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SME FINANCE IN ETHIOPIA:

ADDRESSING THE MISSING MIDDLE CHALLENGE

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Acronyms

CBE	Commercial Bank of Ethiopia
CSA	Central Statistical Agency
DBE	Development Bank of Ethiopia
ES	Enterprise Surveys
LIC	Low-Income Countries
GTP	Growth and Transformation Plan
ICPAE	The Institute of Certified Public Accountants of Ethiopia
IFAC	The International Federation of Accountants
LMMIS	Large and Medium Scale Manufacturing Industries
MDG	Millennium Development Goals
MFI	Microfinance institutions
MoFED	Ministry of Finance and Economic Development
MSME	Micro, Small and Medium Enterprises
NAABE	National Accounting and Auditing Board in Ethiopia
NBE	National Bank of Ethiopia
PASDEP	Plan for Accelerated and Sustainable Development to End Poverty
PCG	Partial Credit Guarantee
SEZ	Special Economic Zone
SME	Small and Medium Enterprises
SSA	Sub-Saharan Africa Region

Executive Summary

The Growth Transformation Plan (GTP, 2010/11-2014/15) prepared by the Government of Ethiopia (GoE) is the medium term strategic framework for a five-year period that shall guide the country's efforts towards accelerating GDP growth, employment creation and transforming Ethiopia from a predominantly agrarian to a modern and industrialized economy. The GTP aims to increase the per capita income of its citizens to middle-income levels by 2025. This is just one goal in a portfolio of important socioeconomic targets for the future. Private sector development strategies to reach these goals include enhancing the productivity and modernization of Ethiopia's agricultural sector, and enhancing the technological sophistication and economic contribution of the industrial sector. Ambitious targets have been set for the industrial sector and the GTP specifically identifies micro and small enterprises (MSEs) development as the key industrial policy direction for creating employment opportunities in Ethiopia.[1] In particular, MSEs are expected to contribute greatly towards the GTP targets through the creation of more than 3 million jobs over the 5-year reference period.[2]

But are MSEs currently the main net job creators in Ethiopia? Are they able to access adequate financial services in a context where the banking sector is registering profitability levels well above the Sub-Saharan African average?[3] These are some of the key questions that the present study aims at addressing.

At the international level, the key role played especially by small and medium sized enterprises in economic development and their contribution to economic diversification and employment is widely recognized, and so is the reality that these enterprises face financing constraints around the world, both in developed and developing markets (Ayyagari et al. 2007; Beck et al. 2005).

This study starts with a brief analysis of which firms are the main net job creators in Ethiopia and then focuses on the financing constraints of Ethiopian MSMEs as one of the key obstacles to job creation and growth.[4] In doing so, the study uses two demand-side surveys (the *Ethiopia Survey of Large and Medium Scale Manufacturing Industries – LMMIS,* an unbalanced panel composed of about 6,000 firms with at least 10 employees which allows for a study of firm dynamics from 2000 through 2011 and the *World Bank's Enterprise Survey (ES)* that was conducted between July 2011 and July 2012 and includes 794 firms which allows for the additional examination of the services sector, microenterprises, and a more detailed understanding of firm experiences with respect to access to finance) and an *ad-hoc* supply side survey administered to 16 financial institutions, including the major public and private sector commercial banks and microfinance institutions, covering over 90% of the total assets in the banking and microfinance sector.[5] This survey allowed collecting data on the actual involvement of financial institutions with MSMEs, their perception of potential public policy approaches to enhance MSME access to finance and the adequateness of their current business models.

The combination of both demand-side and supply-side analysis allows to gain a full picture of MSME finance practices in Ethiopia by connecting information on firm experiences with the reporting of financial institutions on their business practices. While there was already anecdotal evidence that small firms were lacking proper access to finance in Ethiopia, the value added of this study is to provide accurate empirical evidence of the existence of a missing middle phenomenon.

1 The industrial sector has been identified as the leading sector for realizing the country's development objectives. Industry's share in overall GDP is expected to increase from 12.9% in 2009/10 to 18.8% by 2014/15.

2 Under the leadership of FeMSEDA, support to MSEs has been extensive, and has helped to achieve targets set out in the GTP. From 2010 to 2013, 578,005 MSEs were supported by FeMSEDA and received at total of 4,807,314,875 Birr in financing ($240 Million USD), creating an estimated 1,024,739 jobs. (Source: FeMSEDA MSE Yearly Statistical Bulletin, 2013).

3 See Figure 4 on page 29.

4 While there is no universally agreed definition of MSMEs, the supply side analysis of this study makes use of the definition for MSEs contained in the 2011 Ethiopia National MSE Strategy (i.e. by focusing on head count only, microenterprises have up to 5 employees, small enterprises have from 6 to 30 employees) while the demand-side analysis relies on the definition used by the Ethiopian CSA's Survey of Large and Medium Scale Manufacturing Industries (i.e. micro as 0-9 employees, small as 10-20 employees, medium as 21-99 employees and large as 100+ employees).

5 Responses to the supply-side survey were provided by thirteen out of sixteen financial institutions: seven banks representing 87.1 percent of the banking sector asset portfolio and six microfinance institutions representing 70 percent of the micro finance sector asset portfolio.

Findings from both demand-side and supply-side surveys clearly indicate the existence of a *missing middle* phenomenon in Ethiopia whereby small enterprises are more credit constrained than either micro or medium/large enterprises. In particular, the demand-side analysis shows that MSMEs in Ethiopia perform much worse than large firms across a host of finance indicators. MSMEs are much more likely to be rejected for loans, and less likely to have a loan, line of credit, or overdraft facility. These firms are also more likely to avoid loan applications all together due to high collateral requirements. However, the data reveals that the lack of access to finance is even more severe for small firms than for microenterprises. Main findings from the demand-side can be summarized into the following three categories:

i. ***Job creation and employment growth:*** Job creation and employment growth is concentrated in large established (i.e. older) firms in both service and manufacturing sectors. Moreover, job creation and employment in the services and retail sectors are higher than in the manufacturing sector.

ii. ***Access to finance:*** overall, data indicates the existence of a missing middle phenomenon in terms of financial services catering to small firms. Young and smaller firms are much more likely to be rejected for a loan or a line of credit than firms who are more established or larger. Moreover, despite confirming their need for improved access to finance, SMEs are discouraged from applying for loans due to excessively high collateral requirements.

iii. ***Firms' performance:*** Firms that are credit constrained exhibit poorer performance and productivity.

The supply-side analysis confirms that small and medium enterprises are being underserved compared to micro and large firms. Micro finance institutions (MFIs) primarily cater to micro firms, leaving small and medium firms financially excluded. Large banks are discouraged from serving this segment primarily because of perceptions of lower returns and higher risk. However, most MFIs and banks also view the SME segment as the most promising one for growth and having good prospects. Key findings from the supply-side survey include the following[6]:

i. ***SME finance culture:*** Financial institutions lack an "SME finance culture": a harmonized definition of MSMEs is missing and consequently specific MSME financing strategies are not in place.

ii. ***Perception of SMEs' market segment:*** Financial institutions believe that market potential is very good for the SME segment. Expected returns and the contribution to the economic development of the country are seen as main drivers for lending to SMEs and microenterprises.

iii. ***Risks and obstacles to SME finance:*** SME-specific factors and macroeconomic factors were indicated by all MFIs and banks as significant obstacles to the development of SME lending. While banks and MFIs believe there is high growth potential in lending for small enterprises, the current lack of involvement is due to perceived risks.

iv. ***The missing middle phenomenon:*** SMEs represents a missing middle in the financial sector with high heterogeneity of lending patterns between MFIs and commercial banks.

v. ***Business models:*** The business models of the surveyed financial institutions are mostly inadequate to serve SMEs: they lack a dedicated and specialized SME unit or department within their organizational structure; loan appraisal techniques are still mostly based on traditional relationship lending rather than on transactional technologies such as credit scoring etc.; products are highly standardized and there is very limited product innovation; distribution channels are still largely based on branches and long term financing needs of SMEs do not seem to be properly addressed.

6 Details on the specific key findings from the demand-side and supply-side analysis are summarized in the Introduction and further developed in the reminder of the report.

vi. ***The importance of Government financed programs:*** Government financed programs (credit guarantee programs and line of credit with technical assistance) are important drivers.

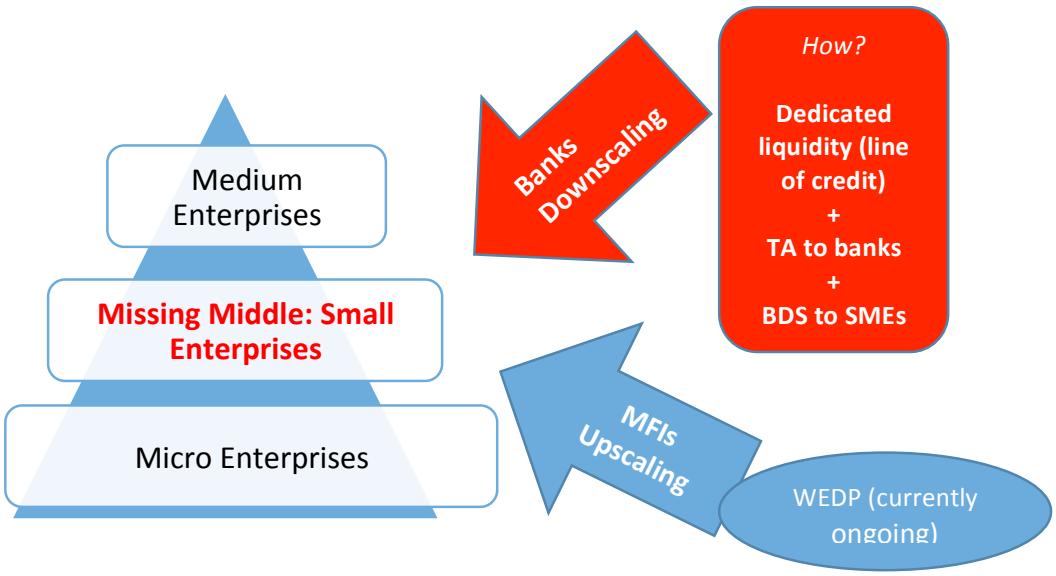
vii. ***A supportive financial sector infrastructure.*** The potentialities of the credit bureau are not effectively exploited.

viii. ***Regulatory and judicial issues.*** The contractual environment and lack of collateral registry inhibit secured lending and constrain access to finance for SMEs. Changes in the market due to imposed lending restrictions are seen as a hindrance causing liquidity constraints.

Based on these analytical findings, the report proposes a series of potential policy directions and recommendations on how to improve access to finance for SMEs, particularly small enterprises, to ensure their contribution to Ethiopia's Growth and Transformation Plan. Seven specific policy directions have been identified and are summarized in the table below. However, for easiness of interpretation, those seven policy directions could be further grouped into two main categories:

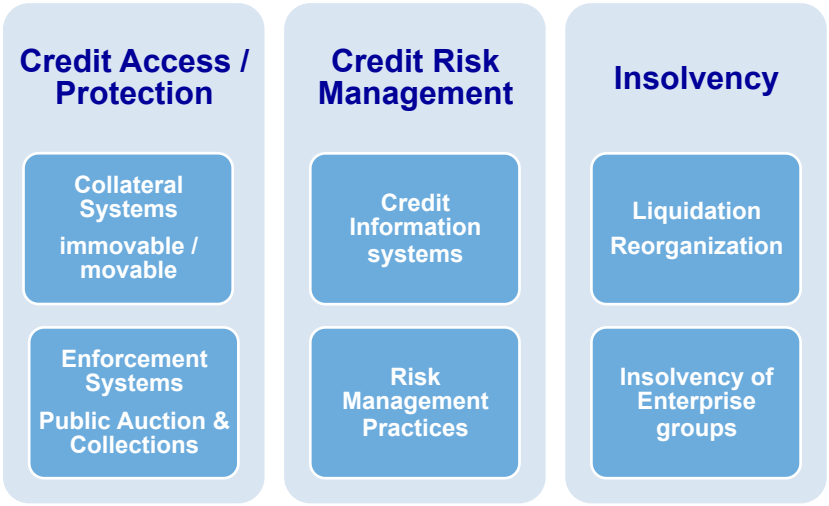
Category 1: a set of interventions to help commercial banks to downscale their business (i.e. through the joint provision of dedicated liquidity plus tailored technical assistance to participating banks on the supply side and the provision of business development skills training to address SMEs specific constraints on the demand side). This intervention would complement the current effort that the GoE is already undertaking by supporting MFIs to upscale their business under the Women Entrepreneurship Development Project (WEDP). Figure 1 shows how the combined action of MFIs upscaling and commercial banks' downscaling can simultaneously tackle the missing middle with MFIs serving the lower bound of the small enterprise segment and commercial banks serving the upper bound.

Figure 1. Tackling the missing middle from both sides



Category 2: a set of interventions to further improve the enabling environment for facilitating SME finance, particularly with a focus on the insolvency and creditor/debtor regime on one side and on the market credit information on the other side, as shown in Figure 2 below.

Figure 2. Enabling environment for SME finance



The following table provides additional details on the specific seven potential policy directions identified:

Potential policy direction	Description
1. Foster an **SME finance culture** among financial institutions and stakeholders	● A commonly agreed and harmonized definition of what constitutes an SME is crucial for preparing any type of support intervention or strategy. ● The current definition for micro and small enterprises contained in the "National MSE Development Strategy (2011)" is a good starting point, shared by most MFIs. However setting up a stakeholders' working group to look into the issue of finding a common definition to be used by all financial institutions to segment the market would be recommended. ● In turn, a commonly agreed definition would be beneficial for regulatory and reporting purposes allowing for proper analysis of SME finance development over time.
2. Complement current Government support programs for MSMEs with the promotion of **commercial banks' downscaling interventions**	● The positive role that public support interventions can play in promoting SME finance practices came out clearly from the analysis. ● While the Government of Ethiopia is currently engaged in a series of positive efforts to promote the engagement of MFIs in the small business segment through market up-scaling efforts (e.g. WEDP), the banking sector requires further attention in order to exploit its potential in serving the missing middle segment. ● Incentives should be provided to commercial banks for engaging in market downscaling initiatives. Successful examples of international best practices showed that the combination of dedicated liquidity (through lines of credit) with tailored technical assistance packages prove to be effective in successfully reaching the missing middle segment. ● In Ethiopia, institutions like the Development Bank of Ethiopia are currently well placed to play the wholesaler role in providing dedicated liquidity for SME finance to financial intermediaries.

Potential policy direction	Description
3. Promote innovation in financial products and lending technologies by providing incentives to commercial banks **through tailored technical assistance.**	● Around the globe, certain commercial banks have applied lending practices developed in the microfinance sector to overcome the issues of high transaction costs and high-risk profiles of potential borrowers. These best practices can be of use in the Ethiopian context as well. ● The surveys revealed that most Ethiopian financial institutions do not have the right instruments to put in place an innovative product mix and to engage in new lending technologies. ● Tailored technical assistance, coupled with the provision of dedicated liquidity as under point #2 above, would help to stimulate the use of new techniques in line with international best practices. It would help commercial banks to establish dedicated SME units within their organization, define SME-specific strategies, offer a range of products beyond lending, utilize low cost delivery channels, develop and use risk modeling tools and build adequate hardware and software architecture.
4. Address SME specific factors through the provision of adequate **business development skills** in conjunction with interventions on the supply-side.	● BDS can help to address some of the intrinsic weaknesses in SMEs that cannot be addressed through financing tools alone. ● The survey indicates that SME specific weaknesses are among the major factors inhibiting commercial banks to engage in this market segment. ● The government has a role in this market as a provider of BDS as it is already currently doing through FeMSEDA and the TVETs. However, it would be crucial to coordinate and tailor BDS interventions with parallel incentives provided to the supply side (i.e. commercial banks) to engage in SME lending.
5. Promote policies aimed at addressing the limitations of the current **collateral regime** based on an accurate **diagnostic of the Insolvency and Creditor/Debtor regimes.**	● Given the prevalence of collateral lending in Ethiopia, establishing a collateral registry of both movable and immovable assets is important for creating an effective credit market by expanding the scope of secured lending transactions and improving access to financial services. The lack of a collateral registry in fact is currently a major obstacle to the promotion of SME finance. ● Policies to facilitate the setting-up of the movable assets registry would certainly be beneficial as currently collateral rates in Ethiopia are among the highest in the region. The proposed registry would document charges and collaterals created by borrowers to secure credit facilities provided by lenders. ● The legislation related to the contractual environment would also benefit from a thorough analysis. Particularly it would be recommended to conduct a diagnostic of the creditor rights and enforcement systems (for secured and unsecured credit); credit risk management, debt recovery and informal enterprise workout practices; formal insolvency system (liquidation and reorganization proceedings); and effectiveness of the relevant institutional and regulatory frameworks in implementing laws in this area. A similar diagnostic would allow to identify bottlenecks, facilitate access to credit for SMEs and provide a stable backdrop for private transactions.

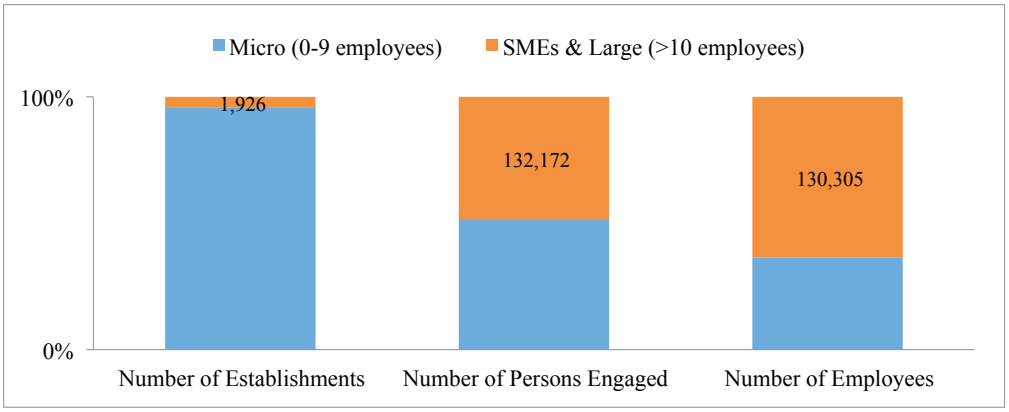
Potential policy direction	Description
6. Support development of **market credit information** for SMEs	● While comments generally were positive about information from the credit bureau, it was noted that coverage is limited and does not necessarily include all financing received by SMEs. ● Currently, Ethiopia has a credit information system with high technological capabilities and business functionalities to run credit reporting. However, it is being used merely as a database management system by the National Bank of Ethiopia that collects information on creditworthiness of borrowers from supervised financial institutions, makes such information available for financial institutions, and uses it primarily for supervisory purposes. ● Enhancing its functions to provide reliable and value added credit information, both positive and negative information (full file), is critically important for financial institutions for quality decision making on credit, risk mitigation and minimizing fraud by providing value added services such as credit scoring, marketing service, application processing and portfolio monitoring. ● Specific policies could support the use of market credit information through the refinements to the legal and regulatory framework to improve incentives to share information among lenders, and an educational campaign promoting the value of credit bureaus among SMEs and financial institutions.
7. Develop the institutional framework for **alternative sources of funding**.	● Among the alternative sources of funding, the Leasing Proclamation has been amended recently by providing licensing and supervisory authority to the National Bank of Ethiopia to finance leasing and hire-purchase leasing. Leasing can be an effective mechanism for boosting the Ethiopian economy by providing long-term finance to SMEs and its use should be more extensively promoted. ● Similarly, the institutional framework for other sources of funding such as factoring and joint venture capital need to be developed as a part of a comprehensive package of financial sector infrastructure and products development

1. INTRODUCTION

The private sector plays a critical role as a catalyst for economic change through offering financing options which allow firms to expand and innovate. In Ethiopia, small firms face more challenges in obtaining formal financing than large firms; they are much more likely to be rejected for loans, and are less likely to have external financing. Banks primarily cater to large firms and, although they perceive the SME segment as a promising one in terms of growth prospects, they also tend to see SME lending as having higher risks and lower profitability than lending to large enterprises.

The role of micro (0-9 employees) and small (10-20 employees) enterprises will be crucial to reach growth targets for the industrial sector as outlined by Ethiopia's five-year Growth and Transformation Plan (GTP) (2010/11-2014/15). GTP's policy in Trade and Industry includes providing special attention to micro and small enterprises through training and promoting increased hiring. Over the five-year period, 3.4 million jobs are expected to be added to this segment, and training to over 3 million operators to be conducted. In 2007/08, 96 percent of all firms in Ethiopia's industrial sector were micro, and over half of all engaged persons were affiliated with microenterprises (Figure 3).

Figure 3. Ethiopia: Half of Engaged Persons in the Industrial Sector are in Micro Establishments[7] (2007/08)



Notes: Number Engaged: includes paid employees, unpaid working proprietors, active partners, unpaid family workers and paid and unpaid apprentices. Micro (ie. Small Scale) Manufacturing Establishments: engaging less than 10 persons and use power -driven machinery.

Source: Report on Large and Medium Scale Manufacturing and Electricity Industries Survey 2011, Report on Small Scale Manufacturing Industries Survey 2010

However, an analysis we conducted on a panel of 6000 Ethiopian firms from 2000 to 2011, reveals that large and more established (i.e. older) firms are more important as net job creators than small and younger firms.

Therefore, the present study, while keeping job creation as its starting point, has looked into financing constraints of SMEs as one of the possible main reasons preventing SMEs in Ethiopia from playing their catalyst role.

SME financing, in fact, is now at the centre of the international development agenda and is of considerable interest to policy makers due to their importance for economic development as well as their potential contribution to economic diversification and job creation. However, SME growth potential in developing economies, especially in Africa, is limited as they are significantly more credit constrained compared to larger enterprises[8]. Kuntchev, Ramalho, Rodriguez-Meza, and Yang (2012) find that over half of SMEs are credit constrained in the Sub-Saharan Africa (SSA) region, which is higher than in any other region[9] (Figure 4).

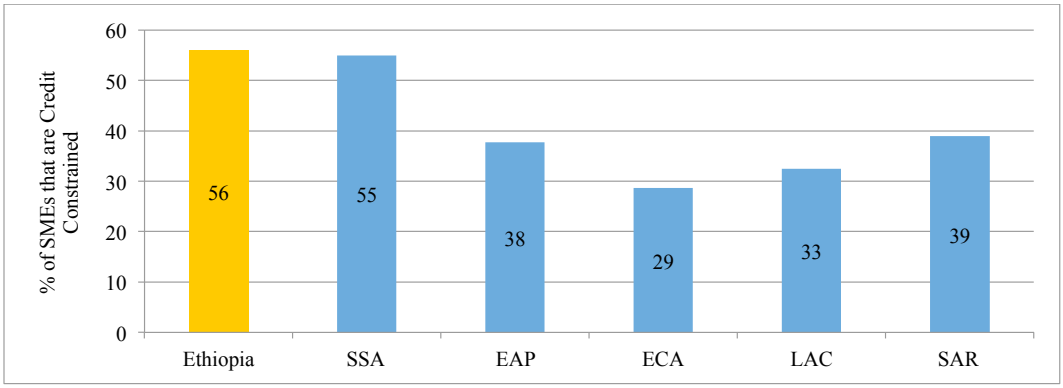
7 Micro-establishments are also referred to as small-scale firms by the CSA.

8 Fuchs and Berg 2013; Beck and Demigurc-Kunt 2006; Beck et al 2006; Beck, Demirgüç-Kunt & Maksimovic 2005, and Beck, Demirgüç-Kunt, Laeven, Maksimovic 2006

9 The Middle East and North Africa region is excluded since only Yemen had been surveyed in that region at the time of the report.

The proportion of SMEs in Ethiopia that are credit constrained is even slightly higher than the SSA average. Access to finance is important since the use of external finance among SMEs is associated with greater innovation (GFDR, 2014). In Sub-Saharan Africa, banks have a crucial role to play in addressing this credit constraint obstacle due to their dominance in the financial systems and the lack of SME financing provided by informal financing mechanisms.

Figure 4. SMEs* are the most constrained by credit in the Sub-Saharan Africa region



*SMEs defined by the Enterprise Surveys are establishments between 5-99 employees. Enterprise Surveys does not include microenterprises (0-4 employees).

Notes: Countries are grouped per region according to the World Bank classification.

Source: Kuntchev, Ramalho, Rodriguez-Meza, and Yang (2012), Enterprise Surveys

To analyze financing conditions for MSMEs in Ethiopia, this study utilizes unique information from three surveys. The Ethiopia's Survey of Large and Medium Scale Manufacturing Industries (2000-2011) and the World Bank's Enterprise Survey that was conducted in Ethiopia in 2011 are used for the demand-side analysis. Specifically the former dataset provides insights on firm dynamics while the latter helps to capture the experiences of firms in the services and retail sectors and to have a more detailed view of firm financing experiences. Moreover, in order to capture the perspectives and drivers of financing institutions, an *ad-hoc* supply-side survey was issued to 16 financial institutions including the major public and private sector commercial banks and microfinance institutions covering over 90% of the total assets in the banking and microfinance sector. The survey allowed collecting data on the actual involvement of financial institutions with MSMEs, their perception of potential public policy approaches to enhance SME access to finance and the adequateness of their current business models.

Studies on SME financing with demand and supply-side components have also been carried out in other Sub-Saharan Africa's countries (including Kenya, Nigeria, Rwanda, South Africa, and Tanzania) in the North Africa and Middle East region and in the Latin America and Caribbean region (De la Torre et al. 2008; Beck et al. 2008; Fuchs et al, 2011; Rocha et al. 2010)[10]. While using a similar instrument to analyse the supply-side, this study differs from the previous ones conducted in Sub-Saharan Africa for a more comprehensive and detailed analysis on the demand-side which provides useful complementary recommendations to the more traditional ones based only on supply-side constraints.

The combination of information on firm experiences with the reporting of financial institutions on their business practices, allowed us to gain a full picture of SME finance practices and perspectives in Ethiopia.

10 The financial crisis in 2008 also motivated the study to be conducted in several countries in the Latin America and Caribbean region evaluating the impact of SME finance programs (Acevedo/Tan, 2010).

The results from both demand-side and supply-side analysis clearly indicate the existence of a missing-middle phenomenon in Ethiopia. This is a common feature to many developing countries that have a large number of microenterprises and some large firms, but far fewer small and medium enterprises. In high-income countries, SMEs are responsible for over 50% of GDP and over 60% of employment, but in low-income countries they are less than half of that: 30% of employment and 17% of GDP.[11] This SME gap is called the 'missing middle'. Evidence from international research clearly shows that returns to capital are high in this segment.[12] SMEs aren't missing because they would not be profitable: they are missing because finance is not reaching them in an effective way. This shows that access to finance is a significant barrier, and that there is a massive profit opportunity for those who are able to successfully finance these firms.

The SME finance studies conducted in other African countries are useful for benchmarking Ethiopia's position with regards to access to finance. The share of SME lending in the overall portfolio of banks in the 5 countries where a similar study on the supply-side was conducted varies between 5 and 20 percent. Banks in Kenya, Rwanda, and Tanzania are more involved in SME lending in terms of the share of their portfolio than banks in South Africa and Nigeria. SME lending in Ethiopia is on the lower side, with SME lending comprising only 7 percent of bank portfolios. The studies found that major contributing factors for SME lending are the structure and size of the economy, the extent of government borrowing, the state of financial sector infrastructure and the enabling environment including government support programs.

In the case of Ethiopia**, main findings from the demand-side** can be summarized into the following three categories:

i. ***Job creation and employment growth:*** *Job creation and employment growth is concentrated in large established (i.e. older) firms in both service and manufacturing sectors. Moreover, job creation and employment in the services and retail sectors are higher than in the manufacturing sector.*

   a. Jobs analysis in the manufacturing sector shows that the majority of paid employment is found in large enterprises. Interestingly, in the services sector the job dynamics are similar to the ones in the manufacturing sector as large established firms tend to be the most important net jobs creators during the period 2009-2011.

   b. Typically, young firms are a great source of job creation, but this trend is not seen in Ethiopia. Conditional on survival, young Ethiopian firms enjoy higher employment growth rates than established firms, but they also generate a smaller number of new jobs than older firms. In the rest of the world, young firms are principal job creators despite high exit rates (Haltinwanger et al 2011; Rijkers et al, 2013). The fact that older firms dominate net job creation in Ethiopia is worrisome since it suggests there is a lack of competitiveness and innovation in the private sector.

   c. The manufacturing sector plays a limited role in the overall Ethiopian economy, comprising only 4.2 percent of GDP in 2012/13. Therefore, it's important to also understand employment trends in the services sector. The service sector created nine times more jobs than the manufacturing sector during the period 2009-2011.

ii. ***Access to finance: overall, data indicates the existence of a missing middle*** *phenomenon in terms of financial services catering to small firms. Young and smaller firms are much more likely to be rejected for a loan or a line of credit than firms who are more established or larger. Moreover, despite confirming their need for improved access to finance, SMEs are discouraged from applying for loans due to excessively high collateral requirements.*

   a. Only 1.9 percent of small firms have a loan or line of credit. This rate is lower than among micro, medium, and large firms (6.0, 20.5, and 35.5 percent respectively). Fifty-seven percent of small firms are fully credit constrained, a rate higher than in any other size group. These statistics corroborate with assertions that small firms

11 Ayyagari, Beck, & Demirguc-Kunt. "Small- and medium-enterprises across the globe: a new database"

12 E.g Banerjee & Duflo (India), McKenzie & Woodruff (Mexico)

struggle the most in obtaining access to finance since MFIs cater to micro-sized firms, and commercial bank clientele are predominantly medium and large firms.

b. Among firms who applied for a loan or line of credit in fiscal year 2011, 57.3 and 87.9 percent of applications submitted by micro and small firms respectively were rejected; this is in sharp contrast to the much lower 6.2 and 10.4 percent rejection rate experienced by medium and large firms. Fifty-six percent of young firms had their loan applications rejected compared to 33 percent of established firms.

c. Results show that SMEs are less likely to say that they don't need a loan, thus confirming the need for finance. However, SMEs are discouraged (or voluntarily exclude themselves) from applying for loans or lines of credit. About a third of small and medium firms reported that they did not apply for a loan or line of credit because collateral requirements were too high. Collateral rates in Ethiopia are much higher than in more developed African economies. For example, collateral rates are only 120.8 percent of the loan value in Kenya (2007) compared to 234 percent in Ethiopia. Small firms are also the most likely to use personal assets as a type of collateral (36.8 percent of small firms use this type).

iii. ***Firms' performance:*** *Firms that are credit constrained exhibit poorer performance and productivity.*

a. In Ethiopia, a credit constrained firm has sales growth 15 percentage points lower, employment growth 5 percentage points lower, and labor productivity growth 11 percentage points lower than firms who are not credit constrained.

b. Investment decisions of manufacturing firms in Ethiopia are heavily dependent on cash flows. To identify the existence of credit constraints we evaluate the extent to which firms' investments are reliant on cash flow. We find some evidence that liquidity constraints are stronger for young small firms when compared to established small firms. On the other hand, there is limited evidence that young medium and large firms are more credit constrained than other medium and large firms.

On the other hand, **key findings from the supply-side** survey include the following:

i. ***SME finance culture:*** *Financial institutions lack an "SME finance culture": a harmonized definition of MSMEs is missing and consequently specific MSME financing strategies are not in place.*

a. Financial institutions in Ethiopia lack a commonly agreed definition of MSMEs. While the majority of MFIs uniformly use the MSE definition that is laid out in the Government's National MSE Development Strategy, commercial banks do not seem to uniformly distinguish among small, medium, and large enterprises.

b. The lack of a harmonized definition leads to a lack of market segmentation and ultimately a lack of in depth customer knowledge and proper business strategy to address this untapped market segment.

ii. ***Perception of SMEs' market segment: Financial institutions believe that market potential is very good for the SME segment. Expected returns and the contribution to the economic development of the country are*** *seen as main drivers for lending to SMEs and microenterprises.*

a. The co-existence of these two motors, on the one hand the economic dimension of business profitability, and on the other hand the more political dimension of contribution to the country's economic development, represents an interesting feature of the Ethiopian market. Namely, publicly owned financial institutions dominate both the banking and the microfinance sector.

b. Although MFI and bank involvement in SME lending is limited, these same financial institutions believe that the potential for this segment of the market is very good. The majority of surveyed financial institutions believe that prospects for the SME market are good and that the SME market size is large. The small enterprise segment is also identified as the most promising segment for growth, by both MFIs and banks.

iii. ***Risks and obstacles to SME finance:*** *SME-specific factors and macroeconomic factors were indicated by all MFIs and banks as significant obstacles to the development of SME lending. While banks and MFIs believe there is high growth potential in lending for small enterprises, the current lack of involvement is due to perceived risks.*

a. Regarding the SME specific factors, most of the financial institutions highlighted the poor quality of financial statements, inability to manage risk, lack of knowledge of business management, lack of awareness on how to be bankable, lack of adequate collateral and informality of SMEs as the major challenges. Regarding macroeconomic aspects, inflation, tax regulation and high vulnerability of the agriculture sector were mentioned as hindrances by financial institutions.

b. Most financial institutions in this study perceive costs and risks to be higher in the SME segment compared to the large enterprise segment. Banks seem to have a more negative perception of risks and costs than MFIs. Further, when asked to compare the profitability of SME loans versus large enterprise loans, SME profitability is perceived to be considerably lower.

iv. ***The missing middle phenomenon:*** *SMEs represents a missing middle in the financial sector with high heterogeneity of lending patterns between MFIs and commercial banks*

a. Ethiopia lags behind other Sub-Saharan Africa's countries and developing countries in terms of lending to SMEs. The share of SME lending in overall lending portfolio in Ethiopia is in fact only 7 percent, among the smallest shares in Sub-Saharan African countries as well as far below that of developing economies.

b. SMEs represent a missing middle in the financial sector: Lending to SMEs is limited as MFI deposit and loan portfolios are comprised mainly by microenterprises (over 90 percent). The same is true for commercial bank portfolios, which are primarily comprised of large enterprises. Deposits and outstanding loans to SMEs typically comprise less than 10 percent of the total portfolios of MFIs or banks. This leaves a considerable missing-middle of SMEs not served by either banks or MFIs and who need access to finance

c. High heterogeneity of lending patters: MFIs issue the most number of loans to SMEs, but banks issue the most value. Seventy-four percent of the value of SME loans outstanding from the sample of financial institutions are by banks, only a quarter of SME loan values originate from MFIs. In terms of the number of loans, ACSI has 8,670 loans outstanding to SMEs compared to only 88 by the CBE (Dec. 2012). Banks provide large loans with longer maturities compared to much smaller size lending with short maturity provided by MFIs. Interest rates for SME customers vary between 10 percent for low risk MFI customers and 15.5 percent for high risk bank customers. SMEs face higher collateral requirements and interest rates because banks perceive them as more uncertain and harder to evaluate.

v. ***Business models.*** *The business models of the surveyed financial institutions are mostly inadequate to serve SMEs: they lack a dedicated and specialized SME unit or department within their organizational structure; loan appraisal techniques are still mostly based on traditional relationship lending rather than on transactional technologies such as credit scoring etc.; products are highly standardized and there is very limited product innovation; distribution channels are still largely based on branches and long term financing needs of SMEs do not seem to be properly addressed*

a. The organizational model used by the majority of the interviewed financial institutions does not consider the need to set up a specialized SME unit or department to better serve the SME clientele. 9 out of the 12 financial institutions did not possess a separate SME department or unit at the time of the study.

b. When it comes to appraisal and monitoring of SME loans, these are largely done through the establishment of a close relationship with clients for both banks and MFIs. A minority of banks stated using transactional technologies such as credit scoring, risk rating tools, factoring or leasing. None of the MFIs use these techniques.

c. The product mix offered by financial institutions does not seem to be sufficiently large. Other lending products such as leasing and factoring are not offered by any of the financial institutions in this study. Furthermore, products provided to the SME and micro enterprise market are largely standardized and efforts to continuously adapt them to client's needs are limited. The great majority of financial institutions in the study reported no change in their financial product offering between the years 2010 and 2012.

d. Geographic location does not appear to be an important marketing criterion for financial institutions. This is particularly the case for MFIs as the five dominant ones, with more than 90 percent of total asset portfolio of the micro financing sector, are affiliated with the regional governments in Ethiopia. Regarding their geographic outreach most of the banks and MFIs use only their own branches as distribution channels.

e. Long term financing needs of SMEs do not seem to be properly addressed. The average loan maturity for SME loans reported by MFIs was 2.38 years while for the banks it was 6 years. According to the questionnaire responses, the average maturity loan for large enterprises was 10.4 years. This indicates that long term financing needs of SME's are not met and that there is a potential market gap here.

vi. ***The importance of Government financed programs:*** *Government financed programs (credit guarantee programs and line of credit with technical assistance) are important drivers.*

a. When asked about the impact of government financed programs on the decision to engage in SME finance the picture that emerges clearly indicates that both categories (i.e. banks and MFIs) have a positive perception of partial credit guarantee schemes and the provision of dedicated credit lines associated with technical assistance.

b. Directed credit programs are also perceived as having a positive impact, confirming, once again, the dominant role that public institutions play in the banking and microfinance sector.

vii. ***A supportive financial sector infrastructure.*** *The potentialities of the credit bureau are not effectively exploited.*

a. The survey indicated that most banks use the credit bureau information for SMEs loan analysis and most of them consider it to be an effective tool. However only the negative information provided is used and the credit bureau information has limited input and an insignificant contribution to loan decisions.

b. The credit bureau's coverage and the quality of the financial information on SMEs reported by banks should be further improved through a better enforcement of financial institutions reporting requirements.

c. The fact that MFIs are still not connected to the credit bureau (despite the technological platform currently in place is capable also to accommodate MFIs) suggests the need to carefully look into the obstacles preventing MFIs to contribute to and benefit from the credit bureau service.

viii. ***Regulatory and judicial issues.*** *The contractual environment and lack of collateral registry inhibit secured lending and constrain access to finance for SMEs. Changes in the market due to imposed lending restrictions are seen as a hindrance causing liquidity constraints.*

a. Lack of contract enforcement and judiciary inefficiency were indicated as main obstacles concerning the contractual environment. There is no legally authorized body to register machinery and/or equipment for it to be held as collateral. The absence of a collateral registry in combination with ineffective enforcement of contracts in case of default could contribute to significant losses for banks and thereby have significant impact on access to finance for SMEs.

b. The regulatory framework affecting the liquidity position of banks is seen as another significant obstacle to involvement with SMEs. The majority of surveyed financial institutions reported that there have been significant changes in the market for lending to SMEs which affected banks in terms of liquidity and overall competition in the banking sector[13].

c. MFIs are more likely than banks to perceive competition in SME lending as an obstacle. Banks are more likely to perceive bank-specific factors and characteristics of SME lending as obstacles. Bank specific factors include amongst others the lack of interest at the bank level, limited geographic outreach, lack of appropriate products and knowledge on how to evaluate MSMEs or high collateral requirements.

The remainder of the report is organized as follows. Chapter 2 provides a short overview of the government's economic development goals and a summary of the Ethiopian legal and regulatory framework as well as the status of the country's overall financial sector. Results from demand and supply-side surveys are presented and discussed in Chapters 3 and 4. Chapter 5 examines international best practices in SME finance and current government programs in support of MSMEs. Policy recommendations are presented in Chapter 6.

13 Banks in particular referred to the April 2011 NBE directive requiring private commercial banks to hold 27 percent of new loan disbursement in low-yield NBE bills.

2. MSMEs IN ETHIOPIA: THE MACRO ECONOMIC CONTEXT AND INSTITUTIONAL FRAMEWORK

2.1 Strategic and macroeconomic context for MSME GROWTH

Ethiopia is currently implementing a five-year (2010/11-2014/15) Growth and Transformation Plan (GTP) in line with its long-term vision of achieving rapid, sustainable and equitable socioeconomic growth and development, reducing poverty, and meeting the Millennium Development Goals (MDGs) within the framework of macroeconomic stability.

In order to promote the MSME sector the Government intends to facilitate the development of industrial clusters, for interconnected firms in a particular field with links to related institutions such as financial service providers, technical and vocational educational institutions, and various levels of government institutions. These initiatives aim to enable firms to overcome constraints in the areas of capital, skills, technology, logistics as well as to grow and compete by fostering production value chains and achieving efficiency gains. According to the Micro and Small Enterprises Development Strategy of the GTP, MSMEs are given strategic focus by the Government due to the fact that they play an essential role in the country's industrial development plan and in the creation of employment opportunities in urban centers with the ambitious objective of 3.4 million jobs expected to be added to this segment over the five-year GTP period and training provided to over 3 million operators.

Over the past decade, Ethiopia has achieved high economic growth, averaging 10.7 percent per year (World Bank, 2013) establishing the country among the fastest growing economies both in Africa and the developing world. This growth momentum has continued through the first two years of the GTP period and inflation has declined to single digits (from its peak of 40 percent in July 2011 to around 7 percent in June 2013), significantly reducing the distortionary effects that a negative real interest rate environment was having on financial intermediation. The combination of robust economic growth and increased expenditure on social assistance have resulted in a several fold rise in real per capita GDP and a dramatic drop in the national poverty rate (from 60.5 percent in 2005 to 30.7 percent in 2011)[14]. Economic growth has also helped to reduce unemployment particularly in urban areas. While overall unemployment rate stands at about 25 percent, urban unemployment rate declined from 22.9 percent in 2004 to 17.5 percent in 2012. In urban areas, both female and male unemployment declined and the large gap between the two groups has narrowed for the two years of available and comparable data (2009 and 2010). Unemployment rates remains particularly high among young females, with almost one third of them unable to find a job in the urban areas.

For the country to continue its historically impressive growth performance (and reach the middle income status by 2025 as indicated in the GTP), the conditions for an increased scope of the private sector should be created. In fact, despite the impressive results achieved through the public sector-led growth strategy centered on high public investments promoted by the Government, the challenge of strengthening the competitiveness of the economy requires the support of the private sector as an additional engine of growth.

The economic growth is driven by services and agriculture on the supply side. The share of industry in GDP has remained modest increasing to 11 percent in 2011/12 from 10.5 percent last year and, according to the Ministry of Finance and Economic Development (MoFED), its growth rate averaged 14.3 percent during the last two years (2010/11-2011/12). The modest share and growth of the industry sector and the significant share of the agriculture (44 percent) and services (45 percent) sectors clearly indicates the challenge and need for further structural transformation of the Ethiopian economy for the country to be able to join the club of middle income countries within the planned period.

14 World Bank, WDI, August 2013

Table 1. Sectoral Contribution to GDP and GDP Growth (in Million Birr)

Items		Fiscal Year				
		2007/08	2008/09	2009/10	2010/11	2011/2012
Sector	Agriculture	170,300	181,200 38,800	195,000	212,600	223,100
	Industry	35,400	38,800	43,000	49,400	56,100
	Services	143,100	163,200	184,700	207,900	230,900
Total GDP		346,700	381,700	421,800	469,900	510,151
Less FISM		2,400	2,700	2,900	3,200	3,600
Real GDP		344,300	378,900	418,900	466,600	506,533
Growth in Real GDP		11.2	10.0	10.6	11.4	8.6
Real GDP per capita		4,596.8	4933.6	5,316.0	5,760.5	6,088
Mid-year population		74.9	76.8	78.8	81.0	83.2
Share in GDP (in %)	Agriculture	49.1	47.5	46.2	45.2	43.7
	Industry	10.2	10.2	10.2	10.5	11.0
	Services	41.3	42.8	43.8	44.2	45.3
Growth in Real GDP per capita		8.1	7.5	7.3	7.8	8.4
Agriculture	Absolute Growth	7.4	6.4	7.6	9.0	4.9
	Contribution to GDP growth	3.7	3.0	3.5		
	Contribution in%	32.7	30.2	33.4		
Industry	Absolute Growth	10.3	9.6	10.8	14.9	13.6
	Contribution to GDP growth	1.0	1.0	1.1		
	Contribution in %	9.4	9.7	10.5		
Services	Absolute Growth	16.1	14.0	13.2	12.6	11.1
	Contribution to GDP growth	6.6	6.0	5.8		
	Contribution in%	59.3	59.8	54.6	48.8	58.4

Source: Ministry of Finance and Economic Development (MoFED)

Note: Sectoral contributions do not add-up to overall GDP growth because of Financial Intermediary Service Indirect Measurement (FISIM).

2.2 Legal and Regulatory Framework

The regulatory and legal environment plays an important role for the development and promotion of MSMEs and their financing needs. Financial institutions in Ethiopia operate under a rather conducive regulatory framework whereby prudential regulations and directives are in place to ensure financial system stability and financial sector soundness. The legal and regulatory environment is conducive for providing finance from banks and MFIs to business activities. Particularly, micro finance business proclamation number 626 gives flexibility for MFIs to transform into banks or any other financial institutions that they would be able to provide financial services to small and medium size enterprises. The regulatory framework has been relaxed on maximum loan size from time to time. National Bank of Ethiopia (NBE) directive number MFI/18/06 provides extension to any single

borrower up to 1 percent of the total capital of the MFI which is good enough for MFIs to lend to SMEs. However, the directive sets regulatory requirements that constrain MFIs to predominately make credit available on the basis of group guarantees amongst members who have joined a membership arrangement. The directive also has a provision for lending to individuals on a limited scale on the basis of collateral. However, the absence of a well-functioning and efficient legal system to enforce contracts affects the implementation of prudential regulations in the banking and microfinance sector. In Ethiopia's court system, commercial benches are handling the court cases related to businesses. There are no dedicated commercial units in the first instant courts to relieve the commercial cases and to strengthen contract enforcement.

The framework for banking supervision and regulation was strengthened during a financial sector reform in the areas of financial reporting, external audits and related frameworks and deposit insurance. NBE, thanks to the World Bank's Financial Sector Capacity Building Project, has now adopted risk based supervision and conducts quarterly credit and liquidity risk stress testing of the banking system. Commercial banks continue to be subject to the April 2011 NBE directive requiring them to hold 27 percent of new loan disbursements in low-yield NBE bills. The proceeds of these bonds are transferred to the state-owned Development Bank of Ethiopia (DBE) which, according to the stated policy is supposed to on-lend them to government targeted private sector activities. The application and the effects of this directive have been controversial. The Ethiopian Bankers' Association (EBA) has appealed to NBE to revise this directive[15] arguing that it forced banks to unnecessary portfolio adjustments. In fact, to avoid the effects of this 27 percent bond requirement, private banks have been moving up market and towards longer term financing. Aiming at counteracting this tendency and to push for T-bill purchases, NBE has issued a new directive in February 2013 setting the minimum requirement for short term loans at 40 percent of bank's total loan provision. This directive applies to all banks (except DBE and CBE) and forces them to provide short term loans with maturities of less than a year. The directive also cuts commercial banks' total deposit reserve requirements down to 5 percent, from the previous 10 percent. The aim of this directive is to counter the tendency of private banks to move up market. These aspects will be addressed further in the section on obstacles to SME finance. The directive is effective since beginning of July 2013. NBE has also given banks until January 2015 to restructure their loan portfolios to the required ratio[16]. On the other side, the National Bank of Ethiopia directive number FIS/01/2012 on regulation of mobile and agent banking services is a very positive step to stimulating the use of technology and innovative financial service delivery channels such as mobile devices and agents that will have significant contribution in deepening financial service accessibility to the a wider section of population at an affordable price.

2.3 Outlook of The Ethiopian Financial Sector

Ethiopia's financial sector is dominated by the banking sector (commercial banks) which currently represents more than 92.6 percent of total assets of the financial sector, excluding the assets of the Development Bank of Ethiopia (DBE) and National Bank of Ethiopia (NBE). MFIs constitute 5.2 percent and insurance companies 2.2 percent of the total financial sector assets. There is a considerable increase in assets of MFIs from 4.4 percent of the total financial sector assets in 2005/06 to 5.2 percent in 2011/12 demonstrating the increasing role of microfinance institutions in poverty alleviation, asset building and employment creation particularly in rural communities.

Financial intermediation is a driving force for economic development: an expansion in credit to the private sector in fact enables firms to invest in productive capacity thereby laying the foundation for a sustainable growth path. However, Ethiopia is falling behind its peers in this area (Figure 5). In 2011, credit to the private sector in Ethiopia was equivalent to about 14 percent of GDP compared to the regional average of 23 percent of GDP. Moreover, while the worldwide trend has been an

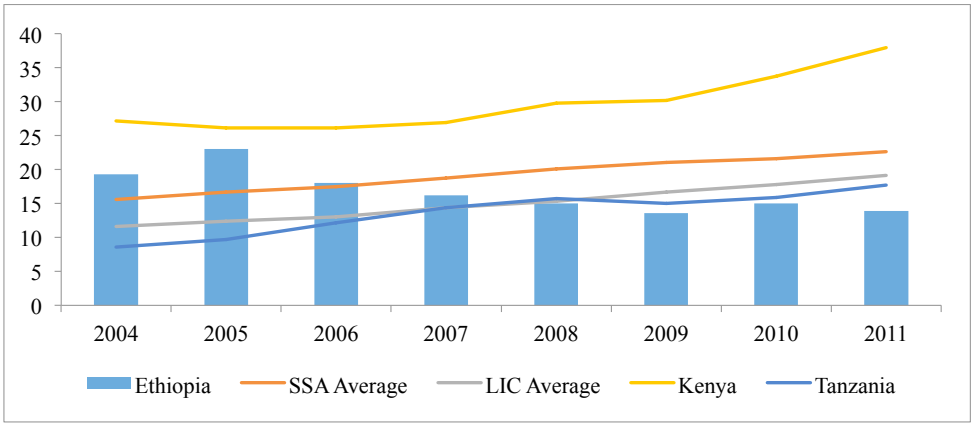
15 http://addisfortune.com/Vol_10_No_581_Archive/Bankers%20Association%20Wants%20T-bill%20Directive%2 Revised.htm

16 http://www.capitalethiopia.com/index2.php/index.php?option=com_content&view=article&id=2543:nbe-restructures-loan-portfolio-reduces-reserve-requirement&catid=54:news&Itemid=27

http://www.bloomberg.com/news/2013-02-26/ethiopian-central-bank-order-may-mean-more-t-bills-less-lending.html October 2012 - IMF Country Report No. 12/287

increase in private sector credit, Ethiopia has experienced a decline of about 5 percentage points since 2004.

Figure 5. Ethiopia: Private sector credit (% of GDP)



Source: World Bank (FinStats 2012)

The banking sector. Government-owned banks dominate the Ethiopian banking system and this makes of Ethiopia an exception within Sub-Saharan Africa and across the developing world, where banking systems have much higher shares of private and foreign participation. Public banks, which mainly focus on financing large enterprises, are dominating the credit market share of lending in the banking sector. The share of private banks in outstanding credit lending has dropped from 39 percent of the market share in 2009/10 to 32 percent in 2011/12 while that of the public banks rose from 61 to 68 percent during the same period, 2009/10 to 2011/12. Table 2 indicates that the total disbursement of public banks has almost tripled in the last three years during 2009-2012 as public banks (particularly the Commercial Bank of Ethiopia) focused on financing large scale public infrastructure projects. At the same time, the lending capacity of Development Bank of Ethiopia was enhanced through the introduction of NBE bills while the annual new credit disbursement of private banks has increased by only 28 percent in the same period.

Table 2. Loans and Advances by Lenders (in Million Birr)

	2009/10			2010/11			2011/12			
Lenders	Disbursement	Collection	Outstanding Credit	Disbursement	Collection	Outstanding Credit	Disbursement	Collection	Outstanding Credit	Increment in disbursement
A. Public Banks										
- amount	13,939.30	10,168.00	33,394.60	21,955.80	11,987.80	47,924.80	36,949.20	18,479.90	75,250.10	165%
- percent	48%	41%	61%	52%	39%	65%	66%	53%	68%	
B. Private Banks										
- amount	14,965.80	14,898.80	21,297.50	20,252.00	18,560.40	26,046.60	19,152.90	16,707.50	34,950.50	28%
- percent	52%	59%	39%	48%	61%	35%	34%	47%	32%	
Total	28,905.10	25,066.80	54,692.10	42,207.90	30,548.20	73,971.40	56,102.10	35,187.40	110,200.60	

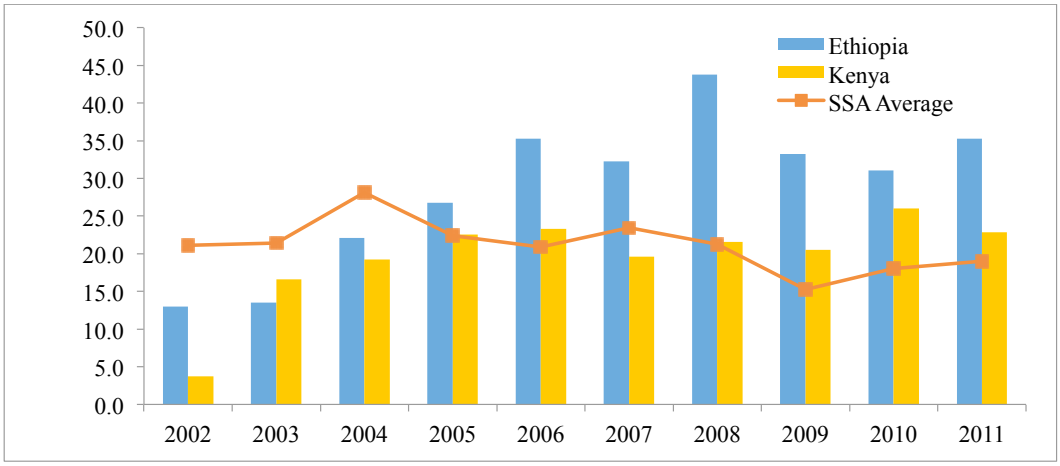
Source: NBE reports

Note: Outstanding Credit excludes lending to central government.

Despite the overall disintermediation trend, the Ethiopian financial sector continues to have the potential to be a driver of growth. The banking sector remains stable, well-capitalized and continues to be highly profitable. Figure 6 shows how the Ethiopian banking sector ranks higher than the SSA average in terms of profitability measured on the basis of Return on Equity (ROE). High profitability is also explained by limited competition. Although the total number of banks operating in Ethiopia has increased from 11 in 2006 to 18 in 2012, the bank assets concentration index (focusing on the 3 biggest banks) shows that Ethiopia's banking sector is much more concentrated than the SSA and Low Income Group averages. The non-performing loan ratio continued its downward trend

reaching an unusually low value of 1.4 percent in 2013. NBE attributes this improvement in the NPL ratio to effective action plans that commercial banks adopted following an NBE directive as well as to the impact of closer monitoring.

Figure 6. Ethiopia: profitability of the banking sector (ROE)



Source: World Bank (FinStats 2012)

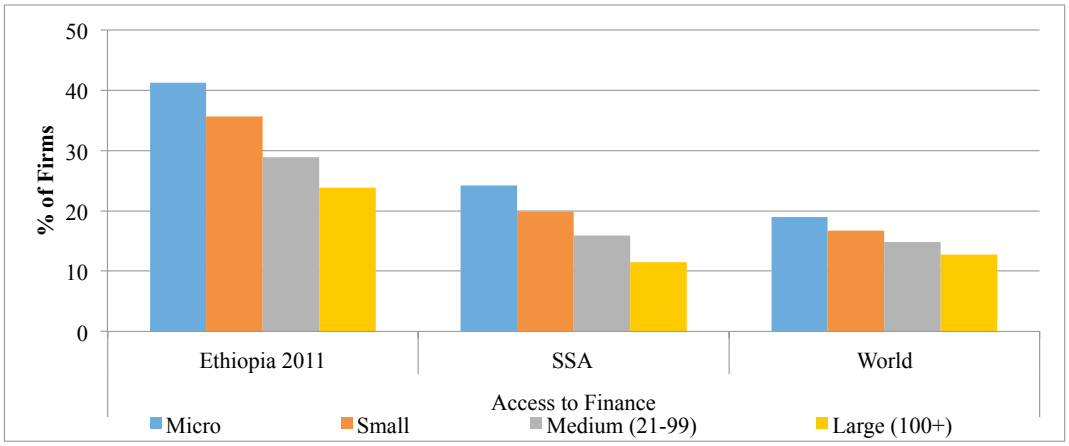
The microfinance sector. Microfinance is a dynamically developing sector in the financial industry in Ethiopia. At the end of 2012, there were 30 licensed microfinance institutions (MFIs) operating in Ethiopia. Their deposits amounted to Birr 5.5 billion and represented the savings of 2.6 million clients. Some MFIs are sizeable financial institutions in their own rights and bigger than some of the commercial banks. The sector is highly concentrated, with the 5 largest MFIs (owned by regional governments and operating in different regions without competing with each other) corresponding to 89% of total sector assets and 83% of total borrowers. The predominant loan methodology is group loans, but some MFIs have started to offer individual loans. This development needs to be expanded to support the development of MSMEs. MFIs are not yet exchanging information through the credit bureau at the National Bank of Ethiopia, although the credit bureau's technology would allow for it.

Access to financial services. Access to financial services remains highly limited all over Ethiopia with only 1.97 commercial bank branches and 0.33 ATM per 100,000 adults (compared for instance to Kenya where there are 5.17 commercial branches and 9.46 ATMs per 100,000 adults).

Access to finance remains a top obstacle for enterprises. The recently published data of the 2011 Ethiopia Enterprise Survey (WB, 2012) confirm that access to finance remains a top obstacle for enterprises: this is perceived as the main business environment constraint by micro (41%), small (36%), and medium (29%) enterprises in Ethiopia, compared to an SSA average of 24%, 20%, and 16% respectively (Figure 7). The same survey indicates that almost 93% of small enterprises and over 95% of medium enterprises have either a checking or a savings account (a percentage higher than the respective SSA averages) but only 3% of small enterprises and 23% of medium have a loan or a line of credit. These low percentages can be explained by (among other factors) the extremely

high value of collateral needed for a loan, corresponding to 249.3% (253.5%) of the loan amount for small (medium) enterprises, against a SSA average of 160%. This also means that there is a very high potential for profitable cross-selling to be exploited by banks if they target these existing account holders and offer them credit.

Figure 7. Ethiopia: Access to Finance is a Top Obstacle



Source: Enterprise Surveys

The financial sector infrastructure. The financial sector capacity building program conducted from 2006/7 to 2010/11 with the technical and financial support of the World Bank has brought significant improvements to soundness and enhanced business transactions and outreach of the sector. The major contribution of the capacity building program was introducing key financial sector infrastructures including a modern national payment system and credit information system which are currently in operation to a certain extent.

However, at present the payment system provides only large value transactions and cheques clearing system while retail payment instruments and innovative products need further expansion in order to provide efficient payment services to businesses. A central switch system is not yet in place and most of the commercial banks are still in the process of completing their core banking systems.

Also the credit information system is limited to a public credit registry. There is no private credit bureau that would provide value added services on credit information such as credit scoring, marketing service, application processing and portfolio monitoring to facilitate quality decision making on credit provision by financial institutions and thereby minimize fraud and mitigate risks.

3. DEMAND-SIDE ANALYSIS

Main research questions addressed:

1. Which firms create more jobs in Ethiopia?
2. Which firms are the most credit constraint?
3. Is there a link between access to finance and firms' performance?

This section utilizes two data sets to describe the characteristics of Ethiopian MSMEs vis-à-vis other companies with a special focus on identifying their constraints in accessing external finance. The focus of this chapter is on three inter-related aspects: job creation, access to finance, and firm performance. The two main sources of data used for the analysis are:

1. *The Ethiopia Survey of Large and Medium Scale Manufacturing Industries (LMMIS):* an unbalanced panel composed of about 6,000 firms with at least 10 employees which allows for a study of firm dynamics from 2000 through 2011.

2. *The World Bank's Enterprise Survey (ES):* conducted between July 2011 and July 2012 and including 794 firms which allows for the additional examination of the services sector, microenterprises, and a more detailed understanding of firm experiences with respect to access to finance.

These two datasets offer complementary information and reveal supporting trends[17]. The main findings from the demand-side analysis are summarized below and then discussed in-depth in the following sub-sections.

i. **Job creation and employment growth**

   a. ***In both service and manufacturing sectors, job creation is concentrated in large established (i.e. older) firms.*** Jobs analysis in the manufacturing sector shows that the majority of paid employment is found in large enterprises. Interestingly, in the services sector the job dynamics are similar to the ones in the manufacturing sector as large established firms tend to be the most important net jobs creators during the period 2009-2011.

   b. ***Typically, young firms are a great source of job creation, but this trend is not seen in Ethiopia.*** Conditional on survival, young Ethiopian firms enjoy higher employment growth rates than established firms, but they also generate a smaller number of new jobs than older firms. In the rest of the world, young firms are principal job creators despite high exit rates (Haltinwanger et al 2011; Rijkers et al, 2013). The fact that older firms dominate net job creation in Ethiopia is worrisome since it suggests there is a lack of competitiveness and innovation in the private sector.

   c. Job creation and employment in the services and retail sectors are higher than in the manufacturing sector. The manufacturing sector plays a limited role in the overall Ethiopian economy, comprising only 4.2 percent of GDP in 2012/13. Therefore, it's important to also understand employment trends in the services sector. The service sector created nine times more jobs than the manufacturing sector during the period 2009-2011.

ii. **Access to finance**

   a. ***Overall, data indicates the existence of a missing middle phenomenon in terms of financial services catering to small firms.*** Only 1.9 percent of small firms have a loan or line of credit. This rate is much lower than that of micro, medium, and large firms (6.0, 20.5, and 35.5 percent respectively). 57 percent of small firms are fully credit constrained, a rate higher than in any other size group. These statistics corroborate with assertions that small firms struggle the most in obtaining access to finance since

17 More information on these two data sets can be found in Appendix 2 and 3.

MFIs cater to micro-sized firms, and commercial bank clientele are predominantly medium and large firms.

b. ***Young and smaller firms are much more likely to be rejected for a loan or a line of credit than firms who are more established or larger.*** Among firms who applied for a loan or line of credit in fiscal year 2011, 57.3 and 87.9 percent of applications submitted by micro and small firms respectively were rejected; this is in sharp contrast to the much lower 6.2 and 10.4 percent rejection rate experienced by medium and large firms. 56 percent of young firms had their loan applications rejected compared to 33 percent of established firms.

c. ***Despite confirming the need of increased access to finance, SMEs are discouraged from applying for loans due to high collateral requirements.*** Results show that SMEs are less likely to say that they don't need a loan, thus confirming the need for finance. However, SMEs are discouraged (or voluntarily exclude themselves) from applying for loans or lines of credit. About a third of SMEs reported that they did not apply for a loan or line of credit because collateral requirements were too high. Collateral rates in Ethiopia are much higher than in more developed African economies. For example, collateral rates are only 120.8 percent of the loan value in Kenya (2007) compared to 234 percent in Ethiopia. Small firms are also the most likely to use personal assets as a type of collateral (36.8 percent of small firms use this type).

iii. **Firms' performance**

a. ***Firms that are credit constrained exhibit poorer performance and productivity.*** In Ethiopia, a firm that is credit constrained has sales growth that is 15 percentage points lower, employment growth that is 5 percentage points lower, and labor productivity growth that is 11 percentage points lower than firms who are not credit constrained.

b. ***Investment decisions of manufacturing firms in Ethiopia are heavily dependent on cash flows.*** To identify the existence of credit constraints we evaluate the extent to which firms' investments are reliant on cash flow. We find some evidence that liquidity constraints are stronger for young small firms when compared to other small firms. On the other hand, there is limited evidence that young medium and large firms are more credit constrained than other medium and large firms.

3.1. The place of small and medium enterprises in the economy

What is the role and place of SMEs in terms of job creation? We first examine employment trends in the manufacturing sector between 2000 and 2011 using the Ethiopia Survey of Large and Medium Scale Manufacturing Industries (LMMIS). The data set is an unbalanced panel comprised of 495 – 1,039 firms per year[18].

Our results, shown in Figure 8, suggest that medium and large firms are creating most of the new jobs during this period[19]. The top panel illustrates the total number of employees in the manufacturing sector, and the lower panel illustrates the number of net new employees disaggregated by firm size based on Ethiopia's Central Statistical Agecny definitions (micro (<10); small (10-19), medium (20-99), large (100+)), as well as firm age (young (0-5 years); established (6+ years)).

18 An important note about this data set is that this survey is designed to exclude small-scale industries (microenterprises) with fewer than 10 employees however some firms in the LMMIS data set reported fewer than 10 workers. Employment levels calculated using this survey will be negatively biased for microenterprises. The micro segment of the manufacturing sector is extremely large and important. In fiscal year 2007/08, the Central Statistical Agency reported there were 43,338 microenterprises in Ethiopia comprising of 138,951 engaged persons. In the LMMIS, we have only 35 microenterprises in fiscal year 2007.

19 These statistics do not capture changes in part-time employment or shifts in hiring from full-time to part-time employees. By construction these statistics only consider firms who were in operation in 2009, therefore new jobs created by firms who began operations after 2009 is not captured.

It is also important to distinguish among different types of employees. The results show that paid employees are primarily employed in large establishments, while the composition of workers in smaller scale enterprises tend to be characterized by a higher prevalence of temporary and unpaid workers, relative to large establishments. Therefore, when taking into account all workers ("engaged persons") including paid employees, unpaid working proprietors, active partners, unpaid family workers and paid and unpaid apprentices, the weight of MSMEs increases. For example, in 2011 half all engaged persons were affiliated with MSMEs.

Large manufacturing companies that have been established for more than 5 years have been the largest employers of permanent paid workers in the economy during the last decade. In 2011, they accounted for 74 percent of total paid employment. Another important result is relative to the effect of exogenous shocks on job creation, revealing the sensitivity of the Ethiopian manufacturing sector to external shocks. Specifically, in the aftermath of the financial crisis the most affected firms were large and established ones. In 2008, these firms experienced a net loss of 4,043 jobs. However, this was just a temporary shock as, in the next year, jobs began to recover slowly. In 2009, the large enterprise saw an addition of 381 jobs and 5,480 jobs in 2010.

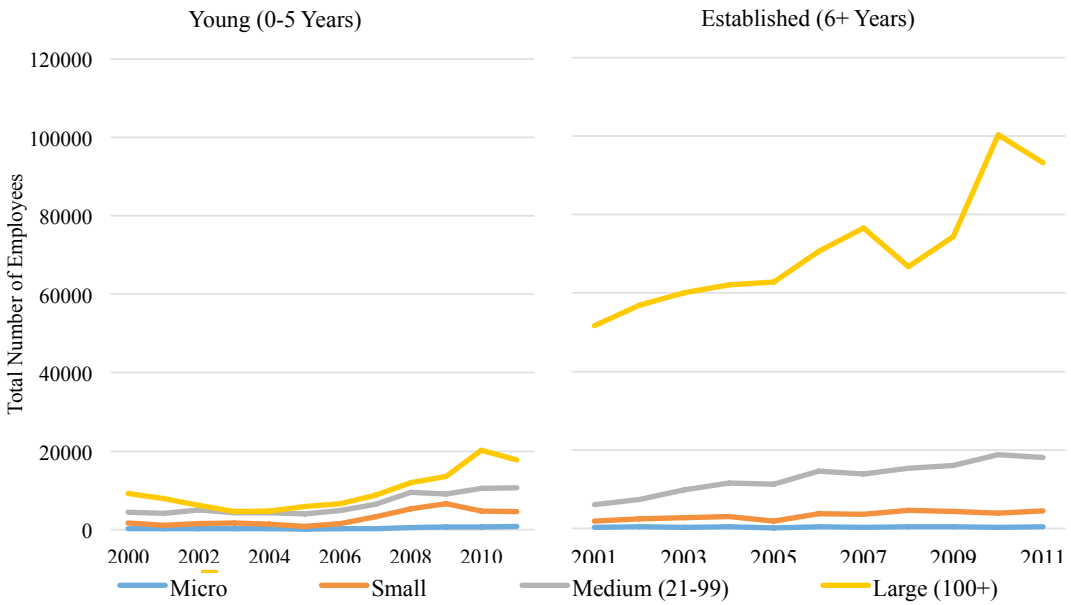
Another way to examine employment trends is to look at the proportion of firms in a size group in year *t* who transition to another size group in year *t+1* (Table 3). In the table below, we examine firm size transitions only in recent years after the financial crisis (*t*=2008, 2009, and 2010). Large firms are the most stable, the majority of large firms stay large, and virtually none reduce in size to less than 20 employees. Micro firms are the most dynamic, over half of micro firms expand to become small, medium, or large firms in the next year. Small firms are much less dynamic, as only 11.1 percent of small firms grow to become medium firms in the next year. Growth for medium firms is also challenging after the financial crisis; medium firms are more likely to become smaller (11.6 percent) than to become larger (4.5 percent).

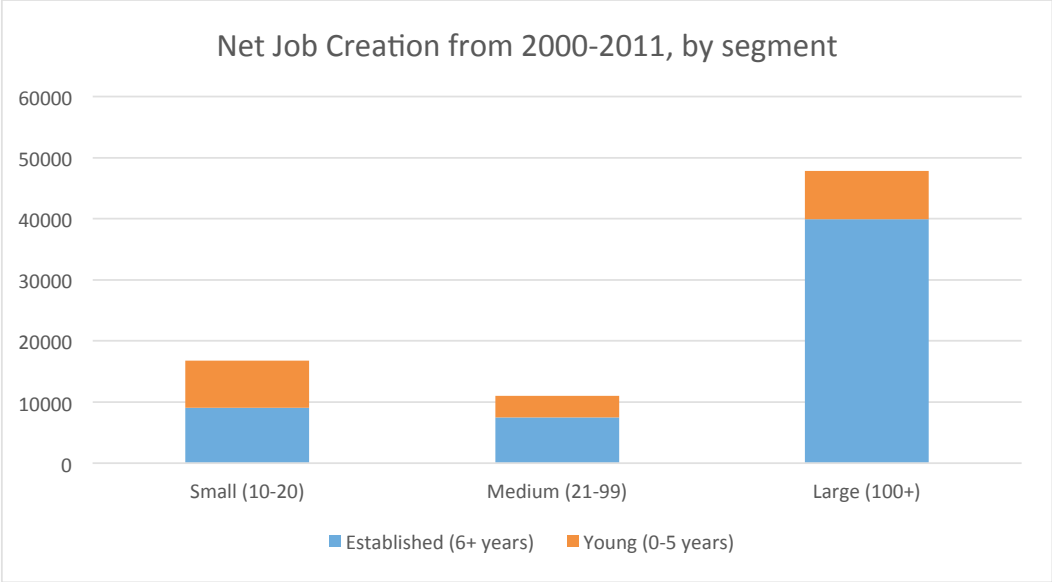
Table 3. Firm Size Transition in Manufacturing (t=2008-2010)

		Year *t*+1				
		Micro (0-9)	Small (10-20)	Medium (21-99)	Large (100+)	
Year *t*	Micro (0-9)	49.8%	43.8%	6.0%	0.5%	100%
	Small (10-20)	10.3%	78.1%	11.1%	0.5%	100%
	Medium (21-99)	1.7%	9.9%	84.0%	4.5%	100%
	Large (100+)	0.8%	0.6%	7.5%	91.1%	100%

Source: Authors calculation based on data from Ethiopia's Survey of Large and Medium Scale Manufacturing Industries (2008 - 2011) (LMMIS). This survey is designed to exclude small-scale industries with fewer than 10 employees however some firms in the LMMIS data set reported fewer than 10 workers.

Figure 8. Employment Trends in Manufacturing (2000-2011), by Age and Size Groups





Source: Authors calculation based on data from Ethiopia's Survey of Large and Medium Scale Manufacturing Industries (2000 - 2011) (LMMIS). This survey is designed to exclude small-scale industries with fewer than 10 employees however some firms in the LMMIS data set reported fewer than 10 workers.

However, it is important to widen our analysis to the entire economy, since the large and medium scale manufacturing sector contributed to only 2.9 percent of GDP in 2012/13, while services accounted for 45.2 percent of GDP. An understanding of employment dynamics in the services sector is important.

To compare employment trends between manufacturing and services, we turn to the World Bank's Enterprise Surveys (ES). The Enterprise Surveys interviewed 794 Ethiopian firms in 2011 that were formally registered, had private ownership, and operated in the manufacturing and service/retail sectors. The Enterprise Survey is representative of the entire population of Ethiopian firms at the level of sector, size, and sub-national region. Another important feature of the Enterprise Surveys is the inclusion of microenterprises since these firms are not targeted in Ethiopia's Survey of Large and Medium Scale Manufacturing Industries; 154 microenterprises were surveyed in the Addis Ababa region only. However, while it is now possible to compare the manufacturing section with

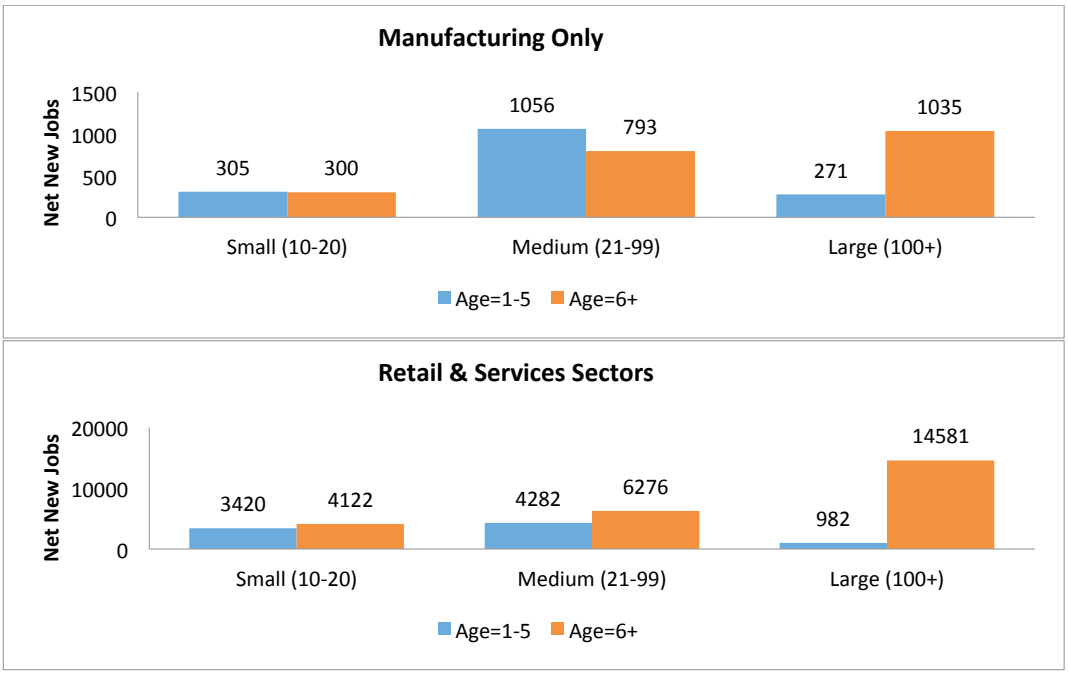
services, and also analyze microenterprises, we lose the ability to follow trends before and after the financial crisis.

Analyzing the ES we find that, conditional on survival, the majority of Ethiopian firms were job creators. Less than 8 percent of firms reported employing fewer full-time permanent workers in fiscal year 2011 than in 2009 (Figure 9)[20]. However, a significantly larger number of jobs were created in the services and retail sector compared to the manufacturing sector. Less than 10 percent of all new jobs were created in the manufacturing sector.

During the period 2009-2011, medium and large firms created most of the new jobs.[21] Established firms (i.e. firms that have been in operations for six years or more) added 15,615 full-time permanent jobs, equivalent to 38 percent of all new jobs. Large firms who are young created the smallest number net jobs. Small established firms that remain small after many years in operations are likely to be poor performers, and accordingly created fewer jobs than young small firms. Large established firms create the most number of jobs; however, younger firms have the highest growth rates (Figure 10).

In Ethiopia, young firms do not contribute to job creation as significantly as in the rest of the world. In the U.S. younger firms grow faster than more established firms, and also yield higher net job creation (Haltiwanger et al 2011). Rijkers et al (2013) also finds that young firms in Tunisia create the most new jobs despite high exit rates. This shows that Ethiopian firms are not competitive and it is difficult for new start-ups to survive.

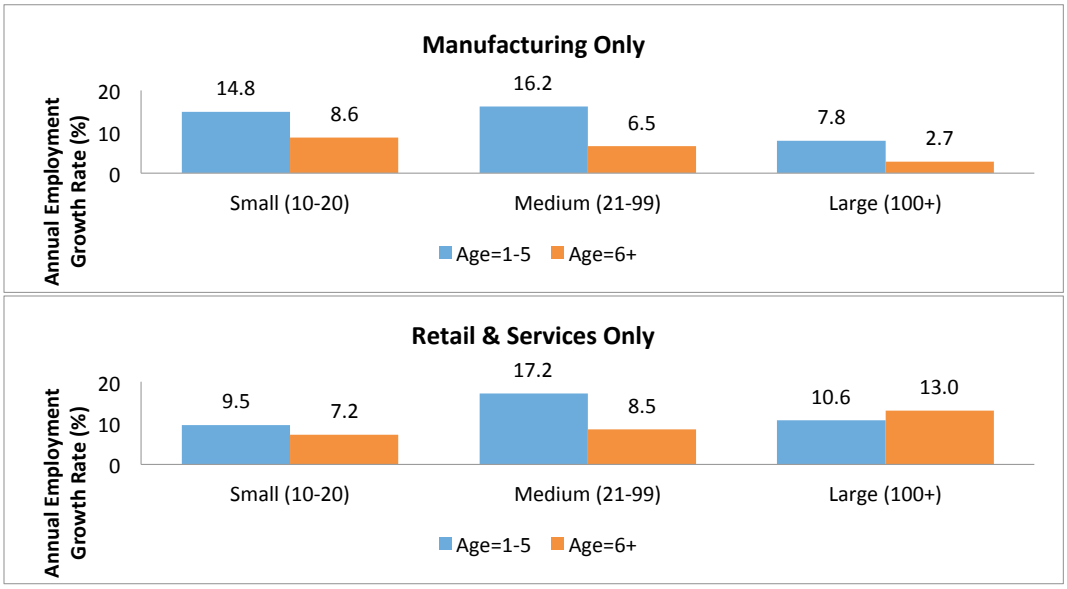
Figure 9. Net New Jobs (2009-2011), by Industry



20 These estimates are computed from surviving firms and may be positively biased since the Enterprise Surveys excludes firms who closed.

21 These statistics do not capture changes in part-time employment or shifts in hiring from full-time to part-time employees. By construction these statistics only consider firms who were in operation in 2009, therefore new jobs created by firms who began operations after 2009 is not captured.

Figure 10. Annual Employment Growth Rate (%) (2009-2011), by Industry



Notes: Net new jobs is calculated as the difference in the number of full-time permanent workers in fiscal years 2011 and 2009.Annual employment growth rate is calculated using the number of full-time permanent employees in fiscal years 2011 and 2009. Growth rates are calculated from surviving firms only. Source: Enterprise Surveys

3.2 Is access to finance an obstacle to business?

3.2.1 Firms' perceptions of access to finance in Ethiopia

Young and small firms appear to be facing more serious financial constraints relative to those that are larger and more established (Figure 11). Across a range of finance indicators created using the Ethiopia Enterprise Surveys (2011), young and small firms are the most likely to report that access to finance is a major constraint to their business operations, and at rates higher than other well-developed African countries. In South Africa (2010), only 10.4 percent of SMEs[22] rated access to finance as a major constraint, compared to the much higher rates in Ethiopia. Nearly half of microenterprises, 40 percent of small firms, and 18.5 percent of medium firms reported access to finance in Ethiopia to be a major constraint to daily operations.

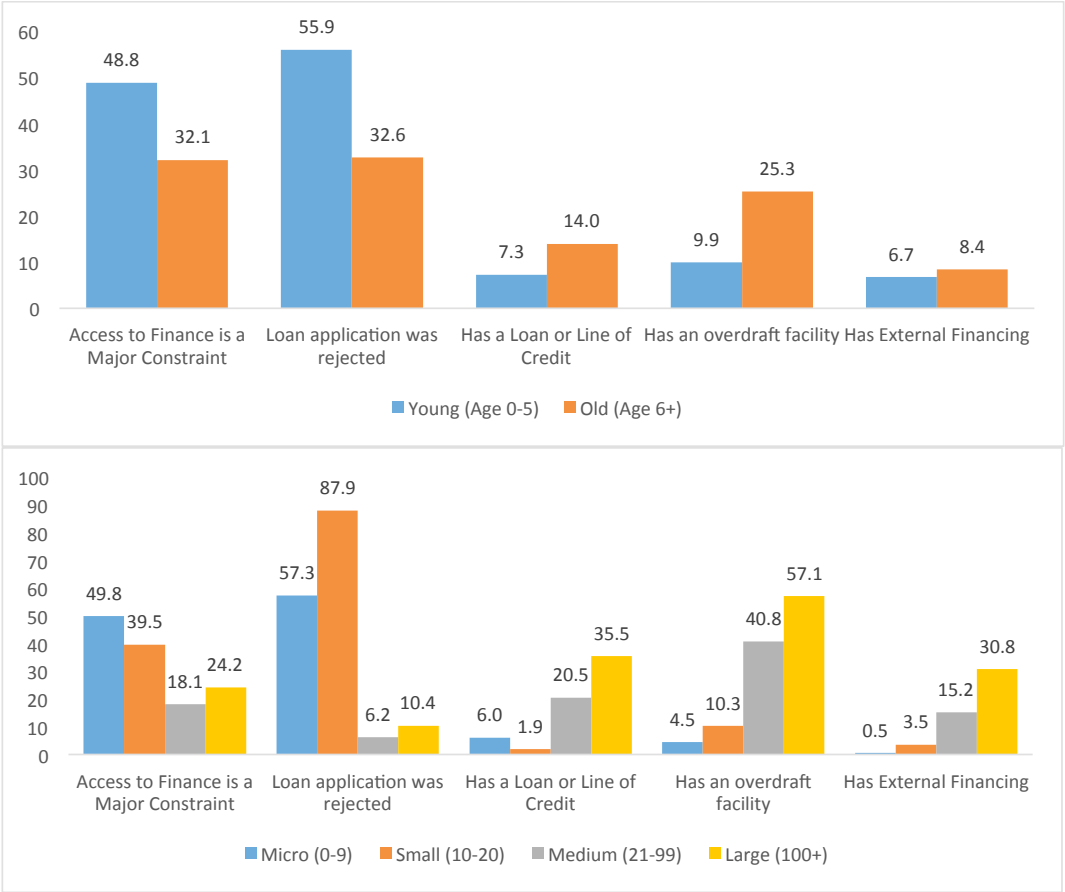
Consistent with this "perception based indicator", objective data show smaller firms are more likely to be excluded from financing and utilize fewer financial instruments. In fact, as shown in the lower panel of Figure 11, multiple objective indicators suggest that micro and small firms, as well as those that are young are excluded from the financial market.

While the majority of micro and small enterprises do have checking and savings accounts, access to finance is extremely low for this segment. Only 6 percent of micro enterprises, 1.9 percent of small enterprises, and 20.5 percent of medium have a loan or a line of credit. Small firms also have the highest incidence of loan application rejection. Among firms who applied for a loan or line of credit in the last fiscal year, 57.3 and 87.9 percent of applications submitted by micro and small firms respectively were rejected. This is in sharp contrast to the much lower 6.2 and 10.4 rejection rate experienced respectively by medium and large firms. In addition, less than 1 percent of micro firms have external financing at all, whether to finance working capital or investments. Similarly, only 4.5 percent of micro firms have an overdraft facility, compared to 57.1 percent of large firms.

22 The South Africa (2007) Enterprise Survey did not survey micro firms so we only have SME and not MSME comparisons.

These low lending and financing rates to small firms can be attributed to (among other factors) the extremely high value of collateral needed for a loan.

Figure 11. Access to Finance is a larger obstacle for young and small firms



Notes: Micro firms 0-4 employees were surveyed in Addis Ababa only. Weights are applied to the calculations. Loan application refers to the most recent application that was submitted in the last fiscal year. If no loan applications were submitted in the last fiscal year, then this question was skipped.

Source: Enterprise Surveys

A financial environment in which firms, especially small ones, face high barriers to obtaining finance leads to voluntarily exclusion or discouragement from applying for a loan. In fact, as shown in Table 4, when firms were asked why they did not apply for a loan, only a small minority of small firms respond there was no need for a loan (34% compared to 62% of large firms). In comparison in South Africa, about 80 percent of small[23], medium, and large firms who didn't apply for a loan reported it was because there was no need for a loan rather than other reasons (Fuchs et al, 2011). Again, this is consistent with the idea of a missing middle phenomenon hindering opportunities to access finance for small companies, but not micro or large enterprises. Microenterprises are less likely to report that high collateral or interest rates were reasons for not applying for a loan than SMEs. This reflects that MFIs appear to be doing a good job serving microenterprises; on the other hand small firms do not seem to be able to access MFIs while at the same time being underserved by the banking sector.

23 No micro firms were surveyed in South Africa

Table 4. Reasons for Not Applying For a Loan (% of Firms by Size Group)

	Micro (0-9)	Small (10-20)	Medium (21-99)	Large (100+)
No need for a loan - sufficient capital	48%	34%	45%	62%
Application procedures were complex	9%	6%	5%	7%
Interest rates were not favorable	4%	10%	4%	6%
Collateral requirements were too high	20%	29%	33%	6%
Size of loan and maturity were insufficient	0%	2%	1%	2%
Did not think it would be approved	13%	6%	4%	4%
Other	5%	13%	8%	13%
Total	100%	100%	100%	100%

Notes: This question was asked to firms who did not apply for a loan or line of credit in fiscal year 2011.

Source: Enterprise Surveys

It is clear why collateral requirements can be binding for smaller firms since the most common type of collateral used are land and buildings and personal assets (Table 5). Like elsewhere in developing economies, Ethiopian banks prefer immovable collateral such as land rather than movable assets such as machinery. Large firms are the only ones who commonly can use equipment as collateral. The use of accounts as collateral is also rare, even for large firms, less than a quarter of large firms use this as a form of collateral.

The average value of collateral needed for loans in Ethiopia is also very high compared to other regions of the world as well as to other developed economies in Africa. On average, Ethiopian firms require 234 percent of the loan amount for collateral, compared to 134.3 percent in Eastern Europe and Central Asia. In well-developed African countries, collateral requirements are also much lower than in Ethiopia: 120.8 percent in Kenya (2007), and 103.6 percent in South Africa (2007).

Table 5. Types of Collateral Used

	Micro (0-9)	Small (10-20)	Medium (21-99)	Large (100+)
Land and Buildings	69.6	86.1	81.9	85.4
Equipment	2.1	2.5	33.0	84.9
Accounts	2.1	2.5	4.8	24.5
Personal Assets	26.2	36.8	27.0	22.0
Other	4.2	0.0	0.0	14.3

Notes: This question was asked to firms who received a loan or line of credit in fiscal year 2011. Firms may cite the use of more than one type of collateral.

Source: Enterprise Surveys

These indicators illustrate a clear picture that in Ethiopia, young and small firms are less likely to utilize lending services and also face barriers when they attempt to acquire financing.

3.2.2 More than elsewhere firms are considerably credit constrained

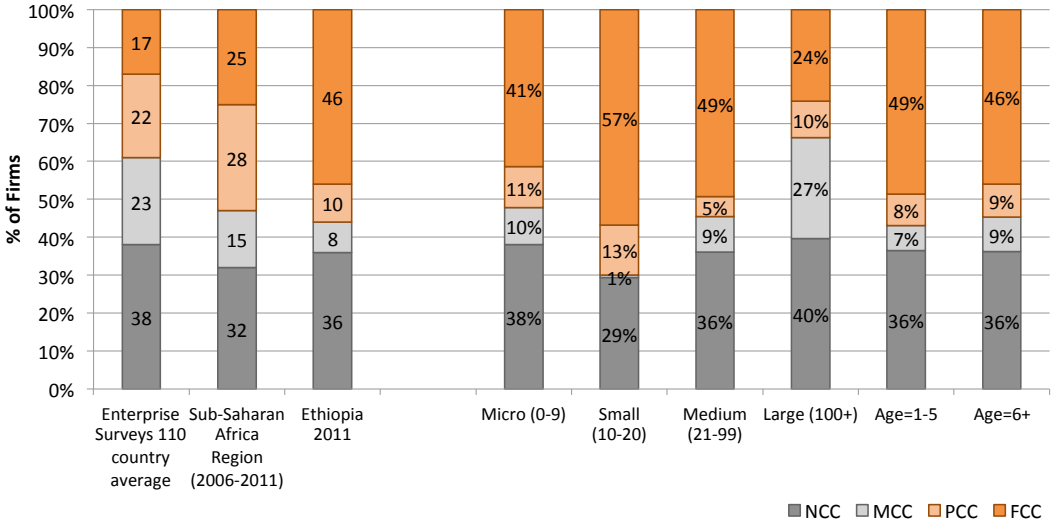
Figure 1 illustrates the percentage of firms that are credit constrained using a measure that distinguishes between four degrees of "credit constrained"[24] which is constructed using the Ethiopia Enterprise Surveys (2011). The main result is that, while the proportion of firms in Ethiopia who are not credit constrained (NCC) is comparable to the Sub-Saharan Africa regional average, the share

24 See Appendix 4 for full definition.

of firms completely without access is much higher. In other words, firms in Ethiopia are much more likely to be fully credit constrained (FCC) than firms elsewhere in the world (Figure 12). Fully credit constrained firms are those that have no external financing and were either rejected for a loan or did not apply because of its terms and conditions.

The U-shaped relationship between firm size and the proportion of firms who are fully credit constrained supports the concept of the missing middle phenomenon in credit provision for enterprises. In Ethiopia, small-sized firms (10-20 employees) are the most credit constrained of all firm segments (57 percent), more than micro, medium, or large firms (41, 49, and 24 percent respectively).[25] These results, along with the ones presented earlier on loan rates by firm size (Figure 11) support the notion that small firms struggle the most in obtaining access to finance. As the supply-side survey confirmed (Chapter 4), microfinance institutions in Ethiopia cater to microenterprises, while banks primarily have deposits by and loans to medium and large firms. In contrast, among both MFIs and banks, the shares of deposits and loans associated with small establishments are extremely small.

Figure 12: Nearly half of firms in Ethiopia are fully credit constrained



Note: NCC=Not Credit Constrained, MCC=Maybe Credit Constrained, PCC=Partially Credit Constrained, FCC=Fully Credit Constrained.

Source: Enterprise Surveys

The relationship between firm age and credit constraint status is weaker. There is no perceivable difference between the degree of credit-constraint and firm age. This finding is consistent with results found using the Survey of Large and Medium Scale Manufacturing Industries from 2000-2011 suggesting that age is not a significant factor in predicting the probability of receiving a loan for manufacturing firms.

Furthermore, our analysis reveals that a robust set of significantly negative performance characteristics are associated with being credit constraint. After having defined firms as credit constrained if they are either partially (PCC) or fully credit constrained (FCC) we observe that these firms tend to exhibit significantly lower rates of growth and levels of labor productivity (Table 6).[26] A firm that is credit constrained tends to have sales growth that is 15 percentage points lower, employment growth that is 5 percentage points lower, and labor productivity growth that is 11 percentage points lower than firms who are not credit constrained. Since growth rates were calculated between fiscal years 2009 and 2011, it is likely that these firms' decline post the financial crisis has been further exacerbated by the lack of credit.

25 We also restrict the analysis to the Addis Ababa region since micro firms were only sampled in this region. When we do this, the trend support the missing middle phenomenon is still present.

26 One important caveat of these results is that these correlations should not be given a causal interpretation, in fact while it is possible that credit constraints negatively affect firm-performance, it is also possible that poor performing firms are unable to secure loans because unable to present viable projects.

Table 6. Performance and Credit Constraint

	(1) Annual Real Sales Growth Rate	(2 Annual Employment Growth Rate	(3) Annual Labor Productivity Growth Rate	(4) Log(Output Per FT Worker)	(5) TFP	(6) 1=Job Creator
Firm is Credit Constrained	-12.10**	-3.649*	-9.460*	-0.681***	0.443	-1.028
	(4.665)	(2.029)	(4.951)	(0.201)	(0.620)	(0.818)
Made Investments	13.26***	4.094*	6.912	0.394**	2.241***	-1.586***
	(4.784)	(2.222)	(5.449)	(0.188)	(0.700)	(0.594)
log(Age)	-3.127	-6.825***	3.609	0.105	0.510	0.0117
	(2.847)	(1.542)	(3.146)	(0.130)	(0.380)	(0.0123)
Exporter	0.0653	0.00192	0.0529	0.00162	-0.00517	0.00670
	(0.0755)	(0.0695)	(0.0981)	(0.00548)	(0.00762)	(0.00719)
Female Manager	0.00697	-0.0246	0.0458	-0.00143	-0.000382	0.0216
	(0.0435)	(0.0205)	(0.0471)	(0.00179)	(0.00543)	(0.0180)
Foreign Ownership	-0.166	0.0250	-0.155	-0.00677	-0.0205**	0.0407***
	(0.124)	(0.0490)	(0.155)	(0.00820)	(0.00716)	(0.0102)
Sole Proprietorship	-0.0260	0.00488	-0.0555	-0.00315	-0.00506	0.726
	(0.0593)	(0.0248)	(0.0703)	(0.00256)	(0.00486)	(1.768)
Constant	16.05	26.08***	-5.708	12.20***	-0.586	7.769***
	-12.10**	-3.649*	-9.460*	-0.681***	0.443	(2.468)
Observations	368	537	355	473	54	437
R-squared	0.263	0.168	0.174	0.246	0.547	

Notes: Models (1)-(5) are OLS, model (6) is logit. Regional, sector, and size controls are included. Micro-sized firms are included in regression (2) and (6). Regression (5) is only manufacturing firms. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Source: Enterprise Surveys

3.3 Liquidity Constraints

After having analyzed differences in terms of credit constrained using the Enterprise Survey data, this section expands the previous analysis and conducts further tests regarding firm characteristics associated with being financially constrained. This analysis relies on the Survey of Large and Medium Scale Manufacturing Industries conducted during the period 2000-2011. Following the recent literature assessing firms' financial constraints, we evaluate the extent to which firms investments are correlated to their cash flow.

To determine whether or not firms are liquidity or financially constrained, we examine if changes in investment[27] and cash-flows[28] are significantly correlated over time[29]. The basic intuition of this approach is that if a firm was unconstrained in its access to external financing, its investment patterns should not be correlated to its cash-flows. On the opposite, the existence of credit constraints would lead to a situation where the firm is only able to invest in the presence of positive cash-flows. Using this approach developed originally by the influential work of Fazzari, Hubbard and Petersen (1988) we are able to identify which types of firms are more likely to be more credit constrained.

27 Investment is calculated as the investment in fixed assets plus the depreciation

28 Cash flow = profit after taxation, extraordinary profit, and depreciation

29 For a complete discussion on the methodology, please refer to Appendix 5.

The literature pioneered by Fazzari et al (1988) argues that a positive investment-cash flow relationship can be interpreted as evidence of financial constraints. In a related work Fazzari et al (2000) clearly argues how constrained firms with large cost of external financing tend to have larger investments-cash flow sensitivity than relatively unconstrained firms that have very small cost of external funds. Building on this approach, a previous study by Carpenter and Petersen (2002) showed how the growth of small firms is constrained by external access to finance. Similarly, another study by Guariglia et al (2008) shows how in China while the investments of state-owned enterprises are not affected by cash flow; the opposite is true for privately-owned firms.

In our analysis, we find that investment decisions of manufacturing firms in Ethiopia are heavily dependent on their cash flows (Appendix 5, Table 19). This confirms that firms are constrained in their access to external financing sources when making investments in fixed assets such as machinery or the purchase of land. In addition, we find some limited evidence that these credit constraints are stronger for young firms. However when looking at small firms only, we found that age matters with young small firms being more liquidity constrained than other small firms (Table 22).

4. SUPPLY-SIDE ANALYSIS

Main research questions addressed:

1. How do banks and MFIs define MSMEs?
2. What is the actual extent of banks and MFIs' involvement with MSME?
3. What are the main drivers and obstacles to MSME finance?
4. Are banks and MFIs' business models adequate to support MSMEs?

This section presents the results of an *ad hoc* survey on the supply side of MSME financing in Ethiopia addressed to commercial banks as well as microfinance institutions. The questionnaire was designed to address the following areas: (i) the extent of banks and MFIs' involvement with MSMEs; (ii) the characteristics of the credit market for MSMEs (iii) the main drivers and obstacles to MSME finance; (iv) the adequateness of financial institutions' business models for supporting MSMEs (including marketing strategies, specialized products and services as well as models of credit risk management).

The methodology used for the supply-side study is comparable to the one used in recent studies undertaken by the World Bank to analyse SME finance in other African countries (including South Africa, Kenya, Nigeria, Rwanda, Tanzania and Benin).

The survey was originally addressed to 16 financial institutions covering over 90% of the total assets in the banking and microfinance sectors. 13 financial institutions responded to the survey - 7 banks representing 87.1 percent of the banking sector asset portfolio and 6 microfinance institutions representing 70 percent of the micro finance sector asset portfolio[30]. Due to a varying response rates to questions the questionnaires were supplemented by structured face-to-face interviews conducted with 6 banks and 5 microfinance institutions. The results presented in this section are based on the written responses to the questionnaire as well as views expressed during interviews and discussions.

Main findings from the supply-side analysis are summarized below and then discussed in-depth in the following sub-sections.

i. **Defining MSMEs**

   a. ***Financial institutions in Ethiopia lack a commonly agreed definition of MSMEs.*** While the majority of MFIs uniformly uses the MSE definition that is laid out in the Government's National MSE Development Strategy, commercial banks do not seem to uniformly distinguish among small, medium and large enterprises.

ii. **Financial institutions' involvement with MSMEs**

   a. ***Ethiopia is lagging behind other Sub-Saharan Africa's countries and developing countries in terms of lending to SMEs.*** The share of SME lending in overall lending portfolio in Ethiopia is in fact only 7 percent, among the smallest shares in Sub-Saharan African countries as well as far below that of developing economies.

   b. ***Although MFI and bank involvement in SME lending is limited, financial institutions believe that the potential for this segment of the market is very good.*** The majority of surveyed financial institutions believe that prospects for the SME market are good and that the SME market size is large. The small enterprise segment is also identified as the most promising segment for growth, by both MFIs and banks.

   c. ***SMEs represent a missing middle in the financial sector:*** Lending to SMEs is limited

30 Originally 16 financial institutions were approached; nine banks holding 93.5 percent of the total assets of the banking sector, and seven microfinance institutions with 93 percent of total assets of micro finance sector. From this original sample, The 13 financial institutions who provided data are Commercial Bank of Ethiopia (CBE), Wegagen Bank, Dashen Bank, NIB Bank, Awash International Bank, Construction and Business Bank (CBB), Development Bank of Ethiopia (DBE), Amhara Credit and Saving Institution (ACSI), Oromia Credit and Saving Share Company (OCSSCO), Addis Credit and Saving Institution (AdSCI), Omo Micro Finance Institution, Wasasa and Wisdom MFI.

as MFI deposit and loan portfolios are comprised mainly by microenterprises (over 90 percent). The same is true for commercial bank portfolios and large enterprises. Deposits and outstanding loans to SMEs typically comprise less than 10 percent of the total portfolios of MFIs or banks. This leaves a considerable missing-middle of SMEs not served by either banks or MFIs and who need access to finance

d. ***High heterogeneity of lending patters: MFIs issues the most number of loans to SMEs, but banks issue the most value.*** Seventy-four percent of SME loans outstanding values from the sample of financial institutions are by banks, only a quarter of SME loan values originate from MFIs. In terms of the number of loans, ACSI has 8,670 loans outstanding to SMEs compared to only 88 by the CBE (Dec. 2012). Banks provide large loans with longer maturity compared to much smaller sized firms lending with short maturity provided by MFIs. Interest rates for SME customers vary between 10 percent for low risk MFI customers and 15.5 percent for high risk bank customers. MSMEs face higher collateral requirements and interest rates because banks perceive them as more uncertain and harder to evaluate. As to the quality of loan portfolios, there is only a slight difference between banks and MFIs, with the latter having a non-performing loan rate of 2.3 percent and banks of 1.9 percent.

iii. **Main drivers to MSME finance**

a. ***All banks and MFIs indicated that expected returns and the contribution to the economic development of the country as the main drivers for lending to SMEs and microenterprises.*** The co-existence of the economic dimension of profitability of the business with the more political dimension of contributing to the country's economic development represents an interesting feature of the Ethiopian market, where publicly owned financial institutions dominate both the banking and the microfinance sector.

b. ***While banks and MFIs believe there is high growth potential in lending for small enterprises, the current lack of involvement is due to perceived risks.*** Most financial institutions in this study perceive costs and risks to be higher in the SME segment compared to the large enterprise segment. Banks seem to have a more negative perception of risks and costs than MFIs. Further, when asked to compare profitability of SME loans versus large enterprise loans, this is considered considerably lower in the SME segment.

c. ***Government financed programs (credit guarantee programs and line of credit with technical assistance) are important drivers.*** When asked about the impact of government financed programs on the decision to engage in SME finance the picture that emerges clearly indicates that both categories (i.e. banks and MFIs) see favourably partial credit guarantee schemes and the provision of dedicated credit lines associated with technical assistance. Directed credit programs are also perceived as having a positive impact, confirming, once again, the dominant role that public institutions play in the banking and microfinance sector.

d. ***The potentialities of the credit bureau are not effectively exploited.*** As shown in Figure most banks use credit bureau information for MSMEs loan analysis. 3 out of 5 banks consider the credit bureau to be effective. However only the negative information provided is used and the credit bureau information has limited input and an insignificant contribution to loan decisions.

iv. **Main obstacles to MSME financing**

a. ***SME-specific factors and macroeconomic factors were selected by all MFIs and banks to be significant or very significant obstacles to the development of SME lending.*** Regarding the SME specific factors, most of the financial institutions highlighted the poor quality of financial statements, inability to manage risk, lack of knowledge of business management, lack of awareness on how to be bankable, lack of adequate collateral and informality of SMEs as the major challenges. Regarding macroeconomic

aspects, inflation, exchange rate, tax regulation and high vulnerability of the agriculture sector were mentioned by financial institutions.

b. ***The contractual environment and lack of collateral registry inhibit secured lending and constraints access to finance for SMEs.*** Lack of contract enforcement and judiciary inefficiency were indicated as main obstacles concerning the contractual environment. There is no legally authorized body to register machinery and/or equipment for it to be held as collateral. The absence of a collateral registry in combination with ineffective enforcement of contracts in case of default could contribute to significant losses for banks and this could have significant impact on the access to finance for SMEs.

c. ***Changes in the market due to imposed lending restrictions are seen as a hindrance causing liquidity constraints.*** The regulatory framework affecting the liquidity position of banks is seen as another significant obstacle to involvement with SMEs. The majority of surveyed financial institutions reported that there have been significant changes in the market for lending to SMEs which affected banks in terms of liquidity and overall competition in the banking sector.

d. ***MFIs are more likely than banks to perceive competition in SME lending as an obstacle.*** Banks are more likely to perceive bank-specific factors and characteristics of SME lending as obstacles. Bank specific factors include amongst others the lack of interest at the bank, limited geographic outreach, lack of appropriate products and knowledge on how to evaluate MSMEs or high collateral requirements.

v. **Adequateness of business models**

a. ***Most of surveyed financial institutions lack a dedicated and specialized MSME unit or department within their organizational structure.*** The organizational model used by the majority of the interviewed institutions does not take into account the need to set up a specialized MSME unit or department to better serve the MSME clientele. 9 out of the 12 financial institutions did not possess a separate SME department or unit at the time of the study.

b. ***Loan appraisal techniques are still mostly based on traditional relationship lending rather than on transactional technologies such as credit scoring etc.*** When it comes to appraisal and monitoring of MSME loans, these are largely done through the establishment of a close relationship with clients for both banks and MFIs. A minority of banks stated using transactional technologies such as credit scoring risk rating tools, factoring or leasing. None of the MFIs use these techniques.

c. ***Products are highly standardized and there is very limited product innovation.*** The product mix offered by financial institutions does not seem to be sufficiently large. Other lending products such as leasing and factoring are not offered by any of the financial institutions in this study. Furthermore, products provided to the SME and micro enterprise market are largely standardized and the efforts to continuously adapt them to client's needs are limited. The great majority of financial institutions in the study reported no change in their financial product offering between the years 2010 and 2012.

d. ***On the institutional level and regarding specific business models, MFIs and banks diverge in terms of sector targeting.*** Both target enterprises in the manufacturing sector as required by the government. Banks however have further outreach to the export trade sector, while MFIs focus more on agriculture. The only sector banks are not aiming to reach that MFIs are, is petty trade.

e. ***Geographic location is not considered as an important marketing criterion and distribution channels are still mostly based on branches.*** Geographic location does not appear to be an important marketing criterion for financial institutions. This is particularly the case for MFIs as the 5 dominant ones, with more than 90 percent

of total asset portfolio of the micro financing sector, are affiliated with the regional governments in Ethiopia. Regarding their geographic outreach most of the banks and MFIs use only their own branches as distribution channels.

f. ***Long term financing needs of SMEs do not seem to be properly addressed.*** The average loan maturity for SME loans reported by MFIs was 2.38 years while for the banks it was 6 years. According to the questionnaire responses, the average maturity loan for large enterprises was 10.4 years. This indicates that long term financing needs of SME's are not well addressed and that there is a potential market gap here.

4.1. Defining MSME Financing in Ethiopia

In order to provide an insight into how financial institutions view the MSME segment, they were asked to provide data on how they define small enterprises (SE's) and micro enterprises (MI's). Typically banks define SME's according to the annual turnover of the business, loan size, number of employees and/or revenues generated by the financial institution.

The definitions used by MFIs in Ethiopia are based on the Government's micro and small enterprises definition as laid out in the national MSE development strategy (2011) (Table 7). All MFIs, besides one, uniformly use the number of employees' criteria. Most MFIs also categorized micro and small enterprises in terms of turnover and loan size. Some of the MFIs indicated that in addition they categorized businesses according to the capital requirement as defined in the national policy document.

Table 7. MSME Definitions, by National MSE Development Strategy

Level of the enterprise	Sector	Number of Employees	Total assets
Micro enterprise	industry	<= 5	Less than or equal to 100,000 ($USD 6000 or 4500 Euro)
	service	<= 5	Less than or equal to 50,000 ($USD 3000 or 2200 Euro)
Small enterprises	Industry	From 6- 30	Less than or equal to 1.5 million ($USD 90,000 or 70,000 Euro)
	service	From 6-30	Less than or equal to 500,000 ($USD 30,000 or 23,000 Euro)

Source: National MSE Strategy 2011

As shown in Table 8, definitions can vary to a certain degree when using the definition by turnover and this needs to be taken into account when comparing data between microfinance institutions. The MFIs uniformly used the policy definition in the MSE Development Strategy in terms of the number of employees (1-5 employee for micro enterprise and 6-30 for small enterprises). Hence, the firms above this employment definition are categorized by default as medium and large enterprises. Medium enterprises are not clearly defined by the financial institutions. Only two MFIs defined the medium enterprises in terms of loan size which highly varies (the maximum loan size is 10 million Birr for one MFI while it is 200 thousand Birr for the other). Similarly, firms are not defined as medium enterprises and large enterprises neither by the government in terms of size of capital requirement nor by MFIs in terms of turnover and loan size.

Table 8. MFIs definition of Micro and SMEs, by turnover, employee size, and loan size

Definition by Turnover (ETB)					
	ACSI	OCSSCO	AdCSI	Omo Micro	Wasasa
Micro	< 100,000	50,000-100,000	N/A	50,000 - 75,000	
Small	100,000-1.5 Million	100,000-500,000		100,000-500,000	
Definition by Number of Employees					
	ACSI	OCSSCO	AdCSI	Omo Micro	Wasasa
Micro	< 5	< 5	1 to 5	1 to 5	< 5
Small	6-30	6-30	6-30	6-30	6-30
Definition by Loan Size (ETB)					
	ACSI	OCSSCO	AdCSI	Omo Micro	Wasasa
Micro	< 15,000	40,000-50,000	500 - 100,000	N/A	100-10,000
Small	15,000-150,000	75,000-1 million	100001-1,000,000		10,000-100,000

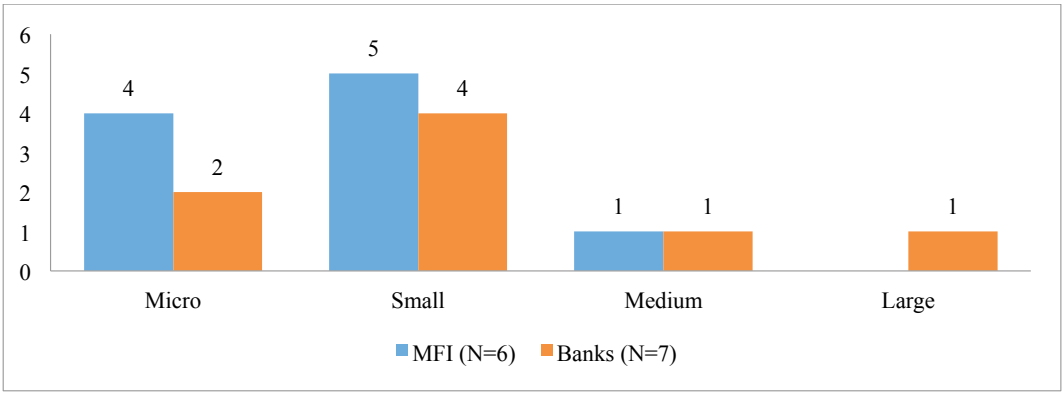
In the absence of a distinction between micro, small and medium enterprises, most of the data collected from the commercial banks is in aggregate form. Most banks in this study do not dispose of data records separating large enterprises from SMEs. Most of the MFIs similarly do not have separate records of data for SMEs and micro enterprises. It should be noted that while efforts were made to ensure completeness of data, data was provided on a voluntary basis and was not always available as wished. Hence, the data in this section is based on what was received and may not always be representative of the whole banking and micro financing industry[31].

4.2. The Extent of Banks' and MFIs' involvement with SMES

This section explores to what extent commercial banks and MFIs in Ethiopia are engaged in the SME finance business by looking at their actual lending patterns.

The majority of surveyed financial institutions believe that prospects for the SME market are good and that the SME market size is large. The small enterprise segment is also identified as the most promising segment for growth, by both MFIs and banks (Figure 13).

Figure 13. Most Promising Segments for Growth



Notes: Financial institutions were allowed to select more than one segment.

31 Despite repeated efforts to collect data from the selected financial institutions, Debit Credit and Saving Institutions, Bank of Abyssinia and United Bank have not provided information that could be useful additional input for the analysis in this study.

However, when looking at banks and MFIs' lending patterns, the picture that emerges from the survey is quite different, showing a very limited involvement of banks and MFIs with SMEs.[32]

Before focusing on SME lending patterns, it is useful to look at the overall levels of deposits and outstanding loans of banks and MFIs to get an idea of the different proportions existing between the two categories of financial institutions. Among the 13 financial institutions that were surveyed, 12 (6 banks and 6 MFIs) provided data on their gross deposits and outstanding loans as of December 31, 2012, reported in Figure 14 and Figure 15 for MFIs and banks respectively. The gross deposits of the CBE, the leading commercial bank, are sixty-seven times higher than the deposits of the market leader in microfinance, ACSI. Similarly, outstanding loans of CBE are more than eighteen times higher than that of ACSI. Within the banking sector CBE is the unquestioned market leader. This indicates that the banking sector is dominating both deposit mobilization and the lending industry in Ethiopia.

Figure 14. MFIs Gross Deposits and Outstanding Loans in Billion Birr (Dec. 31, 2012)

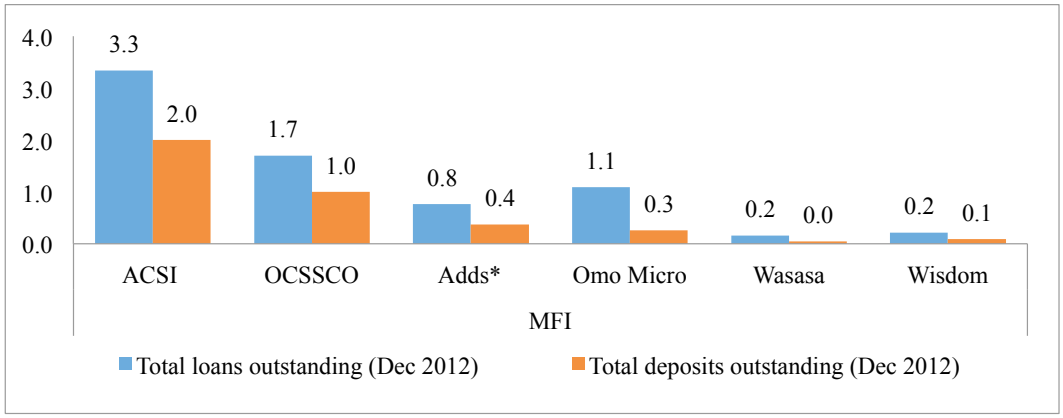
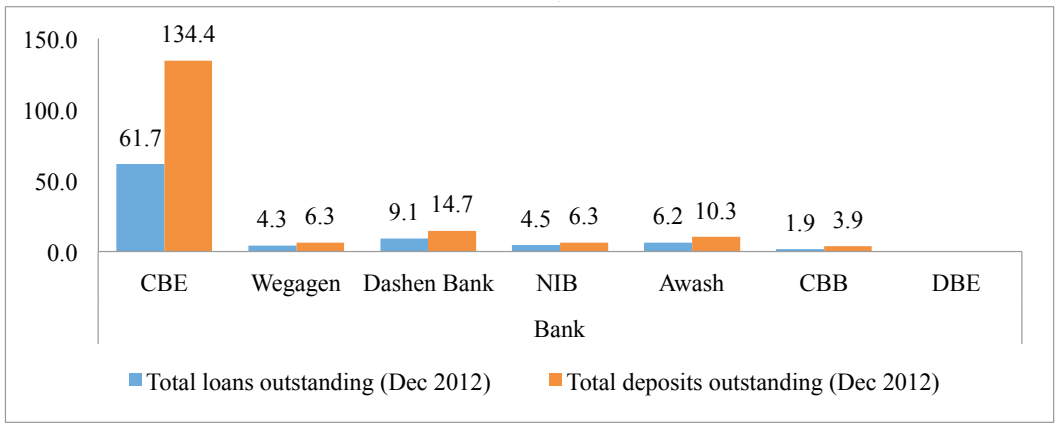


Figure 15. Banks Gross Deposits and Outstanding Loans in Billion Birr (Dec. 31, 2012)

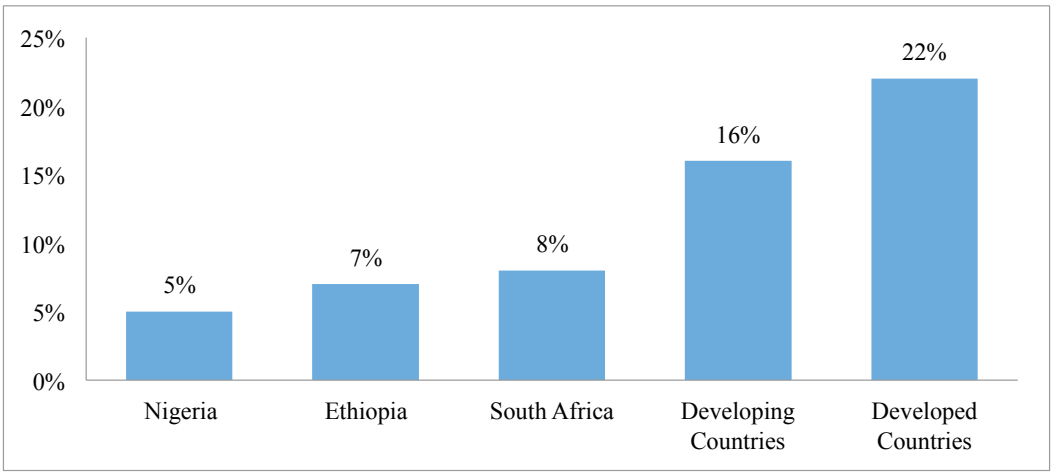


Among these levels of deposits and loans, the space dedicated to SMEs in the financial sector is quite limited. The share of SME lending in the overall lending portfolio in Ethiopia is in fact only 7 percent, among the smallest shares in Sub-Saharan African countries as well as far below that of developing economies (Figure 16). Nigeria's share of SME lending lies at 5 percent, South Africa's at 8 percent, 16 percent across developing economies, and 22 percent in developed countries (Fuchs et al 2011; Beck et al 2008).[33]

32 While all microfinance institutions state having SMEs and micro enterprises as clients, half of surveyed banks declare not to serve SMEs or micro enterprises at all.

33 The developing country average is based on analysis of data on 45 countries included in the Beck et al (2008) study.

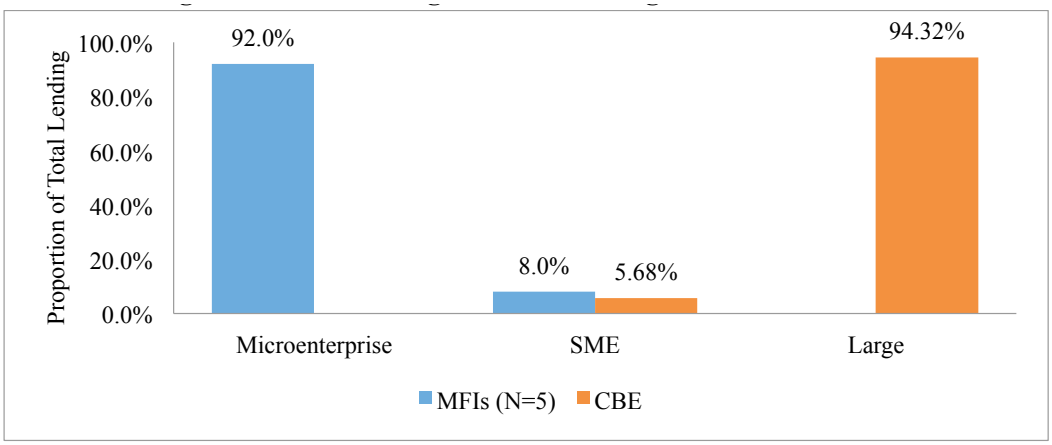
Figure 16. Share of SMEs Lending in Overall Portfolio



Source: Analysis of survey responses and reports; Berg et al (2012), Fuchs et al (2011), Beck et al (2008)

SME lending. Lending to SMEs is limited as MFIs target microenterprises and bank clientele are primarily large enterprises (Figure 17). The 5 MFIs[34] who reported lending figures disaggregated by client size focus their lending on microenterprises[35]; 92 percent of their total loans are disbursed to microenterprises while only 8 percent are issued to SMEs. Among banks, only the CBE reported disaggregated lending by client size. The CBE tends to focus on large enterprises and provides lending to the SME sector comprising almost 6 percent of the bank's total disbursements.

Figure 17. The Missing Middle: Lending to SMEs is limited



By zooming on the reduced share of lending that both MFIs and banks provide to SMEs, substantial disproportions emerge when comparing actual values with actual numbers of outstanding loans. In terms of the value of loans, the CBE also overshadows MFIs in the total value of disbursements. While representing only 5.7 percent of the CBE's total lending portfolio, the actual value of SME lending totaled 1.6 billion Birr as of end 2012 (Table 9). The amount of SME lending for all MFIs combined totaled only 231 million Birr.

34 The five MFIs are: OCSSCO, Adds*, Omo Micro, Wasasa, and Wisdom

35 Most MFIs define microenterprises to be those with less than five employees.

Table 9. Total Lending (Dec. 2012, Birr)

	MFIs (N=5)	CBE
Micro	ETB 2,667,957,137	
SME	ETB 231,005,054	ETB 1,577,708,662
Large		ETB 38,359,274,933

The imbalances in the provision of loans to SMEs vis-a-vis micro and large enterprises is further highlighted by the distribution in the actual number of loans outstanding by client size (Table 10). Among financial institutions who responded to this question, it is clear that the bulk of MFI loans are issued to microenterprises, and virtually all loans from banks are issued to large companies.

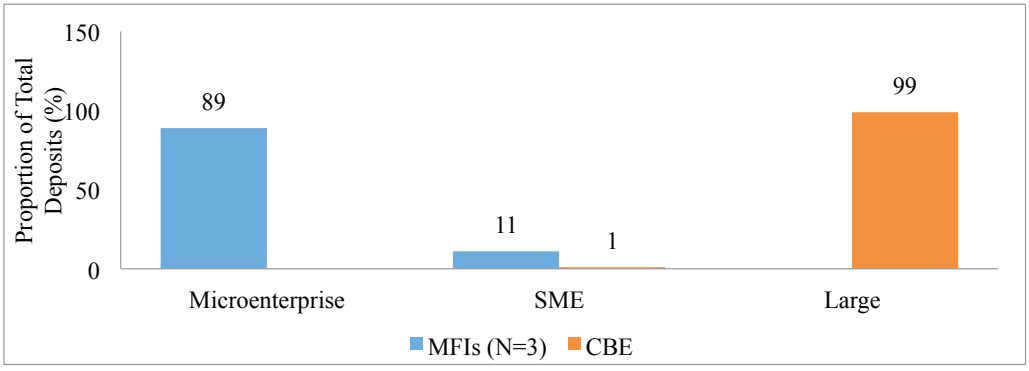
Table 10. Number of Loans Outstanding (Dec. 31, 2012)

	MFI		Banks		
	ACSI	Wasasa	CBE	Wegagen	Dashen Bank
Micro	781,954	63,280			
SME	8,670	262	88		
Large			77,245	4,248	7,284
Total	790,624	63,542	77,333	4,248	7,284

The distribution of the number of loans and loan value to SMEs also highlights an important aspect that should be noted for this segment. The CBE issued $1.6 billion Birr in loans to 88 SMEs, while MFIs issued only $231 million Birr to almost 9,000 SMEs. Clearly, there is great heterogeneity in the population of SMEs, some who are receiving very large loans and are perhaps well-established, and others who are receiving small loans.

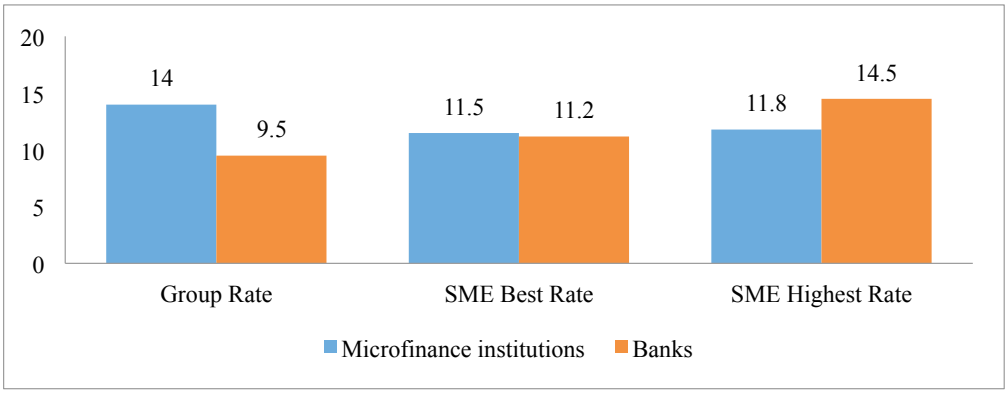
SME deposits. SME deposit mobilization is also dominated by the banking sector while MFIs provide more credit with smaller loan size. The level of deposits from SMEs in the selected MFIs (ACSI, OCSSCO, and Wasasa) range from 7 to 15 percent while only 1 percent for CBE (Figure 18). While SME deposits comprise only 1 percent of all CBE deposits, the total volume of CBE SME deposits equals 86 percent of all SME deposits. ACSI holds the second largest amount of SME deposits (8 percent). This confirms the finding that CBE primarily serves large firms, while micro enterprises utilize MFIs. It also underlines the potential for cross-selling of lending products to SME savers for both CBE and ACSI.

Figure 18: Proportion of Outstanding Deposits, by Client Size



Loans terms and conditions. Figure 19 shows a comparison of average interest rates applied to loans by banks and MFIs. Banks best rate for SME's was reported at 11.20 percent and almost equal to the best rate of MFIs at 11.50 percent. The highest rates for SME's however diverge with banks charging up to 14.50 percent and MFIs only 11.80 percent.

Figure 19. Average Interest Rates as at December 2012



Notes: Group Rate for MI are for MSMEs, group rate for Banks are for large enterprises.

Banks as well as microfinance institutions reported providing all SME loans in local currency. The average loan maturity for SME loans reported by MFIs was 2.38 years while for the banks it was 6 years. According to the questionnaire responses, the average maturity loan for large enterprises was 10.4 years. This indicates that long term financing needs of SME's are not well addressed and that there is a potential market gap here.

According to the responses provided, non-performing loans continue to be well managed by interviewed financial institutions. The majority of financial institutions (5 out of 6 MFIs, and 4 out of 5 banks) maintained their non-performing loan ratio below 5 percent which is the target set by the NBE. One bank reported being at 5 percent and one MFI slightly above the 5 percent target. For most of the banks one day was considered the threshold after which SME loans were categorized overdue. Nevertheless, only 1 out of 4 banks in this study have a dedicated loan recovery unit. The 3 MFIs who answered this question reported that they did have a loan recovery unit or it was handled by their operations department. The percentage of recovery to loan value for SMEs ranges from 20 to 100 percent. One bank reported a recovery cost estimated at 7.41 percent.

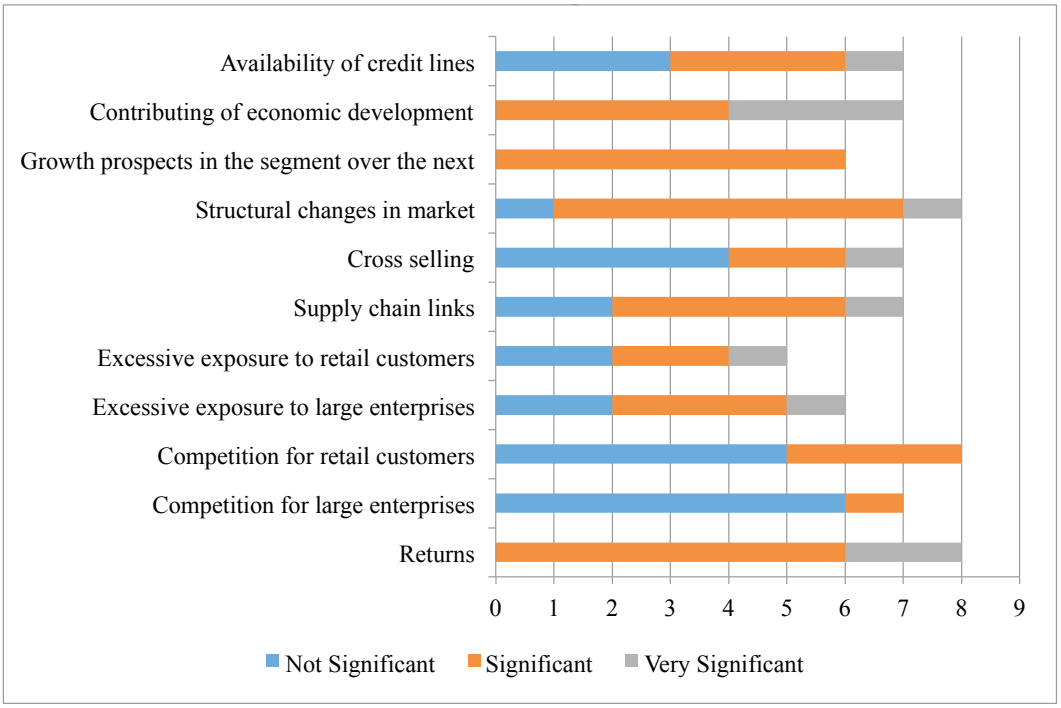
4.3. Drivers and obstacles to SME Financing

The previous section highlighted on one hand the positive perception that banks and MFIs have with reference to small enterprises as the most promising segment for growth and on the other hand the existence of the missing middle phenomenon in terms of SME lending volumes. Against this background, the current section investigates what are the main drivers that would trigger banks and MFIs' interest in engaging in SME lending and also what are the biggest perceived obstacles that are preventing them to engage fully in this market segment.

4.3.1. Drivers of SME Finance

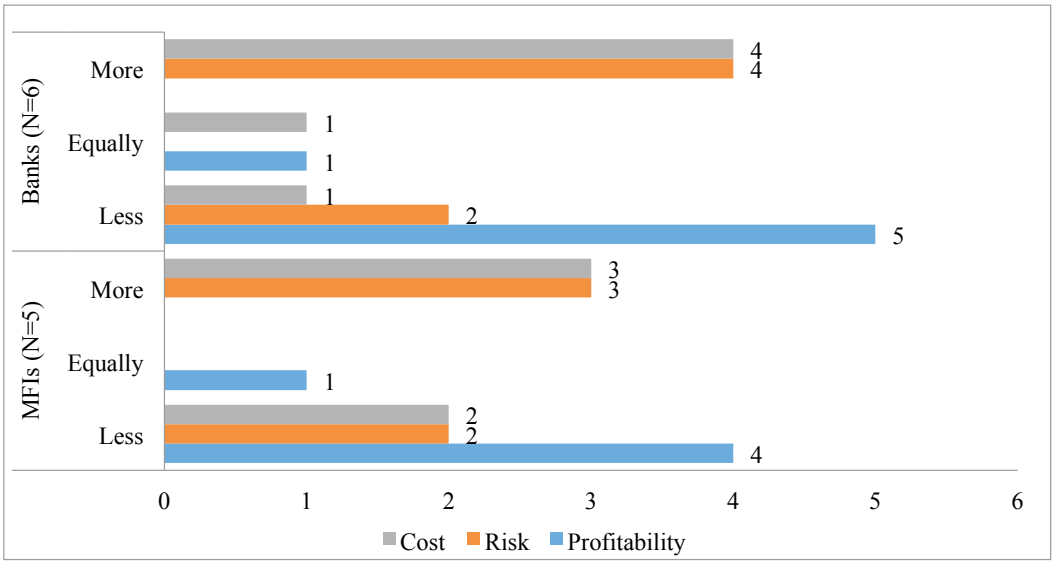
Main drivers. Banks and MFIs were asked to rank a set of potential drivers as either not significant, significant, or very significant, and to provide a rationale for their responses (Figure 20). All banks and MFIs (a total of 8) indicated that expected returns and the contribution to the economic development of the country as the main drivers for lending to SMEs and microenterprises. The co-existence of the economic dimension of business profitability with the more political dimension of contributing to the country's economic development represents an interesting feature of the Ethiopian market. Publicly owned financial institutions dominate both the banking and the microfinance sector in Ethiopia. This also explains why competition is not seen as a major driver for involvement with MSMEs given the high concentration of the market in favor of publicly owned financial institutions. Structural changes in the market were mostly seen as a driver by MFIs due to recent government's efforts in setting-up new institutions in underserved regions of Ethiopia.

Figure 20. The Main Drivers of banks' and MFIs' involvement with SMEs and Micro Enterprises



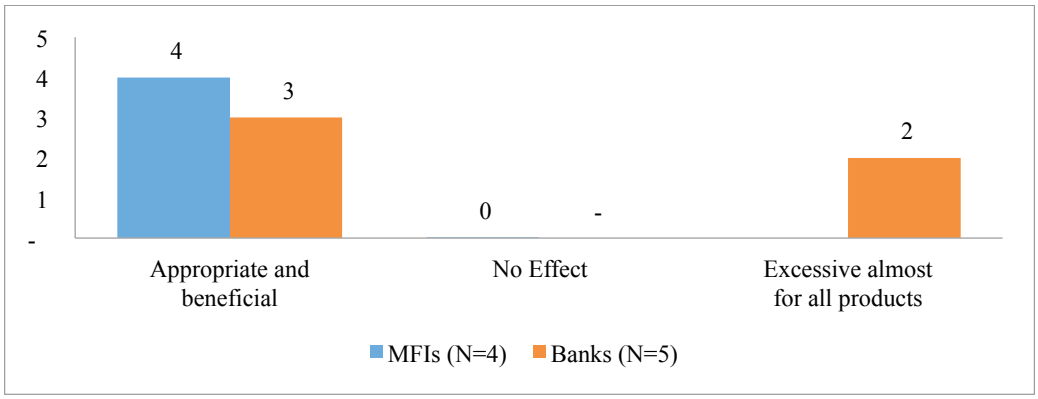
Cost, profitability, and risk of SME lending. Banks and MFIs were also asked to provide their comparative assessment of the cost, profitability and risk of SME lending as compared to large enterprise lending (Figure 21). Most financial institutions in this study perceive costs and risks to be higher in the SME segment compared to the large enterprise segment. Banks seem to have a more negative perception of risks and costs than MFIs. Further, when asked to compare profitability of SME loans versus large enterprise loans, this is considered considerably lower in the SME segment.

Figure 21. Banks & MFIs: Comparison of Cost, Risk and Profitability of SME Loans versus Large Enterprise Loans



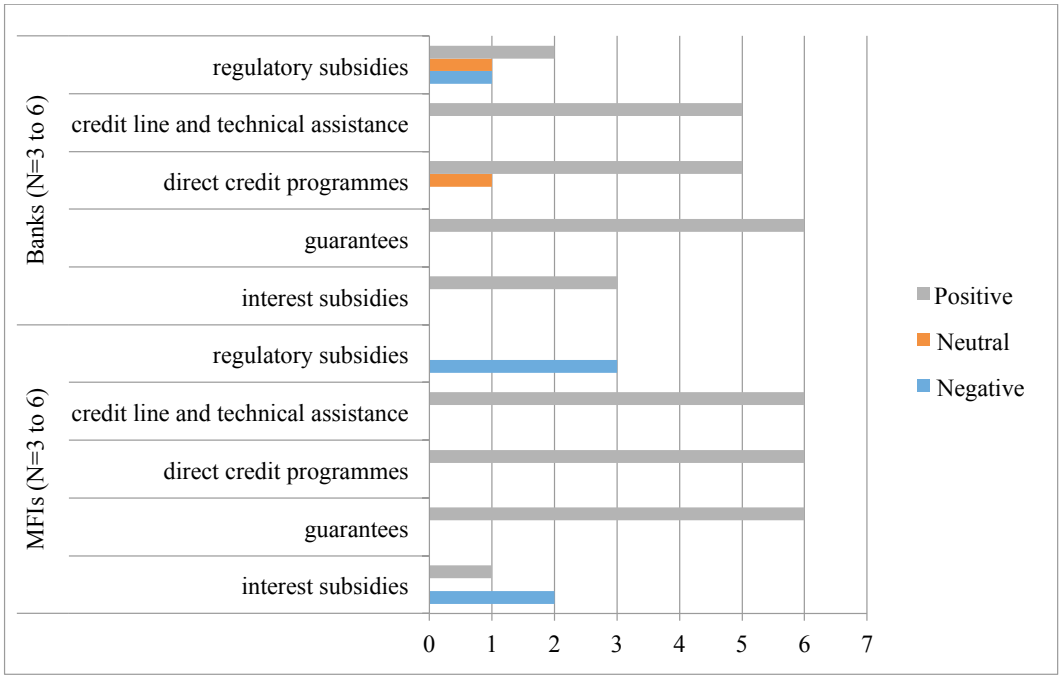
The role of regulatory requirements. The role played by current prudential regulations on driving MSME finance decision was also tested. Responses indicate that for the great majority of institutions, prudential regulations have a positive impact on the decision to engage in SME finance. The majority of MFIs and banks rated the burden posed by regulatory documentation requirements as appropriate and beneficial (Figure 22) with only 2 banks perceiving that the regulatory documentation requirements imposed by the central bank are excessive and too stringent for SMEs.

Figure 22. Burden posed by regulatory documentation requirements for lending to MSMEs



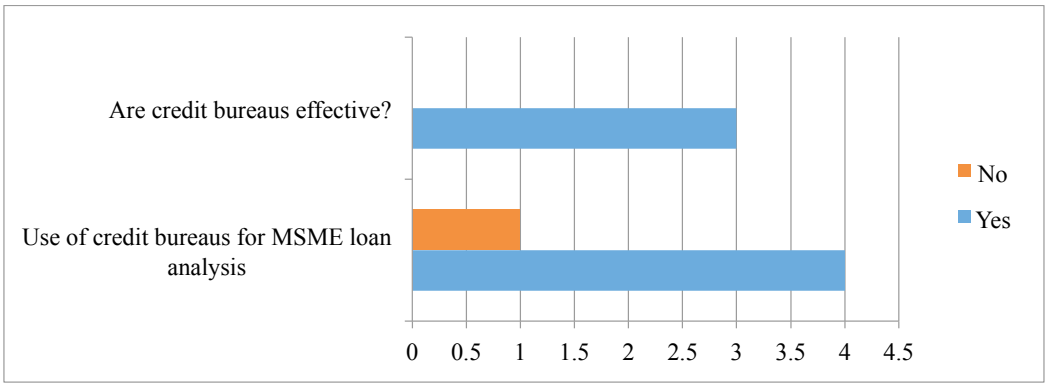
The role of Government financed programs. When asked about the impact of government financed programs on the decision to engage in SME finance it emerges clearly that both categories (i.e. banks and MFIs) have a positive perception of partial credit guarantee schemes and the provision of dedicated credit lines associated with technical assistance. Directed credit programs are also perceived as having a positive impact, confirming, once again, the dominant role that public institutions play in the banking and microfinance sector.

Figure 23. Impact of government programs on SME finance



The role of the credit information bureau. As shown in Figure 24 most banks use credit bureau information for MSMEs loan analysis. 3 out of 5 banks consider the credit bureau to be effective. However only the negative information provided is used and the credit bureau information has limited input and an insignificant contribution to loan decisions. Value added services such as credit scoring are not available at the credit bureau. Currently, banks are submitting their new credit information to the credit bureau on a monthly basis. The credit bureau validates this credit information and sends it back to the banks. Each individual bank can only access its own borrowers' credit information and the central, institution wide data is only available at the credit bureau level. Although the technology infrastructure of the credit information system is capable of accommodating the credit information of MFIs and MFIs have been involved in the setting-up of the credit bureau, they are not using the credit information system. This is due to a lack of technology platforms in their institutions not allowing them to connect to the credit bureau.

Figure 24. Importance of credit bureaus for Banks' MSME finance



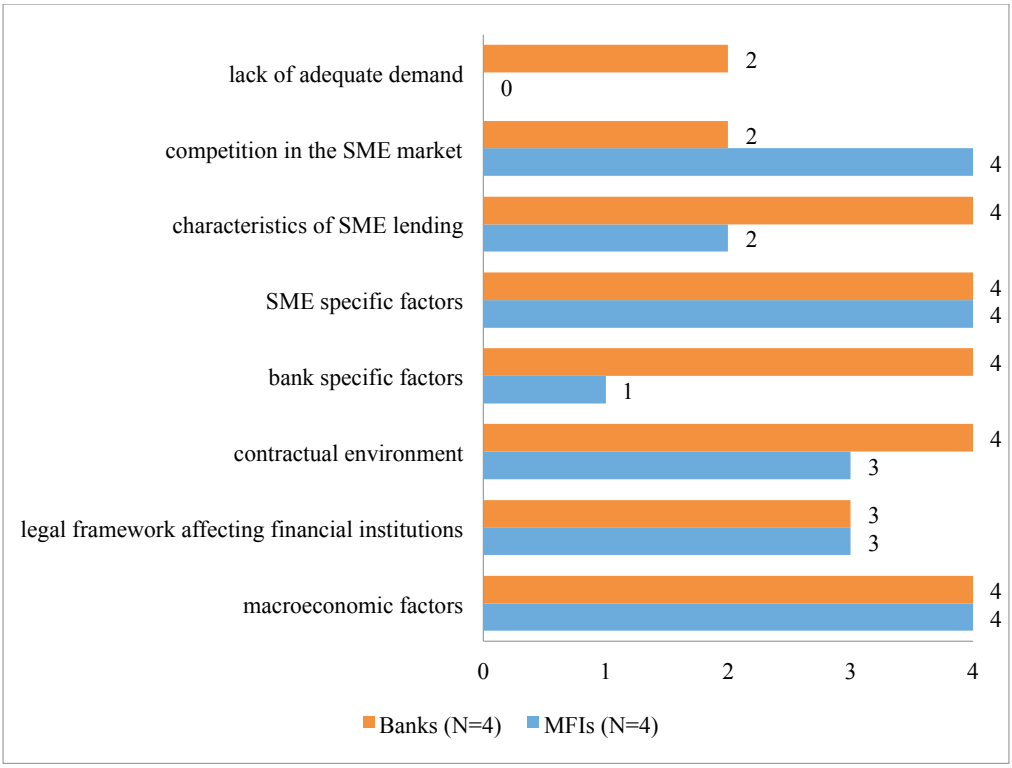
4.3.2. Obstacles to SME Financing

The survey also investigated the main obstacles to SME financing by asking financial institutions to rank a set of potential obstacles to SME finance as either not significant, significant, or very significant, and to provide a rationale for their responses. Additionally, a central focus of the in-depth discussions with interviewed financial institutions evolved around the obstacles to SME finance. The number of respondents who answered that these factors were significant or very significant obstacles is illustrated in Figure 25.

SME-specific factors and macroeconomic factors. SME-specific factors and macroeconomic factors were selected by all MFIs and banks as significant or very significant obstacles to the development of SME lending. Regarding the SME specific factors, most of the financial institutions highlighted the poor quality of financial statements, inability to manage risk, lack of knowledge of business management, lack of awareness on how to be bankable, lack of adequate collateral and informality of SMEs as the major challenges. Regarding macroeconomic aspects, inflation, tax regulation and high vulnerability of the agriculture sector were mentioned by financial institutions.

The contractual environment and the lack of a collateral registry. Lack of contract enforcement and judiciary inefficiency were also indicated as main obstacles concerning the contractual environment. There is no legally authorized body to register machinery and/or equipment for it to be held as collateral. Therefore, issues relating to collateral and weak contract enforcement inhibit secured lending and constraints access to finance for SMEs by posing high risks to the lenders. The absence of a collateral registry in combination with ineffective enforcement of contracts in case of default could contribute to significant losses for banks and this could have significant impact on access to finance for SMEs.

Figure 25. Obstacles to Banks & MFIs Involvement with SMEs (Significant and Very Significant)



The legal and regulatory framework. Another significant obstacle to involvement with SMEs indicated was the legal and regulatory framework affecting financial institutions: 6 out of 10 financial institutions reported that there have been significant changes in the market for lending to SMEs which affected banks in terms of liquidity and overall competition in the banking sector. Banks and MFIs reported facing weak liquidity positions due to credit limits for SME and micro enterprise loans, not being able to go beyond 1 percent of their capital for microfinances institutions and 25 percent for banks. Financial institutions are required to set their lending portfolio for monitoring purpose by the NBE. These lending restrictions were imposed on private banks and then replaced by an NBE directive requiring commercial private banks to allocate 27 percent of their loan disbursements to purchase fixed and low interest bearing NBE Bills.

According to private commercial banks, this directive has had a negative impact on their liquidity and lending capacity and they are therefore not able to lend as much as they want. In a constrained liquidity environment banks are likely to favor existing, established clients when allocating loans as opposed to newer, riskier SMEs. Also, larger clients offer better prospects for fee income. Although a temporary solution was provided by the regulator, National Bank of Ethiopia, by reducing the reserve and liquidity requirements on commercial banks, lowering the reserve requirement down from 10 to 5 percent and the liquidity requirement from 25 to 20 percent, the liquidity problem of the private banks appears to still be an issue. The recently launched government housing project adds to this liquidity challenge for private banks as their customers tend to withdraw their funds to deposit them in public commercial banks for long-term housing plans.

Competition. The obstacle given the lowest importance by interviewed financial institutions was competition in SMEs market which Ethiopia is lacking due to high concentration of few financial institutions. Furthermore, the NBE Directive No. SBB/50/2011 which raised the minimum paid up capital for establishing a bank from Birr 75 million to Birr 500 million has discouraged new entrants and forced existing ones to dissolve, thereby affecting the competitiveness of the banking sector.

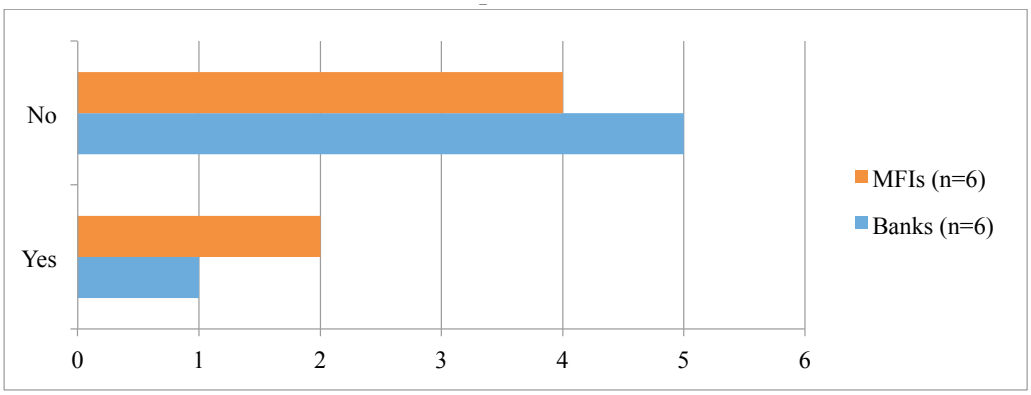
4.4. The Banks' and MFIs' Business Models

After having assessed the actual extent of banks' and MFIs' involvement in SME financing and its main drivers and obstacles, the current section looks at the existing business models of banks and MFIs and their adequateness to effectively address the SME market. The questionnaire included a range of questions regarding organizational models, product marketing, credit risk management, and bad loan recovery.

4.4.1. Organizational Models

Separate MSME unit. The organizational model used by the majority of the interviewed institutions does not seem to take into account the need for a specialized MSME unit or department to better serve the MSME clientele. 9 out of the 12 financial institutions did not possess a separate SME department or unit at the time of the study (Figure 26).

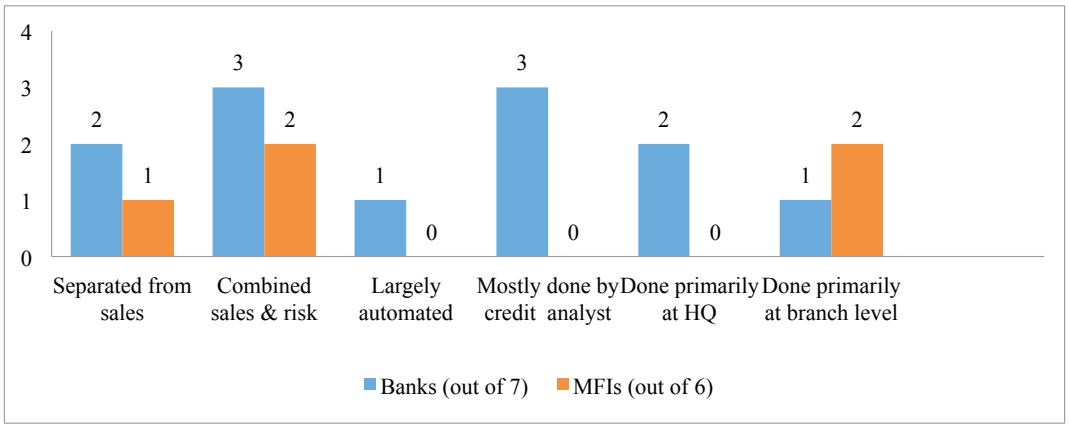
Figure 26. Having a separate MSME department/unit to manage SMEs and Micro Enterprise clients



Although most MFIs state being involved with SMEs, only 2 indicate their client relationships are managed through a dedicated MSME unit. This is the case for only 1 Bank.

Credit risk management. Most of the surveyed institutions do not separate the credit risk management function from the sales function. In only a minority of respondents (i.e. one bank and two MFIs), risk management is done primarily at the branch level. Mostly risk management in banks is handled by a credit analyst and the assessment processes are not automated.

Figure 27. Organization of credit risk function (Banks and MFIs)



Loan appraisal and monitoring. When it comes to appraisal and monitoring of MSME loans, these are largely done through the establishment of a close relationship with clients for both banks and MFIs. This is the case for 4 out of 5 banks and all MFIs who maintain close contact with their clients via on-site visits, and have continuous interaction and frequent reporting requirements. 3 MFIs and 2 banks also reported using relationship lending loan approval techniques i.e. based on soft information gathered by loan officers via direct personal contact with the MSME, the owner, manger and community it operates in. 2 banks also stated using transactional technologies such as credit scoring, risk rating tools, factoring or leasing. None of the MFIs use this technique.

Figure 28. Loan origination and monitoring of micro-enterprise and SME loans

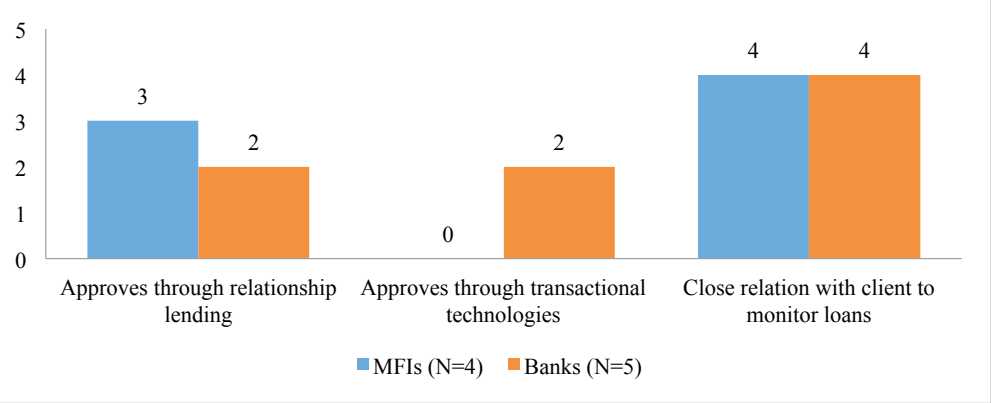


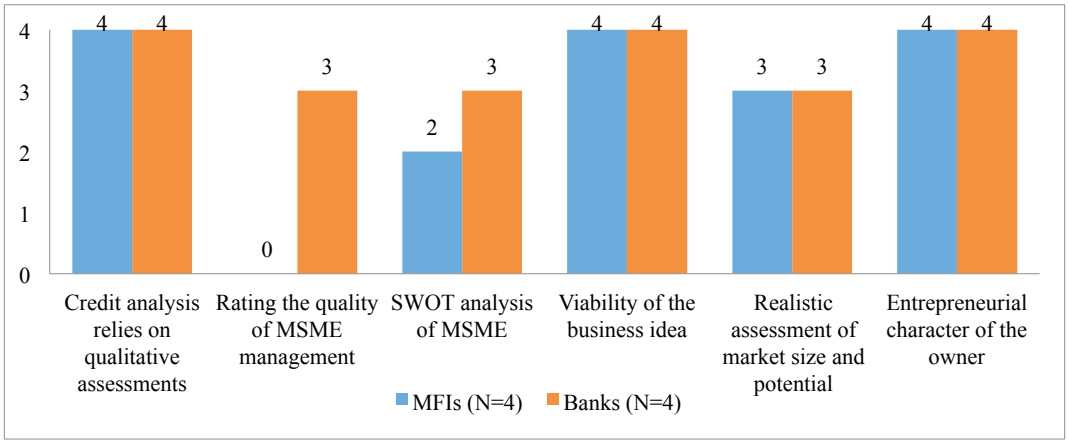
Table 11 below summarized the main features of the loan appraisal process and lending technologies reported by surveyed institutions.

Table 11. Business models of banks and MFIs

	MFIs	Banks
Loan appraisal process and lending technologies		
Information used in credit appraisal	Combination of hard and soft information on the business and entrepreneur and information on credit history from own financial institution	Combination of hard and soft information
	Qualitative assessment of SWOT analysis, viability of the business idea, realistic assessment of market size and potential and entrepreneurial character of the owner.	Similar to MFIs qualitative and quantitative assessment. In addition, banks rate the quality of SME management
	Quantitative assessment including financial analysis of the business and the sector trend.	Rely on financial assessment of the businesses and character of the owner.
Lending technology	Relationship based lending	Relationship based lending
	No scoring models in place	No scoring models in place

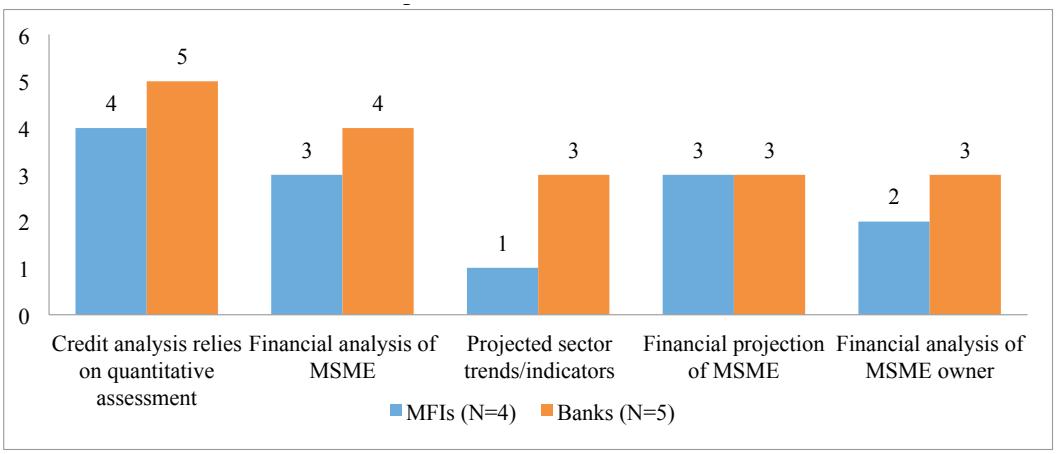
Banks and MFIs equally use both quantitative and qualitative assessments for their credit analysis. All criteria of qualitative assessments including rating the quality of the SMEs management, doing a SWOT analysis, evaluating the viability of the business idea, assessing the target market size and potential as well as the entrepreneurship skills of the owner are used. The majority of banks and MFIs use qualitative techniques for credit assessment (Figure 29). The viability of the business idea and the entrepreneurial character of the owner are the two most important variables used by banks as well as MFIs. MFIs however, rely less on SWOT analysis and more on the evaluation of the market size and potential of a business than banks.

Figure 29. Use of qualitative assessment and variables for credit analysis of micro-enterprise and SME loans



MFIs and Banks both commonly utilize quantitative measures to assess credit (Figure 30). Quantitative assessments including financial analysis of SMEs, projected sector trends and indicators and financial analysis of SME owners are equally used for credit analysis. The most important criteria for SME loan decision making for banks and MFIs are the SME's credit history with the own institution, financial assessment of the business and the characteristics of the SMEs owners.

Figure 30. Use of quantitative assessment and variables for credit analysis of micro-enterprise and SME loans



For the processing of loan application procedures and approval, basic documents such as certificates of registration and single business permits are mandatory for most of the financial institutions. Banks also demand Tax Identification Number/ Value Added Tax (TIN/ VAT) registration certificates. Other documents such as audited financial reports, matching collateral and ownership certificates, certificates of asset, guarantee letters and marriage certificates might also be required for final processing of loan applications.

4.4.2. MSME Specific Products and Marketing

Products. Regarding the product offering for the target SME market, the banks interviewed reported more than 80 percent of their loan products being term loans and other top loans include overdraft, pre-shipment credit and advances on import bills. MFIs provide group lending as their main loan product. They also provide non-financial products such

as trainings, technical assistance and services aiming at increasing market linkages to MSMEs. The main savings products offered to SMEs are saving and time deposit accounts for both banks and MFIs. Checking accounts are only offered by banks.

Table 12 below summarizes the main products and services offered by MFIs and banks.

Table 12. Product and Services Offered, by MFIs and Banks

	MFIs	Banks
Typology	Scaled up versions of retail or microfinance products	Scaled down version of products offered to corporates
Product offering	Loans for investment and trade, mainly via a group lending model. Loans for leasing of agricultural equipment.	Working capital, loan for investment, trade financing and project financing are offered. No leasing and factoring credit products. Other non-lending products such as payroll/ pension retirement payment, other payment services and foreign exchange.
	Free business and technical trainings, coaching to SMEs	Free payment services and free business and technical trainings, coaching to SMEs
	Saving products are time deposit accounts and savings accounts. Compulsory saving model is used in MFIs	Saving products are cheque accounts, time deposit accounts and saving accounts.
Network outreach	Only regional. Focus on specific regions as affiliated with regional governments'	National. No specific geographic focus. One bank focuses on export

Financial institutions in this survey do not seem to offer a sufficiently large product mix. Three banks reported offering either one or two of the following products: payroll/pension retirement payments, other payment services and/or foreign exchange. One bank offers all these three products while only one MFI reported offering payroll/pension retirement payments and other payment services. Other lending products such as leasing and factoring are not offered by any of the financial institutions in this study. Furthermore, products provided to the SME and micro enterprise market are largely standardized and efforts to continuously adapt them to client's needs are limited. 88 percent of financial institutions in the study reported no change in their financial product offering between the years 2010 and 2012. This standardization, limited availability and range of products indicate that there is only limited lending product innovation taking place in the financial sector.

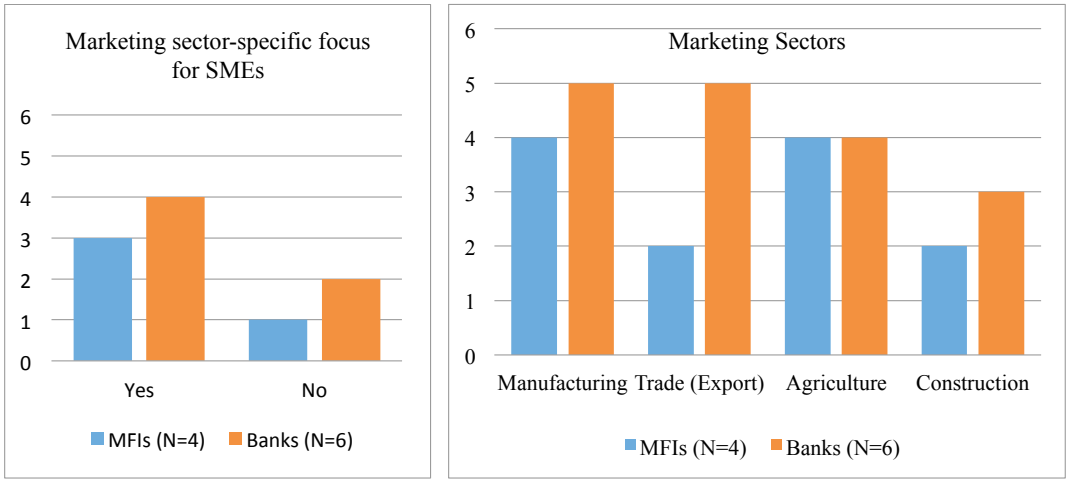
Marketing. Table 13 below summarizes the main marketing strategies reported by interviewed banks and MFIs

Table 13. Target markets of banks and MFIs

	MFIs	Banks
Depth of target market	Micro enterprises and SMEs	Large enterprises and some SMEs
Target markets	Mainly targeting micro enterprises with limited outreach to SMEs	Mainly targeting large enterprises with very limited outreach to SMEs
	Agriculture and manufacturing are the main focus sectors (as encouraged by the government).	Also agriculture and manufacturing (agro industry, export oriented) as the main focus sectors.

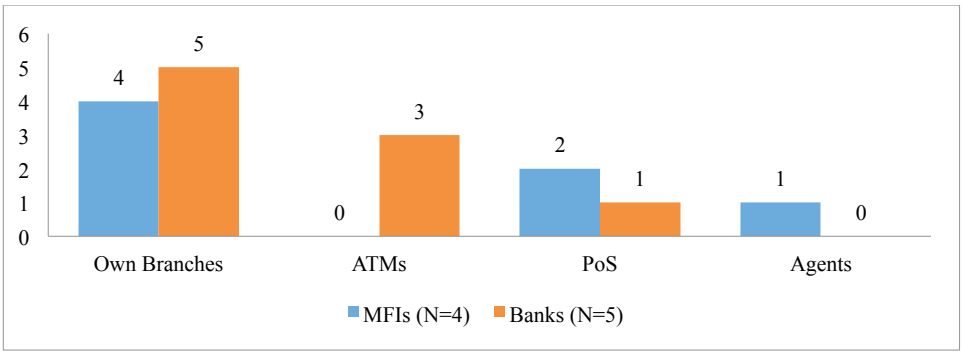
Banks and MFIs adapt their marketing efforts based mainly on profitability expectations, credit quality and specific industry sectors. There is a slight difference in sector targeting between banks and MFIs. In line with the government's priorities, both banks and MFIs heavily target the manufacturing sector (80 percent of MFIs and 83 percent of banks). Banks' overall involvement is highest in the manufacturing and export trade sectors, while lower in agriculture and construction. 80 percent of MFIs are marketing to target the agricultural sector compared to 67 percent of banks. As to the construction sector, 50 percent of banks focus on it and 40 percent of MFIs. The only sector banks are not targeting but 40 percent of MFIs are, is petty trade. MFIs on the other hand are not involved in export trade financing at all while 83% of banks are.

Figure 31. Marketing Focus of MFIs and Banks



Besides sector specific targeting, the questionnaire also explored geographic targeting and outreach. Geographic location does not appear to be an important marketing criterion for financial institutions. This is particularly the case for MFIs as the five dominant ones, with more than 90 percent of total asset portfolio of the micro financing sector, are affiliated with the regional governments in Ethiopia. By default they provide financial services in these specific geographical areas in which they were established. Regarding their geographic outreach and as can be seen in Figure 32, most of the banks and MFIs use only their own branches as distribution channels. Some banks and MFIs use Point of Sale devices (PoS) for their transactions whereas only banks have Automated Teller Machines (ATMs) with a very limited geographical coverage and only MFIs use agents as service points.

Figure 32. Banks & MFIs distribution channels



5. INTERNATIONAL BEST PRACTICES IN SUPPORTING SME FINANCE

The previous two chapters provided an in-depth analysis of constraints to access to SME finance as one of the key drivers for promoting job creation.

Building on those findings, this chapter has three main objectives:

To look at the main findings emerging from the demand-side and supply-side analysis and put them in relation to international best practices in SME finance;

To provide an overview of the initiatives that the Government of Ethiopia has currently put in place to support MSMEs, highlighting whether alternative sources of finance are sufficiently exploited;

To present how other countries (namely Turkey and China) have been successful in tackling the missing middle issue by implementing effective interventions in support of SME finance.

5.1. Key Findings on SME Finance Practices in Ethiopia vis-à-vis International Best Practices

The demand-side and supply-side analysis conducted in the previous chapter provided a comprehensive list of findings and constraints that, if properly addressed, could unlock the potential of MSME finance for Ethiopia. In this section we will focus on what we consider to be the five main findings emerged from the analysis done so far:

1. The lack of a common definition of MSMEs across financial institutions and private sector operators
2. The effective existence of a missing middle phenomenon that constraints growth opportunities for small and medium enterprises
3. The excessive collateral requirements
4. The role of Government programs
5. The inadequateness of business models.

5.1.1. The importance of a commonly agreed definition of MSMEs

Having a common MSME definition at the national level would ease the design of loans, investments, grants and statistical research. Worldwide, efforts to support MSMEs are at the center of the development agenda. Since the G-20 summit in Pittsburgh in 2009 the MSMEs opened a debate on whether a universal definition of MSMEs could be found. Hypothetically, the choice of an MSME definition could depend on many factors, such as business culture, the size of the country's population; industry; and the level of international economic integration. A research recently conducted by IFC demonstrated the wide range of approaches government can take to define what an MSME is in their economy (Table 14).

Table 14. Selected MSME definitions across the world

Country Name	Year	MSME Definitions (number of employees, unless otherwise noted)		
		Micro	Small	Medium
China	2009	new classification, which might include micro will take effect at the end of 2010 or 2011	<300 Indstr. <600 Constr. <100 Wholesale <100 Retail <500 Transp. <400 Post <400 in Hotels & Restaurants	<2000 Indstr. <3000 Constr. <200 Wholesale <500 Retail <3000 Transp. <1000 Post <800 in Hotels & Restaurants
Kenya	2006	1-10	11-50	51-100
EU		<10; turnover<=≤ € 1 m	<50; turnover<=≤ €10 m	<250; turnover<=≤ € 50 m
South Africa	2004	Agri <10, other <20; turnover <R 6mil (differentiated by sector)	<50; turnover<R 32mil (differentiated by sector)	Agri <100; other <200; turnover <R 64mil (differentiated by sector)
United States	2006	1-9	10-99	100-499
Brazil	2007	0-9	10-49	50-249
India	2007	Mfg.: Invst. < US$ 50,000, Servc.: Invst. < US$ 20,000	Mfg.: Invst < US$ 1 mil, Servc.: Invst. < US$ 0.4 mil	Mfg.: Invst. < US$ 2 mil, Servc: Invst. < US$ 1 mil

Source: Kushnir, Mirmulstein, and Ramalho, 2010. "Micro, Small, and Medium Enterprises

Around the World: How Many Are There, and What Affects the Count?", IFC

All this shows how difficult it would be to find a universal MSME definition and suggests that it probably makes more sense to measure MSMEs with a single rule e.g. annual sales or turnover and/or number of employees and tailor the size breakdown to particular conditions in the country of operation.[36] The number of employees seems to be the most frequent characteristic used in the definitions of national governments and statistical agencies. The number of employees is also a fair characteristic to assess MSMEs' contribution to GDP.

The fact that Ethiopia has already an official definition for micro and small enterprises contained in the National MSE strategy makes it easier to work towards a nationally agreed definition. Our supply-side survey however revealed that this definition is not adopted by commercial banks with reference to their business, leading to important limitation to the actual implementation of effective MSME-finance interventions.

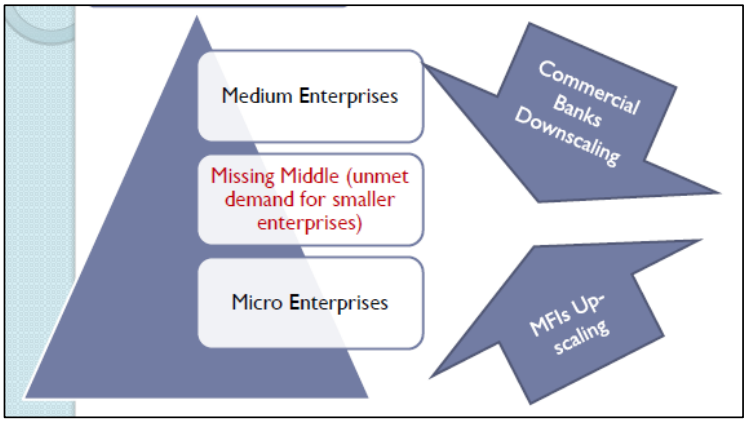
5.1.2.The existence of a missing middle phenomenon

Both the demand-side and the supply-side analysis clearly indicated that small (and medium) enterprises are not properly served by financial institutions as MFIs mostly focus on the microenterprise segment while commercial banks devote most of their resources to large enterprises. Our analysis also showed how (contrary to the rest of the world) small enterprises are not the main job creators in Ethiopia and one of the possible reasons for this might well be considered to be their lack of access to finance. The concept of the missing middle is quite well known around the world and interventions to tackle it have been put in place by other countries with some notable achievements as the last section in this chapter will show. The bulk of interventions put in place to address the missing middle phenomenon can be grouped into two main blocks, well represented in the figure

36 In their paper Defining SMEs: A Less Imperfect Way of Defining Small and Medium Enterprises in Developing Countries, Tom Gibson and H. J. van der Vaartindeed suggest a less imperfect formula: An SME is a formal enterprise with annual turnover, in U.S. dollar terms, of between 10 and 1000 times the mean per capita gross national income, at purchasing power parity, of the country in which it operates. However the problem of one-size-fits-all remains even in the Gibson and Vaart definition.

below: i.e. MFI up-scaling interventions and commercial banks down-scaling interventions. Both categories are usually implemented through the joint provision of liquidity (through a dedicated line of credit) and tailored on-site technical assistance.

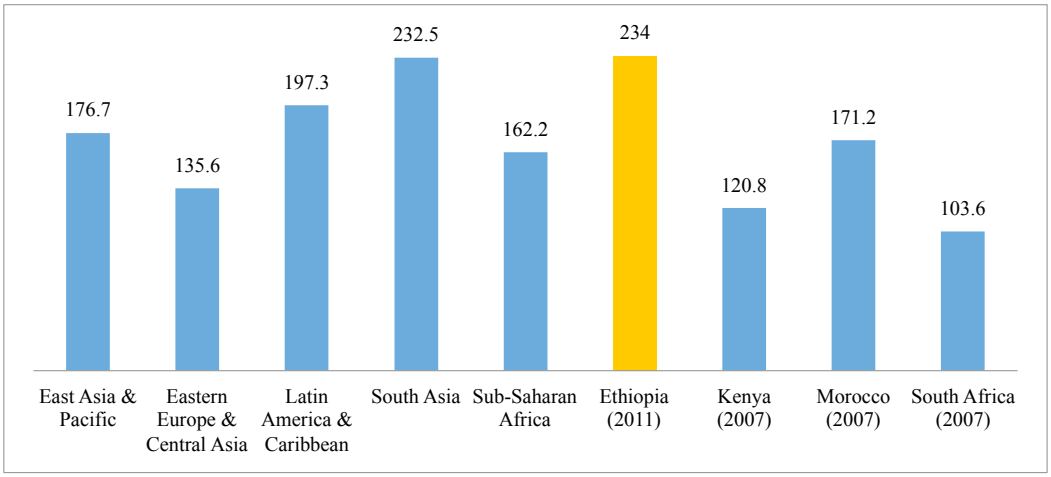
Figure 33. Tackling the missing middle phenomenon



5.1.3. The excessive collateral requirements

Collateral rates in Ethiopia are much higher than in more developed African economies. (e.g. collateral rates are 120.8 percent of the loan value in Kenya (2007) compared to 234 percent in Ethiopia).

Figure 34. Value of collateral needed for a loan (% of the loan amount).



Source: Enterprise Surveys

The supply side analysis showed how the contractual environment and lack of collateral registry inhibit secured lending and constraints access to finance for SMEs. The combined absence of a collateral registry and ineffective enforcement of contracts in case of default can significantly discourage access to finance for SMEs, despite their pressing needs to access loans.

The table below provides an interesting overview of a possible range of approaches that adopt different technologies, monitoring mechanisms, screening and underwriting policies and contract structures where the level of collateral involved can vary from no collateral required (e.g. small business credit scoring technology) to full collateral requirements (e.g. fixed assets lending). Of course, each technology requires an understanding of the underlying context, but often technical assistance interventions help financial institutions to broaden their horizons and test these different methodologies with mutual benefits for the financial institutions and for the MSMEs.

Figure 35. MSME finance technology and characteristics

Greater likelihood/level of collateral

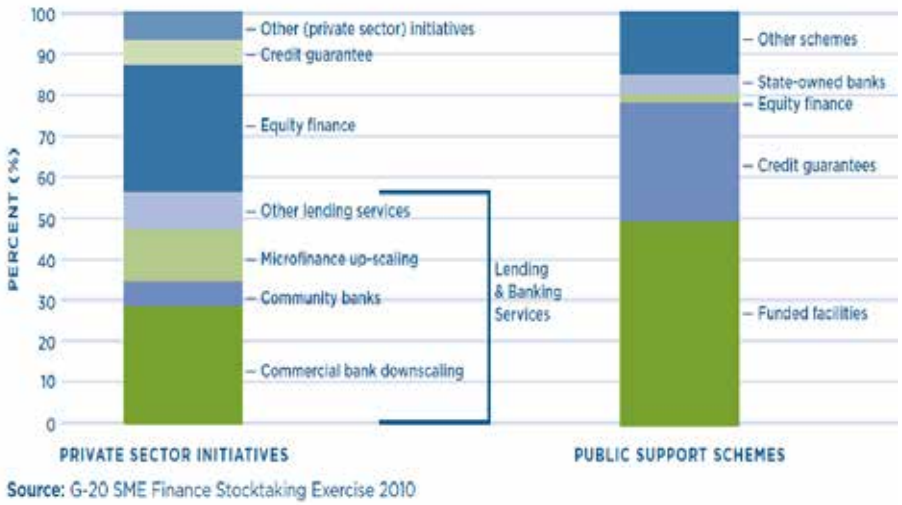
Technology	Information source	Screening and underwriting policies	Contract structure	Monitoring mechanisms
Small business credit scoring	Hard information (data points) about the enterprise	Based on the SME's score in a statistical model	No collateral required, higher interest rates	Observation of timely repayments
Financial statement lending	Audited financial statements	Based on the strength (and credibility) of the SME's financial ratios	Contracts may vary but future cash flow is primary source of repayment	Ongoing review of financial statements
Relationship lending	Soft information on the SME, owner, and community, gathered over time	Based primarily on the decision or recommendation of the loan officer	Variety of structures	Continued observation of the enterprise's performance on all dimensions of its banking relationship
Factoring	Value of collateral: accounts receivable	Based on the quality of the enterprise's clients	Factor purchases the accounts receivable outright, thus taking over credit and collections	Lender owns the accounts receivable
Asset-based lending	Value of collateral: accounts receivable or inventory	Based on value of collateral	Primary method of repayment is asset collateral	Problematic, as value of the assets must be regularly updated
Leasing	Value of the asset leased	Based on value of the asset	Lessor purchases asset and rents to borrower, who may often purchase at end of lease	Observation of timely repayments
Fixed-asset lending	Value of collateral: real estate, equipment	Based on the assessed market value of the asset, and coverage ratios measuring the SME's ability to service debt	Collateral (asset) worth over 100 percent of loan, throughout amortization schedule; lien prevents borrower from selling asset	Observation of timely repayments

Source: Berger and Udell (2006) "A more complete conceptual framework for SME finance"

5.1.4. The role of Government programs

The important role played by Government financed programs emerged quite clearly from the supply side survey. In particular partial credit guarantee schemes and the provision of dedicated credit lines associated with technical assistance. Figure 36 below, taken from the G20 SME stocktaking exercise conducted in 2010, provides an overview of the main forms of public support schemes and private sector initiatives for SME finance. By looking at banking and lending services, it is evident how commercial banks downscaling (on the private initiatives side) and funded facilities (on the public support side) have been the most widely used interventions. The two can then be effectively combined with the right balance between public and private incentives when a public funded scheme provides liquidity to commercial banks (i.e. through a dedicated line of credit) and that liquidity is tied to the capacity building of banks in tackling the reference market segment of small enterprises (i.e. through a bank downscaling intervention).

Figure 36. Public Support Schemes and Private Sector Initiatives by Sub-Categories



Source: G-20 SME Finance Stocktaking Exercise 2010

5.1.5. The inadequateness of business models.

In order to effectively serve the segment of small enterprises, financial institutions need to have the right business model in place.

The supply side analysis of this study reveals that this does not seem to be the case for financial institutions in Ethiopia: most of surveyed financial institutions lack a dedicated and specialized MSME unit or department within their organizational model. Loan appraisal techniques are still mostly based on traditional relationship lending rather than on transactional technologies such as credit scoring etc. Products are highly standardized and there is very limited product innovation. Geographic location is not considered as an important marketing criterion and distribution channels are still mostly based on branches.

These features suggest that business models of financial institutions in Ethiopia are not adequate to properly serve the missing middle of SMEs. What is then an adequate business model? Figure 37 below helps us to identify the main features of an adequate model by looking at the key stages of a possible MSME banking value chain. Among the key steps in fact, financial institutions are required to properly understand the market by clearly defining the SME sub-segment; to tailor products and services to the specific needs of SMEs, by using innovative technologies and bundling lending and non-lending products; to grow a diversified portfolio by properly screening SME clients; to serve SME clients through a dedicated unit able to monitor loans and provide cross-selling opportunities; to properly manage risk by separating the sales and risk management functions and by developing risk modeling tools.

Figure 37. MSME Banking Value Chain

5.2. Public Support Programs

The Government of Ethiopia is committed to support MSMEs in line with the GTP objectives. Some key initiatives are already on-going. According to the revised (2011) MSE strategy of the Ethiopian government, the government has developed "comprehensive and practical policy interventions" to facilitate the development of micro and small enterprises in the country. Broadly put, the policy aims to address six key challenges that impede the growth of micro enterprises and small establishments; these include skill development, technology transfer, market facilitation, access to finance, the reduction of entry barriers, and improving the provision of information. To address these challenges and support the overall development of the MSEs in the country, the government has set in place an institutional structure at the federal, regional, and town levels. The Federal MSE development agency formulates the overall support framework while regional bodies, including one-stop shop facilities set up at town levels for this purpose; ensure proper implementation of the development of the strategy. Currently there are 1097 one-stop shop services centers throughout the country at town levels providing all-encompassing support services to MSEs

5.2.1. Training Opportunities

One area of intervention focused by the government in terms of MSE development is providing training in entrepreneurship, skills development, and business management. There are more than 300 Technical and Vocational Education and Training (TVET) centers in the country that provide vocational, technical and business skills trainings. The Ministry of Urban Development and Construction is also setting up independent centers to train more than 200,000 people on entrepreneurial skills.[37] In fact the GTP target is to provide training for 3 million actors on entrepreneurship and handicrafts during the plan period.

5.2.2. Technology Transfer

The government of Ethiopia also provides support in the assessment, selection, acquisition, adoption, and adaptation of foreign technology that are appropriate to the MSEs. The government has set up independent institutions in selected areas such as textile; leather, metal and engineering, and agro processing that are also responsible for the technology acquisitions and transfer in their respective industries.

5.2.3. Leasing Services

The Ethiopian government also provides a program on machine leasing. This program is intended to help MSEs who may have collateral problems in securing loans to finance their project. The Commercial Bank of Ethiopia (CBE) and MFIs jointly run the lease-financing program, which is open for all MSEs. Metal Engineering Corporation, the biggest producer of machineries and metallic products in the country and other private organizations also take part in this program as key suppliers.

The government also runs a savings program for leasing machine/investment materials. This is a program intended to solve capital/asset issues micro and small enterprise face. Under this program, clients can get 60% loan/credit from banks when they save 40% in the bank.

5.2.4. Facilities

The MSE strategy underlines the importance of developing business and industrial premises (shops, offices, factories, market stands, etc.) and providing them to enterprises on a cost recovery basis. The plan envisages providing about 146 miles meter square land for 21,000 sheds and 8,000 buildings to 1.7 million actors who are registered as enterprise during the GTP period. According to the Ministry of Urban Development and Construction, so far 10,500 hectares of land has been made available and about 11,626 sheds and 983 buildings were constructed for production and sales purposes.

5.2.5. Capacity Building

The MSE strategy also outlines the need to build capacity of implementing agencies at all levels. The strategy (attached) outlines specific capacity building needs for all major actors that execute MSE development strategy such as MSE development agencies at Federal and regional levels, TVETs, MFIs and government officials found at various levels. Any possible private sector development program in the future may focus in these identified areas.

5.2.6. Partial Credit Guarantee Schemes

Since lending in Ethiopia is mainly collateral based, the partial credit guarantee scheme is a very important public support program. The supply-side survey results indicate that the provision of partial credit guarantee (PCG) schemes is a strong incentive for financial intuitions to serve SMEs. Most financial institutions mentioned guarantees as a potential area through which the government could encourage bank lending to SMEs. Some donors such as USAID and KfW (capital link) are providing guarantee facilities for banks. MFIs borrow from banks to implement such schemes. However, this arrangement has challenges as MFIs require negotiated interest rates to cover high transaction costs of lending to SMEs.

37 UNDP is providing funding for these trainings.

In addition, the Government of Ethiopia provides an export credit guarantee scheme for non-coffee exports to facilitate exporters' access to bank credit with minimum property or other collateral equivalent to at least 40% for producer exporters and 50% for other exporters of the amount of the loan requested. The export credit guarantee scheme service was transferred from National Bank of Ethiopia to Development Bank of Ethiopia in 2007.

Regional states provide guarantee for farmers' unions for rural finance specifically for purchasing fertilizer. There are no other guarantee programs established by government to support SMEs financing in Ethiopia.

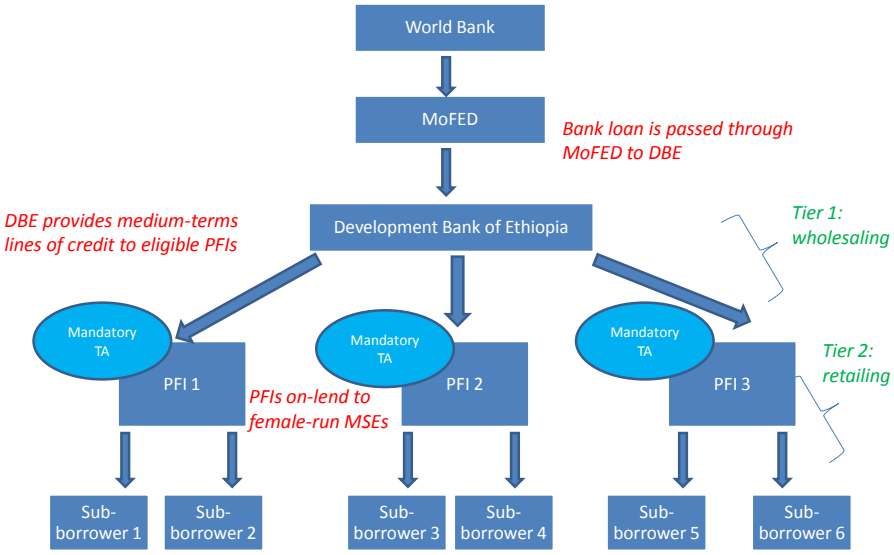
5.2.7. MFI Up-Scaling Intervention: The Women Entrepreneurship Development Project (WEDP)

WEDP is a national program whose objective is to increase the earnings and employment of micro and small enterprises (MSEs), owned or partly owned by female entrepreneurs in targeted cities. This is meant to be achieved by: i) tailoring financial instruments to the needs of the participants and ensuring availability of finance; and ii) developing the entrepreneurial and technical skills of the target group and supporting cluster, technology and product development for their businesses.

It's a market "up-scaling" operation where the Development Bank of Ethiopia acts as a wholesaler and MFIs act as retailers. The project uses an incentive approach aimed at (i) helping DBE developing a new business line involving wholesaling of MSE subsidiary loans and provision of related technical support to participating MFIs; and (ii) helping the MFIs build up a high quality MSE loan portfolio based on credit techniques that have been developed and validated under successful micro and small loan programs in other countries, introduced through downscaling or upscaling approaches to microfinance.

The following figure shows the actual flow of funds under WEDP:

Figure 38. Flow of funds in the WEDP line of credit



The market up-scaling approach is designed to provide existing MFIs with the funding and the technical know-how they need in order to be able to grant loans to MSEs on a commercially sustainable basis to a client segment which is higher than their traditional (e.g. group-based lending) clients. In providing technical assistance, the task of the long-term institution building experts is to set up specialized MSE loan departments in participating MFIs, and build up a loan portfolio that promises to generate a stable flow of income for the MFI.

5.3. Alternative Sources of Financing

5.3.1. Leasing

The Leasing Proclamation has been amended recently by providing licensing and supervisory authority to National Bank of Ethiopia for finance leasing and hire-purchase leasing. Leasing can be an effective mechanism for boosting the Ethiopian economy by providing long-term finance to SMEs. Leasing companies play an important role in the financing of small and medium-sized businesses, which need funds to expand but often do not have the credit history or collateral sufficient for credit from conventional financing sources. Leasing gives these enterprises the opportunity to create and modernize their operations hence increasing productivity, lowering transaction costs, increasing employment opportunities, increasing business profitability, promoting innovation and creativeness, and increasing product choices.

No financial institutions in the survey reported the provision of leasing as a loan product.

5.3.2. Factoring

Factoring is not practiced in Ethiopia. SMEs could have alternative source of finance to solve their cash flow problems by discounting their bills/ accounts receivables as a key source of working capital if factoring is provided by financial institutions as an SME financing product.

5.3.3. Capital Markets

Capital markets have a long history in Ethiopia. Commercial Code of 1960 provides primary offering to public investors. However, Ethiopia's current legal and regulatory framework is not adequate as both the primary offering market and secondary trading market are essentially unregulated.

The primary market is unregulated and the law does not provide adequate protections for investors in the primary offering for the following main reasons: (i) there is no institutional framework (securities commission) as an independent government agency for review and approval of a registration statement and prospectus prior to issuers' offering and selling shares to investors; (ii) there is no requirement that the registration statement and prospectus contains audited financial statements, the issuers' financial statements be prepared in accordance with defined internationally accepted accounting principles and the audit of issuers' financial statements be conducted in accordance with defined internationally accepted auditing standards; and (iii) there is no provision for stopping or halting in the event of fraudulent conduct; no adequate anti-corruption provision and on penalties for non-compliance.

An adequate legal, regulatory and supervisory framework that can serve as a foundation for secondary trading market is also missing. Hence, the country's equity and corporate bond markets are non-existent. As a result, SMEs in Ethiopia rely mainly on conventional sources of external financing which is almost exclusively provided by the banking sector and equity investments that come from retained earnings and capital provided by friends and family groups of related companies.

There are no investment banks with a wide range of specialized services for companies and large investors including underwriting and advising on securities issues and other forms of capital raising, mergers and acquisitions, trading on capital markets, research and private equity investments etc. so that commercial banks could lean towards SMEs financing.

In absence of financing sources from capital markets, SMEs also do not have venture capital funding for adequate financing for technical assistance, start-ups, seed investing or any stages of investing in their businesses.

5.4. Other International Support Programs

In May 2012, a high-level delegation of the Government of Ethiopia was invited by the World Bank to join a study tour to Turkey and China to observe how these two countries successfully implemented SME finance interventions as part of World Bank-financed projects.

The objective of the study tour was to learn from the good practice models in China and Turkey in the area of financing and enterprise development, with a special focus on MSMEs. Line of Credit (LoC) schemes provide successful examples of financial interventions that helped enhance MSME business lending and improved outcomes in terms of increase in exports, sales and employment of participating firms.

This section aims at recalling those two successful examples in light of the results of the demand-side and supply-side analysis of MSME finance practices in Ethiopia.

In China, between 2007 and 2011, the World Bank contributed to funding a project aimed at providing financing to MSEs who did not have prior access to financing. Over half a million MSEs were served in this collaborative project with the China Development Bank (CDB). Technical assistance was critical for project success; the CDB as well as all participating financial institutions (PFIs) were required to engage and participate in mandatory technical advisory provided by an international consulting firm (*Internationale Projekt Consult)*. In addition, the CDB and PFIs created specialized units to service and monitor MSE lending.

In Turkey, between 1999 and 2011, the World Bank provided $1.7 billion in lending to Turkey, where the objective was to assist exporter firms who needed longer term financing.

Overall, these two projects were very successful. Intensive technical assistance enhanced lending processes in China. At the end of the project in 2011, the number of MSEs that were being served tripled compared to the number before the project in 2007 (63,540 in 2011 vs 20,000 in 2007). In Turkey, participating exporter firms had higher growth rates, export activity, and innovation than non-participating firms.

Table 15. Enhancing Finance in China and Turkey- Project Indicators and Financial Conditions

	China (2007-2011)	Turkey (1999-2011: 4 Lending Projects)	
Objective	Provide working capital and investment finance to MSEs on a commercial basis.	Facilitate access to finance to medium- and long-term working capital and investment finance for exporting firms.	
Amount of WB Loan	$95 million IBRD	$1.7 billion	
Total loan amount from all sources	$3 billion		
Financial Conditions			
Borrower	China Development Bank	Export Credit Bank of Turkey	Turkish Industrial Development Bank
Maturity	17 years	7-30 years	16-30 years
Grace Period	Up to 4 years	< 3 years	< 5 years
Interest Rate	N/A	Libor based, libor + fixed spread	Libor + fixed spread
Participating Financial Institutions			
Maturity	< 10 years	< 7 years	< 7 years
Grace Period	< 5 years	< 3 years	< 5 years

On-lending margin	Based on cost of funding and PFI rating	< 500 bp	< 400 bp
Sub-borrowers	MSEs	Exporters	
Interest Rate	Commercial basis		
Loan Size		Max US$20 million	Max US$10 million
Maturity	< 3 years		
Eligibility Criteria	Private sector and owned MSEs MSEs operating in services, trade, or manufacturing sectors	Exporters in any sector Prepare business plans and comply with financial criteria	
Main Project Indicators			
Number of borrowers	554,743 MSEs	1,416 exporters	
Average loan size	7,000-11,000USD	$1.5 million USD (50% of loans were under 1 million)	
NPL	Less than 1%	1.5% until 2009 post financial crisis, then rose slightly.	
Additional Services & Outcomes			
	Mandatory technical assistance to all participation PFIs. Creation of a MSE Credit Department in the PFIs headquarters. CDB also received TA.	Over 4,000 jobs were added. In Phase 2,Exporter sub-borrowers grew by 117% (or $US2.5 billion) between 2003 and 2008 compared to national growth levels in Turkey of 81%. Participating firms more likely to introduce new products or services and grew faster than non-participating firms	

6. POLICY CONSIDERATIONS AND POTENTIAL POLICY DIRECTIONS

The SME segment is strategically important for the development of the Ethiopian economy and the creation of employment opportunities as they create an important value chain in different economic sectors. The significance of SMEs and their challenges have been clearly identified in the Growth and Transformation Plan and MSE Strategy Development document. Significant measures are being taken by the Government of Ethiopia to strengthen SMEs in terms of developing business skills; providing access to finance; and creating market linkages. Hence, the SME market should evolve towards increased competitiveness. Financial institutions need to invest in product and service development for SMEs as they seek to pursue their growth strategy to secure sustainable profitability and contribution to economic development of Ethiopia.

Access to finance is one of the most significant concerns for SMEs in Ethiopia. As shown in Chapter 4, the share of SME loans to overall lending portfolio in Ethiopia is only 7 percent which is very low compared to other developing countries (16 percent). Banks and MFIs mainly rely on credit history of SMEs with their own financial institutions, financial assessment of the SME business and behavior of SME owner for loan decision making while SME specific factors such as poor quality of financial statements, lack of skills in business and risk management, and informality are the main constraints for lending to SMEs. Access to finance for SMEs is further hampered by the financial institutions' strong reliance on real estate and cash as prime collateral. Banks and MFIs require collateral for SMEs with a minimum value from 100 percent to 120 percent for immovable assets. For movable assets, that are accepted only by a few financial institutions, the collateral is 140 percent. This is an acute problem for SMEs which have not built up a capital and asset base.

Alternative sources of finance such as leasing, factoring and capital market are not readily available in Ethiopia as an additional source of liquidity for SME businesses. Hence, SMEs rely on equity investment and limited access to credit from banks and MFIs as an external source of finance for their businesses.

The legal and regulatory framework in Ethiopia is conducive and ensures financial system stability and soundness for providing financial services to businesses. However, the legal, regulatory and supervisory frameworks are focused mainly on traditional banking whereas the frameworks for alternative sources of finance are inadequate and the institutional frameworks are either weak or unavailable.

The Government of Ethiopia has put in place helpful public support programs but the offer is still inadequate to properly address the missing middle challenge. Existing lines of credit (e.g. WEDP and RUFIP) are tackling the MFIs' space but are not helping commercial banks to engage in SME lending. The export credit guarantee, which is being provided by Development Bank of Ethiopia, is also not sufficient to adequately address the financial needs of SMEs in divers sectors.

Conditions exist for Ethiopia to take a step further towards the promotion of SME finance and help, through a series of well calibrated interventions, the commercial banking sector to start addressing the mostly untapped SMEs market segment. As shown in Figure 39, an effective intervention in this space should aim at moving the SME finance productivity frontier from the "unprofitable" corner of old credit and service allocation techniques to the sustainable profitability's path which starts from the acquisition of new financial information and communication technologies, leads to better credit risk decisions and access to SMEs and better cross and up-selling decisions.

Figure 39. The SME Finance Productivity Frontier

Source: IFC

In order to effectively address the missing middle challenge and help commercial banks reach a sustained profitability in serving SMEs, the Government should consider adopting an **integrated approach to SME development,** which would combine a public support scheme to SME finance with parallel interventions in the areas of financial sector infrastructure as well as in the legal and regulatory framework.

The following steps would be envisaged:

Creating an SME finance culture among financial institutions

a. The definition of SMEs needs to be harmonized. SMEs need to be clearly defined in a policy framework by the government as well as at operational level by financial institutions with uniform criteria. A commonly agreed and harmonized definition of what constitutes an SME is crucial for preparing any type of support intervention or strategy.

b. The current definition for micro and small enterprises contained in the "National MSE Development Strategy (2011)" is a good starting point, shared by most MFIs. However setting up a stakeholders' working group to look into the issue of finding a common definition to be used by all financial institutions to segment the market would be recommended.

c. In turn, a commonly agreed definition would be beneficial for regulatory and reporting purposes allowing for proper analysis of SME finance development over time.

Complement current Government support programs for MSMEs with the promotion of commercial banks' downscaling interventions

a. The positive role that public support interventions can play in promoting SME finance practices came out clearly from the analysis.

b. While the Government of Ethiopia is currently engaged in a series of positive efforts to promote the engagement of MFIs in the small business segment through market up-scaling efforts (e.g. WEDP), the banking sector requires further attention in order to exploit its potential in serving the missing middle segment.

c. Incentives should be provided to commercial banks for engaging in market downscaling initiatives. Successful examples of international best practices showed that the combination of dedicated liquidity (through lines of credit) with tailored technical assistance packages prove to be effective in successfully reaching the missing middle segment.

d. In Ethiopia, institutions like the Development Bank of Ethiopia are currently well placed to play the wholesaler role in providing dedicated liquidity for SME finance to financial intermediaries.

Promote innovation in financial products and lending technologies by providing incentives to commercial banks through tailored technical assistance.

a. Around the globe, certain commercial banks have applied lending practices developed in the microfinance sector to overcome the issues of high transaction costs and high-risk profiles of potential borrowers. These best practices can be of use in the Ethiopian context as well.

b. The surveys revealed that most Ethiopian financial institutions do not have the right instruments to put in place an innovative product mix and to engage in new lending technologies.

c. Tailored technical assistance, coupled with the provision of dedicated liquidity as under point #2 above, would help to stimulate the use of new techniques in line with international best practices. It would help commercial banks to establish dedicated SME units within their organization, define SME-specific strategies, offer a range of products beyond lending, utilize low cost delivery channels, develop and use risk modeling tools and build adequate hardware and software architecture.

Address SME specific factors through the provision of adequate business development skills (BDS) in conjunction with interventions on the supply-side.

a. BDS can help to address some of the intrinsic weaknesses in SMEs that cannot be addressed through financing tools alone.

b. The survey indicates that SME specific weaknesses are among the major factors inhibiting commercial banks to engage in this market segment.

c. The government has a role in this market as a provider of BDS as it is already currently doing through FeMSEDA and the TVETs. However, it would be crucial to coordinate and tailor BDS interventions with parallel incentives provided to the supply side (i.e. commercial banks) to engage in SME lending.

Promote policies aimed at addressing the limitations of the current collateral regime.

a. Given the prevalence of collateral lending in Ethiopia, establishing collateral registry of both movable and immovable asset would be important for creating an effective credit market by expanding the scope of secured lending transactions and improving access to financial services. It registers charges and collaterals created by borrowers to secure credit facilities provided by lenders.

b. Establishing Collateral Registry encourages lenders to accept a diverse range of movable properties as collaterals. It is also a useful mechanism for enforcing credit agreements as the lender is able to realize the collateral upon the simple delivery of a notice to the borrower and collateral registry in case of default.

c. The legislation related to the contractual environment would also benefit from a thorough analysis. Particularly it would be recommended to conduct a diagnostic of the creditor rights and enforcement systems (for secured and unsecured credit); credit risk management, debt recovery and informal enterprise workout practices; formal

insolvency system (liquidation and reorganization proceedings); and effectiveness of the relevant institutional and regulatory frameworks in implementing laws in this area. A similar diagnostic would allow identifying bottlenecks, facilitating access to credit for SMEs and providing a stable backdrop for private transactions.[38]

Support development of market credit information for SMEs

a. While comments generally were positive about information from the credit bureau, it was noted that coverage is limited and does not necessarily include all financing received by SMEs.

b. Currently, Ethiopia has a credit information system with high technological capabilities and business functionalities to run credit reporting. However, it is being used merely as a database management system by the National Bank of Ethiopia that collects information on creditworthiness of borrowers from supervised financial institutions, makes such information available for financial institutions, and uses it primarily for supervisory purposes.

c. Enhancing its functions to provide reliable and value added credit information, both positive and negative information (full file), is critically important for financial institutions for quality decision making on credit, risk mitigation and minimizing fraud by providing value added services such as credit scoring, marketing service, application processing and portfolio monitoring.

d. Specific policies could support the use of market credit information through the refinements to the legal and regulatory framework to improve incentives to share information among lenders, and an educational campaign promoting the value of credit bureaus among SMEs and financial institutions.

Develop the institutional framework for alternative sources of funding.

a. Among the alternative sources of funding, the Leasing Proclamation has been amended recently by providing licensing and supervisory authority to the National Bank of Ethiopia to finance leasing and hire-purchase leasing. Leasing can be an effective mechanism for boosting the Ethiopian economy by providing long-term finance to SMEs and its use should be more extensively promoted.

b. Similarly, the institutional framework for other sources of funding such as factoring and joint venture capital need to be developed as a part of a comprehensive package of financial sector infrastructure and products development.

38 The World Bank Insolvency and Creditor/Debtor Regimes Initiative (ICR) has developed a diagnostic tool to assist countries in identifying vulnerabilities and establishing priorities for strengthening creditor rights and insolvency legal and institutional frameworks. The diagnostic is based on a detailed comparative review of the practical functioning of the country's insolvency and creditor/debtor system against international best practice benchmarks. The results of this review are contained in the Report on the Observance of Standards and Codes (ICR ROSC). The ICR ROSC diagnostic and recommendations help countries identify areas for improvement and set priorities for legal and institutional reform. The diagnostic is delivered to the country authorities for their use and benefit. No confidential or sensitive information is released to the public. In addition, the ROSC is not designed as a 'grading' or 'rating' exercise, but as a report that contributes to a better understanding of the insolvency and creditor/debtor regime of a specific country. More information can be found at www.worldbank.org/gild.

Conclusions

This study looked at the policy goal of job creation from an access to finance perspective. Precisely, the study aimed at understanding which firms are the actual net job creators in Ethiopia and what role (the lack of) access to financial sources may play for those firms.

Evidence from two demand-side surveys, (i.e. the *Ethiopia Survey of Large and Medium Scale Manufacturing Industries – LMMIS* and the *World Bank's Enterprise Survey - ES)* revealed that job creation and employment growth are concentrated in large established (i.e. older) firms rather than in young and smaller firms.

By looking deeper into the area of access to financial services as one of the possible explanations for this unexploited potential role of young and small firms in job creation, we find indeed the existence of a missing middle phenomenon in terms of financial services catering to small firms. Young and smaller firms are much more likely to be rejected for a loan or a line of credit than firms who are more established or larger. Moreover, despite confirming the need for access to finance, SMEs are discouraged from applying for loans due to excessively high collateral requirements. In turn, data also show that firms that are credit constrained exhibit poorer performance and productivity: in Ethiopia, a firm that is credit constrained has sales growth that is 15 percentage points lower, employment growth that is 5 percentage points lower, and labor productivity growth that is 11 percentage points lower than firms who are not credit constrained.

These findings from the demand-side analysis highlighted the need to look at SME financing constraints also from a supply-side perspective, in order to gain a full picture of access to financial services for SMEs in Ethiopia. This was done on the basis of an ad-hoc questionnaire administered to a sample of financial institutions including the major public and private sector commercial banks and microfinance institutions that allowed collecting data on the actual involvement of financial institutions with MSMEs, their perception of potential public policy approaches to support SMEs access to finance and the adequateness of their current business models.

The supply-side analysis indicated first of all that financial institutions in Ethiopia lack an "SME finance culture": the use of a harmonized definition of MSME is missing especially for commercial banks and consequently specific SME financing strategies are not in place.

Still, the financial institutions perception of the SME segments' business potential is very good as they see expected returns as major drivers along with the contribution to the economic development of the country. However SME-specific factors (i.e. poor quality of financial statements, inability to manage risk, lack of knowledge of business management, lack of awareness on how to be bankable, lack of adequate collateral and informality) and macroeconomic factors (i.e. inflation, tax regulation etc.) still represent significant obstacles to the development of SME lending.

In line with the findings from the demand-side analysis, also the supply-side findings indicate that SMEs represent a missing middle in the financial sector. The financial sector is characterized by a high heterogeneity of lending patterns between MFIs and commercial banks, with MFIs issuing the most number of loans to SME and banks issuing the most value.

Moreover, the supply-side analysis also showed that the business models of the surveyed financial institutions are mostly inadequate to serve SMEs: they lack a dedicated and specialized MSME unit or department within their organizational mode; loan appraisal techniques are still mostly based on traditional relationship lending rather than on transactional technologies such as credit scoring etc.; products are highly standardized and there is very limited product innovation; distribution channels are still mostly based on branches and long term financing needs of SMEs are not adequately met.

Finally the underexploited capacities of the credit reference bureau coupled with the absence of a collateral registry and the ineffective enforcement of contracts in case of default have all significant impacts on the access to finance for SMEs and the actual incentives of financial institutions to engage in this market segment.

Against this background, the Government has a key role to play in helping the financial sector to effectively address the missing middle challenge. Government financed programs (e.g. credit guarantee programs and line of credit with technical assistance) in fact are seen favourably by financial institutions and were indicated as important drivers.

While the Government of Ethiopia is already engaging in the promotion of financing micro and small enterprises mostly through MFIs (i.e. through the Women Entrepreneurship Development Project – WEDP and through the Rural Financial Intermediation Project – RUFIP), significant space is left open for helping commercial banks to downscale their business and focus on SMEs. This type of intervention, successfully implemented in other countries (e.g. China and Turkey), is based on the joint provision of a credit facility (providing dedicated liquidity through a line of credit) and tailored technical assistance that helps participating banks in developing innovative financial products and lending technologies. At the same time, addressing SME specific factors through the coordinated provision of business development skills training opportunities to SMEs is a crucial success factor.

Finally, an integrated approach to SME finance development, as the one proposed by this study, would require also to: (i) invest in improving the financial sector infrastructure (e.g. by enhancing the use, coverage and functionalities of the currently existing credit information bureau); (ii) address limitations of the current collateral regime and the contractual environment; and (iii) develop the institutional framework for alternative sources of funding.

The recommendations contained in this study are all meant to contribute to the creation of an "SME finance culture" that would translate into an increased access to finance for SMEs and ultimately to job creation and economic growth. It is certainly a complex and multidimensional task requiring strong commitment and coordination but we believe that the Government of Ethiopia is well positioned to pursue this objective and, by doing so, contribute greatly to the achievement of the GTP's targets.

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Appendix 1: About the Enterprise Surveys

Data for the Ethiopia 2011 Enterprise Survey was collected between July 2011 and July 2012 as part of the Africa Enterprise Survey 2011. In total, 794 firms were surveyed.

As part of its strategic goal of building a climate for investment, job creation, and sustainable growth, the World Bank has promoted improving business environments as a key strategy for development, which has led to a systematic effort in collecting enterprise data across countries. The Enterprise Surveys (ES) are an ongoing World Bank project in collecting both objective data based on firms' experiences and enterprises' perception of the environment in which they operate.

Industry stratification was designed in the way that follows: the universe was stratified into one manufacturing industry and one service as defined in the sampling manual. For the Ethiopia Enterprise Survey (ES), the manufacturing industry had a target of 340 interviews and service industry had a target of 240 interviews. The sample design for the Ethiopia micro survey targeted 240 establishments, 120 in manufacturing and 120 in services. Given to difficulties during the fieldwork implementation, the sample design for the Ethiopia micro survey was revised in March 2012. The revised sample had a target of 120 establishments, 60 in manufacturing and 60 in services.

Size stratification was defined following the standardized definition for the rollout: small (5 to 19 employees), medium (20 to 99 employees), and large (100+ employees). The micro sample consists of firms with 1 to 4 employees. For stratification purposes, the number of employees was defined on the basis of reported permanent full-time workers. This seems to be an appropriate definition of the labor force since seasonal/casual/part-time employment is not a common practice, except in the sectors of construction and agriculture. Note that the size stratification for the Enterprise Surveys is different than throughout the report. The size groups used in the report match groups defined by Ethiopia's Survey of Large and Medium Scale Manufacturing Industries (CAS).

Regional stratification for the Ethiopia ES as well as the Ethiopia micro surveys was defined in five regions (City and the surrounding business area): Addis Ababa, Oromya, Snnp, Amhara, and Tigray. The revised sample design for the Ethiopia micro survey included establishments only in Addis Ababa.

Figure 40. ES Sample Distribution, by Firm Size and Region

	Addis Aba	Oromya	Snnp	Amhara	Tigray	Total
Micro (0-9)	140	5	3	3	3	154
Small (10-20)	166	31	5	15	16	233
Medium (21-99)	214	26	6	17	14	277
Large (100+)	98	19	4	7	2	130
Total	618	81	18	42	35	794

Figure 41. ES Sample Distribution, by Industry

Industry Screener Sector	Freq.	Percent
Food	60	7.56
Tobacco	1	0.13
Textiles	13	1.64
Garments	15	1.89
Leather	34	4.28
Wood	17	2.14
Paper	15	1.89
Recorded media	77	9.7

Industry Screener Sector	Freq.	Percent
Chemicals	29	3.65
Plastics & rubber	32	4.03
Non metallic mineral products	16	2.02
Basic metals	29	3.65
Fabricated metal products	16	2.02
Machinery and equipment	18	2.27
Electronics (31 & 32)	7	0.88
Precision instruments	3	0.38
Transport machines (34&35)	11	1.39
Furniture	14	1.76
Recycling	1	0.13
Construction Section F:	22	2.77
Services of motor vehicles	21	2.64
Wholesale	60	7.56
Retail	205	25.82
Hotel and restaurants: section H	31	3.9
Transport Section I: (60-64)	28	3.53
IT	19	2.39

Analysis using the Enterprise Surveys data is supplementary to the work done using the Ethiopia Survey of Large and Medium Scale Manufacturing Industries (LMMIS). The main differences between ES and LMMIS are the following: (a) first, the LMMIS only covers the manufacturing sector and includes fully government-owned enterprises, while the ES covers selected manufacturing, retail and other services sector and does not include fully government owned enterprises; (b) second, there are differences in the variables between surveys, (c) third, the ES is a cross-section and the LMMIS is longitudinal. These differences in the ES increases the scope of the study from what is feasible using the LMMIS alone, specifically in examination of the services sector and credit constraint status.

Appendix 2: About the Survey of Large and Medium Scale Manufacturing Industries (LMMIS)

The Survey Large and Medium Scale Manufacturing Industries is collected by the Central Statistical Agency. Our panel contains 14,435 observations, and 5,984 unique firms. While the Survey aims to include only establishments with 10 or more employees, we find a small number of firms who reported fewer than 10 employees.

Table 16. LMMIS Sample Size

	Micro (0-9)	Small (10-20)	Medium (21-99)	Large (100+)	Total
2000	1	474	79	172	726
2001	0	453	82	156	691
2002	2	567	105	177	851
2003	2	592	116	190	900
2004	1	615	128	203	947
2005	2	404	136	207	749
2006	4	700	179	224	1,107
2007	3	881	165	236	1,285
2008	5	1,191	195	264	1,655
2009	44	1,264	193	274	1,775
2010	102	1,168	243	374	1,887
2011	35	1,253	242	332	1,862
Total	201	9,562	1,863	2,809	14,435

Source: LMMIS

Note: This sample size is before outliers. Sample size in regressions differ due to non-response for key variables.

There is a positive correlation between firm size and age. Small firms are the most likely to be young.

Table 17. Percent of Firms who are Young

	Micro (0-9)	Small (10-20)	Medium (21-99)	Large (100+)
2000	0.0	42.2	41.8	23.3
2001		35.1	40.2	15.4
2002	0.0	39.2	36.2	13.6
2003	0.0	33.4	28.7	10.5
2004	0.0	29.6	21.1	11.3
2005	50.0	29.6	20.0	12.6
2006	66.7	26.5	21.2	12.0
2007	66.7	42.7	27.3	18.8
2008	80.0	50.0	41.5	22.4
2009	77.3	54.5	35.2	21.2
2010	90.2	51.0	31.8	24.0
2011	65.7	47.5	34.0	22.1

Source: LMMIS

Note: This sample size is before outliers. Sample size in regressions differ due to non-response for key variables. Young firms are those five years of age or less.

Outliers for employment growth: 187

Outliers for sales growth: 186

stats	Employment growth rate	Employment growth rate (without outliers)	Sales growth	Sales growth (without outliers)	Cash flow normalized	Cash flow normalized (without outliers)
mean	0.206	0.0773	0.866	0.374	580.6	294.6
N	8055	7868	8926	19993	13610	13370
p10	-0.332	-0.333	-0.481	-0.494	-0.0787	-0.0625
p25	-0.0909	-0.0942	-0.228	-0.212	0.234	0.233
p50	0	0	-0.0437	-0.0740	0.689	0.679
p75	0.134	0.111	0.343	0.284	1.945	1.854
p90	0.600	0.489	1.329	1.111	5.472	4.934

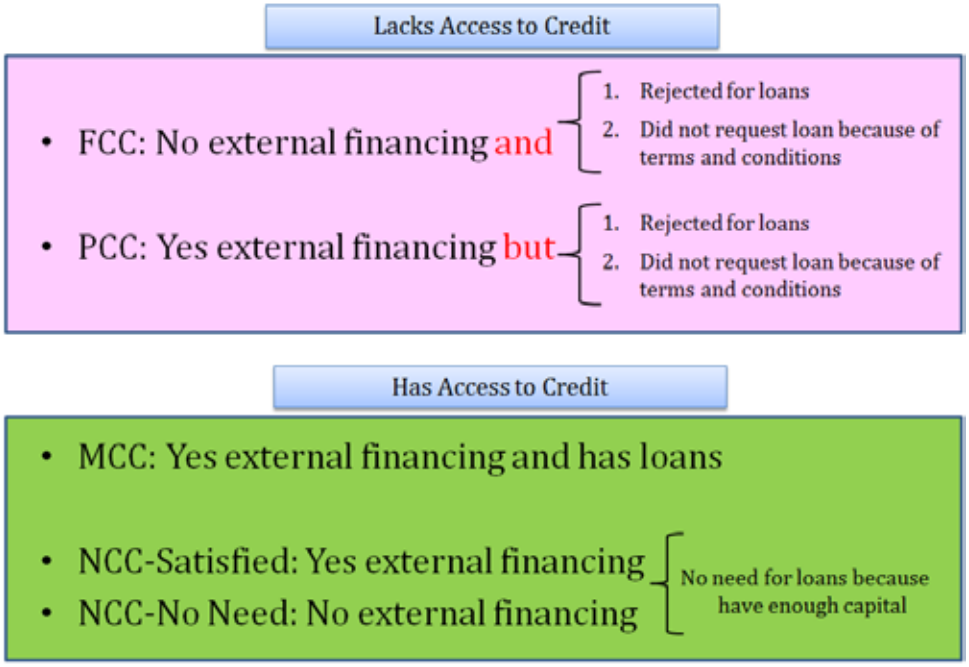
stats	Investment normalized	Investment normalized (without outliers)	Difference in sales
mean	511.3	0.441	-251.5
N	8730	8546	8705
p10	0.119	0.119	-4.320
p25	0.141	0.140	-0.898
p50	0.196	0.192	-0.0531
p75	0.391	0.369	0.596
p90	0.912	0.800	3.300

Logarithms

stats	Cash flow normalized (without outliers)	Investment normalized (without outliers)	Difference in sales
mean	-1.368	-0.0742	-0.137
N	8546	11859	3883
p10	-2.132	-1.779	-2.613
p25	-1.964	-1.051	-1.374
p50	-1.650	-0.178	-0.251
p75	-0.997	0.759	1.023
p90	-0.223	1.711	2.297

Appendix 3: Defining Degrees of Credit Constraint Status

Credit constraint status indicators developed in Kuntchev, Ramalho, Rodriguez-Meza, and Yang (2012)[39] captures the difference in a firm's access to finance based on need and availability.



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Appendix 4: Liquidity constraints

The goal of the liquidity constraint analysis is to examine whether age and size matter in access to finance. To do this, we use the Survey of Large and Medium Scale Manufacturing Industries from 2000-2011.

Our baseline specification is shown in Equation (1). The specification to test whether or not a firm is financially constrained uses cash flow *CF* as a proxy for liquidity, defined as the sum of profit after taxation, extraordinary profit, and depreciation. If firms are constrained by their internal funds, we expect the coefficient on cash flow (α) to be positive and statistically significant. We introduce an interaction of cash flow with an age dummy and a size dummy to examine whether young firms and SMEs are subject to different liquidity constraints than other firms. However one may be concerned that size and age may not be the only explanatory variables that define the ability of a firm to get external financing for fixed assets. For instance, exporters or public firms may be seen as lower risk borrowers for commercial banks. Public firms may have an easier access to credit because of political connections.

(1)

$$I_{it}/K_{it-1} = \alpha_0 + \alpha_1 CF_{it}/K_{it} + \alpha_2 \Delta S_i + \alpha_3 CF_{it}/K_{it}*SME_{it} + \alpha_4 CF_{it}/K_{it}*Young_{it} + \alpha_5 CF_{it}/K_{it}*Young_t*SME_t + \alpha_6 SMEs_{it} + \alpha_7 Young_{it} + \alpha_8 Exporter_{it} + \alpha_9 Public_{it} + \alpha_i + \alpha_{jt} + \varepsilon_{it}$$

Where ΔSit is the change in sales, SMEit is the dummy variable to indicate whether the firm i at time t employees between 10 and 99 workers (permanent and temporary), the Youngit variable indicates whether the firm has been operating less than 10 years (included)[40], the Publicit dummy is equal to one if public funds were injected in the firm's capital, and the Exporterit dummy indicates whether the firm exports (at least) a part of its production. We normalize investment and cash flow by dividing those variables by the capital stock at the beginning of the period Kit. For all continuous variables, we use natural logarithms. To control for the unobserved heterogeneity across firms we estimate a model using firm fixed effects (αi). We also include year x industry fixed effects (αjt) which capture aggregate conditions affecting the cost of capital in a particular year and in a particular sector, so it is not necessary to control for interest rates, tax rates or sectorial inflation.

The goal of our analysis is to examine whether age and size matter in access to finance. We introduce an interaction of cash flow with an age dummy and a size dummy *(CFit/Kit*Youngt*SMEt)* to examine whether young firms and SMEs are subject to different liquidity constraints than other firms. However, one may be concerned that size and age may not be the only explanatory variables that define the ability of a firm to get external financing. For instance, exporters or public firms may be seen as lower risk borrowers for commercial banks.

Because the data from the Enterprise Surveys show that we must consider a more granular breakdown in terms of size, we consider three size categories: *small* if the number of employees is between 10 and 19, *medium* if the number of employees is between 20 and 99, and *large* is the number of employees is above 100. The size definition is slightly different from what can be found in the usual definition because the Manufacturing Census is supposed to cover only firms above 10 employees. However we can find in the Census some observations for firms with less than 10 employees. We chose not to include those in the analytics since those micro firms are usually firms that are not performing well.

In Table 18, specification (1) shows results from testing for the direct effect of cash flow on the investment decision. The coefficient on the cash flow is positive and statistically significant at

40 We first tested a Young variable with three categories: Start-up (0 to 5 years), Young (6 to 10 years) and Well established (above 10 years). We also tested two variables with two categories: young firms are below or equal to 10 years old and young firms are below or equal to 5 years old. The results give statistically significant relationships between investment and age only for the variable for which young firms are below or equal to 10 years old.

the one percent level, thereby suggesting that firms are constrained by their internal funds. In specification (2), we are testing the same hypothesis but with a lagged cash flow. The conclusion is the same, although the coefficient is smaller.

Specifications (3), (4) and (5) examine the link between investment and cash flow with regard to different explanatory variables. Those models suggest that young firms are not particularly constrained by their internal funds. However, those seem to be determinant in the decision to invest for SMEs (statistically significant coefficient on the interaction term with cash flow). Moreover, the positive coefficient of the interaction term suggests that SMEs that have been operating for more than 5 years are more constrained than large firms and young SMEs. The coefficients on the interaction terms between Public and Exporter dummies and the cash flows are not statistically significant but are both negative, suggesting that exporter and public firms do not face liquidity constraints.

The Young variable is crucial in the analytics. This variable is defined based on the age of the firm which is calculated based on the year of establishment. For a firm, we may found different years of establishment. We chose to use the median year of establishment as the reference point. In some strand of the literature, age is broken down in three categories: the start-ups (defined as firms between 0 to 5 years old), the young firms (defined as firms between 6 and 10 years) and the well-established firms (defined as firms above 10 years). We tested which kind of characterization fits best the Census, by choosing the definition where the coefficients are the most statistically significant. We finally chose a Young variable with two categories in which young firms are 10 years old or below.

In Table 19, we tested the baseline specifications and the different variables that may affect the liquidity of firms. The value that is excluded from the regression is the value that corresponds to large firms. The results show that size seems to be an important variable when looking at liquidity constraints. However the results seem not coherent with the rest of the literature which usually shows that large firms are less credit constrained than small and medium firms. The results also indicate that public firms seem to be less credit constrained than private firms. However being an exporter or having a foreign participation does not seem to matter a lot.

Table 18: Investment on cash flow – Manufacturing firms from 2000 to 2011: The choice of the Young variable

	(1) Normalized investment	(2) Normalized investment	(3) Normalized investment	(4) Normalized investment
Cash Flow (CF)	0.0588***	0.0510**	0.0520***	0.0592***
	(4.99)	(2.72)	(4.30)	(5.00)
Cash Flow lagged	0.0128*	0.0119*	0.0131*	0.0126*
	(2.47)	(2.29)	(2.53)	(2.43)
Small	-0.0479*	-0.0501*	-0.0481*	-0.0479*
	(-2.23)	(-2.33)	(-2.24)	(-2.23)
Medium	-0.0363*	-0.0364*	-0.0351	-0.0362*
	(-2.01)	(-2.02)	(-1.95)	(-2.00)
Small x CF	-0.0382**	-0.0365**	-0.0381**	-0.0380**
	(-2.78)	(-2.66)	(-2.78)	(-2.76)
Medium x CF	-0.0216	-0.0219	-0.0234	-0.0214
	(-1.62)	(-1.63)	(-1.74)	(-1.60)
Young		-0.0220		
		(-1.55)		
Established		-0.00785		

	(1) Normalized investment	(2) Normalized investment	(3) Normalized investment	(4) Normalized investment
		(-0.39)		
Young x CF		0.0310*		
		(2.02)		
Established x CF		-0.000107		
		(-0.01)		
Young – Def 2			-0.0112	
			(-0.80)	
Young – Def 2 x CF			0.0242*	
			(2.46)	
Young – Def 3				0.00140
				(0.11)
Young – Def3 x CF				-0.00599
				(-0.43)
Constant	0.0743**	0.0961***	0.0919***	0.0741**
	(3.26)	(4.03)	(3.83)	(3.17)
Industries x Year	Yes	Yes	Yes	Yes
r2	0.0938	0.0965	0.0955	0.0941
N	5965	5958	5958	5958

Note 1: All specifications include firm and year fixed x industries effects. Standard errors are listed in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%

Note 2: Micro firms are excluded from these models. Firms are classified as small if the number of employees is between 10 and 19, medium if the number of employees is between 20 and 99, and large is the number of employees is above 100. Firms are classified as young when they have been operating for less than 5 years (or equal).

Note 3: We first tested a Young variable with three categories: Start-up (0 to 5 years), Young (6 to 10 years) and Well established (above 10 years). We also tested a Young variable with two categories. In the definition 2, young firms are below or equal to 10 years old. In the definition 3, young firms are below or equal to 5 years old.

Source: Authors calculation based on data from CSA Manufacturing Census (2000 - 2011)

Table 19: Investment on cash flow – Manufacturing firms from 2000 to 2011: Test of the baseline

	(1) Normalized investment	(2) Normalized investment	(3) Normalized investment
Cash Flow (CF)	0.0820***	0.0826*	0.0527***
	(5.42)	(2.24)	(4.23)
Cash Flow lagged	0.0134**	0.0121	0.0137**
	(2.59)	(0.71)	(2.61)
Small	-0.0303	-0.0696	-0.0482*
	(-1.37)	(-0.89)	(-2.21)
Medium	-0.0223	-0.0315	-0.0344
	(-1.20)	(-0.58)	(-1.88)

	(1) Normalized investment	(2) Normalized investment	(3) Normalized investment
Small x CF	-0.0640***	-0.0717	-0.0391**
	(-4.04)	(-1.54)	(-2.78)
Medium x CF	-0.0415**	-0.0687	-0.0240
	(-2.86)	(-1.55)	(-1.76)
Young	-0.00795	0.0657	-0.0112
	(-0.57)	(1.08)	(-0.79)
Young x CF	0.0164	0.0358	0.0238*
	(1.62)	(1.02)	(2.39)
Public	0.0111		
	(0.40)		
Public x CF	-0.0481**		
	(-3.23)		
Exporter		0.0601	
		(0.83)	
Exporter x CF		-0.0698	
		(-1.58)	
Foreign			-0.0259
			(-1.15)
Foreign x CF			0.0102
			(0.47)
Constant	0.0769**	-0.168	0.0904***
	(3.10)	(-1.50)	(3.71)
Industries x Year	Yes	Yes	Yes
r2	0.0982	0.142	0.0963
N	5958	1395	5882

Note 1: All specifications include firm and year x industries fixed effects. Standard errors are listed in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%

Note 2: Micro firms are excluded from these models. Firms are classified as small if the number of employees is between 10 and 19, medium if the number of employees is between 20 and 99, and large is the number of employees is above 100. Firms are classified as young when they have been operating for less than 5 years (or equal). Firms are classified as young when they have been operating for less than 10 years (or equal).

Source: Authors calculation based on data from CSA Manufacturing Census (2000 - 2011)

Table 20: Number of observations over 2000-2011

Size category	Ownership category	Age category	Number of observations
Large	Public	Young	109
		Old	918
	Private	Young	784
		Old	647

Size category	Ownership category	Age category	Number of observations
Medium	Public	Young	58
		Old	255
	Private	Young	3176
		Old	1770
Small	Public	Young	18
		Old	55
	Private	Young	3725
		Old	647

We then tested the baseline by firm size. Looking at Table 21, it seems that small firms are less constrained than medium firms that are less credit constrained than large ones.

Table 21: Investment on cash flow – Manufacturing firms from 2000 to 2011

	(1) Small	(2) Medium	(3) Large	(4) Small	(5) Medium	(6) Large
Cash Flow (CF)	0.0269***	0.0307***	0.0538***	0.0176*	0.0193	0.0527**
	(3.94)	(3.40)	(3.84)	(2.33)	(1.72)	(3.29)
Cash Flow lagged	0.00237	0.0286**	0.0178	0.00343	0.0291**	0.0182
	(0.34)	(3.01)	(1.19)	(0.50)	(3.07)	(1.21)
Young				-0.0616*	-0.0179	0.0237
				(-2.56)	(-0.77)	(0.73)
Young x CF				0.0410**	0.0293	0.00419
				(2.98)	(1.73)	(0.15)
Constant	0.0129	0.0291	0.154***	0.0658	0.0183	0.167***
	(0.38)	(1.13)	(3.80)	(1.64)	(0.56)	(3.92)
Industries x Year	Yes	Yes	Yes	Yes	Yes	Yes
r2	0.313	0.122	0.223	0.322	0.124	0.225
N	1978	2583	1404	1978	2578	1402

Note 1: All specifications include firm and year x industries fixed effects. Standard errors are listed in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%

Note 2: Micro firms are excluded from these models. Firms are classified as *small* if the number of employees is between 10 and 19, *medium* if the number of employees is between 20 and 99, and *large* is the number of employees is above 100. Firms are classified as young when they have been operating for less than 5 years (or equal). Firms are classified as young when they have been operating for less than 10 years (or equal).

Source: Authors calculation based on data from CSA Manufacturing Census (2000 - 2011)

Given that different parameters may play a role depending on the size category of the firm, we are testing the baseline on each of the size category. In Table 22, which corresponds to small firms only, the results show that the age is crucial: especially young firms are more credit constrained than older firms. The fact that a firm is public or has a foreign participation does not seem to ease its access to finance. The specifications (3) and (4) test the robustness of the results when we add sales in the regression.

Table 22: Investment on cash flow – Small manufacturing firms from 2000 to 2011

	(1) Normalized investment	(2) Normalized investment	(3) Normalized investment	(4) Normalized investment
ΔSales			1.66* 10.-6	1.60* 10.-6
			(2.08)	(2.00)
Cash Flow (CF)	0.0182*	0.0170*	0.0258**	0.0243**
	(2.40)	(2.23)	(3.07)	(2.88)
Cash Flow lagged	0.00342	0.00285	0.00115	0.000657
	(0.49)	(0.41)	(0.16)	(0.09)
Young	-0.0605*	-0.0654**	-0.0554*	-0.0603*
	(-2.51)	(-2.66)	(-2.29)	(-2.45)
Young x CF	0.0403**	0.0412**	0.0339*	0.0350*
	(2.92)	(2.97)	(2.41)	(2.47)
Public	0.0828		0.0906	
	(0.39)		(0.42)	
Public x CF	-0.0607		-0.0671	
	(-0.90)		(-0.99)	
Foreign		-0.0503		-0.0485
		(-0.46)		(-0.44)
Foreign x CF		0.0504		0.0484
		(0.34)		(0.33)
Constant	0.0633	0.0877*	0.0550	0.117**
	(1.57)	(2.10)	(1.34)	(2.87)
Industries x Year	Yes	Yes	Yes	Yes
r2	0.323	0.325	0.326	0.329
N	1978	1955	1978	1955

Note 1: All specifications include firm and year x industries fixed effects. Standard errors are listed in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%

Note 2: Micro firms are excluded from these models. Firms are classified as *small* if the number of employees is between 10 and 19, *medium* if the number of employees is between 20 and 99, and *large* is the number of employees is above 100. Firms are classified as young when they have been operating for less than 5 years (or equal). Firms are classified as young when they have been operating for less than 10 years (or equal).

Source: Authors calculation based on data from CSA Manufacturing Census (2000 - 2011)

We apply the same methodology for medium firms. Age does not seem to matter in the ability of a firm to access finance. However public medium firms appear to be less credit-constrained than private ones. When adding sales, we find that according to specification (5), exporting firms are far less credit constrained than firms that distribute their products locally.

Table 23: Investment on cash flow – Medium manufacturing firms from 2000 to 2011

	(1) Normalized investment	(2) Normalized investment	(3) Normalized investment	(4) Normalized investment	(5) Normalized investment	(6) Normalized investment
ΔSales				-0.589. 10.-6	-0.00553	1.59. 10.-6
				(0.82)	(-0.27)	(0.93)
Cash Flow (CF)	0.0363**	0.102	0.0223*	0.0364**	0.112	0.0283*
	(2.72)	(1.60)	(1.97)	(2.73)	(1.75)	(2.29)
Cash Flow lagged	0.0298**	0.0513	0.0332***	0.0298**	0.0619	0.0330***
	(3.14)	(1.04)	(3.43)	(3.14)	(1.24)	(3.41)
Young	-0.0105	0.0784	-0.0173	-0.0104	0.0360	-0.0143
	(-0.45)	(0.58)	(-0.74)	(-0.44)	(0.26)	(-0.60)
Young x CF	0.0143	-0.0210	0.0285	0.0143	0.0459	0.0232
	(0.79)	(-0.19)	(1.67)	(0.79)	(0.38)	(1.32)
Public	-0.0879			-0.0797		
	(-1.37)			(-1.16)		
Public x CF	-0.0498*			-0.0573		
	(-2.08)			(-1.74)		
Exporter		0.0778			0.113	
		(0.37)			(0.53)	
Exporter x CF		-0.271			-0.326*	
		(-1.83)			(-2.13)	
Foreign			-0.0170			-0.0156
			(-0.42)			(-0.39)
Foreign x CF			-0.0562			-0.0588
			(-1.65)			(-1.73)
Constant	0.0390	-0.118	0.0933**	0.0845**	-0.229	0.0813*
	(1.06)	(-0.54)	(3.20)	(2.97)	(-1.04)	(2.38)
Industries x Year	Yes	Yes	Yes	Yes	Yes	Yes
r2	0.129	0.175	0.130	0.129	0.188	0.131
N	2578	562	2542	2578	562	2542

Note 1: All specifications include firm and year x industries fixed effects. Standard errors are listed in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%

Note 2: Micro firms are excluded from these models. Firms are classified as *small* if the number of employees is between 10 and 19, *medium* if the number of employees is between 20 and 99, and *large* is the number of employees is above 100. Firms are classified as young when they have been operating for less than 5 years (or equal). Firms are classified as young when they have been operating for less than 10 years (or equal).

Source: Authors calculation based on data from CSA Manufacturing Census (2000 - 2011)

None of the dependent variable seems to affect the capacity of a large firm to access to finance. Even if the coefficients are not statistically significant, we find that a negative coefficient on cash flow for public firms, as well as exporters.

Table 24: Investment on cash flow – Large manufacturing firms from 2000 to 2011

	(1) Normalized investment	(2) Normalized investment	(3) Normalized investment	(4) Normalized investment	(5) Normalized investment	(6) Normalized investment
ΔSales				0.00327	-0.000214	0.00357
				(1.23)	(-0.03)	(1.34)
Cash Flow (CF)	0.0838***	0.0272	0.0542**	0.0756**	0.0280	0.0492**
	(3.40)	(0.56)	(3.25)	(2.96)	(0.52)	(2.88)
Cash Flow lagged	0.0167	-0.00489	0.0179	0.0219	-0.00506	0.0238
	(1.11)	(-0.16)	(1.18)	(1.40)	(-0.17)	(1.51)
Young	0.0304	-0.0739	0.0289	0.0306	-0.0742	0.0297
	(0.94)	(-0.84)	(0.87)	(0.94)	(-0.84)	(0.90)
Young x CF	-0.00742	0.119	0.00243	-0.00551	0.119	0.00286
	(-0.26)	(1.92)	(0.08)	(-0.19)	(1.91)	(0.10)
Public	0.0937*			0.0935*		
	(2.50)			(2.49)		
Public x CF	-0.0487			-0.0437		
	(-1.80)			(-1.60)		
Exporter		0.0961			0.0970	
		(1.09)			(1.05)	
Exporter x CF		-0.00363			-0.00426	
		(-0.06)			(-0.07)	
Foreign			-0.0291			-0.0295
			(-0.83)			(-0.84)
Foreign x CF			0.0140			0.0141
			(0.39)			(0.39)
Constant	0.129**	0.0635	0.174***	0.132**	0.0258	0.156***
	(2.83)	(0.51)	(4.20)	(2.84)	(0.21)	(3.95)
Industries x Year	Yes	Yes	Yes	Yes	Yes	Yes
r2	0.231	0.342	0.227	0.233	0.342	0.228
N	1402	497	1385	1402	497	1385

Note 1: All specifications include firm and year x industries fixed effects. Standard errors are listed in parentheses. *significant at 10%; ** significant at 5%; *** significant at 1%

Note 2: Micro firms are excluded from these models. Firms are classified as *small* if the number of employees is between 10 and 19, *medium* if the number of employees is between 20 and 99, and *large* is the number of employees is above 100. Firms are classified as young when they have been operating for less than 5 years (or equal). Firms are classified as young when they have been operating for less than 10 years (or equal).

Source: Authors calculation based on data from CSA Manufacturing Census (2000 - 2011)


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