66,211	-0.051(NS)
Dry coffee	14	16,037	15,298	14	54,036	60,367	-2.479*

* Significant at $P < 0.05$

NS = Not significant

We also examined the difference between scheme participants and non-participant cooperatives in terms of volume of coffee purchased. In this respect, while the former purchased, on average, slightly larger volume of fresh cherries (135,457 kg) than the latter group (123,110 kg) during 2013 and 2014, the difference was not statistically significant. Nevertheless, in terms of volume of dry cherry, scheme participants significantly differ from non-participants ($P = 0.041$) in that the former, on average, bought 140,996 kg of dry coffee over the two years, while the latter group bought only 46,982 kg during the same period.

Table 6.11: Difference between participants and non-participants in volume of coffee bought by coops in 2013 and 2014 (in kg)

Coffee bought	Participants			N	Non-participants		T-value
	N	Mean (kg)	SD		Mean (kg)	SD	
Fresh cherry	9	135,457	123,872	18	96,082	123,110	0.782 (NS)
Dry cherry	17	140,996	169,908	39	46,982	69,619	2.202*

* Significant at $P < 0.05$

NS = Not significant

6.6.3.1.2. Changes in the coffee processing practices

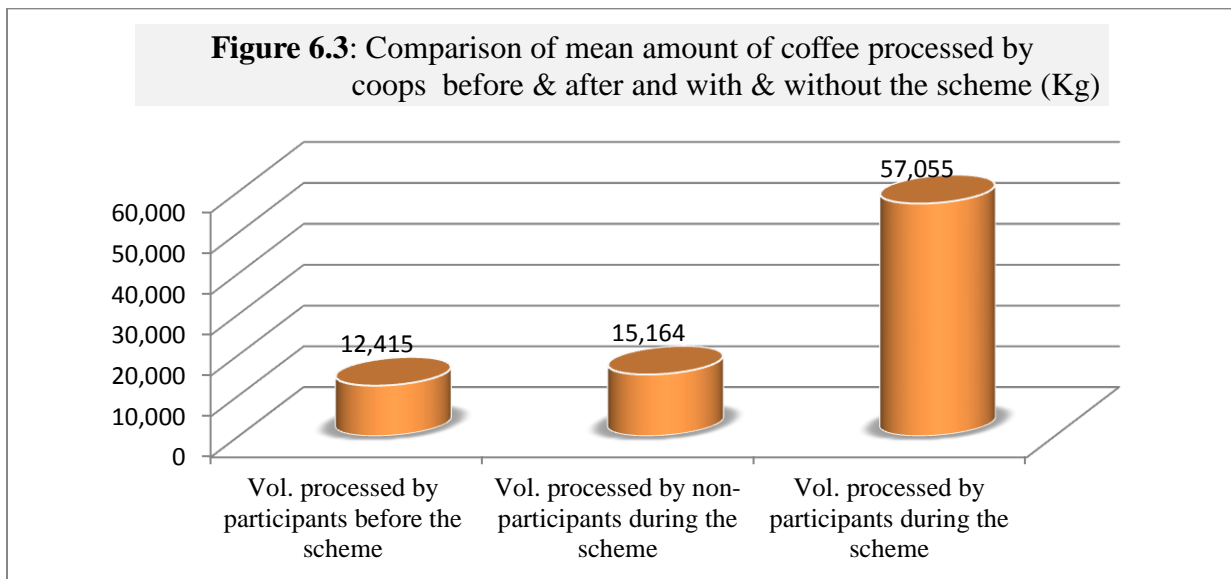
One of the aims of the current credit guarantee scheme is to support cooperatives to improve the quality of their coffee through enhanced primary processing practices. We analysed the differences in coffee processing activities as related to the scheme intervention. In general, only 35% of the interviewed cooperatives undertook some processing activities between 2012 and 2014. In other words, the majority (two-thirds) trade their coffee without altering its form.

However, when we examined the difference between the two groups in terms of the volume of coffee they processed (sun-dried or washed), scheme participants reported annually processing larger mean volume of coffee (57,055 kg) as compared with the non-participants (15,165 kg) over the year 2012 to 2014. However, though the difference appears to be substantial, it is not statistically significant ($P = 0.154$), which could be related to the limited number of the participant cooperatives that reported processing coffee.

Table 6.12: Difference between the amount of coffee processed by participants and non-participants between 2012 to 2014 (N = 35)

Participation status	No of coops	Mean annual amount of coffee processed (kg)	SD
Participants	10	57,055	84,226
Non-participants	25	15,164	24,782
Total	35		
T-value = 1.546		DF = 9	Significance = 0.154 (NS)

Similarly, we analysed the volume of coffee each scheme participant cooperative annually processed before participating in the scheme and after. As presented in Figure 6.3, we found a huge difference between the mean volume of coffee processed before the scheme (12,415 kg) and after participating in the scheme (57,055 kg). The improvement in the processing activity can be directly translated to better market access and improved price for the product. However, we could not test its statistical significance due to the smaller number of scheme-participant cooperatives that reported undertaking coffee processing activities.



When we analysed how cooperatives undertake sun-drying of their coffee, none of them reported drying on bare ground. The interesting and encouraging finding is that the majority of both scheme participants and non-participants reported using some sort of raised beds to dry their coffee. Nevertheless, it was surprising to find that non-participant cooperatives were using raised beds made of local materials or mesh wire more widely (90% of the coops) as compared with the scheme participants (74%). The difference was also statistically significant ($X^2 = 3.082$; $P = 0.079$). Observations and informal discussions reveal that the vast majority of the non-participant cooperatives were using raised beds made of local materials. About a quarter (26%) of the scheme participant cooperatives reported drying on cemented floor or plastic mats, as compared with 10% for the non-participants. We noted that having cemented drying floor appears to be viewed as a practice commonly used by better-off traders and cooperatives.

Table 6.13: Relationship between participation in the scheme and sun-drying methods used

Sun-drying techniques used	Participation status of coops	
	Participants No. (%)	Non-participants No. (%)
On cemented floor or plastic mat	5 (26%)	5 (10%)
On raised beds (made of local materials or mesh wire)	14 (74%)	46 (90%)
Total	19 (100%)	51 (100%)
$X^2 = 3.082$	DF = 1	Sig. = 0.079

6.6.3.1.3. Length of coffee storage

Although prolonged storage of coffee is not recommended³⁴, keeping coffee for a few months and looking out for better market opportunities is one form of value addition. This is, however, not a common practice among most of the study cooperatives, who traditionally buy small quantity and immediately pass on to their union. Cooperative unions, especially the young ones, often provide small amount of loan and instruct primary cooperatives to purchase coffee and immediately deliver to them and get some cash replenishment. Having access to a relatively longer term loans and better storage facilities, it was expected that scheme participant cooperatives would be able to keep their coffee for a relatively longer period. We analysed the length of coffee storage among scheme participants and non-participant cooperatives for the year 2013, which marks the season when many of the participant cooperatives had access to guaranteed loans. Surprisingly, scheme participants on average stored their coffee for a slightly shorter period (1.96 months) as compared with the non-participants (2.24 months). The difference between the two groups in terms of length of coffee storage was however not statistically significant ($P = 0.630$).

³⁴ Coffee Quality Control and Marketing Regulation obliges producers or traders to sell parchment, hulled green beans and un-hulled dry cherry within six month, within two weeks and before the next harvest season, respectively.

Table 6.14: Difference between participants and non-participants in the length of coffee storage in 2013 (N = 52)

Participation status	No of coops	Mean length of storage time (month)	SD
Participants	14	1.96	1.31
Non-participants	38	2.24	1.94
Total	52		
T-value = -0.485 DF = 50 Significance = 0.630 (NS)			

6.6.3.1.4. Improvements in coffee quality

We made attempts to assess changes in the quality of coffee traded by the scheme participant cooperatives as compared with that of the non-participants as well as with their situation before the intervention. However, though we found some indications that the quality of the coffee processed and traded by most of the scheme beneficiary cooperatives seems to witness some improvement, we were not able to draw conclusive findings due to lack of adequate and reliable information on the coffee quality grades for the majority of the cooperatives. Most cooperatives indicated that they do not have any idea about the quality grades of their coffee over the past years. It was noticed that some of the unions mix coffees collected from different cooperatives. Moreover, those unions which have information on quality grades of individual cooperative's coffee also often do not provide feedback on the quality status and limitations of their coffee, at least among the study cooperatives.

6.6.4. Value of products and income generated by beneficiary cooperatives

The findings suggest that primary cooperatives were normally purchasing small quantity and passing over to their unions with no or little value addition activity at least in the form of proper sun-drying of cherry, pulping and washing or in terms of time and place of marketing. This situation seems to improve among some of the beneficiary cooperatives following their participation in the current scheme. The findings show that gaining direct access to bank finance without the mediation of unions somehow boosted primary cooperatives' bargaining power for better price. In particular, the fact that beneficiary cooperatives have started producing large

volume of good quality coffee has attracted buyers (mainly unions). This section highlights some of the economic benefits gained in relation to the guarantee scheme under analysis.

6.6.4.1. Income generated through coffee business activities

It was expected that participation in the scheme would increase the amount of income generated from coffee business. When we examine the difference between the scheme participants and non-participants, as expected, on average the former generated higher income (4.12 million Birr) from coffee trade than the latter group (2.89 million Birr) during the period 2012 to 2014. This however does not mean that the difference is totally attributed to the intervention. The association was however not statistically significant ($P = 0.532$), which is likely to emanate from the small number of scheme participant cooperatives who reported obtaining income.

Table 6.15: Difference between participants and non-participants in the income obtained from coffee (2012 – 2014) (N = 39)

Participation status	No of coops	Mean coffee income (Birr)	SD
Participants	13	4,136,500	6,196,710
Non-participants	26	2,887,900	5,635,220
Total	39		

T-value = 0.631 DF = 37 Significance = 0.532 (NS)

6.6.4.2. Profit generated from coffee trade

We tried to assess if there is any association between participation in the scheme and profits obtained from coffee business. In this respect, 75% and 69% of the cooperatives targeted by the current scheme had obtained profit from coffee trade as compared with 68% and 67% for the non-participants during the years 2013 and 2014, respectively. The differences are not statistically significant for both years (Table 6.16). This shows the fact that, regardless of their participation status, most primary cooperatives have weak coffee business activities.

Table 6.16: Difference between participants and non-participants in the profit obtained from coffee trade in 2013 and 2014

Obtained profit	Participants		Non-participants		X^2 – value
	N	%	N	%	
In 2013					
Yes	15	75%	39	68%	0.306 (NS)
No	5	25%	18	32%	
In 2014					
Yes	11	69%	32	67%	0.024 (NS)
No	5	31%	16	33%	

However, though this might not be entirely attributed to the intervention, scheme participants on average generated much higher profit (over three-folds) than the non-participant cooperatives during the year 2013 and 2014, However, due to the small number of participant cooperatives that reported obtaining profit, we refrained from testing for statistical significance. It is also important to note that some of the cooperatives did not receive feedback on the profit they got from coffee trade for the year 2014 by the time this survey took place.

Table 6.17: Difference between participants and non-participants in the amount of profit obtained from coffee trade in 2013 and 2014 (N = 30)

Participation status	No of coops	Mean amount of profit (Birr)	SD
Participants	11	309,819	404,633
Non-participants	30	99,475	121,160
Total	41		

6.6.4.3. Dividends paid out to member farmers

There is a time lag between the coffee sale period and when unions provide feedback to cooperatives on the profits generated from their coffee sale. While some of the cooperatives have

been informally notified of the profits generated, most of them have not received the money from their union for the recent years. For instance, one of the unions distributed in 2014 the surpluses from coffee trades that took place in 2010/11. The results of key informant interviews with cooperatives management shows that some of the scheme participant cooperatives have recently started giving dividends to member farmers for the first. However, owing to the small number of cooperatives that gave dividends to members, it was not possible to make a sound statistical comparison between the scheme participants and non-participants as well as with their situation before the intervention. In general, out of the 80 interviewed cooperatives, only 15 and 12 had paid out dividends to member farmers during the year 2013 and 2014, respectively. Out of these, only four and three scheme participant cooperatives distributed dividends to members over the two years, respectively.

6.7. Improvements in the institutional capacity of beneficiary cooperatives

Preliminary findings suggest that there are some improvements in the beneficiary cooperatives' institutional and business performance. One of the improvements reported by the management committees of the participant cooperatives is that their capacities have been substantially strengthened through the awareness creation, training and experience sharing activities undertaken. Such support particularly appeared to be critical for the new and weak cooperatives. This enabled some of these cooperatives to gain access to bank loan for the first time.

6.7.1. Change in member size of cooperatives

We found a substantial difference in member size between scheme participant and non-participant cooperatives in that, on average, the former and the later had 713 and 559 members, respectively. However, the association was not statistically significant (T-value = 1.257; P-value = 0.213). Non-proportionality of the sample sizes of the two groups appears to influence its statistical significance. This is due to the fact that only 22 cooperatives were targeted to be supported by the current scheme.

Table 6.18: Difference between member size of participant and non-participant coops as of June 2015 (N = 80)

Participation status	No of respondents	Mean member size	SD
Participants	22	713	486
Non-participants	58	559	490
Total	80		
T-value = 1.257 DF = 78 Significance = 0.213 (NS)			

On the other hand, when we examine the changes in member size among scheme participant cooperatives following their participation in the scheme, we found a significant difference (T-value = -4.626; P = 001) between mean member size before and after participating in the scheme. The mean member size at the beginning of the scheme implementation was 639 farmers as compared with 713 farmers after participating in the scheme. This shows growth in the interest of farmers in the cooperatives as a result of the improved business activities and access to processing facilities.

Table 6.19: Relationship between participation in the scheme and member size of coops – before (as of 2012) and after participating in the scheme (as of 2015) (N = 22)

Before and after (during)	No of respondents	Mean member size	SD
Before the scheme	22	639	492
After participating in the scheme	22	713	486
T-value = -4.626 DF = 21 Significance = 0.001			

6.7.2. Changes in human resources and management of cooperatives

This section discusses the changes recorded in terms of management and human resources following the intervention of the scheme.

6.7.2.1. Change in number of permanent workers

Participation in the scheme was expected to increase manpower of the beneficiary cooperatives because of their improved access to loan and increased business capacities. As shown in Table 6.20, the number of permanent workers employed by the cooperatives targeted by the scheme

has shown a slight growth after participating in the scheme. The mean number of permanent workers at the launch of the current scheme was 2.18, while it has grown to 2.40 after participating in the programme. However, the difference was not statistically significant (T-value = -0.894; P = 0.381). It should also be noted that some of the cooperatives targeted by the scheme were not able to access guaranteed loans.

Table 6.20: Relationship between participation in the scheme and number of permanent workers – before (as of 2012) and after participating in the scheme (as of 2015) (N = 22)

Before and after (during)	No of respondents	Mean number of workers	SD
Before the scheme	22	2.18	1.592
After participating in the scheme	22	2.40	1.652
T-value = -0.894		DF = 21	Significance = 0.381 (NS)

Similarly, scheme participant cooperatives on average appear to have more permanent workers (2.41) as compared with their non-participant counterparts (1.93). However, we did not find a significant difference between the two groups (T-value = 1.186; P = 0.239). This shows that the scheme has limited scope and impact in terms of building the capacity of cooperatives so as to enable them engage many employees.

Table 6.21: Difference between participants and non-participants in the number of employees as of June 2015 (N = 77)

Participation status	No of respondents	Mean number of employees	SD
Participants	22	2.41	1.652
Non-participants	56	1.93	1.593
Total	77		
T-value = 1.186		DF = 76	Significance = 0.239 (NS)

6.7.2.2. *Shift to professional management*

Having professional manager is expected to lead to effective organisational and business management, innovativeness and enhanced uptake of new technologies. In general, out of the total 79 cooperatives who responded to this question, only 10 and 9 cooperatives reported having professional managers as of 2012 and 2015, respectively. It was surprising to see a slight declining trend after three years. More interestingly, participating in the scheme did not contribute much in helping cooperatives to shift from committee-based management to full-time professional management. Out of the 22 cooperatives targeted by the scheme, only two (9%) had reported having professional manager at the beginning of the intervention, while this just reached three cooperatives (13.50%) after participating in the scheme.

6.7.2.3. *Change in having accountant*

It was expected that participating in the scheme and having access to loans would increase the number of cooperatives having a professional personnel dealing with their financial accounts. In this regard, as indicated in the below table, though slightly more number of participant cooperatives appear to have some sort of accountants as compared with the non-participants, the difference was not statistically significant ($X^2 = 0.258$; $P = 0.612$).

Table 6.22: Difference between participants and non-participants in having accountant as of June 2015 (N = 80)

Having accountant	Participation status	
	Participants	Non-participants
	No. (%)	No. (%)
Have accountant	15 (68%)	36 (62%)
Do not have accountant	7 (32%)	22 (37%)
Total	22 (100%)	58 (100%)
$X^2 = 0.258$	DF = 1	Sig. = 0.612 (NS)

Similarly, when we examine the change after participating in the scheme, 12 cooperatives (54%) reported having an accountant as of September 2012 as compared with 15 cooperatives (68%) after participating in the intervention (as of 2015). The association between the two periods in

terms of number of cooperatives having accountants was also statistically significant ($X^2 = 12.320$; $P = 0.001$). This could be at least partly attributed to the scheme's intervention.

Table 6.23: Relationship between participation in the scheme and having an accountant – before (as of 2012) and after the scheme (as of 2015) (N = 22)

Having accountant	Before and after participating in the scheme	
	Before the scheme	After participation
	No. (%)	No. (%)
Have accountant	12 (54%)	15 (68%)
Do not have accountant	10 (46%)	7 (32%)
Total	22 (100%)	22 (100%)

$X^2 = 12.320$ $DF = 1$ $Sig. = 0.001$

6.7.3. Effects on members' participation and confidence in the cooperatives

One of the challenges of primary cooperatives is lack of active participation and commitment of member farmers in their business and key decisions. Commitment of members and confidence in their organisation, among other things, would enable cooperatives to collect members' coffee without necessarily making cash payments on the spot. This is particularly important when loans did not arrive on time, which is often the case with primary cooperatives. We examined this situation with and without the scheme, and before and after participating in the scheme. As indicated in Table 6.24, the Chi-square test shows that there is no statistically significant difference ($P = 0.770$) between scheme participant and non-participant cooperatives with regard to members' willingness to deliver coffee to their cooperative on loan. The current researcher's observation and interaction with cooperatives reveal that it is not a common practice among the vast majority of member farmers to supply their coffee with the arrangement to receive the payment after sometime (when loans arrive or after the cooperatives sold their coffee).

Table 6.24: Difference between coops participants and non-participants in the members' willingness to deliver coffee without payment on spot (N = 72)

Willingness to deliver without payment on spot	Participation status	
	Participants No. (%)	Non-participants No. (%)
Willing	10 (50%)	24 (46%)
Not willing	10 (50%)	28 (54%)
Total	20 (100%)	52 (100%)
$X^2 = 0.086$	DF = 1	Sig. = 0.770

We also examined the difference between the situation before and after participating in the scheme with regard to members' willingness to deliver coffee without receiving payment upon delivery. As indicated in Table 6.25, there is no substantial change among the cooperatives as a result of their participation in the scheme. Two of the current scheme participant cooperatives indicated collecting coffee from a few member farmers on credit (until they get bank loan). Another interesting finding is that members' participation in supplying their coffee (of course, with payment on spot) and interest among new members has shown improvements among the loan beneficiary cooperatives. Access to finance has enabled some of the beneficiary cooperatives to collect members' coffee as well as to acquire valuable assets such as processing facilities that attract farmers.

Table 6.25: Changes in terms of farmers' willingness to deliver coffee without payment on spot (in management committees' opinion) – before and after the scheme

Willingness to deliver without payment on spot	Before the scheme	After the scheme
	No. (%)	No. (%)
Willing	10 (45.5%)	10 (50%)
Not willing	12 (54.5%)	10 (50%)
Total	22 (100%)	20 (100%)

6.7.4. Relationship and linkages established with other institutions

As discussed in the earlier section of this chapter, prior to the launch of the current scheme, unions used to act as the major intermediaries for the bulk of bank loans that are channeled to

primary cooperatives. One of the prominent contributions of the current guarantee scheme is that it helped primary cooperatives to establish direct link with commercial banks, to properly understand their lending procedures and requirements, and to develop repayment reputation that can improve their future access to bank loans. A number of cooperatives indicated that the intervention helped them to borrow from CBO for the first time in their history. More importantly, the scheme played a vital role in building cooperatives' capacity and in enhancing awareness about possibility of borrowing from banks without the mediation of unions.

Discussions with some of the guaranteed loan recipient cooperatives indicated that banks started showing favourable approach during repeated borrowing. For instance, the management of Meliyu (scheme participant cooperative from Kaffa) reported that they submitted a loan application of 700,000 Birr during the 2013/14 coffee season. After assessing their application, the manager of the partner bank felt that the requested amount is too small to undertake meaningful coffee business activity and encouraged them to borrow 1.5 million Birr. They indicated that this kind of genuine relationship and trust had never existed before, and establishing such customer-ship is a great opportunity and asset for their cooperative. The majority of the cooperatives, however, obtained smaller amount of guaranteed loans than they applied for. Moreover, the role of this intervention in enabling cooperatives to graduate to non-guaranteed loans remains to be seen in the long run. The scheme also appeared to play some role in strengthening the relationship between farmers' cooperatives and extension agency. It has catalysed the interaction between primary cooperatives, cooperative promoting agents and coffee extension officers to work together in improving coffee quality.

6.7.5. Change in asset accumulation: was there any project additionality?

The survey reveals that most of the cooperatives lack proper/modern office, processing and storage facilities. Majority of the available warehouses are in poor state and not suitable for coffee storage. It was expected that access to medium-term loan would enable cooperatives to acquire fixed assets as well as to launch new projects such as wet processing. Following the awareness raising and training activities and improved access to bank loans, some of the scheme participant cooperatives have had access to modern processing and storage facilities. Close to 46% of the scheme participants made investments in some sort of facility as compared with only 29% for the non-participants during the year 2013 and 2014. Five, four, three and two of the

scheme participant cooperatives reported acquiring new warehouse, office, wet mills and drying facilities, respectively. One of the scheme participant cooperatives was in the process of obtaining hulling facility. It is important to note that these facilities were not totally financed by the scheme; i.e. some were financed by the cooperatives themselves or by other agencies such as unions which might have been motivated by cooperatives' enhanced capacity and demand for such facility. On the other hand, none of the non-participant cooperatives acquired wet-mills nor hulling facility during the same period. For instance, the management of Shola Koda cooperative from Wolayita reported that they have realised great development and improvement in terms of acquiring assets, such as washing facilities, warehouse and others. They said *“We have accumulated assets that can be pledged as collateral; we started paying dividends to our members; we have reached the stage of hiring full-time workers; we will own a vehicle in the near future as well as participate on social and local development activities. We have established strong relationship with the lending bank. We will graduate from the guaranteed loan very soon”*.

In particular, the guaranteed medium term loans were critical to the three recipient cooperatives in acquiring processing and storage facilities, which they could have not been able to acquire at least in the short run. As a result, some of the cooperatives which were previously engaged solely in trading natural sun-dried cherry were able to shift to wet processing. Such medium-term loans appear to more significantly contribute to the improvements in coffee quality and asset-base of the cooperatives as compared with short-term loans provided for seasonal coffee purchase. Nevertheless, the coverage of such loans has been limited as the bulk of the lending activity predominantly focused on traditional trade activities such as seasonal coffee purchase and sale.

When we examine the value of fixed assets, the T-test result shows that, on average, scheme participant cooperatives had relatively higher value of assets (655,099 Birr) as compared with the non-participants, who reported having 579,138 Birr worth asset. The difference was, however, not statistically significant ($P = 0.841$).

Table 6.26: Difference between participants and non-participants in the value of fixed assets as of June 2015 (N = 80)

Participation status	No of respondents	Mean value of fixed asset	SD
Participant	22	655,099	970,843
Non-participant	58	579,138	1,662,010
Total	80		
T-value = 0.201 DF = 78 Significance = 0.841 (NS)			

We also tried to examine the difference between the net capital owned by scheme participants and non-participant cooperatives. The former appears to have slightly higher net capital (853,029 Birr) than the latter group (789,381 Birr) though the association was not statistically significant (T-value = 0.142; P = 0.888).

6.7.6. Some of the benefits generated for the participating banks

We asked the participating bank if they view their involvement in the scheme implementation as a mutually beneficial arrangement. In this regard, the partner bank reported that they gained some benefits from participating in the scheme, particularly in terms of building their own capacity and in gaining experience on such areas as coffee or agri-financing, financial and risk analyses, and other related areas. In addition, the intervention played an important role in terms of helping the bank to get to know borrower cooperatives by allowing them to experiment with new market segments in a new region. In this regard, the Oromia based CBO was able to lend to cooperatives in the SNNP region for the first time. Based on the experiences gained with the cooperatives that received guaranteed loans, CBO expanded its branches to the locality of the participating cooperatives (e.g. Wolayita) in the SNNP region. The scheme also somehow helped the participating bank to promote itself and for strategic positioning. Reducing the risks of borrowing to such rural-based farmer cooperatives was apparently the obvious advantage of such an arrangement.

6.8. Impacts on lenders' and borrowers' behavior: *Incidence of moral hazard*

Taking a closer look at the prevalence of moral hazard and default rates is another relevant area that needs to be assessed in relation to the impacts of such a guarantee intervention. In this regard, almost all categories of key informants and focus groups were of the opinion that moral hazard will not be a real problem among the lenders in such partial risk coverage under the Ethiopian context. Because since it is a partial guarantee fund whereby banks have some stake, lenders will pay serious attention and exercise prudent practice in the screening, supervision and loan recovery processes. They underscored that even if the risk coverage is raised to a higher percentage, banks still want to maintain their reputation. They go on to note that the regulation of the National Bank also compels banks to keep their non-performing loans under 5%.

On the other hand, when we asked if provision of the partial credit guarantee may cause moral hazard among the borrower cooperatives, we received mixed responses. Almost all of the interviewed coffee/extension and cooperative experts were of the opinion that such intervention will not have significant impacts on the behavior of the borrower cooperatives. Nevertheless, four of the ten interviewed bank and MFI key informants were of the view that being aware of the presence of such a guarantee, borrowers (cooperatives) may show some reluctance in repaying their loans. In contrary, majority of the bank key informants indicated that cooperatives want to demonstrate their credit worthiness by properly repaying their loans and to establish good relationship with the lending banks. In addition, various key informants noted the fact that the government body (such as coops promotion agency) plays an important role in supervising and supporting loan repayment process. Many underscored that the effectiveness of loan repayment generally depends on the screening process, approaches employed in introducing the scheme, awareness creation activities, intensity of follow up and supervision, collateral (equity) provision, etc. They were of the opinion that in the absence of adequate prior awareness creation activity, cooperatives may tend to consider the guaranteed loan as a form of grant provided by donors that might not be necessarily repaid. In the view of one bank officer the best remedy to overcome problems of moral hazard is to make borrower cooperatives cover some percent in the form of equity.

We tried to assess the actual performance of the beneficiary cooperatives in repaying their loans under the current guarantee scheme. The scheme has operated for a few years and it was too early to fully assess the rate of loan recovery or to generate conclusive evidence on the rate of default. In general, as at the write up of this thesis, no loan was declared as default by the lending bank under the current scheme though a few cooperatives appear to delay payment of installments due to some reasons such as market problem. As such none of the borrower cooperatives has shown opportunistic behavior such as deliberate unwillingness to repay their loans. In particular, none of the borrower cooperatives failed to repay full amount within the loan due period, while only five of the fourteen cooperatives (35%) struggled to pay certain proportion of the loan with its interest. Three of the cooperatives negotiated with the lending bank and extended loan repayment to one more year. Out of the 18.40 million Birr loan disbursed by the partner bank over the first three years of lending, over 14.50 million Birr of the principal and about 400,000 Birr interest were already recovered from the borrower cooperatives. However, it is important to note that some of the disbursed loans have not completed their full maturity period by the time this study took place. Thus we were not able to definitely identify which of the remaining cooperatives are willing and able to make the outstanding repayment sometime later or which ones may totally stop to pay back the outstanding balance.

We also tried to assess if loan diversion has been a real problem among the borrower cooperatives. None of the cooperatives reported diverting or putting the guaranteed loans to different uses other than the purposes they were intended for. However, we noticed loan diversion practices among some cooperatives whereby they tried to use the short-term working capital loan for building warehouses, to acquire power generator, or to carry out other trade activities such as *khat*. Moreover, observations and interactions with the borrower cooperatives reveal some attempts by the management committee to misappropriate the guaranteed loans they had received. For example, the management of one borrower cooperative was observed buying coffee at unrealistically higher prices than the prevailing local market price. Overall, the findings show that cooperatives have shown better performance with their loans utilisation where there was strong support and follow up from the coop promoting agency. On the other hand, we observed some sort of column shifting among one branch office of the lending bank whereby they tried to link previous poorly performing non-guaranteed loans to the new guaranteed loans.

6.9. Factors affecting effectiveness of a CGS for farmer cooperatives (under the Ethiopian context)

The fact that a small number of cooperatives received guaranteed loans under the current scheme did not allow us to undertake rigorous econometric analysis to determine factors determining effectiveness and success of the current scheme. The findings reported here are based on in-depth qualitative interviews and observations. Key informants and focus groups outlined a number of challenges and constraints that potentially affect the performance and effectiveness of such a loan guarantee scheme targeting farmer cooperatives under the Ethiopian context. The degree of importance various stakeholder groups attach to the different constraints or challenges appear to vary. The most severe ones as reported by most of the interviewed bank and MFIs officers (Table 6.27), are problem of liquidity, National Bank's Bond Bill purchase directive³⁵ and other policy and regulatory issues, high risk nature of cooperative/agricultural enterprise, weak management and leadership of cooperatives, and failure to meet other bank lending requirements. Most of the private banks indicated that the recent directive of the National Bank (which came to effect in 2011) restricts their loan disbursement capacity and profitability of their business. They noted that private banks are devising strategies to overcome such challenges, which include restricting supply of conventional lending only on the basis of interest charges. They will make very selective lending that tries to link loan supply to other benefits such as capacity to deposit cash and businesses that generates foreign currency. A key informant from the state bank was however of the opinion that such imposition on private banks is legitimate in order to bring them on board of national development endeavours. According to him, private banks are purely profit-oriented and tend to look for lucrative businesses and not necessarily target government priority areas. Moreover, out of the interviewed six private banks, officers of the two pioneer and well-established banks indicated that NB bill and liquidity problem are not serious constraints to their banks.

Various key informants emphasised the appreciable gaps in the capacity of cooperatives and limitations in meeting other bank lending requirements as the main hindrance in effectively

³⁵ For every loan disbursement the private banks undertook, they have to purchase a 27% worth five-year government investment (saving) bond, at an interest rate of 3% (which is lower than the rate they pay on saving deposits, which is 5% and above). This appeared to affect their liquidity, income, and lending appetite.

accessing and utilising loans under such an arrangement. Lack of confidence in the feasibility of cooperatives' project or business activities, poor coffee production, dwindling and/or fluctuating market price, and weak market linkage were also mentioned as some of the challenges in this regard. In addition, as discussed in the earlier sections, limitations in some of the scheme design features were cited as additional contributory factors that contribute to banks' reluctance in actively participating in such lending activity. For instance, four out of the 10 interviewed banks and MFIs officers stated that such low risk sharing percentage (50%) will not be able to effectively attract banks to actively participate in such an arrangement. Some of the banks indicated that fees associated with the scheme makes the guaranteed loans costly to borrowers. In addition, limited time span of the scheme, extra reporting and admin work associated with such an arrangement, banks' lack of experience in cooperative lending, uncertainty and possible lengthy claims procedure in case of default were reported as potential constraints to effective utilisation of CGSs among banks.

Table 6.27: Constraints and challenges to the success of CGSs as outlined by banks & MFIs

Major constraints and challenges of CGS	Number of key informants cited
Problem of liquidity (shortage of loanable fund)	8
National Bank Bond purchase and other regulatory/policy issues	5
Feasibility and attractiveness of coops business, high risk nature of coops/agricultural enterprise, poor coffee yield, etc	5
Low risk sharing percentage, especially at initial stage	4
Weak management of cooperatives (risk and low demand)	3
Utilisation fees (will make loan costly)	1
Weak market linkage	1
Extra reporting and admin work	1
Banks' lack of experience in lending to cooperatives	1
Limited time span (of scheme)	1
Uncertainty and possible lengthy process to secure claims	1

As related to the above potential constraints, various stakeholders proposed a number of measures that could contribute to the effectiveness of such credit guarantee schemes. As presented in Table 6.28, in particular, bank and cooperative experts outlined a number of factors or interventions that could enhance the effectiveness of such guarantee programmes. On the part of the government, various support measures are needed, which include strengthening cooperatives, creating supportive and enabling environment, strengthening market access and linkages to alternative markets (for primary cooperatives). As related to scheme design and operation, integrating other incentive packages; increasing risk sharing percentage; reducing or removing guarantee fees for such target groups; designing a scheme with a fairly longer life span; and paying due attention to market linkage were cited as important aspects. In relation to the lending bank, experience sharing, capacity building, addressing liquidity problems and encouraging them to undertake proper follow up and supervision were highlighted as important factors. The importance of prompt loan approval process and timely release was also stressed as one of the success factors. With respect to the borrower cooperatives, intensive awareness raising and sensitisation, improving their management and overall capacity; strengthening members' participation and market linkage were outlined as the major success factors for guarantee schemes. In particular, the need to assist cooperatives in gaining access to certification and other schemes such as specialty and fair-trade was emphasised. In addition, provision of intensive technical training on all aspects of coffee production, processing and marketing was another critical area highlighted by the study participants. In the views of senior officials of one bank and two MFIs, for a loan guarantee scheme to be effective, both the guarantor and the lender have to be genuine and committed partners. As regards the interests of MFIs to participate in such a guarantee scheme, they noted that it has to be a cash guarantee with higher risk coverage (at least 75%, particularly at the initial stage). They were of the opinion that provision of access to hard currency and cash guarantee to the participating banks is a crucial element in motivating banks to participant in such an arrangement.

Table 6.28: Factors that could enhance the effectiveness of a credit guarantee scheme (according to the views of bank and cooperative officers):

Factors enhancing/influencing effectiveness of CGS	Number of bank officers (KIs) cited	Number of coops experts (KIs) cited
Raise awareness, improve capacity (management) of coops*	4	7
Enhance government support**	4	3
Improve backward and forward integration with members & market, link with export market, value addition	3	4
Improve scheme design (e.g. increasing level of risk sharing, adapt to local situation, reduce guarantee fee)	6	1
Inclusion of other incentive packages for banks***	4	1
Proper follow up, monitoring and support	1	3
Provide long term guarantee scheme	1	
Enhanced relations, common understanding and commitment among banks and guarantors	1	2
Facilitate experience sharing (for banks)	1	1
Helping coops to build fixed assets through the loan obtained	1	
Involvement of government to guarantee the rest 50% risk	1	
Minimise government intervention in cooperatives' activities	1	

*Awareness raising (to enable them properly utilise the loan or avoid moral hazard), and capacity building for targeted cooperatives (technical, marketing, finance literacy, managerial).

**Policy direction and regulation that encourage banks to lend to cooperatives; e.g. imposing some quota on banks to direct certain percentage of their loan to the cooperative sector. Relaxing loan procedures and requirements for cooperatives, e.g. reconsidering issues of NB bills with cooperatives lending

***For example, training and experience sharing for bank staff, devise ways of accessing foreign currencies by depositing funds in the account of lending bank and from export of products, and so forth.

Summary

This chapter has presented the findings of both qualitative and quantitative research on the features, performance and preliminary outcomes of the credit guarantee scheme under analysis. The chapter highlighted that though most of the scheme design features and operations are in line with international experiences and practices, there have been some obvious limitations which particularly influenced its attractiveness to the lending banks. The findings in this chapter suggest that the scheme under review has demonstrated mixed performance and achievements. Above all, there have been limitations in the actual utilisation of the loan guarantee and outreach by the participating bank. The findings suggest that given the prevailing liquidity problem among most private banks, in the absence of some sort of capital enhancement mechanism, banks show reluctance in widely reaching out to the targeted cooperatives. In addition, particularly the 50%

risk sharing does not seem to be attractive to most of the lending banks. It was also noted that involving only one bank in such lending activities had some drawbacks. However, the scheme to a certain extent improved accessibility of bank credit to some of the targeted primary cooperatives and generated substantial loan additionality. It also indirectly played a pivotal role in stimulating unions to channel substantial loan fund to the primary cooperatives targeted by the current scheme. In addition, provision of a credit guarantee and associated supports seem to play an important role in motivating cooperatives to seek for bank loans. However, the scheme had limited impacts in improving the terms and conditions of bank loans.

The chapter also presented some preliminary impacts in terms of economic additionality and other related benefits. The intervention helped some of the beneficiary cooperatives to acquire some critical assets such as processing and storage facilities, which helped them to add value to their coffee through primary processing activities. The volume of coffee processed as well as the amount of dry cherry traded by scheme participant cooperatives has shown substantial increment. This somehow enabled beneficiary cooperatives to generate better income. However, such improved coffee processing was realised only by a few beneficiary cooperatives while the majority of cooperatives appear to stick to traditional coffee processing and trade activities. The intervention also had limited impacts in terms of improving institutional capacity of the beneficiary cooperatives, such as human resources and management. However, there has been a significant increase in the member size of beneficiary cooperatives. There are also indications that the lending bank generated some benefits from participating in the scheme. The findings suggest that the intervention had very limited impacts on lenders' and borrowers' behavior in terms of causing moral hazard. The chapter finally outlined factors that affect the effectiveness of a credit guarantee scheme targeting farmer cooperatives under the Ethiopian context. The chapter concludes that provision of a credit guarantee does not necessarily guarantee massive supply of loan funds as a number of internal and external factors may constrain banks' outreach to the targeted primary cooperatives. In particular, the effectiveness and contribution of a credit guarantee scheme in the financial markets with pervasive state intervention and tight regulatory system could be limited.

CHAPTER 7

7. DISCUSSIONS OF THE KEY FINDINGS

7.1. Introduction

The chapter presents synthesis and discussions of the key findings of the empirical study in relation to existing literature or theory. Discussions of the key empirical findings are organised according to the corresponding objectives set for the study. The first part of the chapter discusses the Ethiopia coffee sector and the role of cooperatives in its processing and marketing and as intermediaries for channeling bank credit to member farmers. This is followed by a discussion on farmer cooperatives' demand for institutional credit and factors influencing their credit demand, with especial emphasis on demand side constraints.

7.2. The role of cooperatives in coffee processing, marketing and as intermediaries for channeling bank credit to smallholder farmers

7.2.1 Significance of the coffee sector

In agreement with many previous studies (e.g. Negussie *et al*, 2007; Admasu *et al*, 2008, Alemayehu and Esayas, 2008; Minten *et al*, 2014), the current study underscores that coffee is of considerable economic, social, cultural and environmental significance to Ethiopia. It is a major cash crop both in the Oromia and SNNP regions, which according to CSA (2014), account for 99% of the country's coffee production. This commodity can arguably generate substantial economic benefits with a fairly limited investment, which underscores its pronounced potential returns if resources are properly and sufficiently channeled to this sector. The study found that, unfortunately, the Ethiopian coffee sector has not enjoyed the support and investment that is commensurate with its contribution. This prominent national wealth thus needs to be accorded the attention it deserves in terms of policy and institutional supports. These may include creating enabling policy environments that facilitate producers' access to better inputs (such as farm tools, processing and storage facilities, etc.), output markets, credit and other support services.

Such efforts call for the need to establish and/or strengthen institutions dealing with and support coffee development, marketing and other service provision at various levels.

7.2.2 Coffee Production, Processing and Marketing: *The role of cooperatives*

The study suggests that the partially liberal economic policy of the current government has both positive and undesirable effects on the coffee sector. While its interventionist policy allowed the government to support the sector in various ways, the tighter regulatory and control interventions in the sector itself and in the support service providing institutions seem to have some adverse effects on the performance of the sector.

7.2.2.1. Coffee production practices and system

The fact that the study areas practice diverse coffee production systems that vary from place to place (based on agro-ecology and socio-economic set-up) makes blanket approach in the provision of extension and other support services ineffective. As in most other parts of the country, the bulk of the coffee production activities in the study areas are undertaken by small-scale farmers who largely employ traditional practices. Previous studies (e.g. Admasu *et al*, 2008; Negussie *et al*, 2008; Alemayehu and Esayas, 2008; Negussie *et al*, 2007) point out that though there have been improvements in recent years, particularly, adoption of the improved coffee management practices by smallholder producers is still limited. Despite the commendable efforts made by research in generating improved varieties and associated management practices, their suitability for and adoption is still limited in certain areas such as Hararge. Agro-ecology based technology generation and dissemination thus needs to be further strengthened and promoted. Though cooperatives are not directly involved in coffee production, they have a great potential to support the production end through provision of necessary inputs (including multiplication and distribution of seeds/seedlings of improved varieties), farm tools, processing facilities, credit and effective output marketing. Apart from supporting farmers, provision of such services will go a long way in helping cooperatives to win farmers' interest and active participation in their association.

As regards use of inputs, farmers in all study areas do not use any inorganic inputs. Previous studies similarly confirm (e.g. Admasu *et al*, 2008) absence of use of inorganic inputs among

smallholder coffee producers, who produce the bulk of the coffee produced in Ethiopia. This is mainly related to the tendency to produce organic products though there appears to be lack of clearer understanding and direction with regard to threshold level for use of inorganic inputs and extent of benefits and opportunities associated with the production and marketing of organic products. This could be one important area for future research. The current study identified a number of problems that constrain coffee production and productivity in particular and the development of the sector in general. They are related to lack of various inputs (seeds, credit, agronomic practices, labour, farm tools and other facilities) diseases and pests, climate change, problems related to output markets and so forth. Most of the challenges and constraints identified by the current study are in agreement with the findings of previous studies (such as Admasu *et al*, 2008; Alemayehu and Esayas, 2008), which suggests persistence of such problems and the fact that they are commonly faced by various actors in the value chain across regions. The nature and diversity of the problems suggest the need for various actors³⁶ to join force if such problems have to be effectively addressed. Cooperatives can play an important role in catalysing such collaboration between key actors of the sector. More importantly, cooperatives can assume a vital role in lobbying for adequate support and better services for their members. This may include lobbying for more favourable policy and regulations that provide conducive and enabling regulatory and institutional environments for the development of the coffee sector.

7.2.2.2. Coffee harvesting and processing practices

Concurring with the findings of previous studies (Admasu *et al*, 2008; Alemayehu and Esayas, 2008; Negussie *et al*, 2007), the current study reveals that coffee harvesting and processing in most coffee growing areas of the country is predominantly traditional, though there have been improvements in recent years. Unlike the case in its production end, cooperatives play an important role in coffee processing activities. The improvements revealed in the harvesting and processing practices could be attributed to the efforts made by multiple actors of the sector, including cooperatives. In general, sun-drying of cherries is the dominant practice both among individual farmers and cooperatives in the study areas. Existing documents (e.g. Musebe *et al*, 2011; Minten *et al*, 2014) show that the bulk (close to 70%) of the coffee exported by Ethiopia is

³⁶ These may include those actors involved in coffee research, extension, marketing (inputs and outputs), policy, financial providers, cooperatives promotion institutions, among others.

sun-dried coffee. That means primary cooperatives are predominantly engaged in coffee businesses that do not involve much value adding activities. Such practices of merely buying and selling dry cherries have obvious implications for coffee quality and the prices it attracts.

Unsurprisingly, most cooperatives in the South and South-West parts of the country wish to use wet-processing method, while those in Eastern Ethiopia such as Hararge tend to continue with sun-drying, but using improved drying facilities. Existing studies (Minten *et al*, 2014) also point to unsuitability of wet-processing method in some areas such as Hararge due to climatic constraints and other related factors. The fact that more cooperatives from the Oromia region preferred sun-drying technique than those in the SNNP region could be attributed to the fact that most of the study samples drawn from Oromia are located in Hararge and Wellega, which traditionally rely on sun-drying technique. This finding, however, may not represent the views and needs of the cooperatives located in other major coffee producing areas of South and South-West Ethiopia (such as Jimma, Sidama and Gedio), which have better experience, processing facilities and water sources to set up wet processing mills. In general, there seems to be lack of awareness, skills and necessary facilities to undertake wet-processing activities among the cooperatives in the study areas. This calls for interventions that build cooperatives' capacity in terms of raising awareness (about the importance of preparing washed coffee), in equipping them with relevant skills (on the use of this method), and in improving access to processing facilities and competitive market for the product.

Promotion of wet-processing methods to such areas as West and East Wellega, and Wolayita zones needs a cautious move as farmers and cooperatives tend to maintain the longstanding practice of sun-drying. Such efforts may need to be preceded by intensive awareness raising activities. Moreover, given some of the merits of the natural sun-drying practice and shortage of water sources for establishing wet mills, interventions aiming to improve coffee processing and quality in Hararge areas need to focus on promoting improved sun-drying (of cherry) technique. As many (e.g. Minten *et al*, 2014) confirmed, it is also important to note that natural sun dried Hararge coffee has been fetching higher prices, at times, higher than that of washed coffee. Thus this practice should be improved and maintained as a viable alternative. In general, promotion of improved drying facilities and small scale hulling machines are more relevant for Hararge area,

though introduction of small pulping machines could be tested on pilot scale at some areas. In general, a host of natural, socio-economic and institutional factors determine cooperatives' demand for processing facility and technique. Interventions targeting cooperatives in various parts of the country thus should consider and cater for their varying needs for processing facilities and methods.

In terms of cherry drying practices, the majority of the interviewed cooperatives were drying on raised beds made of local materials and cemented floor. This finding is in agreement with previous studies (e.g. Musebe *et al*, 2011) which report that use of modern drying facilities is very limited in many parts of the country. Though the widespread use of drying beds made of local materials and cemented floor can be taken as a commendable practice, it is crucial to encourage cooperatives to use modern drying beds made of mesh/chicken wire in view of their significance in maintaining coffee quality. On the other hand, under the free market economic system of the current government, the vast majority of primary cooperatives seem to struggle in obtaining necessary processing and proper storage facilities. Because following removal of various targeted supports, cooperatives have been made to act on their own in acquiring such basic facilities. Thus it is crucial to devise ways of improving cooperatives' access to modern processing facilities (including drying materials) and loan finance to enable them acquire these facilities. Limited or non-use of existing hulling facilities by farmers in some of the study areas was also reported as a major problem. It is thus equally important to create adequate awareness and motivation so as to enhance use of available hulling facilities by farmers. Overall, cooperatives can play a vital role in supporting members to improve coffee harvesting and processing practices.

7.2.2.3. Coffee marketing practices and system

The coffee marketing system of Ethiopia has seen a number of changes in recent years. Though the interventionist policy and tighter regulatory environment appear to have some adverse effects, most of the economic liberalisation measures taken by the current government have favourable impacts in promoting the development of the coffee sector in general and its export activities in particular. In general, the subsequent reforms undertaken by the government have had substantial impacts on institutions related to the coffee sector, with both positive and

negative outcomes. In view of coffee's vital economic importance and in line with its developmental state ideology, the Ethiopian government is exercising strong control over and interference in issues related to coffee marketing. For instance, there are tight control and regulations both on domestic trades and export of this commodity. Minten *et al* (2014) note that the evolving policy environment and the domestic policy reforms that have taken place over the last decade have led to tremendous changes in the structure and performance of the coffee export activities.

Level of involvement of the study cooperatives in coffee business hugely vary. But their participation is on the rise which could be attributed to the supportive policy environment for cooperatives' marketing system. In agreement with the views in existing literature (e.g. Dempsey, 2006; USAID, 2005; ATA, 2012), the findings of the current study suggest that existing marketing system favours the cooperative sector though effective utilisation of this opportunity has been jeopardised by a number of factors. On the other hand, as many (e.g. Ayana, 1999; Kodama, 2007) noted, unlike the case under the socialist regime, at present farmers are not obliged to deliver their coffee solely to cooperatives. The current marketing regulation permits producer farmers to sell their coffee either to private traders or to their cooperatives. Farmers' participation in terms of delivering coffee to their cooperatives depends on the strength of their association and the benefits they generate for member farmers. The level of concentration of private traders in a particular area also hugely influences farmers' participation in cooperatives' business. In areas with large number of private traders and weak unions, farmers often end up surrendering their coffee to private traders. Thus there is a critical need for strengthening cooperatives and unions if farmers have to actively participate in and benefit from their marketing services.

Creation of a cooperative/union marketing channel that allows cooperatives to enjoy a number of privileges appears to be a unique practice and one of the policy supports of the Ethiopia government towards this sector. In general, unions are the principal marketing outlet for most coffee cooperatives. A few cooperatives, especially those with weak unions, dispose of their coffee through ECX by paying commission to those who possess seats with the centre. This is not surprising as cooperatives heavily rely on unions for seasonal loans for coffee purchase. Cooperatives receiving such loans will be in obligation to deliver their coffee to parent unions

without much value adding activities in terms of form (processing), timing and place of sale. In addition, as some (e.g. ATA, 2012; Kodama, 2007) noted, unions' marketing route appears to be shorter as well as generates better income for farmers and their cooperatives. Apart from providing alternative market outlets, involvement of cooperatives in the coffee market obviously injects some competition to the market that would help farmers to secure better price. Moreover, the cooperative marketing channel enables farmers to access alternative market outlets that pay better prices such as fair-trade and other certification schemes. This is in addition to the dividends and other complementary services provided by cooperatives and their unions.

Nevertheless, as many previous studies (e.g. ATA (2012; Dempsey, 2006; Minten *et al*, 2014) point out, due to weak institutional and financial capacity and other constraints, most of the current study cooperatives are not in a position to make proper use of this opportunity. For instance, according to a recent study (Minten *et al*, 2014), the export volume via the cooperatives avenue remained too low (i.e. less than 6% of the total coffee export). In particular, they lack necessary financial capacity and institutional innovativeness and flexibility to cope with or match the competition exerted by private traders. Private traders are more efficient in collecting farmers' coffee as they enter the market early in the season, which offers them an opportunity to manipulate prices and exploit farmers. The fact that farmers are often in dire need of cash early in the season provides a fertile ground for private traders to be in control of the play field. Thus if cooperatives get strengthened and have timely access to loan, they are obviously better alternative marketing option for farmers. Thus there is a need to strengthen provision of strategic and targeted support particularly to the recently created unions which did not get an opportunity to access the kind of privileges the first generation of unions enjoyed.

On the other hand, the fact that most cooperatives do carry out no or little value adding activities in the coffee they trade is mainly attributed to lack of necessary awareness, drying materials, storage facilities and finance. Thus cooperatives and their member farmers need to be supported and encouraged to carry out at least basic primary processing activities such as proper cherry drying or wet-processing as one way of value addition. Apart from primary processing activities, cooperatives also need to gradually start exporting value added products. At present only 1% of the total coffee export of the country is value added product. On the other hand, the fact that

some cooperatives were engaged in buying and selling green beans demonstrates persistence of traditional (*merbush*) coffee hulling and trading in some parts of the country, which obviously compromises the quality of their coffee. This is one of the critical areas for intervention so as to create greater awareness as well as to promote small hulling facilities as this does not alter the test of the by-product or husk which they use for their own household consumption.

In agreement with the findings of previous studies (such as Musebe *et al*, 2011; Negussie *et al*, 2007), the findings of the current study revealed that usually local price of coffee is not based on the quality of the product. In particular, primary cooperatives lack flexibility in offering prices based on quality, which has serious implication for coffee quality. Because farmers may lack incentives and motivation to invest time and resources in improving coffee quality. It is thus critical to raise awareness and encourage cooperatives to mobilise and reward members that deliver coffee of enhanced quality. In addition, as setting of coffee purchase prices at primary cooperatives level is subjective, liable to corruption and manipulations, such practices need to be monitored, supervised and corrected if cooperatives have to undertake sound businesses that genuinely benefit their members.

On the other hand, most farmers were not willing to supply their coffee to their cooperatives without receiving cash upon delivery. Though farmers' pressing demand for cash could be one of the main contributing factors, such practices can also be partly attributed to lack of confidence in their cooperatives. Previous studies (e.g. Dempsey, 2006; ATA, 2012; Bernard *et al*, 2013) point to the prevalence of such widespread lack of trust, confidence and participation among member farmers. In terms of time of coffee sale, the fact that the vast majority of cooperatives had been selling their coffee right during the harvest season or soon after reflects lack of opportunity among primary cooperatives to wait and look for better market prices and outlets. This could be largely attributed to lack of proper warehouse, and the conditions imposed by their unions in relation to the loans offered. In general, majority of the primary cooperatives appear to merely serve as local buying agents for their parent unions, who provide loans, set prices, and time of delivery. This suggests the need for interventions that support cooperatives to acquire proper storage facilities, and direct access to loan finance. On the other hand, many of the primary cooperatives were not provided feedback on the quality grades of their coffee and its defects.

Lack of such information would obviously have detrimental effects on their future efforts in addressing the prevailing limitations and needs to be given serious consideration.

7.2.3. Cooperatives' operations and services in relation to coffee business

Despite the mixed views expressed about cooperatives and their current services, almost all concur on the fact that cooperatives are important agents to effect changes and socio-economic development among smallholders and the rural community. The current government's market-oriented economic policy has created conducive environment for the expansion of cooperatives in Ethiopia. Cooperatives are no longer set up with a coercive action to serve as tools that primarily execute government plans and promote its political ideology. Concurring with previous studies (such as Assefa, 2005; Emanu, 2009; Bernard *et al*, 2010), the current study suggests that the new generation of cooperatives are somehow established in line with the basic principles of cooperative societies. Unlike the experience under the *Derg's* socialist system, the real importance and contribution of cooperatives seems to become increasingly understood among farmers. However, the distorted and tainted image of cooperatives that existed during the military regime somehow continued to influence popular participation in cooperatives. Moreover, the policy reform packages introduced under the structural adjustment programme in the 1990s and efforts made towards liberalising the economy forced the government to pull out (from providing direct and targeted support), leaving the cooperatives to the forces of the market. As many (e.g. Develtere and Pollet, 2008; Schwettmann, 1997; Bernard *et al*, 2010) noted, as in many other countries this initially created some gaps in the cooperative movement in Ethiopia as well. However, through the subsequent policy and support frameworks provided by the government, the cooperative sector has revived and massively expanded in recent years.

In agreement with the findings of previous studies (e.g. Dempsey, 2006; USAID, 2005; Minten *et al*, 2014; ATA, 2012), the current study has identified cooperatives' role in marketing members' coffee in most of the study areas as one of the crucial contributions. Cooperatives in particular play an important role in helping farmers to access better markets including certification schemes and fair-trades, which help them earn better income. Those cooperatives with strong capacity and experience can undertake sound business and generate substantial profit for members. Nevertheless, the majority tend to concentrate on input distribution activities such

as fertilizer supply. As a result, this role seems to be more valued by farmers in some areas than their role in marketing members' produce. In general, many of the member farmers have been selling their produce to private traders and deliver negligible amount to cooperatives. The findings of previous studies (e.g. Dempsey, 2006; ATA, 2012; Bernard *et al*, 2013) also confirm presence of similar scenario among cooperatives in different parts of the country.

The majority of study cooperatives have weak capacity (particularly in terms of finance and management), which severely hinders their role and contribution in marketing members' produce and in sustainably generating benefits for members. Their management is predominantly led by non-professionals, who often lack necessary competence, transparency and commitment. Another critical challenge is that cooperatives heavily rely on unreliable external finance to undertake their business activities. In highlighting this problem, ATA (2012) indicated that an average primary cooperative possesses only about 100,000 Birr capital of its own. Most primary cooperatives do not operate with proper and strategic planning, and tend to carry out businesses as opportunity arises. For instance, unions provide some loans and instruct cooperatives to purchase some amount of coffee and deliver to that particular union with no or little value adding processing activities. This calls for the need to support primary cooperatives in developing their institutional, managerial and business capacities (including skills in business planning), as well as in terms of improving access to finance and alternative market outlets.

In general, most of the primary cooperatives are not in a position to provide dividends to members, nor participate in social and community development. However, some of the stronger cooperatives with committed management and those which are affiliated to vibrant unions play an important role in this regard. Obviously, provision of such services and benefits go a long way in stimulating motivation and enthusiasm among farmers to join cooperatives and actively participate in their affairs and businesses. The study also reveals that member size of such strong cooperatives is on the rise. Despite the various supportive measures taken by the current government, its interventionist policy (towards cooperatives and institutional service providers) appears to have some adverse effects on the performance of the cooperatives. The fact that the study suggests persistence of some sort of government interference in cooperatives internal affairs point to the need to limit government's intervention to a facilitative and promoting role

rather than dictating cooperatives' organisation and operations. More importantly, many (e.g. Emanu, 2009; Benson, 2013; Gessese, 2010) maintain that making cooperatives competent and vibrant development actors requires presence of competent and committed professional cooperative promoters.

On the other hand, despite their important role in marketing members' outputs, some unions tend to monopolise and un-proportionally enjoy the lion's share of the returns and benefits generated from cooperatives' coffee business. If primary cooperatives are to actively and enthusiastically participate in unions' coffee business, it is thus crucial for unions to operate in a fair and transparent manner, effectively support primary cooperatives and provide a reasonable share of the benefits. In general, the recent cooperative restructuring and reform efforts seem to play an important role in boosting farmers' confidence in cooperatives and their management. Likewise, primary cooperatives need to operate in a transparent manner and demonstrate clearer benefits if they are to generate interest in and attract many farmers. More importantly, if their performance, efficiency and the quality of their services are to substantially improve, cooperatives need to move away from committee-based management to full time professional management. In line with this view, Ortmann and King (2007a) noted that poor management and leadership was one of the critical reasons for cooperatives' failure in South Africa.

7.2.4. Suitability of cooperatives as intermediaries for bank loans

In agreement with the views in previous studies, the finding of the current study largely suggests that coffee or multipurpose cooperatives (MPCs) are not ideally suitable to serve as intermediaries for bank loans. For instance, a World Bank study (1994) concludes that multipurpose cooperatives in many countries have generally not been successful in providing savings and credit services. Previous experiences in Ethiopia similarly reveal that such credit service provision by some primary cooperatives was not successful. According to Chanyalew (2015) this traditional practice of credit provision by MPCs has continued by some to the present time due to failure to strictly observe the existing regulatory acts that leave credit services to specialised cooperatives such as (RU)SACCOs and other financial institutions. This is also partly related to the low capital base and capacity problem of RUSACCOs. Chanyalew further states that such financial service by MPCs is done haphazardly and the delivery focuses on periodical

problem solving. In contrary, experiences from the Philippines (Briones, 2009) shows that cooperatives can serve as conduits of credit funds to individual members.

Given the current gaps in the rural financial markets of Ethiopia, carefully chosen and strong cooperatives with committed management can temporarily serve as intermediaries to channel bank loans to their loyal members. In particular, there is a critical need for providing cherry advance to cooperative members early in the season or during the months preceding the harvest season to address their emergency (cash) needs. Such intervention would help to avoid stripping and sale of immature cherries as well as to counter the undesirable practices of informal money lenders and illegal coffee traders. One of the attractive features in using primary cooperatives as intermediaries for bank loans is possibly their wider presence on the ground, close interaction with and knowledge member farmers. However, engagement of multipurpose cooperatives in such responsibilities should be taken as a short-term solution. Given the current gaps in the capacities and management of primary cooperatives in the country, a few might be able to effectively play a role in such financial service provision. The study also suggests that this duty can be more effectively undertaken in collaboration and under the supervision of parent unions. Parallel to these efforts, farmers need to be educated and sensitised on proper utilisation and repayment of such loans. Likewise, prior to their involvement in such tasks, cooperatives' capacity (organisational and financial management) needs to be properly built as well as effective system needs to be put in place for loan delivery, monitoring and recovery.

However, in the long-run, attention should be paid to promoting expansion and strengthening³⁷ of specialised cooperatives (SACCOs) or MFIs if such services are to be effectively and sustainably delivered to farmers. In agreement with this, Chanyalew (2015) argues that credit provision cannot and should not continue as the function of multipurpose cooperatives. He warns that when there is a critical need to involve multipurpose cooperatives in the agricultural finance service provision, such undertakings should be anchored on best international practices. He goes on to stress that such temporary responsibility should not be considered as a substitute to the role of MFIs and RUSSACOs.

³⁷ As of now, as many (e.g. Chanyalew, 2015) note that RUSSACOs financial products and services are currently very limited and lack diversity, thus could not meet the demands of farmers and cooperatives.

7.2.5. Challenges and constraints of cooperatives as related to coffee

Unsurprisingly, the findings show that the problems and constraints facing coffee cooperatives, like other actors in the coffee sector, are diverse and stem both from internal and external factors. Most of the constraints and challenges identified by the current study are, to a larger extent, in line with what had been highlighted in past studies (such as Wolday, 2009*a,b*; Emanu, 2009; ATA, 2012; Gessese, 2010; Chanyalew, 2015). This shows persistence of those problems and the need to intervene if their cycle has to be altered. The internal problems (such as weak financial, institutional, governance, technical and business capacities) appear to be severe bottlenecks and the sources of most of the other problems. The importance attached to the different problems and constraints tend to focus on the segment of the value chain where that particular stakeholder operates. Understandably, while the cooperatives management emphasised the external challenges such as lack of access to loan, market and necessary infrastructure as the main constraining factors, the rest of the stakeholder groups attributed most of the problems to internal limitations of the cooperatives. Thus interventions that aim at tackling problems faced by cooperatives need to integrate strategies and activities that would systematically address these diverse and multifaceted problems/bottlenecks across the entire value chain. More importantly, if they have to keep pace with the rapidly changing political, economic and business environments, cooperatives need to enhance their innovativeness, dynamism and adaptive capacity. Ortmann and King (2007*a*) suggest that the rapidly changing environment, reflected in increasing globalisation, technological changes and agricultural industrialisation particularly necessitates substantial structural changes among agricultural cooperatives.

7.3. Credit for agriculture and coffee

7.3.1 Are agriculture and coffee priority areas for bank lending?

Concurring with previous studies (such as Admasu and Paul, 2010; Admassie, 2004; Chanyalew, 2015), the current study suggests that access to institutional loans is very limited when it comes to cooperatives and those engaged in agriculture (production) activities. As compared with other economic sectors, agriculture is claiming a tiny proportion of the loan portfolio of most

commercial banks. In discussing the fact that agriculture has been denied adequate support in terms of access to finance, Chanyalew (2015: 22; 23; 145) comments that:

“A complete neglect of the main engine of the agriculture-led industrialisation transformation process is prevalent in Ethiopia. The credit system in the country does not provide a comprehensive national system of competitive agricultural credit to farmers. Most of the benefits gained from the growth of the agriculture sector have been diverted to the promotion of service, industry, energy and telecommunications sectors. Ethiopia’s agriculture sector gets less than 2% of the capital goods imported as of late 2000s (CAADP, 2009), thus the sector is deprived of modernisation and continued to be exploited to generate revenues from labour- and land-intensive production undertakings to make the other sectors grow”.

In general, the study suggests that banks do not seem to treat agriculture, primary cooperatives and smallholder farmers as priority sectors. While the focus of the state banks (CBE and DBE) has recently shifted to financing major government development projects, selected priority private investments and export promotion, private commercial banks highly focus on export-oriented activities in an attempt to generate foreign currencies. The fact that the service sector tends to be more liquid with high turn-over as well as involves some saving deposits seems to favour lending to this sector, which comes second in terms of lending preference amongst banks. In the Ethiopian context, institutional loans for coffee are mainly provided to unions (who are involved in coffee export), private coffee suppliers and exporters, and to a certain extent to large scale commercial producers. Interestingly, even the government commercial bank focuses on large scale commercial farmers and coffee traders (suppliers in channeling loan finance). This finding is in agreement with previous studies (e.g. Wolday, 2010; World Bank, 2015) which report that larger and well-established borrowers, estates, wealthier individuals and traders are more likely to access institutional finance with better terms and conditions than small-scale farmers operating in the production end. In discussing similar scenario in South Africa, Ortmann and King (2007b) pointed out that commercial banks were reluctant to provide credit to smallholders due to the high risks associated with lending to them, which include insufficient or lack of collateral, poor financial records and high transaction costs associated with such small lending activities. As regards the coffee sector, a World Bank study (2015) notes that the levels of creditworthiness are influenced by the nature of the coffee business in that access to loan increases as coffee moves up the supply chain, which enjoys more value, profit, and income.

In fact adoption of the market-led economic policy in the early 1990s by the Ethiopian government resulted in greater changes in the organisation and operation of the financial sector, which among others, resulted in the emergence and rapid expansion of private financial institutions. Nevertheless, though the current government has adopted a free market economic policy, it did not want to fully open up all economic sectors to the market forces, and has particularly maintained pervasive intervention in the financial sector. Some of the regulations (such as the National Bank's bond directives) and other state intervention appear to influence banks' lending policies, abilities and motivation. ATA (2012), based on the works of Wolday and Peck (2010), reported that despite the substantial progresses recorded in recent years, many rural financial institutions in Ethiopia have insufficient capital, reach and capacity to provide agricultural cooperatives with the type and level of services they need. At present unions are almost the sole providers of loan fund to primary cooperatives in the study areas. In other words, they act as intermediaries for bank loans as they have better facilities and market linkage that boost confidences of the lending banks. However, unions provide small amount of loans of short-term duration, which often reaches cooperatives late in the season. In addition, those cooperatives which are not affiliated to unions cannot access such loans. Moreover, some of the unions appear to struggle in obtaining institutional loans due to their weak business performance and institutional capacity. As a result, some of the new unions were obliged to retain the profits generated from previous coffee trade and to use for coffee purchase and finance other operations (instead of distributing as dividends to member cooperatives). This has obvious implications for members' confidence, motivation and participation in their cooperatives.

Lack of access to loan finance seems to emanate both from limitations related to the borrower cooperatives and constraints facing the lending banks. Lack of collateral, poor financial records and system, lack of credit history, lack of awareness (whom to approach and how to apply for loans), weak business and management capacity and failure to repay loans in the past are among the prominent constraints on the part of the cooperatives. High perceived risk level of the agriculture and coffee sector, lengthy and complicated bank requirements and processes, lack of alternative lending institutions in rural areas, lack of loan products with the right choice, and liquidity problem are among the limiting factors on the parts of the lending banks. These are in addition to the challenges posed by policy and regulatory frameworks. Bank officers tend to

largely attribute the problem to the shortcomings on the cooperatives' side, while understandably cooperatives and their promoters mainly attribute the shortfalls to the lending banks and their financial products/services. Thus interventions aiming at improving farmer cooperatives' access to loan fund need to target addressing both supply and demand (borrower) side constraints.

Despite their thin presence in rural areas and heavy focus on urban-based clients, banks remain to be the main and preferred sources of loan for agriculture and coffee. In particular, CBO appears to be a preferred source of loan for cooperatives in the Oromia region since it is a more coops-friendly bank. Despite their potential to serve as good source of loan for farmers and cooperatives in the future, at present most RUSACCOs seem to be at their infant stages with weak financial and managerial capacities. ATA (2012) similarly comments that as of now the ability of SACCOs and MFIs to serve the needs of agricultural cooperatives is limited. ATA goes on to note that though there were 7,233 SACCOs in the country in 2012, they were able to provide less than one percent of the country's total financing. It is thus decisive to strengthen the capital base, as well as the managerial and financial capacities of SACCOs. Likewise, MFIs do not serve farmer cooperatives as they primarily target (grouped) individuals, as well as provide loan products that do not meet the needs of cooperatives dealing with cash crops such as coffee, which requires substantial amount of money. The other severe constraint of MFIs is their limited financial capacity and tendency to focus on urban-based borrowers. Provision of revolving fund or cash-based loan guarantee can help MFIs to relax the liquidity constraints facing them. In general, the study suggests that diverse sources and providers of finance should compete and serve the rural population as these would enhance efficiency and help to overcome monopoly.

7.4. Demand for institutional credit and factors influencing demand among coffee farmers' cooperatives with emphasis on demand side constraints

The first part of this section provides discussions on the study cooperatives' institutional and socio-economic characteristics and is largely based on the baseline information that was obtained at the end of 2012 and beginning of 2013. The latter section focuses discussions on cooperatives' demand for institutional credit and factors influencing their demand with emphasis on demand-side constraints.

7.4.1. Institutional, business and socio-economic features of cooperatives

7.4.1.1. Profile of the study cooperatives

The cooperatives included in the study were drawn from selected districts of eight zones of Oromia and SNNP regions that have been involved in the credit guarantee scheme under analysis. However, this does not mean that all the selected districts typically represent the major coffee producing areas. Some of the districts targeted by the scheme under analysis are marginal coffee producers. This implies that some of the findings such as loan demand may not necessarily represent the situation of all the cooperatives located in other major coffee producing zones like Jimma and Sidama. Though the mean age of the study cooperatives is about 13 years, some were as old as 43 years, which may have implications for their credit history and experience in coffee business. Some (e.g. Zapata, 2006) argue that the length of the firms' existence affects the lender's rationing behaviors. As many (e.g. Wolday, 2008a; 2009a) note, some of the older cooperatives that existed during the previous socialist regime had bad experience with loan funds. This points to the need to adequately raise awareness and build the capacity of such cooperatives prior to loan disbursement. In fact reorganisation of the cooperatives that were established under the socialist system claimed substantial efforts in promoting and revitalising cooperatives during the early years of the current government. However, the majority of the interviewed cooperatives were formed over the past two decades, out of which over one-third were formed just between 2003 and 2005. This is not surprising as the recent fairly conducive policy environment has provided a fertile ground for the emergence of several forms of cooperatives. This could be largely attributed to the issuance of a law (in 2002) that provided legal foundation for the creation of the cooperative promotion commission. Previous study (Bernard *et al*, 2013) similarly reveals that majority of the agricultural or multipurpose cooperatives were established or re-established over the past 20 years after the regime change, out of which about 66% were established after the promulgation of the new proclamation for the promotion of cooperatives in 1998.

The mean member size for the current study cooperatives (579 farmers) is slightly lower than what was reported in the findings of previous study (Bernard *et al*, 2013), which reported that the average number of members of the agricultural cooperatives in Ethiopia was 672 during the year

2012. The fact that cooperatives in the SNNP region had a larger number of members than their counterparts in the Oromia region may need further investigation to establish the reason. In terms of their gender composition, the number of female cooperative members is very low, which reflects that female farmers were generally less likely to be members of cooperatives. Though the current cooperative law allows both the wife and the husband to join cooperatives, the longstanding tradition and perception that considers the husband as representative of the household still acts as a major hindrance to women's participation. Moreover, as the study cooperatives are commodity-based, it is not surprising to witness the dominance of men, who traditionally exercise control over cash crops. Thus there is a need to step up efforts that aim at encouraging and supporting female farmers' participation in cooperative societies.

Age and educational status of the people managing cooperatives are among the variables expected to influence cooperatives' management and the performance of their businesses. Mpuga (2010) suggests that the young may tend to save and/or borrow more for investment while the old may be less inclined to borrow. In the current study, the vast majority of the cooperatives' chairpersons were found in the middle age group (32 to 50 years) which appears to be ideally productive and active in pursuing alternative business avenues as well as in terms of gaining sufficient management experience. As regards the role of education, several studies (e.g. Ajagbe *et al*, 2012; Mpuga, 2010; Zapata, 2006) report that education positively affects entrepreneur's decision to apply for a credit, the amount applied for and the chances of accessing it. While the vast majority of the chairpersons or managers of the study cooperatives attended some sort of formal education, surprisingly, 18% have no education or attended only informal education. This clearly demonstrates the fact that most cooperatives were being managed by non-professionals, with obvious implications for their institutional and resource management and overall business performance. In fact the vast majority of the study cooperatives were being managed by part time management committees. This thus calls for interventions that promote engagement of professionals in cooperatives' management and measures to modernise their systems. In this regard, the fact that more cooperatives from the Oromia region appeared to have professional managers than their counterparts in the SNNP region may reflect presence of cooperatives with a relatively stronger institutional capacity and coffee business activity in the former region.

On the other hand, the fact that most of the study cooperatives were lacking a professional person with formal education in accounting would inevitably compromise the quality and soundness of their financial management, record keeping and reliability of their financial documents. This in turn will have adverse effects on the successes of cooperatives' loan application and proper utilisation and management of received loans. In general, primary cooperatives employ a few permanent workers, if at all, who are mainly non-professionals (such as casual security guards) with limited direct professional contribution to cooperatives' business operation and management. Thus wherever their financial status permits them, cooperatives need to be encouraged to engage a properly trained professional personnel.

7.4.1.2. Type of cooperatives and their main business activities

With respect to the sector of primary occupation and main business activities, though the vast majority were registered as multipurpose co-operatives, most of the study cooperatives were engaged in diverse activities including marketing of various agricultural products (such as coffee and grain trade) and allied business activities (such as input supply and other business undertakings). This could be possibly attributed to (a) risk aversion tendency, and/or (b) a bid to deal with members' diverse products, and an attempt to provide multiple services to members. On the other hand, more cooperatives in the SNNP region tend to specialise in coffee (particularly those in Kaffa zone) than the ones sampled from Oromia. Nevertheless, though most of the cooperatives in Oromia are named multipurpose, almost all of those located in coffee producing areas are predominantly engaged in coffee business. On the other hand, the fact that some of the study cooperatives were new and have limited experience in coffee business necessitates further capacity building and support on coffee processing and trade, financial literacy and good governance, among other issues.

7.4.1.3. Cooperatives' asset/capital ownership

The surveyed cooperatives exhibited considerable variations in terms of capital ownership. Most cooperatives had small amount of cash in bank, as well as own limited fixed assets. Surprisingly, we came across a cooperative with an asset of no book value, and a cooperative without any fixed asset apart from one weighing scale. A study conducted by ATA (2012) similarly reveals that an average multipurpose cooperative in Ethiopia has only about 100,000 Birr capital of its

own. This clearly demonstrates the fact that a substantial number of cooperatives have poor capacity in terms of resource ownership. This has implications in accessing loan as banks may lack confidence in cooperatives with assets of poor quality and/or value. On the other hand, the fact that majority of the study cooperatives did not have any outstanding liability obviously suggests cooperatives' weak participation in borrowing.

7.4.1.4. Cooperatives' income, expenditure and financial management

The fact that some of the cooperatives were not obtaining income from coffee trade was not surprising as some of them were not participating in coffee business during some years for various reasons. Though the volume of income generated by cooperatives, on average, showed a rising trend over years (between 2010 and 2012), understandably, fluctuations were observed in the volume of income generated by individual cooperative across years. This demonstrates prevalence of substantial variations in cooperatives' institutional capacity, business activities and coffee production. On the other hand, the fact that over two-thirds of the study cooperatives obtained income from non-coffee activities during the survey year shows their involvement in multiple business activities and services though the magnitude of their transactions and volume of income are quite limited. Thus interventions that aim at improving cooperatives' access to institutional loans need to take into account this multiple activities, their diverse cash demand and inflows.

On the other hand, the fact that most of the study cooperatives were incurring very limited expenditures (which are mainly related to operational costs such as coffee trade and input supply) reflects their weak operations and business activities. On the other hand, though the vast majority of cooperatives reported that their accounts are regularly audited, official reports and existing studies show that most cooperatives in Ethiopia do not have access to regular audit services for their accounts. For instance, Benson (2013) reported that the financial records of only 40% of cooperatives in Ethiopia are audited each year. Likewise, FCA (2012) report reveals that the Federal Cooperative Agency had planned to provide audit service to 24,183 primary cooperatives during the year 2011/2012. However, they were able to reach out only to 6,478 primary cooperatives in nine months (July 2011 to March 2012). Apparently this has serious implications for the transparency of their operations, financial system and distribution of

surpluses to members in the form of dividend. Lack of audited financial records also affects cooperatives' access to loan finance as lending banks, among other documents, ask for recent audit reports.

7.4.1.5. Distance from institutional service providers

Distance to service providers such as banks, extension office, market centres and so forth apparently affects access to different services such as credit, information, market, new technologies, etc. The fact that the majority of the study cooperatives are located far away from the local bank branch offices could possibly affect their interaction and relationship with lenders; access to information (e.g. about borrowers and lending requirements) and efforts in monitoring and supervising loan utilisation. On the other hand the fact the cooperatives located in the Oromia region appeared to be relatively closer to bank branches could be related to the presence of CBO branch offices in various parts of Oromia. In contrary, majority of the study cooperatives, regardless of their regional location, have better access to all-weather roads. This shows that most of the cooperatives do not face major difficulties in transporting and marketing their products. However, most of them were located far away from the district office, which could inevitably affect their access to information, new technologies and technical support from experts. The study revealed that though there are some limitations in the quality of the services, study cooperatives have close interactions with frontline cooperative extension workers. Such close interaction can be directly attributed to the presence of extension agents in village or cooperative centre. The study also shows that the surveyed cooperatives have limited access to coffee hulling and washing stations. This leaves the cooperatives with the mere option of selling their coffee in the form of fresh or sun-dried cherry (*jenfel*). Lack of hulling facility is also one of the contributory factors to traditional coffee hulling process (*merbush* preparation).

The fact that the vast majority of the study cooperatives were members of unions shows that most of the primary cooperatives in cash crop growing areas are members of some form of secondary level cooperative structures. The fact that more cooperatives from the Oromia region were members of some kind of union was not surprising as the union in this particular region seems to be stronger than those operating in the vicinity of the study cooperatives in the SNNP region. As regards supports provided, the overwhelming majority of the cooperatives reported

that loan supply is the major service they receive (alongside some other supports) from their respective unions. This suggests that unions need to strengthen provision of other services that would enhance the capacities and benefits of member cooperatives and farmers.

7.4.1.6. Cooperatives' past experience with credit services

7.4.1.6.1. Cooperatives' loan access

While a small proportion of the study cooperatives reported receiving some sort of loan particularly during the year 2010 and 2012, there have been fluctuations across years, which could be related to changes in coffee yield, market price and other internal and external factors. Interestingly, the fact that the percentage of cooperatives that applied for loan (during 2010 to 2012) was lower than those of who actually received loans largely implies that most of the loans were coming from the unions which do not require cooperatives to undergo normal loan application process. In fact very few cooperatives reported directly receiving loans from banks, while MFIs and RUSACCOs were not serving the cooperatives at all, which could be attributed to their weak financial capacity and unsuitability of their loan products for cooperatives' business (especially in terms of loan size and duration). Previous studies (e.g. ATA, 2012) similarly observed that MFIs are not well-positioned to extend loan service to cooperatives. This calls for the need to promote interventions that improve direct access (of primary cooperatives) to bank loans. These could include enhancing cooperatives' capacity as well as creating facilitative and enabling regulatory environment for the lending financial institutions.

In terms of volume of loans obtained, some of the cooperatives received a loan amount of as small as 20,000 and 50,000 Birr which is too meager to undertake meaningful coffee processing and trade activities. The vast majority of the cooperatives, unsurprisingly, indicated that the amount of loans they had received was not adequate for the intended purposes. This shows the presence of substantial gaps between credit demand and supply; i.e. cooperatives were indeed experiencing severe credit rationing. The fact that a significantly larger number of cooperatives from Oromia were able to access loans than those located in the SNNP region could be due to the presence of CBO as well as operations of relatively stronger cooperatives and unions in the Oromia region.

On the other hand, the fact that more than half of the interviewed cooperatives reported that their loan applications have never been turned down in the past may imply that some of them simply never applied for bank loans. In particular, very few cooperatives were aware of why their loan request was not favoured in the past. This points to the critical need for timely provision of such feedbacks (by the lending banks) if cooperatives have to properly understand the limitations and work towards addressing these gaps in their future loan application.

7.4.1.6.2. Length of loan duration, loan processing time and collateral requirement

Following the transition from the centrally planned economic system to the free market economy, coupled with the adoption of SAP measures, in Ethiopia cooperatives were made to act on their own. Those cheap and targeted loans were removed, forcing cooperatives to look for loan finance based on their merits, including their institutional and business capacity and creditworthiness. Like any other private business entity cooperatives were expected to meet all the lending requirements of commercial banks, which many primary cooperatives often fail to meet. One of the major challenges of cooperatives is lack of access to loans of long-term duration. The maturity period of the loans obtained by most of the cooperatives during the period 2010 to 2012 was less than one year, which obviously does not allow them to undertake long-term investment activities. This shows the prevailing gaps in terms of medium- or long-term loan supply to cooperatives. Previous studies (e.g. Emana, 2009; Admasu and Paul, 2010) similarly note that the Government backed loans for farmers are often meant for short-term purposes such as for acquisition of fertilizers. In discussing the experiences of developing countries, Freedman (2004: 3) comments that without longer repayment period for loans, it is not possible to commit finance for investments in new equipment or technology. Freedman claims that by reducing lender's perceived level of risk for new types of loans, a partial loan guarantee may help to improve the terms and conditions of guaranteed loans. This may include provision of loans with longer maturity period which allow borrowers to make investments in equipment, technology or infrastructure that enhance their productivity and the quality of their produce.

Length of loan processing time is another critical aspect in accessing and putting loans to proper use. The length of loan processing time among most cooperatives was found to be too long,

(where some were taking up to six months). Those cooperatives which reported enjoying shorter loan processing time seem to refer to loans obtained from their unions, which often requires shorter process time than the ones directly obtained from banks. This is due to the fact that unions often obtain loans from commercial banks and pass over certain amount to member primary cooperatives without putting in formal application for such loans. However, a number of conditions are attached to loans supplied by unions. For instance, it is a common practice for unions to instruct primary cooperatives to purchase coffee (at fixed prices, in the form and time needed by the union) and deliver to them. Such a practice seems to make primary cooperatives mere market agents that purchase coffee and channel to their unions. Undoubtedly, this creates persisting sense of dependence among primary cooperatives, and thus needs to be altered through continuous sensitisation and capacity building activities.

In terms of interest rate, long-term loan for such sectors as agriculture usually attracts higher rate, while export sector enjoys the lowest rate. It was surprising to find that even the state banks charge slightly higher rate on loans for agriculture. As regards collateral requirement, though there is flexibility (based on borrower type, nature of the project/business, collateral type and other factors), obviously primary cooperatives are not favoured on the basis of these criteria. Loan security appears to be relatively easier with cooperative unions and exporters, who have better facilities and sales contract that can be pledged as collateral. Most primary cooperatives lack fixed assets of acceptable quality and value to pledge as collateral, nor equity contributions required by the lending banks. Thus collateral requirement seems to be a serious impediment to farmer cooperatives in accessing loans from most private banks. In addition, cooperatives are required to meet various other lending requirements, which most of them struggle to fulfill. It is thus important to treat cooperatives differently and relax banks' lending requirements and criteria since cooperatives serve the wider community, and operate with unique mission and objectives.

7.4.2. Cooperatives' Demand for Institutional Credit and its Determinants

7.4.2.1. Discussion of the qualitative and descriptive findings on cooperatives' loan demand

All aspects of coffee business (production, processing and trade) require substantial amount of capital. In general, external loans remain to be the sole source of finance for the vast majority of

primary cooperatives for funding their operations such as collecting, processing and selling members' coffee. This is due to the fact that most primary cooperatives have very limited capital of their own. Chanyalew (2015) notes that the amount of finance generated from members is very negligible to support the business operations of cooperatives. A study conducted by ATA (2012) reveals that an average multipurpose cooperative in Ethiopia has only about 100,000 Birr capital of its own. As a result, they need to revert to external financing to fund their operations, to provide marketing and other services to members as well as to invest in necessary infrastructural facilities. In particular, the emergence of a large number of new primary cooperatives and unions in recent years has resulted in increasing demand for external finance.

Nevertheless, the study suggests that many cooperatives were not coming forward to apply for bank loan for various reasons. Limitations in the cooperatives' institutional and managerial capacity and other internal and external factors may prevent them from effectively demanding for institutional loans. In particular, such hesitation in asking for bank loans may largely emanate from the perception that they may not meet banks' lending requirements or lack of awareness about possibilities of borrowing from banks. They may even doubt their ability to properly manage, effectively utilise and repay the loans. However, the vast majority of the study cooperatives revealed having potential demand for institutional loan. Contrary to the general belief that loan demand is predominantly (if not solely) depressed by supply side constraints, the current study reveals that limitations in the capacity of borrower cooperatives, poor economic and business activities, weak market integration and poor coffee production also prevent cooperatives from seeking for loans. This points to the need for multifaceted support interventions if such gaps are to be effectively addressed and the availed guaranteed loans are to be taken up and utilised by cooperatives as expected.

7.4.2.1.1. Amount of credit demanded by cooperatives

There have been variations between cooperatives' actual and potential loan demands, whereby the volume of potential demand (indicated by cooperatives) appears to be higher than the actual amount they had applied for. Given the cash requirements of coffee business, in fact the actual volume of loan cooperatives applied for seems to be on the lower side. As highlighted above, this variation possibly points to the presence of inhibiting factors that stop cooperatives from

effectively applying for bank loans or from asking for a larger volume. It is also important to note that the volume of loan demand expressed by the cooperatives included in the current study may not fully represent the demands of some of the well-established and strong coffee cooperatives with vast coffee processing and marketing activities in other parts of the country such as Jimma and Sidama zones. Obviously, such cooperatives would need a relatively larger volume of loan to finance their operations, business and investment activities.

In addition, there seems to exist substantial variations in terms of volume of loan demanded among cooperatives located in different regions and zones, which could be attributed to differences in their institutional and managerial capacity, level of supports provided by the promoting body, cooperatives' experience in coffee trade and potential for coffee production. The amount of loan applied for by the surveyed cooperatives showed a rising trend over years, with some fluctuations among cooperatives and across years. The fact that some cooperatives did not express demand for loans during a particular season does not mean that they do not need loan at all. Most of these cooperatives may have poor coffee yield during that particular season, or have been constrained by the factors outlined above.

7.4.2.1.2. Purpose for which loan is demanded

Cooperatives have various financial requirements in terms of volume, duration and purpose for which loan is needed, which include non-coffee activities as well. However, most banks tend to believe that cooperatives just require working capital for seasonal fresh or dry cherry purchase. The critical need for long-term loans for acquiring processing facilities and short-term crop advance to member farmers is often undermined. In fact lack of access to long-term investment capital appears to be a severe constraint and was considered by many as a lost opportunity in terms of realising better growth and development. The design of such a credit guarantee scheme thus needs to take into account these diverse needs for loan products as well as should be able to motivate lending banks to cater for such financial needs.

The fact that, surprisingly, a larger proportion of the cooperatives indicated requiring loans for trading dry cherry alone or together with some amount of fresh cherries indicates that they predominantly purchase and sell coffee without undertaking meaningful value adding activities.

Such low demand for long-term loans for processing facilities and other investment activities could also be largely attributed to the nature of the loan products commonly provided by parent unions or commercial banks, which are often short-term loans. This could also be related to cooperatives' weak capacity in strategically planning to undertake long-term investment activities. This calls for interventions that would enhance cooperatives' awareness and capacity to add value to the products they trade at least through primary processing activities, time and place of marketing. Encouraging and supporting them in acquiring and using necessary processing facilities for which they need long-term loans is one of the critical intervention areas.

Though the majority of the study cooperatives showed preference to obtain loan between September and December (which is a peak coffee harvest season), some of them wanted to receive latter after January. This implies that the latter group needs the loans for traditional trade activities (such as dry cherry purchase and sale) that do not add value to their coffee. This is one of the areas that need interventions to encourage and support cooperatives to apply for and obtain loans early in the season. In terms of loan repayment schedule, the majority preferred annual repayment schedule at the end of harvest season. Interventions in the financial market targeting farmer cooperatives thus need to take these varying needs in terms of length of loan duration and repayment schedule.

7.4.2.2. Econometric Analysis

This section discusses the findings of the econometric analysis on cooperatives' loan demand and its determinants; i.e. both decision to borrow and volume of loan demanded. As outlined in the conceptual framework, various explanatory variables were identified to capture cooperatives' institutional, managerial and business attributes that may influence their loan demand.

7.5.2.2.1. Factors affecting cooperatives' credit demand

As outlined in the analytical framework, two approaches were employed to capture cooperatives' actual and potential loan demands; which were denoted as loan-A demand and loan-B demand, respectively. Overall, some of the findings of the current study on factors influencing cooperatives' loan demand are consistent with the theoretical framework and existing empirical studies, while others were not in agreement with the results of previous studies. Such

inconsistencies could be largely attributed to the fact that existing studies focused on households' and SMEs' loan demand, whose nature, activities and needs are not identical with that of farmers' cooperatives.

Among others, interestingly, the positive and significant influence of the outstanding liability on the probability of demanding for loan-A could be explained by the fact that cooperatives with higher amount of liabilities may seek additional loan to settle their outstanding balance that may approach maturity dates. It is also logical to assume that cooperatives with higher liability might be short of own cash to finance their operations; thus may be obliged to seek additional external finance. Likewise, the significant and positive influence of the amount of total capital on the probability of demanding for loan-A was not surprising. This implies that as the value of total capital increases, cooperatives are more likely to seek and/or successfully access institutional loans. This is logically expected as well-established cooperatives with valuable assets are more likely to win lenders' confidence and/or to provide collateral and access bank loans. Moreover, such cooperatives are more likely to further expand their business activities which may require additional external financing. This finding, at least in the current context, disproves the argument that firms with large amount of capital at their disposal may show low demand for bank loans as they might be able to partly self-finance their activities. The finding is however in agreement with the results of some previous studies (e.g. Zapata, 2006; Mpuga, 2010; Aga and Reilly, 2011) which reported that firms with better asset endowment are more likely to seek and/or secure loans from formal financial institutions.

Similarly, the fact that cooperatives that were managed by persons with formal education were more likely to demand loans (than those led by illiterate person or only with informal education) was not surprising. Because cooperatives that have managers with higher educational status are more likely to undertake sound businesses as well as may prepare viable business plans that can convince lending institutions. Previous studies (e.g. Ajagbe *et al*, 2012; Mpuga, 2010; Zapata, 2006) similarly reported that education positively affects entrepreneur's decision to apply for credit, the amount applied for and the chances of accessing it. On the other hand, the positive influence of being located in the Oromia region on the probability of demanding for loans could be explained by the strength of the cooperative marketing system (through the Oromia union), the widespread presence of the Cooperative Bank of Oromia, and the presence of some relatively

stronger cooperatives in the region (among the study cooperatives). For instance, among those included in the current analysis, cooperatives with professional managers were only found in the Oromia region. Aga and Reilly (2011) also reported presence of substantial differences in accessing loans among micro- and small enterprises located in different regions of Ethiopia, whereby firms located in Oromia had better access. The current result corroborates the findings of Barslund and Tarp (2008) who similarly found huge regional differences in the demand for credit in Vietnam. This considerable regional difference in terms of credit demand suggests the need for strengthening access to alternative market outlets and promoting lessons and experience sharing between cooperatives in the two regions. Age of cooperatives was found to significantly and negatively affect probability of demanding for bank loan-A. This can possibly suggest the fact that the newly formed cooperatives are short of resources and in dire need of external loans to finance their operations.

Surprisingly, a number of the hypothesised variables were not found to significantly affect the likelihood that cooperatives seek bank loan-A. Among these, the insignificance of the influence of having a professional manager could be attributed to the fact that a few cooperatives actually had full-time hired professional manager. In addition, most of the cooperative managers or chairpersons are in a fairly productive age group, which might have contributed to the lack of significant effect on the probability of demanding bank loan. Similarly, lack of a statistically significant association between previous cases of default and the decision to demand loans could be attributed to the fact that generally a few cooperatives reported defaulting on previous loans. Likewise, the fact that the vast majority of the study cooperatives are members of unions appears to undermine the influence of such membership in demanding for loans. These results call for further investigation by taking larger sample size, with more cooperatives that have not been affiliated to any union. Again, the insignificance of the effects of the distance from the local banks could be possibly explained by the fact that majority of the rural-based farmer cooperatives are located far away from urban based lending banks. On the other hand, lack of a statistically significant relationship between sector of primary engagement and loan demand could be due to the fact that nearly all of the study cooperatives were engaged in coffee trade alone or in combination with other business activities. Lack of a significant association between member size and the probability of demanding a loan may not be taken as a surprising outcome.

Because logically member size can determine the level of business activities of a cooperative and correspondingly volume of their loan demand. Nevertheless, though the volume of loan required by the study cooperatives has shown a huge variation, most of them showed low actual demand (in terms of applying) for bank loans.

On the other hand, a few variables were found to significantly affect the volume of loan-A demanded by cooperatives. Among these, the positive and significant influence of both member size and affiliation to a cooperative union on the volume of loan-A demanded by cooperatives was already expected. This is an indication of the presence of backward and forward linkages with members (who supply their produce to cooperatives) and output markets for their products through their unions. Access to members' produce and alternative market outlets may reflect the level of their business activities and a corresponding need for financial resources to support these operations. This is in line with the findings of previous studies (e.g. Aga and Reilly, 2011) which reported that membership to a business or social organisation enhances demand for and/or access to institutional loans. This underscores the importance of providing support to cooperatives in mobilising and promoting members' participation as well as in facilitating their up-ward integration with higher level cooperative structures. Absence of a statistically significant influence among the remaining variables on the volume of loan-A demand could possibly reflect the fact that majority of the surveyed cooperatives did not have huge variations in terms of the volume of loan they applied for in 2011. However, in particular, absence of a statistically significant relationship between sector of primary engagement and amount of loan demanded needs further investigation with a larger number of cooperatives and data collected over years as coffee production and prices fluctuate across seasons.

Among the variables included in the analysis of cooperatives' potential (loan-B) demand, understandably age of the cooperative manager or chairperson significantly and negatively influences probability of demanding for loan-B. This is consistent with existing literature and empirical findings which claim that farmers become skeptical and reserved as age progresses, while the younger ones are more open to innovation, to take risk and start new business or expand existing ones, which may require additional finance. Another interesting finding is the statistically significant, but negative association observed between the probability of demanding

for loan-B and both being located in the Oromia region and educational level of the cooperative manager or chairperson. The aforementioned finding of loan-A demand analysis, however, revealed a positive relationship between being located in Oromia and the probability of demanding for loan. As observations and discussions with key informants reveal the inverse relation between the two variables could probably be related to the poor coffee yields in most districts of Oromia (such as West Wellega) during the 2012 coffee season. Moreover, among the interviewed cooperatives, it was observed that those located in the Oromia region appear to have better experience in coffee business. Thus they could be probably more rational and realistic in applying for bank loans by seriously considering prospects of coffee yield, level of their business activity, its real financial requirement and market projection. This may call for further investigation to examine cooperatives' loan demand across seasons to account for variations in coffee production and market price. Contrary to its effect on probability of demanding for loan-A, the results of model-B indicate that those cooperatives with less educated chairperson were more likely to demand for loan-B. The reluctance of the more educated chairpersons/managers in demanding for loan-B could be attributed to their ability to articulate, analyse and carefully plan by looking into costs, risks, and potential benefits. Because this set of loan demand tends to reflect an ambition and desire to get bank loans and may not be necessarily grounded on sound analysis and decisions.

As regards factors influencing amount of loan-B demanded by cooperatives, four variables were found to significantly and positively affect the amount of loan demand. Total capital again significantly and positively influences cooperative's loan-B demand as well. As discussed in the above section (under loan-A demand), the presence of a positive association between total capital and amount of loan demanded was not surprising. Previous studies (e.g. Zapata, 2006) also confirm that size of assets has a direct relationship with the amount demanded and volume of loan allocated by lending institutions. The significant effect of total expenditure on amount of loan demanded could probably be due to the fact that higher expenditure might be a reflection of an increase in the magnitude of business activities, which necessitates additional external funding. It could also be probably related to the need to make further investment in business expansions and infrastructural facilities. Discussions held with cooperatives and personal observations by the current researcher reveal that those cooperatives with little or no business

activities were indeed incurring very negligible expenses. Similar to its effect on amount of loan-A demand, member size was found to positively and significantly relate to volume of loan-B demanded by cooperatives. Again, as discussed in the above section (under loan-A demand), the reasons for the positive impact of member size on the amount of loan demanded are obvious. This clearly shows the importance of raising the number of cooperatives' members and the need for promoting their active participation in cooperatives' businesses and decisions. More interestingly, contrary to its effects on the probability of demanding for loan-B, cooperatives in the Oromia region appear to demand for larger volume (of loan-B) than their counterparts in the SNNP region. In other words, whenever they decide to apply for a loan, cooperatives in the Oromia region tend to ask for a larger volume. The positive association between the two variables could be attributed to the fact that cooperatives in the Oromia region have better coffee business activities and strong linkage with the Oromia union, which is one of the pioneer and strongest unions in the country. This could also be related to the presence of CBO in the region, which is a more coops-friendly bank. This underscores the importance of having such cooperative banks in other regions of Ethiopia.

Overall, different sets of variables appear to influence cooperatives' actual and potential demand for loan. One of the limitations in the first approach is that it fails to capture the demands of self-constrained cooperatives and thus tends to underestimate cooperatives' demand for loans. In contrary, the second approach encounters the risk of reflecting desire of cooperatives in obtaining loans which might not be immediately transformed to actual or revealed demand. However, carrying out such separate exercises using both approaches could help to pin point to potential demands that could be transformed to revealed demand with additional support measures that would help cooperatives to overcome the barriers that prevent them from effectively demanding and utilising loans.

7.5. Influence of a credit guarantee on institutional (bank) credit supply to coffee farmers' cooperatives

7.5.1. Role and contribution of a credit guarantee in stimulating bank lending

The vast majority of the study cooperatives are in dire need of loan finance as coffee business (production, processing and marketing activities and facilities) require substantial amount of capital. This has shown a steady growth in recent years with the emergence of new cooperatives, improvements in the capacity of existing cooperatives, an increase in their coffee business activities and due to the rising coffee price. On the other hand, it is increasingly becoming difficult, especially for the new primary cooperatives to get access to bank loans. Among other things, this is due to lack of credit history and fixed assets of required quality and value to pledge as collateral. In line with this, past studies (Wolday, 2009*a, b*; Emanu, 2009) similarly noted the fact that such challenges were acting as a barrier in accessing loans. However, though provision of a partial loan guarantee is potentially helpful in stimulating bank lending to the cooperative sector, in reality its role and effectiveness may be limited under the prevailing tight regulatory environment and financial system. Unlike the case under the neo-liberal economic system where most credit guarantees trace their roots, the Ethiopian government has sustained heavy intervention in the economy in general and in the financial market in particular, which have greater implications in influencing banks' lending behavior and practices. Because lack of collateral or loan security may not be the sole or major barrier to cooperatives in accessing loans under a financial market operating in such environments. Restrictive regulatory framework, limitations in the capacity of the lending banks, presence of other priority areas for bank lending and unfavourable perception towards the cooperative sector are also among the constraining factors in this regards.

In particular, presence of huge demand for loans among various urban-based borrowers seems to depress banks' lending appetite towards rural-based farmers' cooperatives. Studies carried out elsewhere (e.g. Hansen, 2012) also reveal that banks showed reservation in viewing credit guarantees as a single most important instrument in addressing credit constraints. Banks may show interest in such guarantee schemes especially in a bid to promote strategic partnership and to get access to other incentive packages. Though its outreach is limited the scheme under

analysis somehow played a role in encouraging the partner bank to explore possibility of lending to new cooperatives and to test their creditworthiness. However, provision of the partial guarantee had little impact in making banks flexible in terms of easing their lending procedures and processes. Borrowing cooperatives still have to fulfill all the robust conventional lending requirements, which have prevented many cooperatives from accessing guaranteed loans.

7.5.2. Scheme design and operation: *Is it attractive enough to the lending banks?*

For a guarantee scheme to be effective and impactful, banks have to be willing and interested to participate in the guaranteed lending activities. Analysts (e.g. Tunahan and Dizkiric, 2012; Hansen *et al*, 2012; Levitsky, 1997) underscore the need for securing such willingness and interest among the lending banks (to actively participate) if such guarantee programmes have to be successful. However, as indicated above, given the current financial and banking situations in Ethiopia, the majority of the commercial banks doubted the ability of such a partial credit guarantee to effectively attract them and leverage substantial loan fund. This is partly related to limitations in some of the scheme's design and operational features. Almost all banks did not seem to be solely attracted in the partial guarantee itself, which provides 50% risk sharing. All private banks, apart from CBO, would expect cooperatives to provide collateral to cover the remaining 50% risk, a requirement that is evidently not easy for most cooperatives to meet. This aspect thus reveals limitations of the scheme in effectively helping such borrower groups, which are less attractive to banks.

Thus given the current situation of farmer cooperatives financial market in Ethiopia, risk sharing coverage under such an arrangement has to be increased (to about 70 or 80%), at least during the initial stage of scheme implementation to boost bank's confidence and interest. This can be revised and reduced during subsequent years of scheme operation once the banks have established good relationship with the borrower cooperatives. However, in raising the risk coverage, care should be taken as such high coverage may result in moral hazard among the two parties – creditors and borrowers. Many (e.g. Saadani *et al*, 2010) suggest that the risk coverage needs to provide sufficient protection against risks of default, while it also reserves incentives to motivate banks to undertake proper screening, monitoring of borrowers and loan recovery efforts. There might also be a need for some sort of intervention from the government if such

arrangements have to be widely accepted among the lending banks. This could include devising policies that impose some sort of quota on commercial banks to channel certain proportion of their loan portfolio to the targeted sector (such as farmer cooperatives or smallholder coffee). Moreover, though provision of such a paper guarantee is taken as a normal practice across the globe, given the current limited financial capacity of private banks in Ethiopia, such guarantee arrangement may not be attractive enough to most banks. This implies that provision of a cash guarantee whereby funds are deposited in the accounts of the participating bank can play an important role in motivating the lenders. More importantly, such an arrangement can help at least to partly address the prevailing liquidity problem among many (private) banks.

On the other hand, given the limited financial supply in the banking system and massive loan demand among various borrowers in Ethiopia, banks seem to be reluctant to pay guarantee fees. Thus charging various fees will inevitably act as a disincentive for banks in widely lending to farmers' cooperatives. Though both lenders and borrowers benefit from the presence of a loan guarantee and are logically expected to pay risk fees, international experiences demonstrate that lenders end up directly or indirectly transferring the fees to the borrowers. This would make the guaranteed loans more expensive to borrowers, which may discourage them from aggressively coming forward to seek for such loans. Evidences emerging from the current scheme also show that the participating bank (CBO) appears to be reluctant in paying annual guarantee fees. For example, CBO was not notifying the guarantee administrator about the status of the lending activities which possibly reflects lack of interest to pay annual risk fee. In fact CBO did not pay any guarantee fee over the three years of lending. This has obvious implications for the validity of the guarantee and can eventually lead to refusal of claims payment in the events of default.

Moreover, banks prefer to pay such fees on the basis of the actual disbursed loan amount and not on the total guarantee fund. From the outset it is important for such an arrangement to develop mutual understanding and consent among the two parties on the level and nature of the guarantee fees. The fact that the lending bank has started to increase supply of unguaranteed loans to the targeted cooperatives (through their unions) implies bank's tendency to avoid such commitment (payment of guarantee fees). In describing similar experience, Saadani *et al* (2010) note that fees can play an important role in enhancing additionality. This is due to the fact that when fees are

on the higher side, banks may start shifting to granting loans to good clients without any guarantee. Thus such practices of increasing non-guaranteed lending could be regarded as a positive, but indirect, effect of the scheme. The above discussion generally points to the need to integrate various complementary incentive packages for the participating banks and the importance of removing components that may act as disincentives to them.

7.5.3. Utilisation of the loan guarantee and outreach of the scheme

Utilisation of the guarantee fund by the commercial banks is one of the essential aspects under such a loan guarantee arrangement. Existing literature suggest that selecting the right partner bank is one of the crucial aspects in the operation of such a scheme. Tunahan and Dizkiric (2012) note that one of the chief problems of the guarantee schemes created in developing countries is to convince the commercial banks to participate in the programmer's operations and risk sharing. In this regard, only one commercial bank was found to be willing and interested in participating in the current partial guarantee scheme with 50% risk sharing. Hansen *et al* (2012) note that bank's commitment to utilising the guarantee must emanate from a strategic alignment of interest that leads to genuine engagement at various levels of the bank. Otherwise, banks may initially show interest to participate in the scheme to eventually end up losing interest and become unwilling to actively participate when actual operation has commenced. Levitsky (1997) suggests that involving many banks in such a guarantee arrangement enhances the financial and economic impacts of a loan guarantee scheme. However, though participation of several banks may play an important role in stimulating competitive behaviour, dealing with different lending banks would inevitably pose administrative challenges. Moreover, spreading such small guarantee fund across a number of banks may not make much economic sense to the users of the fund.

Analysis of the current credit guarantee suggests that the intervention has somehow contributed to bank's enhanced lending to the targeted group. Cooperatives that were previously excluded from the formal credit market were somewhat able to directly access bank loans. The fact that the cooperatives selected to participate in the current scheme more aggressively moved forward in applying for bank loans as compared with the non-participants shows the potential role of such an intervention in opening up cooperatives' eyes and appetite for such institutional loan. Unsurprisingly, the latter group had to heavily rely on their unions in getting access to loans,

while the majority of the former group was able to establish direct contact with commercial banks. In addition, the fact that loan applications submitted by scheme participant cooperatives had better chance of success in getting acceptance than those of the non-participants as well as when compared with their situation before the intervention demonstrates the importance of such an intervention in helping cooperatives to meet banks' lending requirements. One of the positive indirect contributions of the current intervention is that it had alerted unions³⁸ and triggered sense of concern, which led to increased union loan allocation to the primary cooperatives targeted by the current scheme. Consequently, during the subsequent years, scheme participant cooperatives were able to receive substantial amount of loan fund from their parent unions.

However, the outreach of the guarantee scheme both in terms of the number of cooperatives targeted by the scheme and those that were actually reached by the guaranteed loans was limited. One of the possible constraining factors was that most of the branch offices of the participating bank appeared to be reluctant in widely reaching out even to cooperatives with viable business plan and complete business application, while some tended to deliberately delay loan approval and disbursement of particularly cooperatives that had never borrowed before. In fact such interventions in the financial markets are normally intended to improve loan access of previously credit constrained such groups. Prevalence of such reluctance among the participating banks in schemes operating in other countries was also reported in studies carried out in different countries (e.g. Hansen *et al*, 2012; Tunahan and Dizkiric, 2012). For instance, a study undertaken by Hansen *et al* (2012) in four countries in Africa similarly noted that even after banks have invested time and resources in signing a guarantee agreement, a significant number failed to exceed 60% utilisation of the guarantee fund. Similar scenario has happened under the current scheme where 61% of the total guarantee fund was disbursed to the beneficiary cooperatives. In

³⁸ Unions have started to intervene by providing unusually high amount of loan (a record high loan fund of up to 2.1 million Birr to individual coops) to those targeted by the guarantee scheme. This appears to be the indirect influence of the intervention. Possible reasons include: (1) Fear of loss of control over the cooperatives participating in the scheme; (2) The improved access to loan and capacity building activities provided by the scheme somehow made cooperatives attractive to unions in terms of improved technical capacity, processing facilities acquired and volume and quality of coffee produced/processed. This sort of intervention and loan provision by unions has two implications: (a) It has a positive implication in that it reveals unions' confidence and interest in the scheme – participant coops, and demonstrates scheme's role in leveraging loan funds from other sources. (b) However, coops may become reluctant to repay their previous guaranteed loans when they receive new (union) loans without fully settling their outstanding bank loan. This may affect coops' relation with the bank. In addition, the increase in union loans is likely to be at the expense of weak cooperatives, which cannot access bank loans.

fact cumbersome lending requirements, lengthy approval process and late disbursement of the guaranteed loans had partly contributed to such gaps in terms of accessing and utilising guaranteed loans. The constraints on the supply side could be at least partly mitigated by integrating effective complementary incentive packages for the lending banks. In addition, constraints related to the regulatory framework and monetary environment and liquidity problem among the lending banks seem to continue hindering (particularly private) banks' outreach to such target groups.

The success of cooperatives' loan applications in getting acceptance among the lending banks showed fluctuation over the three years of lending. It had substantially increased during the second year of lending and declined during the third year. Logically, limited achievement during the first year is not surprising as the lenders and borrowers were just starting to get to know each other. Moreover, most cooperatives were not fully conversant with the banks' lending procedures and requirements. The decline during the third year could be attributed to a number of factors: (1) unions intervention with increased loan allocation, and bank's tendency to prefer channeling non-guaranteed loan via unions; (2) banks' reluctance to make repeated lending to some of the beneficiary cooperatives (may be due to unsatisfactory achievement in loan repayment among some coops); (3) poor coffee yield or market price during the year; (4) some of the cooperatives had negotiated with the bank and extended the maturity dates of the previously received loans rather than going for settling it and applying for fresh loans. In most cases, this was done on a mutual consent between the lender and the borrowers.

In terms of volume of guaranteed loans, there were shortfalls when one compares the amount applied for with the actual volume of guaranteed loans disbursed to the beneficiary cooperatives. The average guaranteed loan size (1.32 million Birr) granted to individual beneficiary cooperatives over the three years of lending is substantial as compared to the small loan volume (200,000 to 500,000 Birr) most primary cooperatives were often receiving from their unions. The amount of loans extended under the scheme is however on the lower side as compared with the volume of loans applied for, which shows prevalence of credit (volume) rationing. This may partly be related to the weak institutional and business capacities of the targeted cooperatives. Of course, limitations among the lending banks in terms of availability of loanable funds could be

another contributory factor. On the other hand, given the capacity and current state of the business activities of the study cooperatives, the volume of loans requested by some of them appears to be unrealistically high. In addition, owing to their poor capacity, some of the study cooperatives struggled to fully utilise the approved guaranteed loans. Previous studies (e.g. Chanyalew, 2015; Emanu, 2009) also reported the fact that in Ethiopia cooperatives often do not operate with proper and strategic planning, especially in acquiring and utilising loan fund. This underscores the need for intensive support and capacity building activities to enable cooperatives develop sound business plan, as well as to ensure proper utilisation of the acquired loans. Parallel to such efforts, there is a critical need for interventions that boost motivation and lending capacity of the participating banks. Hansen *et al* (2012) suggest that enabling business environments both for the participating cooperatives and the lending banks are indispensable for such schemes to be successful.

7.5.4. Loan fund leverage ratio

One of the significance of such a guarantee scheme is its role in leveraging substantial amount of loan fund with limited volume of guarantee fund. According to Levitsky (1997), a well performing guarantee fund can possibly attain a leverage level of five times the fund (5:1) after five years of operation. Deelen and Molenaar (2004) similarly note that after three years of operation, a guarantee scheme should attain a leverage of 2:1 or 3:1 and after five years, this should reach 5:1. The leverage ratio³⁹ attained under the current guarantee scheme is below 1:1 only for the bank loan, and slightly over 1:1 when loans obtained through the unions are included. This is obviously small when compared with the internationally recommended ratio of at least 2:1 or 3:1 in three years of operation for such a partial guarantee scheme. This shows that provision of the current guarantee had limited impact in terms of mobilising substantial amount of loanable bank fund. Deelen and Molenaar (2004) argue that a guarantee fund that provides a level of leverage less than 1:1 can be considered as failing in its mission. They however go on to note that it is normal for guarantee schemes to attain low leverage rates during their early stages. Levitsky (1997) similarly notes that growth in leverage takes time as trust and confidence has to be developed between the three parties involved in the scheme – guarantors, lenders and borrowers. Therefore, we expect some improvement in the level of leverage during the

³⁹LR was obtained by dividing the amount of guaranteed loans extended under the scheme by its capital

remaining final year of the guarantee scheme under analysis. Moreover, as indicated above, the fact that unions have started showing greater interest in lending to the cooperatives targeted by the current scheme can be taken as an encouraging step in this respect. More importantly, given the prevailing situation of the targeted cooperatives (most of whom are weak and marginal) and the tight regulatory and financial system in the country, the leverage ratio attained under the current guarantee scheme should not be considered as a complete failure. If the scheme was implemented in areas with huge coffee potential and stronger cooperatives, obviously the achievements in terms of bank lending activities could have been different.

7.5.5. Salient design and operational features and drawbacks of the scheme

The findings show that despite some drawbacks, the scheme under analysis has a number of commendable design and operational features. Most of these design and operational features are in line with international practices and experiences.

7.5.5.1. What can be considered as strong or effective design and operational features?

One of the strongest aspects of the scheme under analysis is that most of the vital scheme design features, terms and conditions were clearly spelt out in the guarantee contract or agreement. Given the location of the guarantor (who is remotely located in Europe) and considering other scenarios, the portfolio approach adopted by the scheme can be considered as the right choice. The lending activities rely on the bank's existing loan screening and approval processes. As many (e.g. Beck *et al*, 2010; Navajas, 2001) note, this makes it less demanding in terms of time, labour and operational costs for the guarantor of the fund. Moreover, use of bank's existing lending procedures, requirements and expertise would help to carry out proper screening and to minimise problems of moral hazard. Existing studies (e.g. Hansen *et al*, 2012) suggest that the portfolio model is more flexible and a better approach in that it can increase the number and volume of guaranteed loans extended to targeted borrowers. In addition, the fact that the guarantee fund is resident in the Rabo Bank account has avoided the need to create separate administrative structure which has direct implication in reducing overhead and operational costs. Based on the experience from Nigeria, Mafimisebi *et al* (2010) recommends that whenever possible, existing structures should be used to run the CGS rather than setting up a new structure to administer it.

The ceiling for the maximum amount of the individual guaranteed loan is in line with the demand of most of the study cooperatives. Thus it can be adopted by future schemes that target similar group/sector though periodic revision of such a loan ceiling is necessary. More importantly, follow ups of utilisation of disbursed loans and their repayment have been carried out by a number of parties such as PEA, PIA, Coops Promotion Agency and the lending bank. These combined efforts somehow contributed to the effectiveness of the loan utilisation (in terms of putting to the right use) and its recovery. Another key strength is the capacity building component embedded in the scheme both for the lending bank and borrower cooperatives. Apart from its role in building capacities of the two parties, such intervention would serve as additional incentive for the participating bank. The critical role of embedding such complementary services for the participating banks was also underscored by previous studies (e.g. Saldana, 2000; Deelen & Molenaar, 2004). On the other hand, involvement of the Cooperative Bank of Oromia, which is a more coops-friendly bank with expertise and some experience in lending to such a group, is one of the commendable decisions in the arrangement of the current scheme.

7.5.5.2. What were the shortcomings of the design features and operations of the scheme?

One of the shortcomings of the scheme operations is limitation among the partner bank in passing on information about the guarantee arrangements to its branch offices (which was signed at higher level with the head quarter). As a result, branch managers and loan officers appeared to lack adequate awareness and sufficient information on the procedures and arrangement of the guarantee, which have affected implementation and effectiveness of the scheme. The high rejection rate of cooperatives' applications for guaranteed loans, especially during the first year of lending can be largely attributed to lack of sufficient awareness among branch officers. Likewise, though it was set out in the agreement that the lending bank periodically informs the guarantee administrator of all new guaranteed loans, the status of such loan portfolio and any defaults, there has been apparent gap in reporting and sharing such information with the party that administers the guarantee. This has obvious implications for the payment of fees and claims settlement in the event of default. International experiences suggest that if the risk fee is not paid for the disbursed loan, that particular guarantee is automatically considered invalid. Surprisingly, the lending bank itself (especially at the head office level) does not seem to have complete and

accurate records of all the loans disbursed under the scheme. This has obvious implications for follow up and monitoring activities and loan recovery and claims on default.

One of the important limitations of the scheme components was that the level of risk coverage appears to be on the lower side at least at the initial stage. This is in view of the prevailing high risk perception of banks (towards farmer cooperatives and their businesses), and the stiff competition exerted from other borrowers with more lucrative businesses. In particular, with the mainstream commercial banks such 50% risk sharing does not seem to practically work. Many scholars (e.g. Deelen and Molenaar, 2004; Levitsky, 1997) emphasise the importance of risk coverage level and fees in influencing lending banks' motivation as related to loan disbursement and recovery. Reliance of the scheme on a single bank for the guaranteed lending was another important gap as it has resulted in lack of alternative sources when this particular bank showed reluctance to lend to the targeted cooperatives as anticipated. International experiences (e.g. Tunahan and Dizkirici, 2012; Deelen and Molenaar, 2004) suggest that participation of more than one competent banks may provide alternatives as well as induce some sort of competition among the lending banks. Another notable gap was that the scheme lacks mechanisms that would help address liquidity problems among the lending bank. Under the current financial market in Ethiopia, shortage of loanable fund among some of the private banks is a critical challenge. Under such a situation, it would be useful to include some sort of liquidity boosting mechanism for the lending bank. Previous studies (e.g. Meyer and Nagarajan, 1996) suggest that since such lending activity requires capital, credit guarantees may fail to generate sufficient additionality due to lack of adequate loanable fund among the participating banks.

If borrowers have to be successful in their business and effectively repay their loans, they need to be strongly supported in linking up with better and reliable market outlets for their products. In this regard, the current scheme operation had limitations in creating market linkage for the targeted cooperatives. Such an intervention needs intensive awareness raising and capacity building prior to any effective lending activity. In addition, for such interventions to create a stronger relationship between the lending institutions and the borrowers as well as to generate meaningful economic impacts, it has to operate fairly for a longer period of time. In this regard, the duration (life span) of the current scheme was found to be very short for such a target group.

International experiences (e.g. Levitsky, 1997) show that the most successful schemes across the world take 5 to 10 years to develop effective collaborative relationships between the guarantor and lenders. Another obvious gap is that though it was stated in the scheme agreement that the local (lending) bank will undertake monitoring of utilisation of the disbursed guaranteed loans, in reality it had limited involvement in this regard. In addition, diversion of short-term working capital loans to finance long-term investment by some cooperatives led to some delays in loan repayment. This reflects lack of sufficient follow up and supervision by the lending bank and the cooperatives promoting body. In addition, this also implies lack of access to long-term loans, which calls for further efforts in terms of boosting supply of such loans. More importantly, after operating for some time changes and adaptations are needed in such guarantee scheme based on the experiences gained and challenges encountered. Many scholars (e.g. Deelen and Molenaar, 2004; Levitsky, 1997) underscore the need to periodically review and adapt scheme's design and operational features. However, the targets and eligibility criteria being considered under the current scheme have not seen changes and adaptations over time since its inception.

7.5.6. What can be proposed for future guarantee schemes?

Based on the above analysis and discussions, the following adaptations and/or new dimension can be proposed for a guarantee scheme targeting such a group under the Ethiopian context and possibly in some other developing counties with similar contexts.

Table 7.1: Proposed adaptations and additions to the structure, design and operational features of a guarantee scheme targeting farmer cooperatives in Ethiopia.

Design and operational features	Features (and limitations) of the current guarantee scheme	Proposed adaptation or revised features for future schemes targeting farmer coops in Ethiopia
Funding	Funded by CFC (donor agency) and Rabo Bank (private sector)	Involve various actors (Donors, government, private sector, NGOs) in funding the scheme; gradually shift majority of the funding to the private sector
Fund administration	Netherlands based Rabo Bank	Identify international or suitable local institution; look into possibility of depositing some fund in the account of the lending bank to improve their liquidity

Total guarantee fund volume	1,750,000 USD ⁴⁰ (seems to be on the lower side)	Needs to be increased based on a target group size, coverage and their business activity
Maximum individual loan amount	250,000 USD (it is in line with the demands of most of the current cooperatives)	Needs to be raised to 400,000 or 500,000 USD, especially for coops in high coffee producing areas, and should be periodically revised.
Risk sharing	50% risk distribution each among the guarantor and the participating bank	Raise to 60 - 80% and should vary based on various factors ⁴¹ ; gradually revise downwards after some time; ask for some equity or collateral of (10 - 20%) from borrowers.
Fees	Only annual risk fee of 1.5%; not clear whether on the total guarantee fund or on the disbursed loan volume.	Reduce annual risk fee to 0.5% to 1% (on actual disbursement); ensure effective payment of risk fees; it could be periodically revised
Eligibility (<i>target group, sector, geography, type and purpose of loan</i>)	Focused on 22 coops; some were from marginal coffee producing areas and lack experience in coffee business. Majority of the disbursed loan was short-term working capital for seasonal coffee purchase	Relax targeted number to include more qualifying coops and geographical coverage; should be revised after some time. Focus on coops with experience on coffee business; ensure viability of their business. Address both short- and long-term loan needs (including loans for drying and storage facilities).
Model/approach (<i>Loan screening and approval</i>)	Independently carried out by the lending bank (Portfolio approach);	Adopt the portfolio approach used by the current scheme; seek strong expression of support and commitment from the cooperative promoting agency.
Selection of participating bank	Only CBO was chosen to participate. Seems to be the right choice; but there was lack of alternatives	Involve more than one competent bank with good local branch networks; negotiate for serious commitment, improved terms & conditions on guaranteed loans
Loan tenure or maturity, and other loan terms	Provided short-term loan of one year & medium-term loan of three year; Other terms conditions were not addressed	Continue providing short-term loan; as well as improve provision of medium- and long-term ; Negotiate for better loan terms such as reduced interest rate, speedy loan processing, etc.
Additional incentive packages and services	Integrated capacity building both for the lending bank and borrower cooperatives	Include various incentive packages for the lending banks such as depositing some cash in their account, capacity building both for lenders & borrowers, intensive TA and lobby for policy reform in favour of coops lending.
Scheme duration	Five year; effective lending period was less than 4 year	Raise to 7 to 10 years
Scheme	Had limitations in creating	Undertake extensive awareness creation and

⁴⁰Out of this, the amount allotted for primary cooperatives is 125,000 USD; i.e. with 50% risk sharing arrangement, the expected disbursable total guaranteed loan volume of double of this amount.

⁴¹Disbursed loan amount, geographical location of the targeted coops & their risk profile, term of loans, and so forth.

introduction, and marketing	adequate awareness & clearer understanding at various levels and in its marketing aspects.	publicity at different levels using various mechanisms - among borrowers & lenders (to enhance participation) and policy-makers & other actors (to secure support)
Monitoring, follow up and loan recovery	Carried out by PIA, PEA and CPA, to some extent by the lending bank as well.	All relevant partners should play active role. Especially lending bank should play a more proactive role. Outline clear division of responsibility.
Reporting and guarantor-lender relationship	Gaps in communication and information sharing between the lending bank and the guarantor (fund administrator)	Facilitate regular information sharing among the lending bank, guarantor, PIA & PEA. Ensure strong trust, transparency and commitment between the guarantor and lenders.
Defaults and claims procedure	Properly outlined in the agreement ⁴²	The current arrangement and process sound comprehensive and acceptable. But need to fix ceiling on claims rate, which may not exceed about 10 - 20% of the total fund, i.e. should not deplete all the guarantee fund.

Source: Author's analysis and proposal

⁴²A loss shall be any amount of the qualifying disbursed loan that the CBO was not able to collect including principal, interest (up to a maximum of 1 year interest). Loss shall be deemed to occur being 180 calendar days after default date. Rabo shall share 50% of risk of loss with CBO, provided always that the maximum amount reimbursable in respect of the cumulative losses shall not exceed USD 1,250,000. In the event of loan loss, CBO shall inform Rabo of such loss & claim for reimbursement of the corresponding risk participation. Rabo shall transfer to CBO the claimed amount within 15 business days of receipt of the loss notice & a written confirmation from the PEA.

7.6. Additionalities obtained under the current guarantee scheme

In this section the discussion focuses on different dimensions of additionality that have been attained in relation to the credit guarantee scheme under analysis. It particularly explores the financial additionality and other related benefits such as preliminary outcomes in terms of economic additionality and intervening factors.

7.6.1. What does the financial additionality attained tell us?

7.6.1.1. Additional loans obtained by the beneficiary cooperatives

Despite some challenges and constraints, the guarantee scheme under assessment has made some positive contributions in improving credit allocations to cooperatives that had never had direct access to bank loan before. Scheme participant cooperatives have shown better access to bank loan after participating in the scheme, whereby the majority of the loans accessed by the targeted cooperatives was additional finance which would have not occurred in the absence of the guarantee scheme. The relatively high level of loan additionality attained under the current scheme (about 87%) shows the fact that in the past borrower cooperatives were severely (bank) credit constrained. Levitsky (1997) suggests that additionality of at least 60% should be the minimum acceptable target for justifying operation of a credit guarantee scheme. Thus the fact that the loan additionality attained under the current scheme exceeds this rate can be taken as a remarkable achievement. The fact that scheme participant cooperatives obtained significantly higher volume of loans than their non-participant counterparts suggests that, though the outreach is limited, the scheme indeed has played an important role in increasing loan additionality among the (few) scheme participant cooperatives. The improvements achieved in accessing bank loan among the beneficiary cooperatives can be largely attributed to the credit guarantee and the associated capacity building activities provided by the scheme (in terms of technical skills, management and processing facilities).

While majority of the scheme participant cooperatives obtained loans from diverse sources (both banks and unions), the non-participant cooperatives were solely relying on unions. Such improvements among the participant cooperatives in accessing loans from different sources can

be largely attributed to the scheme's intervention. As discussed in the preceding sections, obtaining loans through unions have implications for cooperatives' coffee business activities. Because provision of such loans impose a number of conditions on the borrower cooperatives, which include selling their coffee to that particular union at a time and price determined by the union. This practice results in continued dependence of primary cooperatives on the parent union. In addition, loans obtained from unions are often small in volume and of short-term nature, which were merely used for seasonal coffee purchase and not for investment in processing facilities and other infrastructure. Moreover, those cooperatives which are not member of unions cannot access such loans. Thus boosting primary cooperatives' direct access to bank loan has a number of advantages and benefits.

Another interesting finding was that, as highlighted in the preceding sections, the scheme generated indirect financial additionality by influencing unions to channel large volume of loan to the primary cooperatives targeted by the current scheme. The number of cooperatives that received loans from unions and the volume of loans channeled to the cooperatives targeted by the scheme have shown a steady rise over the life of the scheme. Such increased lending activity by cooperative unions appears to be motivated by their desire to maintain control over those cooperatives as well as by the improved capacity and attractiveness of the primary cooperatives (in terms of improved technical capacity, coffee quality and volume).

7.6.1.2. Improvements in the terms and conditions of loans

Gudger (1998) notes that provision of a credit guarantee can improve the terms of the loan; for example, by encouraging banks to extend large volume of loan for a longer period. In this regard, banks were generally reluctant to extend loans of longer maturity to primary cooperatives⁴³. Experiences with the current scheme demonstrate that in the absence of long-term loans, cooperatives tend to divert short-term working capital loan to long-term investment activities, which as D'Ignazio and Menon (2013) note eventually affects their loan repayment capacity. The current scheme somehow played a role in introducing medium-term loans (of up to three years) among a few cooperatives. This has promoted investment in processing (e.g. wet mills) and storage facilities among those cooperatives. Such improved access to loans of a relatively longer

⁴³Banks tend to consider such loans as very risky in the absence of collateral of sufficient value and quality

period for the scheme participant cooperatives is one of the areas where the scheme, to a certain extent, positively contributed. However, this needs to be further encouraged and promoted as currently a few cooperatives have enjoyed such privileges. Apart from improving coffee quality, acquisition of such processing facilities would go a long way in building cooperatives' asset base which can be taken as collateral by the lending banks. Nevertheless, short-term loan of one year duration has dominated the lending activities under the current scheme both in terms of number of loans granted and total volume of loans provided. This underlines the need for negotiating with and motivating the participating banks to increase medium- and long-term loan supply to the targeted cooperatives.

The longer loan duration noticed among the scheme participant cooperatives during the first year of lending (2012) than the subsequent years (2013 and 2014) could be attributed to the fact that some of the beneficiary cooperatives obtained medium-term loans during the early stage of the scheme. Once they have acquired processing and storage facilities, cooperatives may then annually require only working capital of short-term duration during the following years. The demand for medium- or long-term loans would logically decline over years as more and more cooperatives have acquired necessary processing facilities. However, the pattern of short-term working capital demand would obviously rise or at least remain stable across years. Therefore, the design of such a credit guarantee scheme needs to take into account the changing trends of the demand for the different term loans. Moreover, a scheme with a longer life span is needed if the targeted cooperatives are to widely benefit from medium- and longer-term loan provisions.

Nevertheless, as other lending terms and conditions are concerned, contrary to the general belief and views in existing literature (e.g. Gudger, 1998; D'Ignazio and Menon, 2013), the guarantee scheme under analysis had no or little impacts in terms of easing lending procedures and requirements. In particular, a speedy loan application process and timeliness of loan release are critical if cooperatives have to effectively collect members' coffee within the narrow window of coffee season. The fact that the guaranteed loans were in most cases disbursed in late November and December forced most borrower cooperatives to use the loans mainly to purchase dry cherries. Such delays in receiving loans have had adverse effects on the performance and profitability of the cooperatives' businesses.

The fact that the mean length of loan processing time for the scheme participant cooperatives was significantly longer than that of the non-participants was indeed surprising. This could be explained by the fact that the non-participant cooperatives were receiving short-term loans from their unions for seasonal coffee purchase. Such small and short-term union loans can be obtained through informal, less complicated and short communications. However, this does not mean that union loans reach cooperatives in time. Such loans normally arrive late in the season as borrower unions (especially the younger ones) often take time in dealing with banks' requirements and in acquiring the loans. Loans sourced from unions are also small in amount as they attempt to thinly distribute to all or most of their member cooperatives. This underscores the need for intensive negotiations with the partner banks to relax some of their lending requirements if such guaranteed loans have to be timely accessed and effectively used by the targeted cooperatives. However, most of these lending requirements are imposed by the National Bank, which leaves little room for the lending banks to relax them. This requires policy interventions that would allow cooperatives to be treated differently given the nature of their institution businesses, and significance for the community.

In terms of collateral requirement, being a cooperative bank, the participating bank under the current scheme in fact did not require additional collateral apart from the 50% risk sharing covered by the guarantor. This particular bank rather asked for expression of commitment and support letter from the cooperatives promoting agency (government body). On the other hand, the scheme had little or no impact in reducing the lending costs, such as interest rate. This contrasts the literature on international experiences (e.g. Craig *et al*, 2007) which claim that provision of a credit guarantee can lead to reduced lending rates as it minimises the risks of loss in case of default. This could imply the fact that other critical factors were playing an important role in constraining bank's lending activities to the cooperative sector in addition to issues of loan security. This could be mainly related to the regulatory environment and liquidity problems among the lending banks.

7.6.3. What are the economic additionalities attained under the current scheme?

Apparently attaining substantial economic additionality requires sufficient time in terms of establishing good relationship with the lending banks, in accessing and making use of the guaranteed loans. In general, given the infancy of the scheme during the major part of the study, the size of the guarantee fund and its limited outreach, it is not realistic to expect huge impacts across a large number of cooperatives and on the wider economy. However, the results of the preliminary assessments show that there have been some economic benefits at least at the borrower cooperatives level. This section discusses some of the early indicative impacts of the scheme in terms of economic additionality and associated benefits.

7.6.3.1. Changes in the commercial and economic activities of participant cooperatives

7.6.3.1.1. Improvements in coffee processing, quality and trade

If cooperatives have to generate meaningful benefits to their members, they need to undertake some value adding activities to the coffee they collect from member farmers. Value addition at the primary cooperative level can happen at least in the form of buying fresh cherries and sun-drying and hulling, or buying fresh cherries and subjecting it to wet processing and selling in the form of parchment. Undertaking proper primary processing activities would obviously enable cooperatives to produce coffee of better quality. However, regardless of their participation status in the scheme, majority of the study primary cooperatives trade their coffee without undertaking any value adding activities in the form of processing, time and place of marketing. In other words, the majority were engaged in trading sun-dried cherry, which is not a desirable practice. This implies that even most of those cooperatives which had access to guaranteed loans tended to stick to the traditional way of trading sun-dried coffee. Thus further effort is required in creating necessary awareness, building capacity and encouraging cooperatives to undertake at least basic primary processing activities to the coffee they collect from member farmers. Of course, access to finance and processing facility is critical in this respect.

However, the fact that scheme participant cooperatives reported annually processing (sun-drying or washing) larger volume of coffee than that of the non-participants as well as when compared with the volume they were processing before participating in the scheme could be attributed to the loan finance and processing facilities acquired through the guaranteed loans. The awareness creation and capacity building activities accompanied the intervention also appear to play some role in this regard. In particular, some of the scheme participant cooperatives have started purchasing fresh cherries and undertaking wet processing activities, which need to be further promoted and expanded. Such improvements in coffee processing can be directly translated to better market access and price for the product.

Likewise, the significant increase in the number of cooperatives involved in purchasing dry cherry and the mean volume of dry coffee purchased by scheme participant cooperatives could be largely attributed to the improved access to guaranteed loans. Thus this can be considered as one of the areas where the scheme can claim to positively contribute. However, as discussed in the above sections, if they have to gain meaningful benefits, cooperatives need to be encouraged to purchase fresh cherry and add value in the form of wet processing or by undertaking proper sun-drying activities. In addition, the fact that scheme participant cooperatives did not demonstrate improvements in terms of using modern raised drying beds suggests that the loans obtained under the current scheme were used either for purchasing dry cherry or to obtain wet-processing facilities, and were not invested in improved drying materials. Thus parallel to encouraging cooperatives to use modern drying beds, it is critical to negotiate with and convince the lending banks to allocate loans for drying facilities.

Another important gap was that most primary cooperatives did not obtain feedback on the quality grades of the coffee they traded over the past years. This could be largely attributed to the fact that some of the unions were mixing coffees collected from different cooperatives, while others were simply not providing feedback to member cooperatives on the quality of their coffee (at least among the study cooperatives). This has two major implications: (1) Lack of information on the shortcomings of their coffee quality makes it difficult for cooperatives to identify and work towards addressing it, (2) Cooperatives do not seem to receive payments based on the quality of their coffee. As a result, the current study was not able to assess improvements attained in coffee

quality as a result of the intervention. If cooperatives have to understand their limitations and work towards addressing them, they need to be given timely feedback on the quality grades and shortcomings of their coffee and associated problems. This calls for the following measures: (1) Sensitise and encourage unions to provide timely feedback on quality grades of member cooperatives' coffee; (2) Encourage unions to pay differential prices based on quality as well as to avoid mixing coffees collected from different cooperatives; (3) Devise interventions that would help primary cooperatives to have access to cup quality tasting services locally.

On the other hand, though it is not recommended to store coffee for a prolonged period, retaining coffee for a few months and looking out for better market opportunities could be one form of value adding. The fact that most primary cooperatives traditionally buy small quantity and immediately pass on to their parent unions could be largely attributed to lack of adequate finance, loan of a relatively longer duration and appropriate storage facilities. Absence of a significant difference between scheme participant and non-participant cooperatives with respect to length of coffee storage could be explained by the following reasons: (1) Persisting tendency among primary cooperatives to stick to the traditional practice of buying and immediately selling fresh/dry cherry; (2) Lack of proper storage facilities among most primary cooperatives, which needs further intervention and support; (3) Coffee of scheme participant cooperatives might have attracted buyers without much delay (this is true especially for cooperatives that had acquired modern processing facilities).

7.6.3.2. Economic benefits generated by beneficiary cooperatives

Though the scope was limited, gaining direct access to bank finance without the mediation of unions somehow boosted market bargaining power among some scheme participant cooperatives. In particular, the fact that scheme participant cooperatives have started producing a relatively large volume and coffee of better quality has attracted buyers (mainly unions) that offer better prices. Thus the fact that scheme participant cooperatives generated higher income from coffee business after participating in the scheme as well as when compared with the non-participants can be at least partly attributed to the scheme. But such benefit was restricted to a few cooperatives and such efforts need to be further strengthened and reach out to more cooperatives.

In terms of the benefits gained by member farmers, though some of the scheme participant cooperatives have recently started giving dividends for the first, it cannot be claimed that the scheme has made a significant contribution in this regard. In general, a small number of cooperatives gave out dividends. Such low records in terms of distributing surplus benefits to member farmers could emanate from three possible reasons: (1) Some cooperatives were not making any profit; (2) Some cooperatives may have decided to retain and use the surplus for coffee purchase and finance their operations (this is especially the case when they could not obtain bank loans); (3) Financial audit has not been carried out which is a precondition in distributing dividends to members. In particular, there is a time lag between coffee sale and provision of feedback (by unions) on the profits generated from members' coffee sale. This has obvious implication for members' confidence, motivation and participation, and thus needs to be rectified in the future.

7.6.4. Improvements in the institutional capacity of beneficiary cooperatives

7.6.4.1. Changes in human resources and management of cooperatives

The fact that scheme participant cooperatives witnessed a significant increase in member size after participating in the scheme was not surprising as the loans, processing facilities, training and capacity building activities acquired by the targeted cooperatives are likely to play an important role in attracting new members. Such an increase in member size is crucial as it reflects farmers' interest and confidence in the cooperative societies. Having large member size is also an important asset for cooperatives as their business heavily relies on the produce supplied by member farmers. Unlike the case under the socialist regime which was using coercive measures, currently membership of cooperatives is largely a voluntary decision made by farmers.

One of the unexpected findings was that the intervention as such did not have significant effects on cooperatives' employed human resources. Lack of a significant influence could be explained by the fact that the intervention has operated for a few years and it might be too early to significantly build cooperatives' institutional and business capacities so as to enable them engage many employees. Based on the findings of the study it can be concluded that all of the study

cooperatives, regardless of their participation status, still have poor financial, institutional and business capacity.

On the other hand, having a professional manager is expected to lead to proper organisational and business management, innovativeness and enhanced uptake of new technologies. In this regard, the current study did not find any improvement in terms of having full-time professional manager both after participating in the scheme, as well as when compared with the non-participant cooperatives. This shows persistence of committee-based management which reflects cooperatives' weak institutional and business capacity. This will thus continue to negatively impact on cooperatives' performance. It was also expected that participating in the scheme and having access to formal loan would increase the number of cooperatives that engage a professional personnel dealing with their financial accounts. As expected, among the scheme participants, the number of cooperatives with accountants significantly increased after participating in the intervention. This could be at least partly attributed to the scheme intervention. This could possibly imply that having increased access to external loans helped cooperatives to generate improved income that would allow them to engage a more professional person to handle their accounts.

7.6.4.2. Effects on members' participation and confidence

One of the challenges of primary cooperatives is lack of active participation and commitment of member farmers in their business and key decisions. This problem mainly stems from lack of transparency in the cooperatives' operations and weak members' confidence in their cooperatives and management. One of the consequences of a weak relationship between cooperatives and their members is reluctance of farmers in delivering their produce to their associations. Moreover, commitment of members and confidence in their organisation plays an important role in allowing cooperatives to collect members' coffee on loan. This is particularly important when loans did not arrive on time, which is often the case with many primary cooperatives. Because of the improved access to loan finance, beneficiary cooperatives under the current scheme somehow were able to collect larger volume of members' coffee as well as acquired valuable assets such as processing facilities. As a result, members' participation in supplying their coffee and interest among new farmers has shown some improvement among the

scheme beneficiary cooperatives. However, apparently the scale of this intervention is too small when compared with the total number of cooperatives operating in coffee growing areas.

On the other hand, the fact that the vast majority of both participant and non-participant cooperatives were collecting members' coffee with full cash payment upon delivery was not surprising. This suggests persistence of lack of commitment and confidence of farmers in their cooperatives, on the one hand, and farmers' pressing demand for cash early in the season, on the other hand. In particular, the fact that cooperatives were largely set up and used to promote the socialist ideology and to execute government's plans during the previous regime, on the one hand, and the compulsory membership, misappropriation and embezzlement of cooperatives' resources by the leaders appointed by the military government, on the other hand, remain in the memory of many farmers. Though, as some analysts (e.g. Assefa, 2005; Lemma, 2008) noted, the progresses made under the current government in terms of reorganising and revitalising cooperatives is a commendable achievement, still intensive and continuous efforts are needed: (1) to mobilise and fully convince the rural community and effect the desired attitudinal change about cooperatives, (2) to improve the culture, practices and behaviors of cooperatives (and their management) with regard to loan utilisation and repayment.

7.6.4.3. Relationships and linkages established with other institutions

One of the prominent contributions of the current guarantee scheme is that it helped scheme participant cooperatives to properly understand banks' lending procedures, requirements and possibility of directly approaching and borrowing from commercial banks. Beneficiary cooperatives were able to establish links with the lending bank and somehow demonstrated their creditworthiness. More importantly, the scheme under analysis has enabled primary cooperatives to gain some sense of independence (such as seeking loans on their own without the mediation of the union). This has allowed some of the beneficiaries of the guaranteed loans to look for alternative market channels and timing. However, the role of this intervention in enabling cooperatives to graduate to non-guaranteed loan remains to be seen in the long-run. On the other hand, traditionally extension workers tend to view cooperatives as their non-target groups as they often tend to focus on individual farmers. The current intervention brought together primary cooperatives, their promoters and coffee extension officers to join force in improving coffee

quality. Such strong interaction and collaboration between the two agencies need to be institutionalised and sustained.

7.6.4.4. Changes in asset accumulation: was there any project additionality?

Most of the study cooperatives generally lack proper office, coffee processing and storage facilities. As a result of the improved access to bank loans (especially medium-term loans), scheme participants have gained access to some critical assets such as improved processing and storage facilities, which they could have not been able to acquire at least in the short run. The loans obtained under the current scheme was crucial in enabling a few of the borrower cooperatives to undertake value adding activities such as improved sun-drying of cherry or wet processing), or to change the scale of their businesses. Some of the cooperatives which were previously engaged solely in trading sun-dried coffee were able to shift to wet processing. Likewise, the fact that scheme participant cooperatives appeared to have higher value of assets and net capital as compared with the non-participants suggests that such intervention has a potential to improve the capital base of such resource-poor rural people's organization. The medium-term loans provided for investment in processing facilities seem to more significantly contribute to improvements in coffee quality and asset-base of the cooperatives as compared to the short-term loans provided for seasonal coffee purchase. Nevertheless, the coverage of such loans has been limited as the bulk of the guaranteed lending activity focused on traditional trade activities such as loans for seasonal coffee purchase and sale. It is therefore imperative to enhance access to loans that support new type and innovative businesses, long-term investments and value adding activities.

7.6.4.5. Benefits generated for the participating bank

The findings suggest that the partner (lending) bank (CBO) has gained some benefits from participating in the current guarantee scheme, particularly in terms of capacity building and experience sharing for their branch managers and loan officers. In addition, the intervention played an important role in terms of helping the partner bank to get to know and start borrowing to cooperatives in a new region. Based on the experiences gained with the cooperatives that received guaranteed loans, CBO started expanding its branches to the vicinity of the participating cooperatives in the SNNP region. Though this expansion could be taken as part of their strategic

plan, the speed with which they moved to the new areas could be at least partly attributed to the experience they gained through working with the scheme-participant cooperatives. The scheme somehow helped the participating bank to promote and strategically position itself.

7.7. Effect of the credit guarantee scheme on lenders' and borrowers' behavior

One of the possible effects of such a guarantee provision is that it may lead to some reluctance among the lending banks in properly screening loan applicants and in closely following up loan utilisation and recovery. Some argue that presence of such a guarantee may also encourage borrowers to deliberately default. In view of possibilities of such incidences, Allinson *et al* (2013) notes that the main cost centre for the guarantors in such programmes is meeting the costs of loan defaults. Tunahan and Dizkiric (2012) emphasise that the rates of loss are crucial for such a guarantee scheme to survive and to develop positive perception among banks. However, due to its partial risk sharing nature, moral hazard does not seem to be a serious problem among the lending banks under the current guarantee scheme. The fact that the lending banks have some stake in the risk sharing arrangement seems to motivate them to apply prudent practices in the loan screening and recovery process. Moreover, the prevailing strong regulatory framework appears to help in minimising possibilities of moral hazard among the lending banks which as they are expected to follow a number of standard lending procedures and requirements. In addition, the fact that the National Bank's regulation compels commercial banks to keep their non-performing loans portfolio under certain limit (which is 5% under the Ethiopian context) also seems to play an important role in this regard.

Likewise, though it is too early to fully assess the rate of loan recovery and/or the probability and rate of default under the current scheme, manifestation of opportunistic behavior among the borrower cooperatives such as reluctance to repay their loans and deliberate default does not seem to be a serious problems. The fact that cooperatives have keen interest to establish good relationship with the lending banks by demonstrating their creditworthiness, on the one hand, and the follow ups and monitoring activities carried out by the cooperative promoting body, on the other hand, appeared to enhance the effectiveness of loan repayment. However, further study is needed after sometime to assess whether such repayment performance is maintained or

diminishing over time. As Riding and Haines (2001) note, among the two measures of default rates, the rates of long-term default on guaranteed loans will not be known until the loans have run their entire maturity course. They note that the second default measure which is the rate of default during the early years of the loan tend to be higher. Levitsky (1997) argues that although there might be exceptions, complete absence of default and/or claim may indicate that there had been an overcautious approach to the approval of guaranteed loans, indicating that a 2 - 3% default claim rate as a best practice. A default claim rate exceeding 5% of the total guaranteed amount could be an indication for the need to take some remedial measure. For instance, Hansen *et al* (2012), in their study of 18 guarantee schemes in some selected countries in Africa found that one-third had moderately high (10% - 20%) or very high (over 20%) default rates.

In fact the cooperatives established under the *Derg's* socialist regime were used to receiving cheap and targeted credit with lending requirements and practices that were not paying serious attention to bankability and creditworthiness of the borrower cooperatives. Such lending practices resulted in widespread defaults and bad credit culture among the cooperatives that operated during that regime. Thus concerted efforts are needed to create adequate awareness and to build capacity of the targeted cooperatives prior to loan disbursement in order to make them genuine and competent borrowers and business operators under the current free market economy. In general, a careful screening process, well-thought and systematic approach in introducing the scheme, intensity of follow up and supports provided to borrower cooperatives play a crucial role in boosting the effectiveness of loan recovery. In fact making the borrower cooperatives to cover the remaining 50% risk or to provide some sort of equity can minimise moral hazard. This, however, needs to be employed with greater care as it may suppress cooperative's appetite for such loans as most of them may struggle to provide such equity or collateral.

On the other hand, incidences of loan diversion to other purposes are often cited (e.g. by D'Ignazio and Menon, 2013) as one of the causes of failure in properly repaying loans. The loan diversion attempts made by a few cooperatives under the current scheme can be corrected or prevented through adequate awareness raising, follow up and monitoring activities. Such supervisory responsibility can be shared by all relevant actors under the scheme. The study also suggests the need for stepping up efforts to convince and encourage lending banks to improve supply of medium- and long-term loans to avoid diversion of short-term working capital loan to

long-term investment. Likewise, the column shifting tendency displayed by one of the branches of the lending bank (whereby they had tried to move poorly performing previous non-guaranteed loans to the new guaranteed loans) calls for a stronger engagement, follow up and negotiation with the lending banks.

7.8. What are the factors that affect effectiveness and performance of a CGS targeting farmers' cooperatives in the Ethiopian context?

A number of internal and external factors appear to enhance or constrain the performance and effectiveness of a loan guarantee scheme targeting farmers' cooperatives under the Ethiopian context. Though there are some context specific issues, they largely overlap with the ones outlined by DFID (2005) in chapter three as macro and micro factors for success and failure. Though the degree of importance attached to them (by different stakeholders) appears to vary, most of these factors affect the interest, willingness and capacity of the lending banks in widely reaching out to farmers' cooperatives. Some of them have direct influence on the targeted cooperatives' ability, interest and willingness to effectively seek and utilise such guaranteed loans. The external factors among others include: Output market; natural/environmental factors; access to input and infrastructural facility and support services (e.g. farm inputs, processing facility, extension advice and training); policy and regulatory frameworks. Among these, the most severe ones seem to be factors affecting agricultural enterprise, output markets and policies and regulations that influence financial institutions to tighten their lending policy, requirements and priority. In particular, the directive issued by the National Bank of Ethiopia in relation to the government bond purchase inhibits banks' lending motivation as well as has adversely affected their loan disbursement capacity and profitability of their business.

The internal factors that may affect performance and successes of a credit guarantee programme can be related to: Scheme design feature and operations, parties involved in the scheme such as the guarantor and lending banks (capacity, competitiveness, priority, commitment and motives), and borrower cooperatives' institutional and business conditions. On the other hand, the memory of poor credit repayment performance among cooperatives that existed during the socialist system still persists in the minds of bank officers and has continued to influence their perception

about cooperatives' bankability and creditworthiness. This calls for efforts that aim at changing banks' attitude and perception towards cooperatives and bankability of their business.

Thus if such interventions have to effectively attain the intended target, there is a critical need to design other complementary packages that would address policy related issues as well as interventions that enhance the capacity, commitment and interests of both the lenders and the borrowers. Hansen *et al* (2012) note that in addition to building the capacity of the borrowing firms, lending banks require their own capacity building in order to efficiently and effectively utilise the guarantees and/or to develop new suitable products for the targeted borrowers. Genuine commitment and engagement of both the guarantor and lender is also critical for such guarantee schemes to be effective. In addition, the importance of various support measures on the part of the government, including strengthening cooperatives and their market access, and creating supportive and enabling environment both for the borrower cooperatives and lending institutions cannot be overemphasised.

CHAPTER 8

8. CONCLUSIONS AND RECOMMENDATIONS

8.1. Introduction

This study explored the role and effectiveness of a credit guarantee scheme designed for coffee farmers' cooperatives in Ethiopia. The findings show that the effectiveness and successes of a credit guarantee programme is influenced by a number of internal and external factors. Thus in designing and operationalising an effective and successful credit guarantee scheme critical internal and external factors for success and/or failure need to be identified and taken into account. Based on the findings of the study, this chapter draws relevant conclusions as well as makes recommendations that need to be considered at various levels. The recommendations outline measures that need to be taken in relation to scheme design and operation, the parties involved in the scheme and on the part of the government. Finally relevant areas for further research are highlighted.

8.2. In relation to scheme design features and implementation strategies

It can be concluded that most of the design features and operational practices of the current guarantee scheme are in line with international practices. However, there are some obvious drawbacks, which have particularly influenced its attractiveness to and up-take by the lending banks in terms of actively participating and widely providing appropriate loan products to the targeted cooperatives.

The conclusion that can be drawn in relation to the performance and achievements of the scheme under review is that it generated mixed performance and achievements. In terms of its positive contributions and strengths, evidence suggests that provision of a credit guarantee and associated supports have played an important role in motivating primary cooperatives to seek bank loans. The intervention has increased awareness about the possibility of directly borrowing from banks, enhanced primary cooperatives' understanding and ability to meet banks' lending requirements as well as provided an opportunity to establish links with lending banks and demonstrate their

creditworthiness. As a result, though the scope and outreach is limited, the scheme to some extent made positive contributions in improving accessibility of bank credit to the targeted primary cooperatives. In other words, despite their limited number, the scheme has attained substantial financial additionality among the beneficiary cooperatives. Moreover, the scheme indirectly influenced unions, who have started channeling more loan fund to the primary cooperatives targeted by the scheme. More importantly, the scheme somehow positively affected business activities and incomes of the beneficiary cooperatives.

The findings also reveal that there are some limitations in the scheme design features, operation and outcomes. In terms of bank's utilisation of the guarantee fund and outreach, the scheme has demonstrated limited achievement. In general, most commercial banks have shown reluctance to participate in the lending activities of the current guarantee scheme. Therefore, if such guarantee arrangements have to be effectively taken up by many commercial banks, there is a need to carefully identify and integrate other attractive and effective financial and non-financial incentive packages and support mechanisms. These may include the following:

- Relevant and targeted training, capacity building and experience sharing activities. In this regard, though the current scheme has embedded a fairly strong training and capacity building component for both parties, there have been some gaps in tailoring bank trainings to the contexts of the current scheme.
- Capital enhancement mechanism that helps to enhance bank's liquidity, which could be provided in the form of cash guarantee or revolving fund for the lending banks.
- Promotion, publicity and other strategic benefits for the participating bank.

Another important limitation was that the design features and operational strategies of the guarantee scheme under analysis have not witnessed changes and adaptation over time. Thus there should be some flexibility and room for periodically (often annually) revising some of the features of the original scheme design. These may include revisions to the eligibility criteria (such as targeted cooperatives, geographical area, purpose of loan), guarantee level, guarantee/risk fee rate, ceiling on maximum amount of individual loan, etc. Such adaptation should be based on experiences gained and challenges encountered during the early stages of

scheme implementation. However, such adaptations should not cause substantial changes to the key objectives and the basic operational models of the scheme.

The total volume of the guarantee fund and the maximum limit to individual loan amount are among the vital components of a guarantee scheme and need to be carefully determined based on evidence and existing reality. Such decisions should be based on proper assessments and thorough consultations with the local banks, potential borrowers and other relevant partners. However, changes in socio-economic, market and financial conditions (e.g. rate of inflation) and cooperatives' changing demand for loan (due to changes in coffee price, coffee processing facilities, institutional and business capacity, etc.) call for the need to revise the maximum loan amount after sometime.

Given the current tighter financial conditions and regulatory framework, it can be concluded that in the absence of some sort of capital enhancement mechanism (in the form of cash guarantee or revolving fund) and other incentives for the lending bank, the 50% risk sharing does not seem to be adequate in motivating them to actively participate in the lending activity. Apparently the ideal level of risk coverage depends on a number of factors such as nature and risk level of the borrowers and their business, guarantee model and other operational features of the scheme. If such a loan guarantee targeting farmer cooperatives have to be effectively taken up by many commercial banks, the guarantee level should be raised to about 60 – 80%, at least initially. This could be gradually revised downwards to allow the lending bank to start absorbing more risk. This is mainly due to the fact that: (a) the lender and borrower will have established good relation and overcome the challenges of information asymmetry and lack of trust; (b) the borrowers will have accumulated some assets that can be offered as collateral or boost confidence of the lending bank.

Though the floor coverage may remain unaltered, guarantee percentage should vary depending on the following:

- Disbursed loan amount; *i.e.* risk coverage may decrease as the loan volume increases. For instance, for loans of up to 1 million Birr, the coverage could be 80%, while it can be reduced to 70% for loan amounts between 1 and 3 million Birr. The coverage can be further

reduced to 60% for a loan above 3 million Birr. This is intended to encourage more bank lending to cooperatives with weaker capacities.

- Geographical location of the targeted cooperatives and their risk profile; for instance, risk coverage for loans to coops in less developed and remote areas could be put at a higher level than those in more accessible and relatively well developed areas. Likewise, new coops and those without sufficient credit history can be treated in a similar manner.
- Term of loans; *i.e.* it would be important to provide differential guarantee levels for loans with different terms as their risk levels vary. For instance, risk coverage can increase for medium- and long-term loans which are perceived as riskier ventures.

Though the main essence of designing a guarantee scheme is to overcome problems related to lack of collateral, complete absence of collateral may result in adverse selection and moral hazard problems among the borrowers. Thus such schemes should be allowed to shift certain reasonable percentage of the risk (10 - 20%) to the borrowers in the form of collateral or at least equity contribution. Apart from boosting the confidence of lending banks, this measure would encourage borrowers to be genuine and serious, and eventually reduces rate of defaults. This however should be exercised with greater care and prudence as it may stop some of the targeted borrowers from accessing guaranteed loans.

International experiences show that it is a common practice for most guarantee schemes to charge various type of fees. Annual risk fee is the common one in this respect, which often ranges between 1% and 2% of the total disbursed loans, while some even charge lesser amount. However, while charging annual guarantee/risk fee is especially important for covering admin costs and in sustaining the scheme, its inclusion in such short-term donor-funded scheme that targets smallholder farmers and their cooperatives may act as a significant disincentive to the lending banks and may need to be considered carefully. Though the level of guarantee fee under the current scheme (1.5%) seems to be in line with international practices, given the nature of farmer cooperatives' business and their rural-based locations, lending banks might not be willing to absorb higher fees.

Thus with such development-oriented donor-funded schemes that aim to generate various direct and indirect benefits to the community, such guarantee fees should be kept to a minimum (e.g. 0.5 or 1% of the disbursed guaranteed loans). Moreover, it is crucial to charge different fee rates based on the following conditions:

- The guaranteed loan amount, *i.e.* risk fee rate can increase with volume of guaranteed loans. For example, 0.5% may be charged on a loan amount of up to 1 million Birr. This can be raised to 1% for a loan volume of 1 to 3 million Birr, and to 1.5% for loans of over 3 million Birr.
- Level of guarantee coverage, whereby higher percentage of guarantee attracts higher fee rates. However, this needs to be applied with greater care as it may affect the weaker cooperatives that received higher guarantee coverage.
- Geographical location and risk level; *i.e.* loans extended to new and coops without credit history, and those located in disadvantaged areas can be charged low fee rates.
- Differential fee rates for different terms of loans, whereby medium- and long-term loans may attract low fee rates.
- Loans guaranteed under the portfolio approach apparently involve less administrative works from the guarantor's end. Thus fees charged on such loans should be lower than the rates for loans approved under individual approach.

The findings strongly suggest that the duration of the current guarantee scheme in general and the effective lending period in particular was too short. This appears to underestimate the time and efforts needed to carry out necessary ground works and capacity building activities before such lending activities take place. More importantly, establishing firm relationships and mutual understanding between the two key actors (lenders and borrowers), and making necessary changes to the systems and operations of the lending banks obviously need substantial time. In addition, if they have to generate significant economic additionality, credit guarantee programmes should operate for a fairly longer period. Thus we recommend that future schemes have to be of a reasonably longer-term arrangement (of at least 7 to 10 years) with considerable amount of guarantee fund if such schemes have to generate meaningful and sustainable impacts. As Levitsky (1997) notes the most successful schemes across the world took 5 to 10 years to develop effective collaborative relationships between the guarantor and lenders.

In terms of causing moral hazard, provision of the partial guarantee did not have substantial impacts on the behaviour of the lending institutions and borrower cooperatives. However, though deliberate default was not a major problem, some degree of malpractice and fund diversion was revealed among the management of a few borrower cooperatives, particularly where there had been gaps in supervision and monitoring activities. Properly designing and taking necessary care in introducing the scheme and closely monitoring borrowers' practices can minimise moral hazards and other malpractices in the supplied loans.

8.3. As related to the participating (lending) bank

Commitment and active participation by the lending banks is one of the critical factors that determine the successes of a credit guarantee scheme. Despite initial interests shown by banks to participate in such an arrangement, a number of internal and external factors may constrain their actual lending activities to such target groups. Thus the following recommendations can be made in relation to the lending bank under such a guarantee scheme.

Sufficient assessment should be carried out during the scheme design and prior to its implementation to identify suitable, committed and competent banks for such lending activities. This step should also involve, among other things, thorough assessment and identification of the needs, requirements, experiences, capacities (financial and institutional) and challenges of the available banks. In this regard, as Hansen *et al* (2012) recommends, it is important to map banks by commitment to the targeted beneficiaries based on various criteria.

The findings of the current analysis and international experiences pinpoint to the limitations of involving and relying on a single lending bank. Thus where possible, it would be important to consider involving more than one lending bank in such a partial loan guarantee arrangement. This may stimulate competitive behavior among the lending banks as well as facilitate participation of banks with varying commitment, experience and capacities. Moreover, it is crucial to carefully choose and engage banks with sufficient local branch networks closer to the targeted borrowers.

Engaging a cooperative bank with some lending experience in the cooperative sector somehow helped in facilitating the lending activities to the targeted cooperatives. This particular bank has better understanding of cooperatives' demand, capacity, strength and limitations than other mainstream commercial banks. However, the positive responses demonstrated by the current partner bank (Cooperative Bank of Oromia) may not give a true picture of the interest and response of the mainstream commercial banks towards such a partial guarantee arrangement.

In addition to facilitating flow of additional loan fund to the targeted group, such guarantee intervention should also pay adequate attention to unleashing other potential benefits such as improving the terms and conditions of loans. However, the current guarantee scheme did not have significant influence in making the lending banks adapt and relax their lending approaches, loan terms and conditions (including reducing loan processing time, interest rates, etc.). The lengthy loan processing procedures and delay in loan disbursement appeared to act as a major constraint in effectively utilising guaranteed loans under the current scheme. It is thus important to make sure that cooperatives' application for guaranteed loans are treated promptly and loans are disbursed in time. Thus if such rural-based farmers' cooperatives have to have easy and timely access to suitable loan products, the participating banks need to be committed to revisit and improve some of their lending terms and requirements. It is critical to negotiate and provide the participating banks with incentive packages that would motivate them to do so.

Evidence reveals that cooperatives require loan for various purposes, which include seasonal working capital to purchase coffee, and medium- or long-term loans to acquire processing equipment (including drying materials) and storage facilities. The current study further reveals that medium-term loans provided for investment in processing facilities appeared to more significantly contribute to improvements in coffee quality and asset base of the cooperatives as compared with the short-term loans provided merely for seasonal coffee purchase and sale. However, commercial banks largely tend to focus on providing short-term working capital loans for seasonal coffee purchase. Thus there is a need to convince, motivate and encourage commercial banks to increase their medium- and long-term loan allocations to the targeted cooperatives.

Lack of adequate awareness about the scheme design and operational arrangements (among bank officers at different levels, particularly at branch offices) appeared to severely affect proper implementation and success of the scheme under analysis. If such a guaranteed lending activity has to take place effectively, all relevant bank branch managers and loan officers need to be provided with adequate information and awareness about the scheme and its operational arrangements. This may include information on the scheme's objectives, target groups and eligibility, risk sharing arrangements, mode of operation and other key features. Such awareness raising activity should take place right at the outset of the scheme implementation and on a continuous manner as changes in bank staff may result in new informational gaps.

8.4. As related to the borrower cooperatives

The study reveals that primary cooperatives have huge potential demand for loan as compared with the currently revealed actual demand. Among other things, weak institutional, managerial and business capacities prevent cooperatives from transforming their potential demand into revealed demand. Thus if farmer cooperatives have to effectively demand for, access and utilise such guaranteed loans, they need to be provided with various support measures. These may include sensitisation and intensive awareness creation activities (about scheme objectives, guarantee arrangement, mode of operation, benefits, eligibility, lending procedures, etc.), bank's lending requirements, and proper and genuine loan utilisation and repayment. These should be accompanied by training and capacity building interventions for borrower cooperatives, which may aim at improving their organisational, financial management, business (including assistance in identifying viable business enterprises and developing sound and acceptable business plan) and other specific technical skills such as coffee production, processing and marketing.

The findings of the current study reveal that cooperatives that had received adequate support and follow up from the cooperative promoting body appeared to demonstrate better access to, effective utilisation and repayment of guarantee loans. Thus such close follow up, supervision and technical support need to be given serious considerations in implementing such loan guarantee programmes targeting farmers and their associations. In this respect though the cooperatives promoting body plays a leading role, all the actors participating in the scheme need to play an active role.

Banks' confidence and interest in cooperatives' business and willingness to provide them with appropriate loan products is hugely influenced by cooperatives' access to attractive markets for their products such as export markets. In view of their strong market linkage and asset ownership, commercial banks often tend to favour higher cooperative structures (such as unions) in extending loans. Having strong market linkage would also enhance cooperatives' loan utilisation and repayment performance. It is thus critical for such guarantee programmes to pay adequate attention to strengthening or facilitating access of primary cooperatives to alternative and attractive market outlets for their products in a sustainable manner.

Like any other business enterprise, if cooperatives are to operate effectively and manage their organisation, business and resources efficiently and in a sound manner, they need to have professional managers and leaders. Therefore, it is crucial to support and encourage primary cooperatives to gradually shift from committee-based management to engaging full-time professional manager and finance personnel. This apparently depends on the strength of their business activities and financial capacity.

Cooperatives' business is directly related to the activities and participation of their member farmers. The current study concludes that there is an apparent gap among the study cooperatives in ensuring full participation of member farmers in their businesses and major decisions. Thus if cooperatives have to have access to adequate volume of members' produce, there is a critical need to foster their relationship with member farmers. Such strong relationship and mutual trust would also help cooperatives to collect members' coffee on loan, which is crucial especially in the face of loan scarcity or persisting delay in loan approval and disbursement.

The study observed that cooperatives often encounter difficulties in properly utilising and repaying their loans during the seasons with poor coffee yield. Therefore, cooperatives' loan application assessment under such credit guarantee programmes should take into account prospects of coffee yield for that particular season and members' willingness and readiness to deliver their coffee to their cooperatives. This in fact requires availability of bank loan officers with such knowledge and experience.

There is a great opportunity for cooperatives in the current coffee marketing system. The findings, however, suggest that primary cooperatives' participation and contribution in coffee processing and marketing have been hindered largely by their weak capacity (institutional, financial, managerial and business) and lack of access to loan finance. If such opportunities and potential have to be fully tapped, it is critical to build their capacity and improve their access to appropriate financial resources. In the short-run provision of such guarantee schemes could play an important role in, at least partly, addressing such financial gaps. In addition, in the long-run it is important to strengthen the financial capacity and asset base of cooperatives through sale of shares and other strategic income/fund raising activities. In the long-run it is also important to look into possibilities of creating arrangements that may mobilise some sort of external equity capital which may have policy implications.

The findings suggest that primary cooperatives experience lack of modern coffee processing facilities (including drying materials), which is directly related to lack of finance and other capacities. Above all, it is critical to raise cooperatives' awareness especially with regard to use of modern drying beds made of mesh wire and their significance in improving coffee quality. Parallel to this effort, there is a need to improve cooperatives' access to improved processing facilities (especially drying materials) and financial services to enable them acquire these materials. Likewise, most cooperatives tend to trade dry cherries without undertaking value adding activities. It is therefore important to encourage and support primary cooperatives to undertake at least basic primary processing activities to the coffee they trade.

The study suggests that pre-harvest cherry advance to cooperative members is critical as it would help them avoid forced early selling of cherries and engagement in unfavourable arrangements with informal money lenders and private coffee traders. However, coffee or multipurpose cooperatives do not seem to be ideally suitable to serve as intermediaries for bank loans, nor have the legal support to get involved in credit service provision. If they have to be involved in provision of financial services to meet members' emergency needs, there is a need for a cautious move and appropriate system for its delivery and recovery. However, as Chanyalew (2015) suggests, in the long-run provision of such financial services should be left to specialised cooperatives such as SACCOs, which in fact require further strengthening and capacity building.

8.5. In relation to national policy, regulatory framework and institutional supports

Despite the rapid expansion observed in the financial sector of Ethiopia in recent years, the smallholder agriculture in general and the coffee sub-sector in particular are suffering from shortage of financial resources. In particular, the production side faces severe constraints in this respect. Apparently efficient supply of financial resources and its effective utilisation require enabling policy and regulatory environments and provision of other complementary support services.

Based on the findings of the study, our conclusion is that credit guarantee programmes intervening in the financial markets operating under tight regulatory and monetary systems and pervasive government intervention may face challenges in effectively meeting their targets. In particular, such strong state intervention in the financial markets and stringent regulatory system have serious implications for banks' lending behaviour and priorities. Thus if commercial banks have to widely reach out to smallholder farmers and their cooperatives with suitable and alternative loan products, there is a need to create a more favourable policy and regulatory environment. Likewise, if farmers' cooperatives have to effectively participate in and benefit from such guarantee programmes, there is a need to relax some of the regulatory frameworks that restrict cooperatives' demand for, access to and effective utilisation of institutional loans. In particular, the cooperative promoting body needs to render a more proactive and comprehensive support services to facilitate cooperatives' institutional and business development. However, it is critical to limit government's intervention to playing a more facilitative role rather than tending to dictate cooperatives' affairs and businesses.

The regulations of the National Bank compel commercial banks to exert a number of lending requirements (e.g. requirement for two TIN numbers) which appear to hinder cooperatives' access to bank loans. Apparently farmer cooperatives are vital rural institutions that generate direct economic and social benefits to the farming community. It is therefore worthwhile to treat farmer cooperatives differently in providing financial resources and other support services. This

may involve reconsidering some of the policies and regulations in terms of allowing banks to adapt their lending terms and conditions for the rural-based farmers' cooperatives.

In particular, the directive of the National Bank, which requires private banks to purchase government bond for 27% of the disbursed loan amount seems to have adverse effect on banks' motivation and interest to lend to farmer primary cooperatives. Future schemes targeting farmer cooperatives thus need to consider ways of helping lending banks in terms of relaxing such constraints, for example by providing some capital to cover the fund required for bond purchase. However, if sustainable changes have to be realised in this regard, it would be important to lobby and negotiate with the NB for policy change in favour of cooperative lending (e.g. exemption from NB bond purchase).

In view of the limited loanable funds among commercial (private) banks and presence of other more attractive sectors that readily seek loans, banks have shown reluctance in lending to smallholder farmers and their cooperatives. This again calls for policy intervention that may require commercial banks to reach out to such disadvantaged groups through their lending activities. One of such measures could be imposing certain quota on banks to channel some percent of their loan funds (portfolio) to the currently marginalised sectors in terms of accessing financial resources (such as smallholder farmers and their primary cooperatives).

At present microfinance institutions and even to some extent commercial banks seem to lack coops-friendly loan products and lending requirements. Therefore, the government should nurture and strengthen the infant financial cooperatives such as SACCOs (RUSACCOs) through appropriate incentive and support packages. Such institutions can play an important role in catering for the financial needs of sister commodity-based cooperatives by providing reasonably cheaper, timely and suitable loan products. They can also play a vital role in promoting saving culture among multipurpose cooperatives and member farmers.

8.5. Recommendations on areas for Further Research

In terms of methodological approach, the experience of the current study shows that such studies require a research design that allows deeper and continuous analysis (of the performance and impacts of the scheme) that is based on comprehensive quantitative and qualitative data collected at various stages of the intervention. Such an approach would help to closely monitor and analyse the processes of the lending activities, loan utilisation and its outcomes, loan recovery and relationships established between the parties involved in the scheme. It also helps to understand the underlying causes for the successes or failure of the guarantee programme.

This study was conducted with a limited number of cooperatives and did not cover all coffee growing areas of Ethiopia. Some of the study areas (where the credit guarantee under analysis has been implemented) are marginal coffee growing zones. Moreover, the study was largely based on data collected in the early stages of the scheme implementation. Thus undertaking further study at a later stage or after the end of the scheme would help to draw a definitive conclusion. Additional specific areas or issues that seek further investigation may include:

- Undertaking further research after sometime on the following focus areas and issues:
 - How are the long-term impacts of the scheme (such as economic additionality, on institutional capacity of cooperatives, default rates),
 - Have long-term changes been realised in the system, behavior and practices of the lending banks? Are the lending-borrowing relationships established between the two parties sustainable?
 - How are the costs (including admin and/or other transaction costs and costs related to claims on defaults) and benefits of the intervention compared?
- Exploring possible ways of establishing alternative coffee market outlets for primary cooperatives that take part in such guarantee schemes.
 - What are the available alternative markets and their requirements, what support mechanisms are needed for cooperatives to effectively access them?
 - What are the pros and cons and challenges of accessing such markets?
- Conducting similar studies in other major coffee growing areas by involving more number of cooperatives in order to be able to make a definitive conclusion on certain aspects such as cooperatives' loan demand and their determinants.

REFERENCES:

- Adal, Y., (2002). Review of landholding system and policies in Ethiopia under the different regimes. EEA/Ethiopian Economic Policy Research Institute Working Paper No 5/2002.
- Adal, Y., (2000). 'Rural organisations and rural development in Ethiopia', *in* Issues in Rural Development: Proceedings of the Inaugural Workshop of the Forum for Social Studies. Zenebework T., (Ed.). 18 September, 1998. Addis Ababa. *pp.* 45-79.
- Admassie, A., Ageba, G., and Demeke, M., (2005). Rural finance in Ethiopia: Assessment of the financial products of microfinance institutions. Association of Ethiopian Microfinance Institutions, Occasional paper No. 12. *P.* 119.
- Admassie, A., (2004). A review of the performance of Agricultural Finance in Ethiopia: Pre- and post reform periods. A paper presented on the International Conference on macro-economic, agrarian change and poverty reduction. December 2004. Addis Ababa
- Admasu, A., and Paul, I., (2010). Assessment on the mechanisms and challenges of small scale agricultural credit from Commercial Banks in Ethiopia: The case of Ada'a Liben woreda of Ethiopia. *Journal of Sustainable Development in Africa.* Vol. 12, No. 3, 2010.
- Admasu, S., Zekarias, S., and Tsegaye, Y., (2008). Adoption of improved coffee production technologies in Ethiopia. *In: Coffee Diversity and Knowledge. Proceedings of the workshop on Four Decades of Coffee Research and Development in Ethiopia, 14-17 August, 2007.* Addis Ababa. Ethiopian Institute of Agricultural Research. *pp.* 357-363.
- Aga, G., and Reilly, B., (2011). Access to credit and informality among micro and small enterprises in Ethiopia. *International review of applied economics.* 25 (3). *PP.*313-329.
- Ajagbe, F., Oyelere, B., and Ajetomobi., J., (2012). Determinants of small-scale enterprise credit demand: evidence from Oyo state, Nigeria. *American journal of social and management sciences.* ISSN Print: 2156-1540, Online: 2151-1559, doi:10.5251/ajms.2012.3.1.45.48
- Akpan, S., Patrick, I., Udoka, S., Offiong, E., and Okon, U., (2013). Determinants of Credit Access and Demand among Poultry Farmers in Akwa Ibom State, Nigeria. *American Journal of Experimental Agriculture* 3(2): 293-307, 2013.
- Akudugu, M., (2012): "Estimation of the Determinants of Credit Demand by Farmers and Supply by Rural Banks in Ghana's Upper East Region", *Asian Journal of Agriculture and Rural Development*, Vol. 2, No. 2, *pp.* 189-200.
- Alemayehu, T., and Esayas, K., (2008). Coffee Development and marketing improvement plan

- in Ethiopia. *In: Coffee Diversity and Knowledge. Proceedings of the workshop on Four Decades of Coffee Research and Development in Ethiopia, 14-17 August, 2007. Addis Ababa. Ethiopian Institute of Agricultural Research. Pp. 375-381.*
- Allinson, G., Robson, P., and Stone, I., (2013). Economic Evaluation of the enterprise finance guarantee scheme. Department for Business Innovation and Skills. February 2013. (www.bis.gov.uk).
- Anbes, T., and Gowda, S., (2008). Factors affecting credit use by small farmers: A study in Dire Dawa area, Eastern Ethiopia. *pp. 293-310.*
- Aryeetey, E., Hettige, H., Nissanke, M., and Steel, W., (1997). Financial Market Integration and Reforms in Ghana, Malawi, Nigeria and Tanzania. *World Bank Economic Review*. 11 (2). World Bank, Washington, D. C.
- Aryeetey, E., (1996). Rural finance in Africa: Institutional developments and access for the poor. The WB Annual conference on Development Economics, 25-26 April. Washington, D. C.
- Assefa, T., (2005). Revitalising market-oriented agricultural cooperatives in Ethiopia: A case study. USAID's Cooperative Development Programme. Washington, D.C. March 2005.
- ATA (2012). Agricultural Cooperatives Sector Development Strategy (2012 – 2016). MoA/FCA/ATA. June 2012, Addis Ababa.
- Atieno, R., (2001). Formal and informal institutions' lending policies and access to credit by small-scale enterprises in Kenya: An empirical assessment. African Economic Research Consortium Research paper 111. November 2001. Nairobi, Kenya
- Athreya, K., Tam, X., Young, E., (2011). Loan guarantees for consumer credit markets. Working paper No. 11-06. September 30, 2011. University of Cambridge.
- Ayana, I., (1999). Ethiopian Economy Performance and Evaluation: Proceedings of the Eighth Annual Conference on the Ethiopian Economy. Alemayehu, G., and Berhanu, N., (Eds.). October 30 – November 1, 1998. Addis Ababa, Ethiopia
- Bagersh, A., (2012). Ethiopian Coffee Today. A paper presented on the 9th African Fine Coffee Conference and Exhibition. 16-18, Addis, Ababa, Ethiopia.
- Barslund, M., and Tarp, F., (2008). Formal and informal rural credit in four provinces of Vietnam. *Journal of Development Studies*, Vol. 44, No. 4, 485–503, April 2008.
- Bastin, A., and Matteucci, N., (2007): Financing Coffee farmers in Jimma zone, Ethiopia: Challenges and Opportunities. International Conference on Rural Finance Research:

- Moving Results in to Policies and Practices. FAO, Rome, Italy, 19 – 21 March, 2007.
- Beck, T., Klapper, L., Mendoza, C., (2010). The Typology of partial credit guarantee funds around the world. *Journal of Financial Stability* 6 (2010): 10-25.
- Benson, T., (2013). How regular financial audit services are provided to agricultural cooperatives elsewhere: Lessons for Ethiopia. 15 December 2013. Research for Ethiopia's Agriculture Policy (REAP). IFPRI, Washington DC.
- Berhanu, H., (2005). Issues and Trends of microfinance Development in Ethiopia. In the proceedings of the workshop on Trends, challenges and other key issues in microfinance development in Ethiopia. 9 – 10, December 2004. Meklit microfinance institution, Prognyst and Alisei NGO. Addis Ababa, Ethiopia
- Bernard, T., Abate, G., and Lemma, S., (2013). Agricultural cooperatives in Ethiopia: Results of the 2012 ATA Baseline Survey. May 2013. Research For Ethiopia's Agriculture Policy (REAP). IFPRI, Washington DC.
- Bernard, T., Spielman, D., Taffesse, A., and Gebre-Madhin, E., (2010). Cooperatives for Staple Crop Marketing. IFPRI Research Monograph 164. Washington D.C.
- Bing, Z., Guo-yu., Ping-gui, Z., Yang, C., and Shuai, Y., (2008). Empirical study on the financial repression of rural households' debit and credit and the effects on their welfare in less developed regions – Take Suqian city of Jiangsu province as an example. *Journal of Modern Accounting and Auditing*, Dec. 2008, Vol.4, No.12 (Serial No.43).
- Bolesta, A., (2007). China as a Developmental State. *Montenegrin journal of Economics* No 5. (Received: June 27, 2007)
- Borchgrevink, A., Woldehanna, T., Ageba, G., and Teshome, W. (2005). Marginalised groups, Credit and Empowerment: The case of Dedebit Credit and Saving Institution of Tigray, Ethiopia. *AEMFI Occasional Paper*, No. 14. September.
- Bresser-Pereira, L., (2009). Assault on the State and on the Market: Neoliberalism and Economic Theory. *ESTUDOS AVANÇADOS* 23 (66).
- Brink, H. I, (1996). Fundamentals of research methodology for health care professionals. Kelwyn: Juta and Company.
- Briones, M., (2009). Do small holder farmers borrow less when the lending rate increases? Interest rate elasticity of rice farmers in the Philippines. *Asian Economic Journal* 2009, Vol. 23, No 4, 439-455.
- Bushway, S., Johnson, B., and Slocum, L., (2007). Is the Magic Still There? The Use of the

- Heckman Two-Step Correction for Selection Bias in Criminology. Springer Science + Business Media, IIC 2007.
- Butabaev, R., (2015). There is no growth without change: policy implications for transition economies. *Montenegrin journal of economics*, vol. 11, no. 1 (July 2015), pp. 69-84
- Chang, H., (1999). The Economic Theory of the Developmental State. In Meredith Woo-Cummings (Ed.), *The Developmental State*. Ithaca: Cornell University Press. pp.183–199
- Chanyalew, D., (2015). Ethiopia's Indigenous Policy and Growth: Agriculture, Pastoral and Rural Development. Addis Ababa, Ethiopia. P. 892.
- Chanyalew, D., (2006). Policies for commercial transformation of Ethiopian Agriculture. *In* Commercialisation of Ethiopian Agriculture. Proceedings of the 8th Annual Conference of the Agricultural Economics Society of Ethiopia. April 2006, Addis Ababa. pp 9-26.
- Chaves, R., Sanchez, S., Schor, S., and Tesliuc, E., (2001). Financial markets, credit constraints, and investment in rural Romania. Europe and Central Asia Environmentally and Socially Sustainable Development Series. World Bank Technical Paper No. 499. Washington D.C
- Common Fund for Commodities (CFC) (2011). Sustainable credit guarantee scheme to promote scaling up/out of enhanced coffee processing practices in Ethiopia and Rwanda. Appraisal Report. January 2011. The Netherlands
- Cowling, M. and Mitchell, P., (2003). Is the small firms loan guarantee scheme hazardous for banks or helpful to small business? *Small Business Economics* 21: 63-71, 2003. Kluwer Academic Publishers. The Netherlands.
- Craig, B., Jackson, W., and Thomson, J., (2009). The economic impact of small business administration's intervention in the small firm credit market: A review of the research literature. *Journal of small business management* 2009 47(2), pp. 221-231.
- Craig, B., Jackson, W., and Thomson, J., (2007). Small firm finance, credit rationing, and the impact of SBA-Guaranteed lending on local economic growth. *Journal of small business management* 2007, 45(1), pp. 116-132.
- Creswell, J. W., (1999). Mixed-method Research: Introduction and application. *Handbook of Educational Policy*. Academic Press. pp. 455-472.
- Creswell, J.W., (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage
- Creswell, J. W., (1994): *Research design: Qualitative and quantitative approaches*. Thousand

Oaks, CA: Sage

- CSA (2014). The Federal Democratic Republic of Ethiopia Central Statistical Agency, Agricultural Sample Survey 2013/2014 (2006 E.C.). Volume I, Report on area and production of major crops (private peasant holdings, Meher season), Addis Ababa, May 2014. Statistical Bulletin 532.
- CSA (2013). The Federal Democratic Republic of Ethiopia Central Statistical Agency, Population Projection of Ethiopia for all Regions at Wereda level from 2014 – 2017. August 2013, Addis Ababa.
- Croppenstedt, A., Mulat, D. and Meschi, M., (2003). Technology adoption in the presence of constraints: the case of fertilizer demand in Ethiopia. *Review of Development Economics*, 7 (1), 58-70, 2003.
- Dadzie, R., (2012). Developmental State and Economic Development: Prospects for Sub-Saharan Africa. *Journal of Sustainable Development*; Vol. 5, No. 9.
- Davis, K., Swanson, B., Amudavi, D., Ayalew, D., Flohrs, A., Riese, J., Lamb, C., Zerfu, E., (2010). In-Depth Assessment of the Public Agricultural Extension System of Ethiopia & Recommendations for Improvement. IFPRI Discussion Paper 01041, December 2010.
- Deelen, L., and Molenaar, K., (2004). Guarantee funds for small enterprises. A manual for guarantee fund managers. International Labour Organisation.
- Demeke, D., (1999). 'The Challenge of Increasing Food Production in Ethiopia', in *The Ethiopian Economy Performance and Evaluation: In the Proceedings of the Eighth Annual Conference on the Ethiopian Economy*. Alemayehu, G., and Berhanu, N., (Eds.). October 30 – November 1, 1998. Addis Ababa, Ethiopia
- Dempsey, J., (2006). A case study of institution building and value chain strengthening to link Ethiopian cooperative coffee producers to international markets. ACDI/VOCA – Ethiopia, January 2006, Addis Ababa
- Develtere, P., (2008). Cooperative Development in Africa up to the 1990s. *In Cooperating out of poverty. The renaissance of the African cooperative movement*. Develtere *et al* (eds.). International Labour Office, Geneva. pp. 1- 37.
- Develtere, P., and Pollet, I., (2008). Renaissance of African cooperatives in the 21st century: Lessons from the field. *In Cooperating out of poverty. The renaissance of the African cooperative movement*. Develtere *et al* (eds.). International Labour Office. pp. 38-90.

- Devers, K., and Frankel, R., (2000). Study design in qualitative research-2: Sampling and data collection strategies. *Education for Health*, Vol. 13, No. 2, 2000, pp. 263-271.
- DFID (2005). Do credit guarantees lead to improved access to financial services? Recent evidence from Chile, Egypt, India and Poland. Department for International Development. Policy Division Working Paper. London, February 2005.
- Diagne, A. and Zeller, M. (2001). Access to credit and its impact on welfare in Malawi. Research Report 116. Washington D.C. International Food Policy Research Institute.
- Diagne, A., Zeller, M., and Sharma, M., (2000). Empirical measurements of households' access to credit and credit constraints in developing countries: Methodological issues and evidence. IFPRI Food Consumption and Nutrition Division Discussion Paper No. 90. July 2000. Washington D.C.
- D'ignazio, A., and Menon, C., (2013). The causal effect of credit guarantees for SMEs: evidence From Italy. Banca D'Italia Eurosystema. Working paper, Number 900. February 2013.
- Dobrohoczki, R., (2006). Cooperatives as Social Policy Means for Creating Social Cohesion in Communities. *Journal of Rural Cooperation*, 34 (2) 2006:135-158.
- Dohcheva, D., (2009). Credit rationing in agricultural credit markets in Bulgaria. *Trakia Journal of Sciences*, Vol. 7, No. 3, pp 57-62, 2009 [<http://www.uni-sz.bg>]
- Emana, B., (2009). Cooperatives: a path to economic and social empowerment in Ethiopia. COOP-Africa Working Paper No. 9. ILO, 2009.
- Emana, B., Gemtessa, K., Lemessa, D. and Ayele, G. (2005). Informal finance in Ethiopia. *Occasional Paper No. 13*. A/Ababa, Association of Ethiopian Microfinance Institution.
- Esayas, K., (2010). The Role of Commercial Coffee Farms in Coffee Development. A paper presented on the 7th African Fine Coffee Conference & Exhibition, 10-13 February 2010, Mombassa, Kenya.
- Federal Cooperative Agency (FCA) (2013). Annual Bulletin of the Federal Cooperative Agency of Ethiopia. June 2013
- Fletschner, D., Guirking, C., and Boucher, S., (2010). Risk, credit constraints and financial efficiency in Peruvian agriculture. *Journal of Dev't Studies*, 46 (6), 981–1002, July 2010.
- Frangos, C., Fragkos, K., Sotiropoulos, L., Manolopoulos, G., and Valvi, A., (2012). Factors affecting customers' decision for taking out bank loans: A case of Greek Customers. *Journal of marketing research and case studies*. Vol. 2012 (2012), 16 pages.

- Freedman, P. L., (2004). Designing loan guarantee schemes to spur growth in developing countries. US Agency for International Development, Washington DC.
- Gandhimathi, S., and Vanitha, S., (2009). Repayment and overdue determinants of agricultural credit: Some results for commercial and cooperative banks. *The IUP Journal of Bank Management*. Vol. VIII, Nos. 3 and 4, 2009
- Gebreselassie, S., (2006). Land, Land Policy and Smallholder Agriculture in Ethiopia: Options and Scenarios. *Future Agricultures*, Discussion paper 008. www.future-agricultures.org
- Geda, A., (2000). Institutional aspects of reforming the financial sector: The case of regulating banking in post-reform Ethiopia. *In* Institutions, resources and development in Ethiopia. Proceedings of the 9th Annual Conference on the Ethiopian Economy. Mekonen, A. and Aredo, D. (eds.). 8-9 October 1999. Addis Ababa. pp. 165-178.
- Geda, A., (1999). The structure and performance of Ethiopia's financial sector in the pre and post reform period: with special focus on banking. *In* The Ethiopian Economy: Performance and evaluation. Proceedings of the 8th Annual Conference on the Ethiopian Economy. Geda, A. and Nega, B. (eds.). October 30 – November 1, 1998. Nazareth, Ethiopia. pp. 133-162.
- Gemtessa, K., Emanu, B., Lemessa, D., Ayele, G., (2006). The role of informal finance in rural economy: The case of Gurage and Sidama zones. *In* Commercialisation of Agriculture: Proceedings of the 8th Annual conference of the Agricultural Economics Society of Ethiopia. Addis Ababa. pp.117–144.
- Gessese, D., (2010). Current status, challenges and panorama of financial cooperatives in Ethiopia. *In* Building the performance of inclusive finance providers. Proceedings of the 6th Bi-Annual Conference on Microfinance Development in Ethiopia. Alemu, T., (ed).Dire Dawa, Ethiopia. pp. 58 – 79.
- Getnet, K., and Anullo, T., (2012). Agricultural cooperatives and rural livelihoods: Evidence from Ethiopia. *Annals of public and cooperative economics*, 83: 2, 2012. pp. 181-198.
- Girma, M., and Abebaw, D., (2015). Determinants of Formal Credit Market Participation by Rural Farm Households: Micro-level evidence from Ethiopia. Paper for presentation at the 13th International Conference on the Ethiopian Economy. Ethiopian Economic Association (EEA) Conference Centre, Addis Ababa, Ethiopia, July 23-25, 2015
- Gobeze, G., (2008). Sustainable Rural Finance: Prospects, challenges and implications. *In*

- Recent Experiences of Microfinance Institutions in Ethiopia: Growth, Sustainability and Challenges. Proceedings of the 5th Biannual Conference on Microfinance Development in Ethiopia. Assosa, Ethiopia. *pp.* 76-107.
- Green, A., (2003). Credit Guarantee Schemes for Small Enterprises: An Effective Instrument to Promote Private Sector-Led Growth? SME Working Paper Series No 10. UNIDO.
- Gronau, R., (1974). Wage comparison. A selectivity bias. *Journal of Political Economy*, 82: 1119-1143.
- Gudger, M., (1998). Credit Guarantee: An assessment of the state of knowledge and new avenues of research, *FAO Agricultural Services Bulletin* 129, 1998.
- Hansen, A., Kimeria, C., Ndirangu, B., Oshry, N., and Wendle., J., (2012). Assessing credit guarantee schemes for SNE finance in Africa. Evidence from Ghana, Kenya, South Africa & Tanzania. Agence Francaise de Development. Working Paper 123. April, 2012
- Harvey, D., (2005). A brief history of neo-liberalism. Oxford University Press Inc., New York
- Heckman, J., (1979). Sample Selection Bias as a Specification Error. *Econometrica*, 47: *pp.* 153-161.
- Heckman, J., (1976). The common structure of statistical models of truncation, sample selection and limited dependent variables and a simple estimator for such models. *Annals of Economic and Social Measurement*, 5 (4); *pp.* 475-492.
- Honohan, P., (2010). Partial credit guarantees: Principles and practice. *Journal of Financial Stability* 6(1): *pp.* 1-9.
- Human Development Report (HDR) (2013). Human development Report 2013. The Rise of the South: Human Progress in a Diverse World. UNDP
- Ichiro, U., Kojia, U., and Yamashiro, G., (2006). Effectiveness of credit guarantees in the Japanese Loan Market. Research Institute of Economy, Trade and Industry (RIETI). Discussion Paper Series 06-E-004, February 2006.
- International Cooperative Alliance (ICA) (1995). Statement on the Cooperative Identity, in *Review of International Cooperation*, Vol. 88, No. 3.
- International Coffee Organisation (ICO) (2013). Historical data on the Global Coffee Trade. http://www.ico.org/new_historical.asp
- International Coffee Organisation (ICO) (2005). Trade statistics: http://www.ico.org/trade_statistics.asp

- International Labour Organization (ILO) (2009). Sampling methodology. ILO school-to-work transition survey: A methodological guide. International Labour Organization. Geneva.
- International Labour Organization (ILO) (2008). Cooperating out of poverty. The renaissance of the African coops movement. Develtere *et al (eds.)*. International Labour Office, Geneva.
- International Labour Organization (ILO) (2003). Rediscovering the cooperative advantage: Poverty reduction through self-help. International labour Office, Geneva.
- International Trade Centre (ITC) (2011). Microfinance in East Africa. Schemes for Women in The Coffee Sector. Technical Paper. Geneva: ITC, 2011. No. SC-11-195, E. 33 pages.
- Iqbal, M., Ahamad, M., & Abbas, K., (2003). The impact of institutional credit on agricultural production in Pakistan. *The Pakistan Development Review*, 42(2), pp. 469-485
- Jonson, M., (2009). Performance of credit guarantee schemes (CGS). HD Graduate Diploma in Finance. Copenhagen Business Scholl. Paper No. 24. Spring 2009.
- Kanoh, S., and Pumpaisanchai, C., (2006). Listening to the market: Estimating credit demand and supply from survey data. Discussion paper series No 137. Hitotsubashi University Research Unit for Statistical Analysis in Social Sciences; Institute of Economic Research. February 2006. <http://hi-stat.ier.hit-u.ac.jp/>
- Kang, J. and Heshmati, A., (2008). Effect of credit guarantee policy on survival and performance of SMEs in Republic of Korea. *Small Business Economics* (2008) 31:445-462.
- Karlan, D., Kutsoati, E., McMillan, M., and Udry, C., (2011). Crop price indemnified loans for farmers: A pilot experiment in rural Ghana. *The Journal of risk & insurance*, 2011, 78 (1), pp. 37-55.
- Kebret, H., (2000). Land reform: Revisiting the public versus private ownership controversy. *In* Institutions, resources and development in Ethiopia. Proceedings of the 9th Annual Conference on the Ethiopian Economy. Mekonen, A. and Aredo, D. (eds.). 8-9 October 1999. Addis Ababa. pp. 47-66.
- Khan, R., and Hussain, T., (2011). Demand for formal and informal credit in agriculture: A case study of cotton growers in Bahawalpur. *Interdisciplinary journal of contemporary research in business*. Vol 2, No. 10 February 2011.
- KIT and IIRR (2010). Value Chain Finance. Beyond microfinance for rural entrepreneurs. Royal Tropical Institute, Amsterdam; and International Institute for Rural Reconstruction.
- Klerk, T., (2008). The Rural Financial Landscape. A Practitioners Guide. Agrodok-Series No.

49. Agromisa Foundation and CTA, Wageningen, 2008.
- Kodama, Y., (2007). New role of cooperatives in Ethiopia: The case of Ethiopian coffee farmers' cooperatives. *African Study Monographs, Suppl. 35*: 87-108, March 2007.
- Komicha, H., (2008). Credit Sector Choice of Farm Households and its Determinants in Imperfect Credit Markets of South-eastern Ethiopia. *In Rural Development and Environment in Ethiopia: Prospects and challenges. Proceedings of the 10th Annual Conference of the Ethiopian Agricultural Economics Society. May 2008. A. Ababa, Ethiopia. pp. 255-292.*
- Kuo, C., Chen., and Sung, C., (2011). Evaluating guarantee fees for loans to small and medium-sized enterprises. *Small Business Economics (2011), 37, pp. 205-218.*
- Lemma, T., (2008). Growth without structures: the cooperative movement in Ethiopia. *In Cooperating out of poverty. The renaissance of the African cooperative movement. Develtere et al (eds.). International Labour Office, Geneva. pp. 128-152*
- Levitsky, J., (1997). Credit guarantee schemes for SMEs – an international review. *Small Enterprise Development, Vol. 8 (2). June 1997*
- Mack, N., Woodson, A., Macqueen, K., Guest, G. and Namey, E., (2005). *Qualitative Research Methods: A data Collector's Field Guide. Family Health International. USA*
- Mafimisebi, T., Oguntade, A., and Misebi, O., (2010). Re-engineering agriculture for enhanced performance through financing. *Journal of Economics, Finance and Administrative Science, 15 (29), 2010.*
- Mahmood, A., Khalid, M., and Kouser, S., (2009). The role of agricultural credit in the growth of livestock sector: A case study of fiasalabad. *Paksitan Vet. J., 2009, 29 (2), pp. 81 – 84.*
- Marshall, C., and Rossman, G., (1999). *Designing qualitative research, 3rd Edition. Sage Publications.*
- Marshall, M., (1996). Sampling for qualitative research. *Family Practice 1996: 13, pp. 522-525. Oxford University Press.*
- Mcloughlin, C., (2011). *Cooperatives and development. Helpdesk Research Report. Governance and Social Development Resource Centre. April 2011.*
- MEDAC (1999). *Survey of the Ethiopian Economy. Review of Post Reform Development (1992/93-1997/98). MEDAC, Addis Ababa.*
- Messah, O., and Wanjai, P., (2011). Factors that influence the demand for credit among small

- scale investors: a case study of Meru Central District, Kenya. *Research journal of finance and accounting*. www.iiste.org (Online). Vol 2 (2). 2011.
- Meyer, R. & Nagarajan, G., (1996). Evaluating credit guarantee programmes in developing countries, Paper Presented at the Meetings of the American Agricultural Economics Association, San Antonio, TX, July.
- Minten, B., Tamru, S., Kuma, T., and Nyarko, Y., (2014). Structure and performance of Ethiopia's coffee export sector. Ethiopia Strategy Support Programme. EDRI/IFPRI, Working Paper No 66. June 2014.
- Mohan, R., (2004). Agricultural Credit in India: Status, Issues and Future agenda. Reserve Bank of India, November Bulletin 2004.
- Morris, J., and Copestake, J., (1993). Qualitative Enquiry for Rural development: A Review. Intermediate Technology Publications. London. UK.
- Motamed, M., (2010). Role of cooperative companies in sustainable rice production and poverty alleviation in Guilan state of Iran. *African Journal of Biotechnology*, 9(11): 1592-1599.
- Mouton, J., (2001). How to succeed in your Master's and Doctoral Studies; Pretoria. Van Schaik Publishers.
- Mpuga, P., (2010). Constraints in access to and demand for rural credit: Evidence from Uganda. *African Development Review*, Vol. 22, No. 1, 2010, pp. 115-148.
- Mthimkhulu, A., and Aziakpono, M., (2012). Do credit guarantee schemes address credit market failures for small businesses? Preliminary evidence from South Africa. Paper for presentation at the Africa Development Finance Workshop, 7 – 8 August 2012. University of Stellenbosch Business School, Cape Town, South Africa.
- Muayila, K., and Tollens, E., (2012). Assessing the impact of credit constraints on farm household economic welfare in the hinterland of Kinshasa, DRC. *African Journal of Food, Agriculture, Nutrition and Development*. 12(3). May 2012. pp. 6095 – 6109.
- Muthuma, E., (2012). Do cooperative development policies really lead to the development of cooperatives? Lessons from Kenya. *Africa insight*, Vol. 41, No 4, 2012.
- Nagarajan, G., Meyer, R. and Hushak, J., (1998). Demand for agricultural loans: A theoretical and econometric analysis of the Philippine credit market. *Savings and Development – No. 3 – 1998 – xxii*. The Ohio State University.
- Navajas, A., (2001). Credit guarantee schemes: conceptual frame. *Financial System*

- Development Project. GTZ/FONDESIF. November 2011.
- Nega, B., and Nuru, S., (1999). 'Performance of the Ethiopian Economy 1991-1998', in The Ethiopian Economy Performance and Evaluation: Proceedings of the Eighth Annual Conference on the Ethiopian Economy. Alemayehu, G., and Berhanu, N., (Eds.). October 30 – November 1, 1998. A.A, Ethiopia.
- Negussie, E., Derese, T., Berhanu, M. and Getachew, W., (2008). Research Center-based Extension Interventions on Improved Coffee Technologies. *In Coffee Diversity and Knowledge. Proceedings of the workshop on Four Decades of Coffee Research and Development in Ethiopia*, 14 - 17 August, 2007. Addis Ababa. *pp.* 345 – 356.
- Negussie, E., Mitiku, M., and Agwanda, C., (2007). Does Acquisition of Information and Knowledge Suffice? Lessons in improving coffee quality through an innovative and integrated approach in Ethiopia. *In: the proceedings of the 8th African Crop Science Society Conference, El-Minia, Egypt. Vol. 8. pp.* 1237-1241.
- Oh, I., Lee, J., and Heshmati, A. and Choi, G., (2008). Evaluation of credit guarantee policy using propensity score matching. *Small Business Economics* (2009) 33, *pp.* 335-351.
- Okon, X., and Nkang, N., (2009). An assessment of Nigeria's agricultural credit guarantee scheme fund: evidence from time-series analysis. *Global Journal of Agricultural Sciences. Vol 8* (2).
- Okurut, N., Schoombee, A., and Berg, S., (2004). Credit demand and credit rationing in the informal financial sector in Uganda. A Paper for the conference on African Development and Poverty Reduction: The Macro-Micro Linkage. 13-15 October, 2004. South Africa.
- Okwoche, V, Asogwa, B., and Obinne, P., (2010). Evaluation of agricultural credit utilisation by cooperative farmers in Benue State of Nigeria. *European Journal of Economics, Finance and Administrative Sciences. Issue 47*, 2012. <http://www.eurojournals.com/EJEFAS.htm>
- Olagunju, F., and Ajiboye, A., (2010). Agricultural lending decision: A tobit regression analysis. *African journal of food, agriculture, nutrition and development. Vol.10. No. 5*, May 2010.
- Oni, O., Aamao, J., and Ogbowa, O., (2005). Determinants of credit demand among rural farming household in Ose local government area: Ondo state of Nigeria. *Journal of Financial Management and Analysis*, 18 (2): *pp.* 76-80.
- Ono, A. and Uesugi, I. (2009). Role of collateral and personal guarantees in relationship lending: Evidence from Japan's SME loan market. *Journal of money, credit & banking. Vol.41*(5)

- Oromia Bureau of Finance and Economic Development (2012): Oromia National Regional State Brief Part IV. December 2012.
- Ortmann, GF., and King, RP., (2007a). Agricultural Cooperatives I: History, Theory and Problems. *Agrekon, Vol 46, No 1, pp. 40 – 68.*
- Ortmann, GF., and King, RP., (2007b). Agricultural cooperatives II: Can they facilitate access of small-scale farmers in South Africa to input and product markets? *Agrekon, Vol 46, No 2, pp. 219 – 244.*
- Otieno, R., (1997). Determinants of credit demand by smallholder farmers in Kenya: an empirical analysis. *Der Tropenlandwirt, Beitrage zur tropischen Landwirtschaft und Veterinarmedizin, 98. Jahrgang, April 1997, pp. 63 – 71.*
- Pal, S., (2002). Household Sectoral Choice and Effective Demand for Credit in India. *Applied Economics. 14: 1743-1755.*
- Panetta, I., (2012). An analysis of Credit Guarantee Schemes: Suggestion provided by literature, *In Leone, P. and Vento, GA (ed): Credit Guarantee Institutions and SME Finance, Palgrave MacMillan, New York. pp. 11 -37*
- Pollet, I., (2009). Cooperatives in Africa: The age of reconstruction – synthesis of a survey in nine Africa countries. *Coop Africa, Working paper No. 7. ILO, 2009.*
- Posey, R., and Reichert, A., (2011). Terms of lending for small business lines of credit: The role of loan guarantees. *The International Journal of Business & Finance Research. Vol. 5 (1).*
- Rahji, M., and Adeoti, A., (2010). Determinants of agricultural credit rationing by commercial banks in South-Western Nigeria. *International Research Journal of Finance and Economics. ISSN 1450-2887 Issue 37 (2010). <http://www.eurojournals.com/finance.htm>.*
- Riding, A., Madill, J., and Haines, G., (2007). Incrementality of SME loan guarantees. *Small Business Economics (2007), 29: pp. 47-61*
- Riding, A., and Haines, G., (2001). Loan guarantees: Costs of default and benefits to small firms. *Journal of Business Venturing, 16, pp. 595-612.*
- Rui, L., and Xi, Z., (2010). Econometric analysis of credit constraints of Chinese rural Households' and welfare loss. *Applied Economics, 201, 42, pp. 1615-1625. Taylor & Francis 1615 <http://www.informaworld.com>*
- Saadani, Y., Arvai, Z., and Rocha, R., (2010). A review of credit guarantee schemes in the Middle East & North Africa Region. *Financial Flagship, The World Bank. October 2010.*
- Saldana, C., (2000). Assessing the economic value of credit guarantees. *Journal of Philippine Development. Number 49, Volume XXVII, No.1, First September 2000.*

- Schwettmann, J., (2011). Capacity building for Africa's cooperatives and social economy organizations. A contribution to the Expert Group Meeting. Cooperatives in social Development: Beyond 2012; 3 – 6 May, 2011, Ulaanbaatar, Mongolia.
- Schwettmann, J., (1997). Cooperatives and employment in Africa. ILO, Occasional Discussion Paper 97-1. ILO, Geneva
- Sebopetji, O., (2008). An application of probit analysis to factors affecting small-scale farmers' decision about credit. A case study of Greater Letaba Local Municipality, Limpopo province. MSc thesis. University of Limpopo. 2008.
- Sial, M., Awan, M., and Waqas, M., (2011). Role of institutional credit on agricultural production: A time series analysis of Pakistan. *International Journal of Economics and Finance* Vol. 3, No. 2; May 2011. [www.ccsenet.org/ijef]
- Sigelman, L. and Zeng, L., (1999). Analysing censored and sample-selected data with Tobit and Heckit models. *The George Washington University. Political Analysis* 8, pp. 167-182.
- Sinha, S., and Martin, I., (1998). Informal Credit Transactions of Microcredit Borrowers in Rural Bangladesh. *IDS Bulletin* 29.
- Stiglitz, J., and Weiss, A., (1981). Credit rationing and markets with imperfect information. *American Economic Review*, 71 (3), pp. 393-410.
- Swain. R., (2007). The demand and supply of credit for households. *Applied Economics*. Taylor & Francis 2681. <http://www.tandf.co.uk/journals>.
- Swain, R., (2002). Credit rationing in rural India. *Journal of Economic Development*. 27 (2).
- Tang, S., Guan, Z., and Jin, S., (2010). Formal and informal credit markets and rural credit demand in China. Selected paper prepared for presentation at the Agricultural and Applied Economics Association. AAEA, CAES and WAEA joint annual meeting, Denver, Colorado, July 25-27, 2010.
- Toomet, O., and Henningsen, A., (2008). Sample Selection Models in R: Package Sample Selection. *Journal of Statistical Software*. Vol. 27, Issue 7. <http://www.jstatsoft.org/>
- Tongco, M. D., (2007). Purposive sampling as a tool for informant selection. *Ethnobotany Research and Application* 5: pp. 147-158.
- Tunahani, H., and Dizkirici, A., (2012). Evaluating the credit guarantee fund of Turkey as a partial guarantee programme in the light of international practices. *International journal of business and social science*, Vol. 3, No. 10. (Special Issue – May 2012. pp. 79-82.

- Ukurut, N., Schoombee, A., and van der Berg, S., (2004). Credit demand and credit rationing in the informal financial sector in Uganda. Paper to the DPRU/Tips/Cornell Conference on African Development and Poverty Reduction: The Macro-Micro Linkage, 13-14 October, 2004. Forum Paper. Somerset West, South Africa.
- USAID (2005). Evaluation of Agricultural Cooperatives in Ethiopia programme Activities. December 2005, Washington D.C.
- USAID (1996). Conducting Key Informant Interviews. Performance Monitoring and Evaluation. USIAD Centre for Dev't Information & Evaluation. TIPS No.2, 1996. Washington D.C.
- Verbeek, M., (2004). A guide to modern econometrics. 2nd Edition, Erasmus University Rotterdam. John and Sons Ltd. England. p 429.
- Vogel, R., and Adams, D., (1997). Costs and Benefits of Loan Guarantee Programmes. The Financier 4(1 & 2), pp. 22-29.
- Wale, E., (2000). The challenges in the search for efficient and sustainable rural credit institutions and their policy implications in Ethiopia. *In* Institutions for Rural Development. Proceedings of the 4th Annual Conference of the Agricultural Economics Society of Ethiopia. Negatu *et al* (eds.). 23-24 November, 1999. Addis Ababa. pp. 93-124
- Wanyama, F., (2012). The Social and Solidarity economy in African Development: The role of cooperatives. A paper prepared for a Cooperative Symposium on Perspectives for Cooperatives in Southern Africa, Protea Hotel, Lusaka, Zambia, 20–21 August, 2012.
- Wanyama, F., Develtere, P., and Pollet, I., (2008). Encountering the evidence: Cooperatives and poverty reduction in Africa. Working papers on social and cooperative entrepreneurship. WP-SCE 08.02, 2008.
- Wiboonpongse, A., Sriboonchitta, S., and Chaovanapoonphol, Y., (2006). The demand for loans for major rice in the Upper North of Thailand. Contributed paper for presentation at the International Association of Agricultural Economics Conference, Gold Coast, Australia, August 12-18, 2006. <http://ageconsearch.umn.edu/bitstream/25303/1/cp060396.pdf>
- Wilkinson, T., and Bhandarkar, P., (1992). Methodology and Techniques of Social Research. Himalaya Publishing House. Mumbai.
- Wolday, A., (2010). A road map to build inclusive finance in Ethiopia (2011 – 2015). Building the performance of inclusive finance providers. Proceedings of the 6th Bi-annual conference on microfinance dev't in Ethiopia, Dire Dawa. AEMFI, 2008. pp. 11-57.

- Wolday, A., (2009a). Meeting the financial needs of smallholder farmers in Ethiopia. *In* Proceedings of the 10th Anniversary of AEMFI Ethiopia. Alemu, T., (ed.). Addis Ababa, Ethiopia. 2009. pp. 9 - 46.
- Wolday, A., (2009b). Microfinance Institutions in Agriculture: The Ethiopian Experience. Managing risk in financing agriculture. *In* Proceedings of the Expert meeting convened and co-sponsored by AFRACA, FAO, the Lank Bank of South Africa, and the World Bank. 01– 03 April, 2009. Johannesburg, South Africa.
- Wolday, A., (2008a). A decade of Microfinance Institutions Development in Ethiopia: Growth, Performance, Impact and prospect (2008 – 2017). Association of Ethiopian Microfinance Institutions. Occasional Paper No. 21. January 2008. Addis Ababa. P. 118.
- Wolday, A., (2008b). Value Chain Financing: Changing the perspective of providing financial services to the livestock sector in Ethiopia. *In* Recent experiences of microfinance institutions in Ethiopia: Growth, sustainability and challenges. Proceedings of the 5th Bi-annual conference on microfinance dev't in Ethiopia, Assosa. AEMFI, 2008. pp. 26–75.
- Wong, L P., (2008). Focus group discussion: a tool for health and medical research. *Medical Education J* 2008; 49 (3), pp. 256-261.
- World Bank (2015). Risk and finance in the coffee sector: A compendium of case studies related to improving risk management and access to finance in the coffee sector. Agriculture Global Practice, Discussion Paper 02. The World Bank.
- World Bank (2008). Increasing access to rural finance in Bangladesh. The forgotten ‘missing middle’. Directions in Development Finance. Washington DC.
- World Bank (2006a). Attacking Africa’s Poverty. Editors (Louise Fox and Robert Liebenthal). Experience from the ground. Washington DC. 2006.
- World Bank (2006b). Strategic Alliances to scale up financial services in rural areas. World Bank Working paper 76. Washington DC.
- World Bank (1994). Development of Rural Financial Markets in Sub-Saharan Africa. World Bank Discussion Paper 219. Washington DC.
- Yu, B., Diao, X., Seyoum, A., and Wamisho, K., (2008). An overview of the performance of Ethiopian Economy. *In* Rural Development and Environment in Ethiopia: Prospects and challenges. Proceedings of the 10th Annual Conference of the Agricultural Economics Society of Ethiopia. Tadesse *et al.* (eds). May 2008, Addis Ababa. pp. 1-34.

- Zapata, N., (2006). Credit decision and rationing rules: A study of informal lenders in the Philippines. *Philippines management review*, 2006, Vol. 13, pp.117-126.
- Zecchini, S., and Ventura, M., (2009). The impact of public guarantees on credit to SMEs. *Small Business Economics* (2009) 32, pp. 191-206.
- Zeller, M., (1994). Determinants of credit rationing: A study of informal lenders and formal credit groups in Madagascar. *World Development*, 22, pp. 1895-1907.
- Zewde, B., (2000). The problems of institutionalization in modern Ethiopia: A historical perspective. *In* Institutions, resources and development in Ethiopia. Proceedings of the 9th Annual Conference on the Ethiopian Economy. Mekonen, A. and Aredo, D. (eds.). 8-9 October 1999. Addis Ababa. pp. 13-22.
- Zhang, P., and Ye, Y., (2010). Study on the effective operation models of credit guarantee system for small and medium enterprises in China. *International Journal of Business and management*. Vol. 5, No. 9, September 2010.

APPENDICES

APPENDIX 1. INFORMATION SHEET AND CONSENT FORMS

Study on the Role of Credit Guarantee in Alleviating Credit Constraints among Coffee Farmers' Cooperatives in Ethiopia

INFORMATION SHEET AND CONSENT FORM – FGD

Good morning/afternoon. My name is **Negussie Efa**, and I am a PhD student with the University of South Africa. My research project aims at exploring the role of a credit guarantee scheme in addressing credit constraints among coffee farmers' cooperatives in Ethiopia. The study will take as a case the current CFC/MoA/CABI credit guarantee scheme to promote enhanced coffee processing practices in Ethiopia. The study will examine the role of such scheme, its effectiveness and factors affecting its performance and successes. The study will also look both at the demand and supply side credit constraints. The findings of the study will be of great significance in designing effective schemes in the future. It will also help to effectively implement the current project.

I am requesting you to allow me to conduct a focus group discussion with you to obtain your views on such issues as rural credit, role of credit guarantee, coffee processing and marketing and cooperatives. The discussion will take slightly over an hour. I would like to inform you that your participation is completely voluntary and you are not forced to take part in this study. You are absolutely free to choose whether to participate or not. Your decision not to take part in the study will not entail any effect on you. There will be no penalties or any other negative consequences for stopping participating in the discussion at any stage.

I also seek your permission to allow me take notes of the discussion. Though complete confidentiality may not be ensured in such group discussions, all notes and records of the study that may identify you will be kept confidential. But confidentiality cannot be guaranteed in such group discussions. I will however encourage group participants to maintain confidentiality of any sensitive issues. The records from your participation may be reviewed by my supervisor or other relevant people from the university to make sure that the research is done properly, but they will also keep your identity confidential. All information that may identify participants will be kept

with me at a secure place and will not be available to others. If need arises, I will refer to you by a code number in any report or publication.

Please kindly note that there are no direct and immediate benefits to you from participating in this study. However, the study will be of great importance in enhancing the effectiveness of the current project and in helping designing effective and appropriate interventions in the future. This will obviously directly or indirectly benefit your community and the coffee cooperatives in other parts of the country at large.

If you have any concern or complaints in relation to this study, please call the UNISA learning centre in Ethiopia (0114-352089/ 0114-352093).

You may also contact me if you have any concern or queries on my telephone number: 0911882355, or email me: e.negussie@cabi.org

Focus Group Discussion Schedule

Good morning/afternoon, I'm **Negussie Efa** and I am conducting a study for my PhD research project. I am undertaking my PhD study at the University of South Africa. My research aims at exploring the role of credit guarantee in alleviating credit constraints among coffee farmers' cooperatives in Ethiopia. The research will focus on issues related to credit demand, supply, utilisation and recovery, role of credit guarantee, coffee cooperatives, coffee processing and marketing by cooperatives. Today I would like to ask you some questions about these issues and to discuss on them.

I have chosen your area purposively based on some predetermined criteria that are relevant for the study. The fact that you are chosen is also deliberate. I would therefore like to request you to answer the questions that follow as honestly as possible. Your opinion and views are important in helping me attain the purpose of the research. I absolutely value your views and opinion during the group discussion. The information discussed in this focus group is confidential though it is difficult to guarantee confidentiality in a group context. The information you provide will be kept in a secure place and used only for this study. If need be it may be shared with my

supervisor and other relevant people in the university. However, you will not be identified by name; we will use codes in referring to your groups.

Particulars of the FGD

Date of FGD _____
Time started _____ Time Completed _____
Name of interviewer/moderator _____ Type of the _____
Number of FG members _____

INFORMATION SHEET AND CONSENT FORM - KII

Hello, good morning/afternoon, my name is **Negussie Efa**, and I am a PhD student with the University of South Africa. My research project aims at exploring the role of a credit guarantee scheme in addressing credit constraints among coffee farmers’ cooperatives in Ethiopia. The study will take as a case the current CFC/MoA/CABI credit guarantee scheme to promote enhanced coffee processing practices in Ethiopia. The study will examine the role of such scheme, its effectiveness and factors affecting its performance and successes. The study will also look both at the demand and supply side credit constraints. The findings of the study will be of great significance in designing effective schemes in the future. It will also help to effectively implement the current project.

I am requesting you to allow me to ask you some questions to obtain your views on such issues as rural credit, role of credit guarantee, coffee processing and marketing and cooperatives. The interview will take about an hour and half. I would like to inform you that your participation is completely voluntary and you are not forced to take part in this study. You are absolutely free to choose whether to participate or not. Your decision not to take part in the study will not entail any effect on you. There will be no penalties or any other negative consequences for stopping participating in the study at any stage.

I also seek your permission to allow me take notes of the interview. All notes and records of the study that may identify you will be kept confidential. We will not record your name anywhere.

The records from your interviews may be reviewed by my supervisor or other relevant people from the university to make sure that the research is done properly, but they will also keep your identity confidential. All information that may identify participants will be kept with me at a secure place and will not be available to others. If need arises, I will refer to you by a code number in any report or publication.

Please kindly note that there are no direct and immediate benefits to you from participating in this study. However, the study will be of great importance in enhancing the effectiveness of the current project and in helping designing effective and appropriate interventions in the future. This will obviously directly or indirectly benefit your community or organisation and the coffee cooperatives and other institutions in various parts of the country at large.

If you have any concern or complaints in relation to this study, please call the UNISA learning centre in Ethiopia (0114-352089/ 0114-352093).

You may also contact me if you have any concern or queries on my telephone number: 0911882355, or email me: e.negussie@cabi.org

Key informant interview guides

Good morning/afternoon, I'm **Negussie Efa** and I am conducting a study for my PhD study. I am currently undertaking my PhD study with the University of South Africa. My research aims at exploring the role of credit guarantee in alleviating credit constraints among coffee farmers' cooperatives in Ethiopia. The research will focus on issues related to credit demand, supply, utilisation and recovery, role of credit guarantee, coffee cooperatives, coffee processing and marketing by cooperatives. Today I would like to ask you some questions about these issues.

I have chosen your area or organisation purposively based on some predetermined criteria that are relevant for the study. The fact that you are chosen is also deliberate based on your knowledge and experience of the study issues. To obtain reliable information I kindly request that you answer the questions that follow as honestly and frankly as possible. Your opinion and views are important in helping meeting the purpose of the research. I absolutely value your opinion and views. The information you provide to me will be kept confidential. If need be it

may be shared with my supervisor and other relevant people in the university. However, you will not be identified by name or address in any of the research report or publication.

Particulars of the Interview

Date of KII _____

Time started _____ Time Completed _____

Type of KI _____ Name of interviewer _____

Cooperative's chairperson or manager questionnaire

Good morning/afternoon; my name is **Negussie Efa**, and I am a PhD student with the University of South Africa. My research aims at exploring the role of credit guarantee in alleviating credit constraints among coffee farmers' cooperatives and factors influencing its effectiveness. The research will focus on issues related to credit demand, supply, utilisation and recovery, role of credit guarantee, coffee cooperatives, coffee processing and marketing by cooperatives. I would like to ask you to answer questions related to these issues, which I hope will directly or indirectly benefit your cooperative and possibly cooperatives in other coffee producing areas of the country. The study will generate useful findings for designing relevant and appropriate interventions as well as to effectively implement the current credit guarantee scheme.

Your cooperative has been purposively selected to take part in this study. The study is carried out in 11 coffee producing districts of eight zones. In total, 100 cooperatives have been selected to take part in this study. Please note that participation in this study is absolutely voluntary and I would appreciate it if you can take some time to respond to the following questions. I would also like to inform you that you are free to withdraw from participating in the study at any stage if you decide not to take part in the study. Decision to withdraw from the study will not entail any penalties or any undesirable consequences. However, I would greatly appreciate it if you could kindly share your views with me.

All the information you provide will be kept confidential and will never be related to your name or address. As your name will not be recoded anywhere on the questionnaire, no one would be able to link you to the information you provided. I will refer to you by a code in the study report or any other publication. Only myself and my supervisor will have access to the anonymous information.

The interview will last for about an hour. I will be asking you a number of questions and request you to bear with me and provide genuine answers as possible. If you have any question or seek clarification, please stop us at any time and ask.

If you wish to have any further information about the study, please feel free to contact me.

Thank you very much for your willingness to take part in this study.

Negussie Efa

PhD Candidate, University of South Africa

Tel. 0911882355; email: e.negussie@cabi.org

The interviewer (Mr/Mrs/Ms _____) will be contacting you on my behalf.

CONSENT

I _____, the undersigned, hereby willingly volunteer to participate in a research on the Role of Credit Guarantee in Alleviating Credit Constraints among Coffee Farmers' Cooperatives in Ethiopia.

The purpose, procedures and expected benefits of the study have been explained to me and I have been given a chance to seek clarifications. I understand that I am participating freely and without being forced to do so. I am fully aware that I can freely withdraw from taking part in the study at any time without facing any penalty.

I have been told that this is a study that will not necessarily generate immediate personal benefit to me.

I understand that the information I provide will remain confidential and that this consent form will not be related to the answers I provide. I also agree to the note taking of my participation in the study.

Signature **Place** **Date:**.....

APPEDIX 2. KEY INFORMANT INTERVIEWs, FOCUS GROUP DISCUSSION AND OBSERVATION GUIDES

Key Informant Interviews Guides

1. Coffee production, processing and marketing:
 - a. What is the cultural and economic significance of coffee in this area?
 - b. What are the major coffee varieties you commonly grow in this area?
 - c. Can you describe practices and constraints of coffee production in the area?
 - d. Can you describe practices, key changes & constraints of coffee processing in the area?
 - e. In your view, which processing method do cooperatives in your area prefer; why?
 - f. Can you describe experiences, key changes and constraints of coffee marketing practices?
 - g. What are the major coffee marketing channels for primary cooperatives?
 - h. Which market outlets are preferred by cooperatives? Why?
 - i. Are there differential market prices for coffee of different qualities?
 - j. How do you set the prices of coffee during marketing (during selling or purchase)?
2. Views and information on credit services for agriculture and coffee:
 - a. What are the major credit sources for agriculture and coffee in the area?
 - b. How is the banks' loan portfolio for the agriculture and coffee sector over years?
 - c. Can you describe the lending policies, procedures, terms and conditions of the financial institutions, which may include:
 - Priority sectors, types & terms of loan, interest rate, collateral requirement, loan processing, disbursement, monitoring and recovery mechanisms
 - d. What factors are taken into account in determining loan amount, duration of loan, repayment schedule, interest rate, etc?
 - e. What kind of loan do banks prefer to supply to cooperatives, which may include:
 - For processing facilities, crop advance to their members, for purchasing and locally selling coffee, for exporting coffee, etc)?
 - f. How do you see coffee cooperatives' demand for credit and is it currently satisfied?
 - g. Are loans from formal financial institutions accessible to coffee coops? If not, why?
 - h. What kind of loan do most coffee farmers and cooperatives require, in terms of:

- Type, amount, purpose, mode of disbursement, duration, repayment schedule?
- i. What do you think about efforts made by formal financial institutions to reach smallholder coffee farmers and their cooperatives?
 - j. Do banks think that lending to farmers coops is profitable and feasible? If not, why?
 - k. In your opinion, what are the major causes of default among coffee cooperatives?
3. Views regarding cooperatives credit history and experience:
- a. Has your cooperative ever obtained loan from banks?
 - b. If yes, from which banks, how much, for what purpose?
 - c. Have you ever borrowed from other sources? If yes, which sources, how much and for what purpose?
 - d. Which lending institution does your cooperative prefer; why?
 - e. What was the largest and smallest amount you borrowed?
 - f. Did previous loans meet your cooperative's demand? If not, why?
 - g. Has your cooperative been ever denied loans? If yes, why?
 - h. Did you have difficulties in repaying the loan? What were reasons for default or delay, if any?
 - i. Is there any case of loan diversions among your cooperative? If any, how and what were the reasons?
 - j. Is your cooperative ready and willing to repay future loans?
 - k. What were the major challenges & constraints of your cooperative in obtaining and utilising bank loans?
4. Views regarding role of credit guarantee fund in easing loan constraints?
- a. Do you think that most cooperatives want to acquire loans at the prevailing interest rate if credit guarantee is provided?
 - b. What is your view regarding the design & arrangement of the current guarantee fund?
 - c. Do you think that credit guarantee scheme can enable banks widely reach farmers' cooperatives? How? If not why?
 - d. In your opinion can such intervention improve bank's flexibility in extending loans to cooperatives – in terms of easing procedures, conditions, timing, etc.
 - e. What other conditions do banks expect cooperatives to fulfill if CG is provided?
 - f. Are banks interested and willing to be involved in such schemes?

- g. Are banks satisfied with the 50% risk sharing guarantee fund? If not why?
 - h. Who should pay guarantee fees; are banks ready and willing to pay guarantee fees?
 - i. What features of this guarantee scheme did you like and dislike? Why?
 - j. Do you think that cooperatives really need loan (and the investment they have planned) or they just want to obtain because it is available under the current scheme?
 - k. What other challenges/constraints do you foresee in supplying credit to cooperatives after getting credit guarantee? Which ones are most important?
 - l. Do banks have previous experience with use of credit guarantee? If yes, with whom? Was it successful?
 - m. What do you think can enhance the effectiveness of a guarantee scheme?
 - n. Do you think that availability of credit guarantee would have impact on borrowers' and banks loan recovery behavior and efforts?
5. Views about perception and attitude towards cooperatives and their services?
- a. Can you describe operations and major services provided by your cooperative?
 - b. Are coffee/multipurpose cooperatives involved in SACCOs?
 - c. Do you think that cooperatives are effective and beneficial to member farmers?
 - d. How do you see member farmers' confidence in their cooperatives and management?
 - e. What is your view regarding commitment of management to serve their members?
 - f. What is your opinion and experience regarding how the board & committee are elected, general assembly, business plan preparation and approval, etc.
 - g. What is your view regarding suitability of cooperatives to serve as intermediaries for bank loans - how? If not why?
 - h. How do you see the performance & benefits of coops in marketing members' coffee?
 - i. Do you think that more farmers are interested to join cooperatives?
 - j. How do you see the capacities of cooperatives? What are the gaps?
 - k. How is cooperatives' working relationship with extension and other institutions?
 - l. What are the main cost centres for the cooperatives?
 - m. How do you look at good governance in cooperatives?
 - n. What type of committee does your cooperative have and which ones are active?
 - o. What financial and accountability documents do you have?
 - p. What are the major challenges and constraints facing cooperatives in your area?

Focus Group Discussion guides

1. Significance of (economic and cultural) coffee in the area:
 - a. What is the importance of coffee in this area?
 - b. What are the socio-cultural uses of coffee in this area?
 - c. What importance do women in your area attach to coffee & why?
2. What meanings/importance do men in this area/ Ethiopia attach to coffee and why?
 - a. Coffee production, processing and marketing experiences:
 - b. Describe the different varieties of coffee that you know and/or grow.
 - c. Which varieties of coffee do well in this area and why?
 - d. Can you describe trends and experiences of coffee production, processing and marketing practices in the area?
 - e. How is the labour for coffee production in this area organised?
 - f. What are the major challenges of coffee production, processing & marketing?
 - g. How do you see coffee marketing channels in relation to cooperatives?
3. Views on credit services in the area:
 - a. What are the major credit sources for cooperatives in the area?
 - b. What do you think are the pros and cons of these different credit sources?
 - c. What are your views about formal financial institutions' terms and conditions of existing loan products, lending procedures and policies, etc?
 - d. How do you see coffee cooperatives' demand for, access to and utilisation of credit? What are the major challenges?
 - e. How do you see loan repayment behavior among cooperatives and its determinants?
 - f. What are the loan preferences of cooperatives in terms of **purpose, amount, duration, repayment schedule**, etc?
4. Perception and views about cooperatives and their services/operations.
 - a. Can you describe background of your cooperatives (year of establishment, purpose, membership, etc)?
 - b. How do you see the operations and services provided by your cooperatives (coffee purchasing, processing, selling, input supply, etc)?
 - c. How do you see the trust and confidence of members in their coops and management?

- d. Has there been improvement in cooperatives' operation in recent years in this area?
 - e. What do you think about suitability and possibility of using cooperatives as intermediaries for bank loans?
 - f. What is your perception of union's services and support to cooperatives?
5. Views about loan security and role of loan guarantee fund.
- a. Do you think that loan security (collateral) is a major constraint among cooperatives in obtaining bank loan?
 - b. How do you see the role of the partial credit guarantee in easing coops' credit constraints?
 - c. Do coffee cooperatives seriously need loan or they just wanted to obtain because it is available through the scheme?
 - d. Do they really need the investment they have planned to make or they just wanted to have it because fund is available?
 - e. What setbacks do you expect of such credit guarantee schemes?
6. Views on other emerging or contentious issues (identified during the research process).

Observational protocol

1. Introductions – self and the research project
2. Record information on date, time, event and/or place of observation
3. Conduct observations at various places and events with different groups:
 - a. Interactions between different actors (farmers, coops, financial institutions, etc)
 - b. Coffee farmers' cooperatives activities, practices and behaviors.
 - c. Coffee farmers coops' coffee production, harvesting, processing and marketing
 - d. Loan application, screening, disbursement, utilisation and monitoring practices.
 - e. Traders activities and practices – in coffee processing and marketing
 - f. Extension and cooperative workers activities in supporting farmers and cooperatives
4. Thank the individuals or groups for participating or allowing to observe.

APPEDIX 3. Questionnaires

Questionnaire for coffee cooperatives' chairperson or manager – 1st round survey

Date of interview _____; Region _____; District _____

Name of cooperative _____; Name of interviewer _____

A. Background information and resource ownership

1. In which year was your cooperative established _____(E.C)
2. What is the member size of your cooperative _____ ?
3. Out of the total, how many are female members _____?
4. What is the type of your cooperative? (1) Coffee cooperative (2) Multipurpose coops
5. What is the main business activity of your cooperative? (1) Coffee trade (2) Grain trade (3) Other trade activities (4) Fertilizer & other input supply (5) 1 and 2 (6) 1, 2 & 3 (7) 1, 2, 3 and 4 (8) Others (specify) _____
6. How old is the chairperson of your cooperative _____years?
7. What is the educational level of your cooperative's chairperson? (1) Illiterate (2) Only read and write (3) Completed primary (4) Attended secondary school (5) Post-secondary school
8. How many employed workers does your coop have as of September 2012 (2005 E.C)? _____
9. Does your coop have professional manager as of September 2012? (1) Yes (2) No
10. Does your coop have an accountant as of September 2012 (2005 E.C.)? (1) Yes (2) No
11. Has your coop been selected to participate in the credit guarantee scheme? (1)Yes (2) No
12. How much capital does your coop have in bank as of September 2012 (2005 E.C.)? _____ Birr
13. What was the amount of your coop's capital in stock as of September 2012?__Birr
14. How much is your outstanding liability as of September 2012 (2005 E.C.), if any? _____ Birr
15. Has your cooperative been regularly auditing its accounts? (1) Yes (2) No
16. Asset ownership and their current value (as of end of 2012):

Resource	Number	Value (Birr)		Resource	Number	Value (Birr)
Weighing scale				Coffee huller		
Office				Wet mill		
Warehouse				Floor mill		
Houses/rooms for rent				Others (specify)		
Shop						

B. Expenditures

17. Expenditures (investment and other expenses) incurred during the year (January –Dec) 2012

17.1. Investment on capital goods (warehouse, coffee machine, office, etc)	
17.2. Processing, transport and marketing of products	
17.3. Tax and rents	
17.4. Salaries	
17.5. Labour cost and inputs	
17.6. For social purposes; e.g. school, road, water development and other community services	
17.7. Others (specify)	

C. Infrastructural and institutional services

18. How far is your cooperative located from the nearest vehicle accessible road? _____Km

19. How far is your cooperative from the nearest bank (any bank)?_____Km

20. How far is your cooperative located from the district/woreda office ? _____Km

21. How far is your cooperative located from the nearest primary coffee market centre? _____Km

22. How far is your cooperative from the nearest coffee hulling station? _____Km

23. How far is your cooperative from the nearest coffee washing station? _____Km

24. Did your coop have any contact with extension/cooperative DA in 2012? (1) Yes (2) No

25. If yes, how many times did the extension agent visit your cooperative in the year 2012? _____

26. Do you think that your cooperative has received adequate support from cooperative promotion office and agents? (1) Yes (2) No

27. Is your cooperative a member of coffee union? (1) Yes (2) No

28. If 27 is yes, what services have you received from the cooperative union? (1) Farm inputs (2) Loan (3) Coffee processing and drying facility/materials (4) Coffee marketing (5) Education or training and consultancy (6) All (7) Others (specify)_____
29. If your coop is a member of coffee union, do you think that it is beneficial? (1) Yes (2) No
30. Did your cooperative participate in other previous projects that targeted coffee quality improvement or credit service? (1) Yes (2) No

D. Cooperatives experience with credit services (credit history)

31. Did your cooperative apply for bank loans during the following years?

31.1	Year 2010 (January 2002 – December 2003 E.C.)	(1)Yes (2) No
31.2	Year 2011 (January 2003 – December 2004 E.C.)	(1)Yes (2) No
31.3	Year 2012 (January 2004 – December 2005 E.C.)	(1)Yes (2) No

32. If number 31 is yes, what was the amount you requested for in Birr?

32.1	Year 2010	
32.2	Year 2011	
32.3	Year 2012	

33. Did your cooperative take loan during the following years?

33.1	Year 2010 (January 2002 – December 2003 E.C.)	(1) Yes	(2) No
33.2	Year 2011 (January 2003 – December 2004 E.C.)	(1) Yes	(2) No
33.3	Year 2012 (January 2004 – December 2005 E.C.)	(1) Yes	(2) No

34. If your coop obtained loan during the following years, how much did you borrow in Birr?

34.1	Year 2010	
34.2	Year 2011	
34.3	Year 2012	

35. If your cooperative had received loans during the following years, what was the source?

35.1	Year 2010	(1) Cooperative Bank of Oromia (2) Commercial Bank of Ethiopia (3) Microfinance Institute (4) Coop Union (5) SACCO/RUSACCO (6) Other private banks (Specify) _____
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35.2	Year 2011	(1) Cooperative Bank of Oromia (2) Commercial Bank of Ethiopia (3) Microfinance Institute (4) Coop Union (5) SACCO/RUSACCO (6) Other private banks (Specify) _____
35.3	Year 2012	(1) Cooperative Bank of Oromia (2) Commercial Bank of Ethiopia (3) Microfinance Institute (4) Coop Union (5) SACCO/RUSACCO (6) Other private banks (Specify) _____

36. If you took loan in 2010 and 2011, what was the purpose for which loan was taken? (1) To purchase fresh cherries (2) To purchase dry coffee (3) To install wet-mill (4) To buy drying materials (5) To buy hulling machine (6) To buy inputs (7) Others (specify)_____

37. If you took loan in 2012 (January 2004 – December 2005 E.C), what was the purpose for which loan was taken? (1) To purchase fresh cherries (2) To purchase dry coffee (3) To install wet-mill (4) To buy drying materials (5) To purchase hulling machine (6) To purchase inputs (7) Others (specify) _____

38. If your coop received loan during the following years, how long was the duration of the loan (in months)?

38.1	Year 2010	
38.2	Year 2011	
38.3	Year 2012	

39. If your coop took loans during the following years, was the amount obtained adequate for the purpose you needed for?

39.1	Year 2010	(1) Yes (2) No
39.2	Year 2011	(1) Yes (2) No
39.3	Year 2012	(1) Yes (2) No

40. If your coop obtained loan in the past years, how long did loan processing take you (in weeks) from application to loan approval and release?

40.1	Year 2010	
40.2	Year 2011	
40.3	Year 2012	

41. Was your cooperative's application for a bank loan ever rejected? (1) Yes (2) No
42. If 41 is yes, why? (1) Lack of collateral (2) Problem of liquidity (shortage of loan fund) among the bank (3) Lack of good quality business activity that deserve financing (4) We were not told the reason (5) Due to previous default (6) Others (specify) _____
43. Did your cooperative ever fail to repay its loan as per the contract? (1) Yes (2) No
44. If number 43 is yes, what was the reason? (1) Could not repay due to lack of capacity (2) Did not want to repay or was just reluctant (3) Others (specify) _____
45. If you ever borrowed from cooperative union, was it bearing interest? (1) Yes (2) No

E. Cooperatives' institutional (bank) credit demand

46. Does your coop seriously need a bank loan at the prevailing interest rate? (1) Yes (2) No
47. If your cooperative needs a loan, what is the amount of loan you require as of September 2012 (2005 E.C.)? _____ Birr
48. If your cooperative needs a loan, what is the amount of loan you require at present? _____ Birr
49. If number 46 is yes, what purpose do you need the loan for (1) To purchase and immediately sell fresh cherries (2) To purchase and dry fresh cherries (3) To purchase and sell dry coffee (4) To install wet-mill (5) To purchase drying materials (6) To purchase hulling machine (7) To purchase inputs (8) All (9) Others (specify) _____
50. If 46 is yes, when do you want to receive the loan (write the preferred month)? _____
51. If number 46 is yes, for how long do you need the loan (loan duration)? _____ Months
52. What is your preferred loan repayment schedule? (1) Monthly any time (2) Monthly during coffee harvesting time (3) Quarterly (4) Every six month (5) Annually (6) At the end of harvesting season (7) Other suggestion (specify) _____
53. How do you determine your cooperatives loan requirement? (1) Based on our business plan (2) Estimation by committee (3) Estimation by cooperative agent/office (4) Others (specify)
54. Do you think that lack of collateral is a major bottleneck to your cooperative to access bank credit? (1) Yes (2) No
55. Do you think that availability of credit guarantee will enhance your cooperative's loan demand (need)? (1) Yes (2) No
56. Do you think that availability of credit guarantee will enhance your cooperative's access to bank loan? (1) Yes (2) No

57. Do you think that your cooperative is ready and willing to repay loans provided under the current guarantee scheme? (1) Yes (2) No
58. If your cooperative does not need to apply for a bank loan, what is the reason? (1) Have enough capital (2) Do not have viable business to finance (3) Fear of being indebted or failure to repay (4) Lack of awareness about possibility of borrowing from bank (5) Thought unable to meet banks' lending requirements (6) Banks do not provide loans that suit you needs (7) High interest rate (8) Others (specify) _____
59. What do you think affects credit repayment by cooperatives? (1) Lack of capacity (2) Lack of awareness & reluctance (3) Poor monitoring & follow up by banks (4) Nature of contractual agreement and repayment schedule (5) Others (specify) _____
60. What is your opinion regarding main constraints and challenges of cooperatives in accessing bank loan? (1) Collateral requirement (2) High interest rates (3) Time of availability (4) Repayment schedule (5) Loan size/amount (6) Lack of awareness (7) Distance from the lending institutions (8) Loan procedure and processing time (9) Others (specify)_____

F. Opinions about services provided by cooperatives

61. Do you think that cooperatives are beneficial to their members? (1) Yes (2) No (3) Not sure
62. Do you think that many farmers have confidence in coops & its management? (1) Yes (2)No
63. Do you think that many farmers are interested to be members of cooperatives? (1) Yes (2) No
64. Do most members sell their coffee to their cooperatives? (1) Yes (2) No
65. Do you think cooperatives play important role in marketing farmers' coffee? (1)Yes (2) No
66. Do you think that cooperatives can borrow from bank and in turn pass on (lend) to its individual members? (1) Yes (2) No
67. Has your coop ever given loans or advances to its individual members? (1) Yes (2) No
68. In your opinion, what capacities and skills do cooperatives and their management lack? (1) Financial literacy (2) Management skills (3) Good governance (4) Coffee processing (5) Business skills (6) All (7) Others (specify)_____

G. Coffee processing and marketing experiences

69. For how long has your cooperative been involved in coffee business? _____(years)
70. How does your cooperative trade majority of its coffee? (1) Buy and sell fresh cherry (2) Buy fresh cherry & sun-dry (3) Buy dry cherry & sell as it is (4) Buy dry cherry & hull

(5) Buy & sell green beans (6) 1 and 2

71. Which processing method does your coop prefer to use? (1) Sun-drying (2) Washed method

72. If you use sun-drying technique, how does your cooperative undertake sun-drying of cherries? (1) On the ground/soil (2) On brick/cemented floor (3) On raised bed (made of local materials) (4) On raised bed (made of wire mesh) (5) Others (specify) _____

73. Which coffee processing facilities does your cooperative need most? (1) Wire mesh & other drying facilities (2) Small hand pulper (3) Small hullers (4) Big washing station

(5) Big hulling machine (6) Others (specify)_____

74. Where does your cooperative buy coffee from? (1) At primary market centre (2) In various villages (3) At cooperative centre (4) In local markets (5) Others (specify)_____

75. When your cooperative buy coffee from members, how is payment for cherries or dry coffee made? (1) Full cash payment upon delivery by farmers (2) Partial payment on delivery (3) Full payment later after sale of coffee (4) Others (specify)_____

76. Are farmers willing to supply their coffee to your coop on loan? (1) Yes (2) No

77. How does your cooperative prefer to sell its coffee? (1) Fresh cherry (2) Dry *Jenfel* coffee (3) Hulled green beans (4) Washed parchment (5) Others_____

78. What proportion of your cooperatives coffee do you sell to the union? (1) All (2) About half (3) Less than half (4) More than half

79. During purchase, does your coop pay different prices based on coffee quality? (1)Yes (2)No

80. During coffee sales, does traders or union pay your cooperative different prices for coffee of different quality? (1)Yes (2) No

81. How much income did your cooperative get from non-coffee activities in 2012 (January 2004-December 2005 E.C)?_____ Birr

82. What volume of fresh cherry did your coop buy (in Kg) during the following coffee seasons?

82.1	Year 2010 (2003 E.C)	
82.2	Year 2011 (2004 E.C)	
82.3	Year 2012 (2005 E.C)	

83. What volume of dry coffee did your cooperative buy (in Kg) during the following years?

83.1	Year 2010 (2003 E.C)	
83.2	Year 2011 (2004 E.C)	

83.3	Year 2012 (2005 E.C)	
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84. What was the amount of coffee your cooperative processed (sun-dried or washed) in Kg?

84.1	Year 2010 (2003 E.C)	
84.2	Year 2011 (2004 E.C)	
84.3	Year 2012 (2005 E.C)	

85. What amount of coffee did your cooperative directly sell without processing (in Kg)?

85.1	Year 2010 (2003 E.C)	
85.2	Year 2011 (2004 E.C)	
85.3	Year 2012(2005 E.C)	

86. Where did your cooperative sell its coffee over the following years?

86.1	Year 2010 (2003 E.C)	(1) Union (2) Local traders (3) Processors (4) ECX (5) Private exporters (6) Directly exported
86.2	Year 2011 (2004 E.C)	(1) Union (2) Local traders (3) Processors (4) ECX (5) Private exporters (6) Directly exported
86.3	Year 2012 (2005 E.C)	(1) Union (2) Local traders (3) Processors (4) ECX (5) Private exporters (6) Directly exported

87. What time did your cooperative sell its coffee over the past years?

87.1	Year 2010 (2003 E.C)	(1) Immediately during harvesting (2) At the end of harvesting (3) Later when market was attractive (4) Others (specify)_____
87.2	Year 2011 (2004 E.C)	(1) Immediately during harvesting (2) At the end of harvesting (3) Later when market was attractive (4) Others (specify)_____
87.3	Year 2012 (2005 E.C)	(1) Immediately during harvesting (2) At the end of harvesting (3) Later when market was attractive (4) Others (specify)_____

88. On average, for how long did your coop store coffee in its warehouse over the past years?

88.1	Year 2010 (2003 E.C)	Month
88.2	Year 2011 (2004 E.C)	Month
88.3	Year 2012 (2005 E.C).	Month

89. What was the quality grade of the majority of your cooperatives coffee over years?

89.1	Year 2010 (2003 E.C)	(1) 1 st (2) 2 nd (3) 3 rd (4) 4 th (5) 5 th and below
89.2	Year 2011 (2004 E.C)	(1) 1 st (2) 2 nd (3) 3 rd (4) 4 th (5) 5 th and below
89.3	Year 2012 (2005 E.C)	(1) 1 st (2) 2 nd (3) 3 rd (4) 4 th (5) 5 th and below

90. How much income did your cooperative get from coffee sale?

90.1	Year 2010 (2003 E.C)	
90.2	Year 2011 (2004 E.C)	
90.3	Year 2012 (2005 E.C)	

91. Did your cooperative get profit from coffee sale over the following years?

91.1	Year 2010 (2003 E.C)	(1) Yes (2) No
91.2	Year 2011 (2004 E.C)	(1) Yes (2) No
91.3	Year 2012 (2005 E.C)	(1) Yes (2) No

92. If number 91 is yes, how much profit (in Birr) did your cooperative get over years?

92.1	Year 2010 (2003 E.C)	
92.2	Year 2011 (2004 E.C)	
92.3	Year 2012 (2005 E.C)	

93. How much (total) dividend did you pay to your members over the past years (in Birr)?

93.1	Year 2010 (2003 E.C)	
93.2	Year 2011 (2004 E.C)	
93.3	Year 2012 (2005 E.C)	

94. What additional investment did you make in 2012 (2005 E.C)? (1) Built warehouse (2) Installed wet-mills (3) Built new office (4) Acquired drying facilities (5) Acquired hulling machines (6) Acquired vehicle (7) Built school (8) Bought vehicle (9) Others (specify) ___

Questionnaire for coffee cooperatives' chairperson or manager – 2nd round survey

(both scheme participant and non-participant cooperatives)

Date of interview _____; Region _____; District _____

Name of cooperative _____; Name of interviewer _____

Background information and resource ownership

1. What is the member size of your cooperative? _____ Male _____ Female
2. How many permanent workers are currently employed by your cooperative? _____
3. Does your cooperative have professional manager at present? (1) Yes (2) No
4. Does your cooperative have an accountant at present? (1) Yes (2) No
5. How much capital does your cooperative currently have in bank? _____ Birr
6. What is the amount of capital of your cooperative in stock? _____ Birr
7. How much is your current outstanding liability (if any)? _____ Birr
8. Asset ownership and value of assets owned

Resource	Number	Value (Birr)	Resource	Number	Value (Birr)
Weighing scale			Vehicle		
Office			Motorbike		
Warehouse			Generator		
Coffee huller			Water pump		
Coffee wet mill			Safe box		
Floor mill			Others (specify)		
Shop					

Cooperatives experience with credit services (credit history)

	2013	2014
9. Did your cooperative apply for a bank loan in? (Yes/No)		
10. Did your cooperative take loan in? (Yes/No)		
11. Was your application for a bank loan rejected in? (Yes/No)		
12. If your cooperative obtained loan, how much did you borrow in Birr?		

13. If you received loan, how long was the duration of the loan? _months.		
14. If your cooperative obtained loan in, how long did loan processing take (in weeks)		

15. If your coops took loan in 2013, what was the source? (1) Coop Bank of Oromia (2) Commercial Bank of Ethiopia (3) MFI (4) Coop Union (5) Other private banks

16. If your cooperative took loan in 2014, what was the source? (1) Coop Bank of Oromia (2) Commercial Bank of Ethiopia (3) MFI (4) Coop Union (5) Other private banks

Coffee processing and marketing experiences

17. Are farmers willing to deliver their coffee to your cooperative & receive payment latter after sale? (1) Yes (2) No

18. How does your cooperative trade the majority of its coffee at present? (1) Sell fresh cherry (2) Buy fresh cherry & sun-dry (3) Buy dry cherry & sell as it is (4) Buy dry cherry & hull (5) Buy & sell green beans

19. If you use sun-drying technique, how do you undertake sun-drying of cherries? (1) On cemented floor (2) On the ground/soil (3) On raised bed (made of local materials) (4) On raised bed (mesh wire)

	2013 (Kg)	2014 (Kg)
20. What volume of fresh cherry did you buy?		
21. What volume of dry coffee did you buy?		
22. What was the amount of coffee you processed?		
23. What amount of coffee did you directly sell without processing (without sun-drying or washing)?		

24. On average, for how long did you store coffee in your warehouse in 2013? _____Month

25. What was the quality grade of the majority of your coffee in 2013? (1) 1st (2) 2nd (3) 3rd (4) 4th and below

	2013 (Birr)	2014 (Birr)
26. How much income did you get from coffee sale during?		
27. How much income did your cooperative get from non-coffee business activities during?		

28. Did you get profit from coffee sale during? (Yes/No)		
29. If number 27 is yes, how much profit did you get in?		
30. How much dividend did you pay your members in?		

31. What additional investment did you make in 2013 and 2014? (1) Built warehouse (2) Installed wet-mills (3) Built new office (4) Acquired drying facilities (5) Acquired hulling machines (6) Acquired vehicle (7) Built school (8) Others (specify) _____