Assessment of 'Why Private Commercial Banks in Ethiopia Neglected the Agriculture?' Evidence from 10 Selected Private Banks

Tarekegn Ganfure Kistana, Gebremichael Aregawi, Hailesellasie Aron Abraha

Wolaita Soddo University, department of Accounting and finance

Abstract

The study used ten selected private banks to investigate the reasons why private banks in Ethiopia neglected agriculture. The private banks that have been serving at least four years in the banking business were purposively selected for the study. To achieve the desired objectives, primary data- using questionnaire and semi structured interview and secondary data were used. The collected data were analyzed the by OLS regression model. Accordingly, the result of the regression reveals that; size, profitability, capital efficiency, competition with the public owned banks and backed collateral were the most significant factors for the reason why private banks in Ethiopia neglected agriculture. Credit utilizing capability of the borrower is also a moderately significant factor.Since,agriculture is the largest lion share sector in contributing to GDP growth and priority sector in Ethiopia, keeping the other indicators of creditworthiness constant, it is enviable if private banks consider the ecological characteristics around borrowers' business than to be generally reluctant toward the sector. Improving their profit generating or capital appreciation strategies than hushed for the sector is the other better assignment of Ethiopian private banks. Under developed crop and weather index insurance is also one of the major reasons. Therefore,it is also advisable if the government encourages the insurance companies, to extend their insurance products or services to agriculture sector.

Keywords: OLS, Agricultural loan, Private Banks, Ethiopia, Bank's; liquidity, profit, size, backed collateral, competition, economic growth and credit utilization capability

1.   Introduction

Agriculture plays a vital role for economic growth and sustainable development. Evidence suggested that gross domestic product (GDP) growth originating from agriculture is twice as effective in reducing poverty as GDP growth linked to the non-agricultural sectors (World Bank, 2008). The sustainable development of Sub-Saharan African (SSA) countries thus directly linked to the success of the agricultural sector which in turn dependent on sustained investments in the sector (Rosegrant et al., 2007). Like other SSA countries, agriculture is the main stay of Ethiopian economy. Therefore, the long term economic strategy of Ethiopia, ADLI, is drawn from the existing reality that the country is under acute shortage of capital, but endowed with large number of working age population and vast cultivable land (Tadesse, 2003). The strategy has an intention of mechanizing agricultural production system. However, modern agricultural technology was capital intensive which in turn increases the demand for credit (Johnson and Cownie, 1969).

On the other side, a growing body of evidence suggests that financial institutions such as banks, insurance companies and financial markets like stock, bond and derivative market exert a powerful influence on economic development, poverty alleviation and economic stability (Levine et.al. 2012). There is a strong positive link between the level of development, efficiency of a financial system and its contribution to economic growth (Greenwood & Jovanovic, 1990;   Levine, 2005). Among financial institutions, banks are the dominant formal financial institutions currently operating in Ethiopia (Lakew, 2000; Getahun, 2008). According to Lakew, on average, banks cover 96 percent of gross of financial assets and non-banks account only for 4 percent. Therefore, it is reasonable to expect their participation in the process of availing financial services to the development of agricultural sector (Atkilt and Issac, 2010). The concept of credit in agriculture has been known since 17th century when the peasant in China used rural credit for farm production in order to improve their living standards (Ming-te, 1994). Easy and cheap credit is the quickest way for boosting agricultural production (Abedullah, 2009). But, in developing countries access to and use of formal finance remains very low in general and agriculture in particular (Campaigne & Rausch, 2010). For instance, in 1991, the share of total bank loans for agriculture was 5.2 percent in Philippines, 10 percent in India (Asian Development Bank, 2003), 8 percent in 18 countries of Latin America (Trivelli and Vénéro, 2007) and 1 percent in SSA countries (Campaigne & Rausch, 2010). The agriculture's relative use of formal credit is much lower than that of non-agriculture sector which absorbs much higher level of credit (Buchenau, 2003). In his study, Viganò (1993) stated that commercial banks management usually asserts that agriculture is a too risky sector and they prefer to avoid heavy involvement in it rather they invest in trade or other safer industrial activities. However, avoiding the agricultural sector does not naturally mean obtaining the best result.

In Ethiopia, though the number of private banks and insurance companies are consistently growing since 1994,

the relative weight of agriculture in their loan portfolio is currently shrinking and private commercial banks provide hardly any credit to the sector (Wolday and David, 2010). Ethiopian Banks are forced to hold high amount of liquid assets in their hands to minimize liquidity risk. This suggests inefficiency in financial intermediation and this inefficiency further create an imbalance between the demand for loanable fund and their supply (Wondaferahu, 2010). Wolday and David (2010) too found financial sector players in Ethiopia have skill gaps in most key banking processes, especially in risk-management and this leads the lending practices highly depend on collateral. From this finding we can understand, the reason why banks are reluctant toward agriculture is not agricultural sector side problems only. Moreover, in 2012 Ebisa undertook his study on the effects of post 1991 era financial sector deregulations in Ethiopia and found that though the agriculture sector contributes 43% to the GDP, it got smaller quantity of loans from private bank which is, on average, 2.21 percent. Finally, the author concluded that all private banks in Ethiopia *neglected* the agriculture. But the reason why they neglected the agriculture is unreciprocated question. Therefore, the purpose of the study is to assess why private commercial banks in Ethiopia neglected agriculture using four years data from 2009 to 2012. The scope of the study was thus limited to 10 selected private banks in Ethiopia. Namely, Awash International Bank (AIB), Bank of Abyssinia (BA), Cooperative Bank of Oromia(CBE), Dashen bank(DB), Lion International Bank(LIB), Nib International bank(NIB), Oromia International Bank(OIB), United Bank(UB), Wegagen Bank (WB) and Zemen Bank (ZB). These private banks are selected based on the 2010 banking review report.

2.   Reviews of Literatures

Agriculture plays the critical role in broadening the productive and export base of the economy by creating employment, providing industrial raw materials, ensuring food security and output growth (Elbadawi, 2001). Agricultural sector highly influences the performances of the other sectors (Kibret, 1998). In 2006 economic growth of Ethiopia, agriculture sector has contributed 60 percent of the growth whereas the industry and the services sectors contributed 10 percent and 30 percent respectively (MoFED, 2006). Tospeed up the economic development, the role of financial institution in development and economic growth should not be seen separable. A study accompanied on 150 countries noted that a well-functioning financial system is critical to long-term growth (Levine & Demirguc-Kunt, 2004). Empirical evidence also confirms a strong and positive link between national savings and economic growth (World Bank, 2004). Literatures identified urban centers biased distribution of the banks, low volume of loan demand by farmers, hardly affordable banking requirements-collateral and scattered settlements of rural borrowers leading to high cost of loan management as the main reasons for formal financial institutions have played little role in financing development efforts in the rural area (Alemayehu, 2008).

Among financial institutions, the importance of bank is more pronounced in developing countries because financial markets are usually underdeveloped and banks are typically the only major source of finance for the majority of firms (Arun and Turner (2004) as cited in Athanasoglou et al., 2006). Similarly, in India, Kohli (1997) observed and identified the existence of significant linkages between bank credit and investment in both agriculture and industries. Credit has been discovered to be a major constraint on the intensification of both large and small scale farming (Von-Prisckieke, 1986; Ogunfowora et al, 1972; Buchenau, 2003 & World Bank, 2004). In Nigeria, Abe (1982) reported that non-institutional creditors' accounts for 70% of the total credits received. However, with the present situation these sources could hardly meet the increasing demand for credit by farmers. The same is true in Philippines (Corpuz et al., 2005). Likewise Ibrahim et al. (2007) found that in Ethiopia informal sector was the main source of credit in rural areas.

In 2004 FAO, stated general behavioral risks of borrowers, nature of the agricultural production and the Politics of the country as the three main reasons for the constraints of agricultural credit. Using a Probit model, Levonian (1996) found that banks with more branches are willing to engage in agricultural lending in much smaller amounts than similar banks with fewer branches. Similarly, Gilbert and Belongia (1988) found that the size of the parent Bank Holding Companies had a significant impact on agricultural lending. Lack of suitable collateral and high transaction costs related to agriculture were found by Hoff and Stiglitz (1990) and Besley (1994) respectively. But, Sacerdoti (2005) found group form borrowers provide adequate guarantees to banks than individual farmer's collateral worth. Using a quantile regression method on commercial bank's five years data, Nam et.al (2007) found Bank assets and deposit growth rates have a positive impact while population growth rate, loan to deposit ratio, equity to asset ratio and location have a negative impact on the agricultural loan growth rate. In addition to the five C's called character, capital, capacity, collateral and conditions, (Md Al-Mamun. et al., 2012) added investment type and purpose of loan as one factor. Wilson and Christine et.al (2006) also found that the type of loan, borrower's character, financial record keeping, productivity and credit risk were the factors that should considered before approving any loan request. According to Kiyota (2007), 88% of Ethiopian banks are concentrated in the urban centers. Their branches too are concentrated in the capital cities (Getahun, 2008; Ebisa, 2012). Furthermore, Ebisa explained private banks could not serve agriculture sector due to their urban biased policy of branch expansions especially focusing on volume of business in the urban areas.

3. Materials and Methods

For the purpose of investigating the reason behind why private commercial banks neglected the agriculture, 10 private banks were purposively selected. The ten private banks were selected based on number of private banks that were included in the 2010 banking performance review report and those who had at least four years' experience in banking business**.** Four year was purposively taken by the investigator because the fastest double digit economic growth in Ethiopia is registered for the last four years. To collect data questionnaires were distributed for loan officers each sampled private commercial banks at head office level and semi-structured interview was for the credit managers of each sampled private banks. The study also used secondary data. The collected data were summarized and presented using text, table and analyzed using descriptive inferential statistics. Besides, econometric analysis tool, specifically, OLS regression model was used to test the literature driven hypothesis and finally to make conclusion.

3.1 Econometric model

OLS regression is particularly powerful as it relatively easy to check the model assumption such as linearity; constant variance and the effect of outliers using simple graphical methods (Hutcheson and Sofroniou, 1999). To empirically investigate the major challenges affect to agricultural loan, agricultural loan is considered as dependant variable. The explanatory variable that were studied in this paper are; liquidity of the bank (lob), size of the bank (sob), capital efficiency or performance of the bank (Cpb), profitability of the bank (Pob), competition with the public owned bank (Cmpbb), real economic growth rate of domestic product (Rgdp), backed collateral (bcl), credit utilizing capability of the borrowers (cucbr), long term economic strategy of the country (Ecostra). Specifically, thus, the model has been specified as;

$Agln = \beta_0 + \beta_1 lob + \beta_2 sob + \beta_3 cpb + \beta_4 pob + \beta_5 Cmpbb + \beta_6 Rgdp + \beta_7 bcl + \beta_8 cucbr + \beta_9 Ecostra + \varepsilon i$

Where, β_0 is a constant; β_1--- to---β_9 is the coefficient of each explanatory variable and $\varepsilon i =$ is error term.

3.2 Formulation of Hypotheses

Hypothesis of the study stand on theories and empirical findings related to agricultural loan and bank credit that has been developed over the years by different scholars.

3.2.1 Liquidity of the banks

Liquidity refers the ability of a financial firm to maintain regularly equilibrium between the financial inflow and outflow over time (Vento and Ganga, 2009). The most important factor affecting bankers' preference for a certain type of loan seemed to be the level of loan to deposit ratios (Shipho, 2011). Deposit growth rate for each bank reflect changes in an availability of loanable funds in a bank. Therefore, holding of high deposit in the bank affects the amount of loan granted to the borrowers. Similarly, Nikolau (2009) declared holding more liquid assets than illiquid makes an access to fund even more constrained. Fear of liquidity risk is the main reason for banks to hold high deposit or change it to the most liquid assets (Morgan, 2000). There are two types of liquidities called market and funding liquidity. Hence in Ethiopia there is no secondary market where the market liquidity is highly practiced, this paper deals more with the funding liquidity using loan to deposit ratio as a proxy variable.

H1: Private Banks' liquidity position are expected to significantly and positively affect lending to agriculture

3.2.2. Size of the bank

Larger banks tend to have more diverse lending opportunities, but also more opportunities to raise deposit funds for lending to agriculture(Nam et.al, 2007). In contrast, Gilbert and Belongia (1988) found that a bank's lending to farmers as a percent of total loans declined with bank size. Small firms, such as family farms, tend to obtain their credit from smaller bank offices located within the community (Berger and Udell, 1998: Koenig and Dodson 1995). Statistically Levonian (1996) found that larger banks are less likely to engage in agricultural lending than are smaller banks. In this study, total assets of a bank reflect bank size used by Nam.et.al is considered as the proxy variable to measure the bank size.

H2: Large sized private banks are expected to significantly and negatively affect the lending to agriculture

3.2.3 Capital efficiency (performance) of banks

The traditional interpretation of the "bank lending channel" has not paid attention to bank equity; bank capital is traditionally interpreted as an "irrelevant" balance-sheet item (Friedman, 1991; Van den Heuvel, 2003). Equity capital can be the major source of funds. Bank capitalization, however, influences the "bank lending channel" owing to imperfections in the market for debt. In particular, bank capital influences the capacity to raise uninsured forms of debt and therefore banks' ability to contain the effect of a deposit drop on lending.Low-capitalized banks, perceived to be more risky by the market and have greater difficulty in issuing bonds and therefore are less able to shield their credit relationships (Kishan and Opiela, 2000). When equity is sufficiently low (and it is too costly to issue new shares), banks reduce lending because prudential regulations establish that capital has to be at least a minimum percentage of loans (Bolton and Freixas, 2001). Therefore, the efficiency of bank in terms of equity capital is measured by ROE. ROE is defined as after tax net income divided by total equity is taken as a proxy variable to measure the capital efficiency of the bank (Nam et.al, 2007). This paper also used ROE as a capital efficacy measurement.

H3: Private Banks' capital efficiency is expected to have a positive and significant impact on the agricultural loan.

3.2.4 Profitability of banks

There are many sources for banks' profit, but profit from loanis the major one. *The two contradicting idea in case of bank credit for agriculture sector is;i) the objective to maximize their profit- the basic business model of banking and ii) the interest to serve the sector of the economy both at urban and rural area.Comparatively,urban settled borrowers are more served as compared to rural area. Serving rural area is characterized by different operational costs andundiversified risks.* **The amount of loan requested also determines the costs of borrowing. Sometimes, e***ven when banks do make loans, processing costs are higher relative to the size of the loan.These costs will show the probability to select the less risky sector as compared to others. But, we know that banks earn profit***by charging more for loans than it cost the bank to make the loan** (Andrew Lainton, 2012).**B***anks with high capacity of profit generating strategy may show equal willing toward all sectors. Banks'* profitability in this study is measured by ROA (Kosmidou, 2008; Flamini et.al, 2009). ROA is expressed as the banks' after tax profit to total their respective assets**.**

H4: Profitable private banks are expected to have a significant and positive effect on agricultural loan

3.2.5Competition with public owned banks

Competition from public owned banks might affect the private owned banks credit to each economic sector. The effect of competition on access to loan depends on the source and level of competition (Dinç, 2000). Some studies used location as expression of competition. For instance, Bonaccorsi di Patti and Gobbi (2001) found that concentration has a positive effect on the credit volume to small and medium size firms, and a negative impact on large firms. But, DeYoung, Goldberg, and White (1999) showed concentration affects small business lending positively in urban markets and negatively in rural market. As cited in (Podder, 2012), the market power of an individual bank usually increases with the degree ofmonopoly (Heggested and Mingo, 1976). This paper used market share to express competition. The greater the market share, the greater will be its control over its prices and services it offers. Market share is computed as total asset private bank to the total asset of the banking industry in the country.

$$\text{Competition} = 1 - \left[\frac{\text{Total assets of private bank}}{\text{Total asset of banking industry.}}\right]$$

H5: Competition of private Banks with the public owned bank is expected to have significant and positive effect on loan to agriculture

3.2.6 Economic growth rate

Banks accept deposit from individuals and institutions and transfer to the deficit units in different sectors of the economy (Mishkin 2007). Real GDP growth is measured by annual GDP growth rate and is expected to have an impact on bank credit. Economic growth can enhance banks' profitability. Economic growth has a positive impact on bank credit and their performance (Belayneh, 2011; Bikker & Hu, 2002; Demirguc-Kunt & Huizinga, 1999). During periods of strong economic growth, loan demand tends to be higher which allow banks to provide more loans and it is also characterized by fewer loan defaults. To the specific, though agriculture takes the largest share of GDP growth in Ethiopia, economic growth is not the only contribution of agricultural sector alone rather the whole contribution of economic sectors. Therefore, the study hypothesized as;

H6: The Economic growth rate is expected to have positive and insignificant impact on agricultural loan provision

3.2.7 Credit utilization capability of the borrowers

There is a need to increase access of farmers to credit facilities as they are most likely to utilize the fund for the purpose that increases agricultural production (Okwoche.et.al, 2012). Credit is a contractual promise between the lender and borrowers. One person's promise is not as good as another. Promises are frequently broken and there may be no objective way to determine the likelihood that promise will be kept (Pischke, 1991; Vigano, 1993; Kitchen, 1989).The differences between promised and actual repayments of loans are the result of uncertainty concerning the borrowers' ability or willingness to make the payments when it matures (Jaffee and Stiglitz, 1990).

The credit utilization is known in two ways. First if the borrowers have used the credit for the purpose they have borrowed and second, even if not used for the intended aim but used for other productive purpose and able to repay the regular repayment as per the contract, then we can consider the utilization capacity of the borrower is feasible. The regular repayment capability of the borrower is as a proxy variable for credit utilization and the data would be obtained through questionnaire.

H7: Credit utilization capability of farmers is expected as a positive and insignificant factor for agriculture loan from private banks.

3.2.8 Backed (guaranteed) collateral

According to Stiglitz and Weiss (1981) without partial or full collateral first-best allocation of credit are not possible. Thus, scarce collateral implies that some individuals will be deprived of credit but those who have the

collateral will obtain the credit. The existence of high value and insured collateral does not only settle the option to get the loan or not. But it even will also define the amount of loan to be approved. The market value of the insured tangible property, equipment or building registered in loan contract is as a proxy variable to represent the backed collateral. If collateral is insured against uncertain of future losses, it is highly backed and has positive impact on loan to agriculture. There are also some cases in which most food security support organization like USAID and IFRS may give a form of guarantee to cover the amount loan defaulted as a result of farmer's inability due to undiversifiable risks. This paper also considered such cases as if the loan is backed loan. But, Ciaian and Pokrivcak (2011) estimated the impact of subsidies from the European Union's common agricultural policy on farm bank loans and found that subsidies influence farm loans in a non-linear and indirect fashion.

H8: Backed collateral is expected as a positive and significant factor of obtaining agricultural loan from private banks.

3.2.9 Economic strategy or policy of the country:

Ethiopia has adopted a long term economic strategy called Agricultural Development Led to Industry (ADLI) which the policy considered agriculture as a priority sector of the economy. Industrial growth will become through agricultural development. Finance is the important instrument to bring large scale investment in the sector. The policy by itself is a direction for private banks credit disbursement to each economic sector. As evidence this policy, 43 percent of the real GDP growth in 2012, was from agriculture sector (Ebisa, 2012). To know the impact of the economic strategy of the country on private banks credit to agriculture, data was obtained through questionnaire by considering it as a dummy variable.

H9: The country's long term economic policy or strategy that depends on agriculture as priority sector is expected to have significant and positive impact for agricultural loan provision.

4.   Results and Discussions

4.1 Analysis of private bank loan distribution to economic sectors

The amount of birr given to one economic sector divided to the total loan amount for all economic sectors in portfolio of a given bank results the ratio of that sector from the total loan given in that specified private bank. Accordingly, the portion of the agriculture loan is the lowest of all as compared to the loan share that goes to the other economic sectors. As it is shown in **Table.1**, Cooperative Bank of Oromia is the first in giving agricultural loan followed by Nib International Bank and Awash International Bank that is 5.04%, 4.9% and 3.64% of their loan share respectively.

4.2 Trends of agricultural loan share in private banks loan portfolio

As it shown in **Table.2,** except Lion International Bank from 2011 to 2012 and Cooperative bank of Oromia from 2010 to 2011, the trend of agricultural loan has shown a decreasing tendency in their loan portfolio. But, United Bank has totally neglected agriculture. The main reasons for the decline of private banks' credit to agriculture were; first, fear of liquidity problem- since the highest portion of deposit were from saving and demand type- that stays for short term in bank account as liability and agriculture investment is mostly characterized by long term investment type; this imbalance of two due dates further creates the liquidity risk. Second, private banks have profit oriented objective and the profit is a multiple effect of leverage (Access capital, 2012). A single event or factor, such as change in weather condition, pest infestation, animal diseases outbreak, and unexpected price fluctuation of agricultural products may upshot in another effects. For example, Dashen bank faced a problem from price fluctuation in the loan dispersed to floriculture production. Consequently, the bank applied a takeover system to get its loan amount due to inability of the borrowers' to repay the loan. Thus, considering agriculture as a risky business is the thirdreason. But avoiding agriculture does not naturally mean obtaining the best result (Vigano, 1993). Fourth, in Ethiopia there is no as such mechanized farming system and the largest population is engaged in small scale farming in which bankers lack confidence about the repayment of loan.Since, other farmers in the community will look upon them badly if they cannot repay a loan (EFSE, 2010), this factor has its own negative implication even on the borrowers who unable to repay the loan. Fifth, Government directions-on the behalf of government, National Bank of Ethiopia, has set a directive that a portion of short term loan in given private bank is not less than 40 percent of the total loan portfolio. This directive also as a one factor on a part of long term loan since most agricultural credit is a part of a long term loan. Underdeveloped insurance service in the sector isas another reason. In order to secure the credit, banks mostly need insured collateral. However, farmers in Ethiopia have no as much valuable collateral. The valuable collaterals of most Ethiopian farmers are: residential building, crop, livestock, sheep, goats and camels. But, the availability of crop or livestock insurance in Ethiopia is almost nix. Nile insurance and Oromia international insurance company are the only that provide crop and livestock insurance in the country.

4.3 Major factors affecting private commercial banks' credit to agriculture (Regression analysis)

The model used 40 observations which provided a base for an econometric analysis. The investigator carried out diagnostic tests to ensure the data fits the basic assumptions of linear regression models; normality, multicollinearity and heteroscedasticity at 5% level of significance.As it is shown in **Table 4**,the interpretations

of result of significant explanatory variables are presented below.

4.3.1 Size of the banks (Sob).

According to the regression result; Size of private bank's had negatively and significantly affects the agricultural loan from the private banks at 10% level of significant. The finding of this study is inconsistence with the previous studies that statistically found larger banks to be less likely to engage in agricultural lending than are smaller banks (Levonian, 1996 and Berger & Udell, 1998). Again, Gilbert and Belongia (1988) also found that a bank's lending to farmers declined with bank size. In 2007 Nam et.al also justified that as the size of banks increase, they need to finance the urban businesses than go to rural community which is also the main problem of Ethiopian commercial banks (Ebisa, 2012).

3.3.2 Capital performance of the bank(Cpb)

Capital efficiency of the private bank is also the second reason thatpositively and significantly affects the agricultural loan at 5% confidence level. This is due to the fact that the higher the capital is efficient, the more ability to take risks and equally extend their loan for all economic sectors. Likewise, Bolton and Freixas (2001) also found when equity is sufficiently low, banks reduce lending.

4.3.3 Profitability of the bank (Pob)

Profit is measured by ROA (Kosmidou, 2008). All private commercial banks are profit oriented and their objective is to satisfy the shareholders expectation that is to appreciate the initial capital. The impact of private bank profit on agricultural loan is also significant at 5% but negatively correlated. The main reason why it is negatively correlated is that a high profitability of banks in Ethiopia is simply a reflection of multiplicative effect of leverage, which tends to offer shareholders of banks much higher returns on their investments as compared to other non-banking businesses (Access capital, 2012). This make private banks usually search low risk (riskless) investment areas-such as government T- bills than investing in agriculture sector. However, from the portfolio theory of investment perspective, less risk investment alternative would generate low return and it indicates investing below efficient frontier line of portfolio investment. On another side, study by Aburime (2008) asserted that the profitability of a bank depends on its ability to foresee, avoid and monitor risks. Most private banks also characterized by lack of agricultural risk analyst experts. Therefore, the desire to generate more profit and fear of the existing risks in the sector makes private banks in Ethiopia to neglect agriculture.

4.3.4 Competition with the public owned banks (Cmpbb)

The other reason is competition with public owned banks. The regression result revealed that competition with public owned bank is significantly and positively affect the agricultural loan at 5 percent. Competition makes private banks to search unbanked area of the economic sector like agriculture. In another term, if there were a concentration of banks in a small area, it may pave the way to extend their loan to unbanked class like for farmers. Therefore, competition against the public sector has a positive and significant impact on agricultural loan.

4.3.5 Backed collateral (bcl)

In banking industry, guaranteed or valuable collateral is the major requirement to give a loan. In another term, lack of collateral implies that some individuals will be deprived of credit and those who have the collateral will obtain the loan. Ethiopian banks are generally required collateral valued at a minimum of 100 percent of the value of the loan plus interest, which is unreachable for most farmers (USAID, 2012). Farmers cannot use the farmland to lease as collateral because it is belongs to the government and banks do not accept crops or other farm stock as collateral since it is not insured.There is a lack of fully developed insurance market that able to reduce uncertainties in the sector(OSAKI, 2005). Sometimes donors interfere and order the banks to give credit to agriculture. For instance, In 2012 USAID provided 50 percent credit guarantee to four Ethiopian private banks for the loan they give to farmers. But in this paper, lack of backed collateral (measured by Log of total net fixed asset) is statistically significant and positively correlated factor of agricultural loan. Therefore, lack of backed collateral is also one of the major reasons why agriculture sector is neglected.

4.3.6 Credit utilization capability of the borrowers (cucbr)

There is a need to increase access of farmers to credit facilities as they are most likely to utilize the fund for the purpose that it increases agricultural production (Okwoche.et.al, 2012). The credit utilization capacity of the borrower is feasible if the borrowers have used the credit for the purpose they had borrowed and able to repay loan as per the contract. To measure the impact of credit utilizing capacity, it is considered as dummy variable (1=if affect and 0=if not affect). The regressions result finally has shown moderately significant after running "robust regression." But, in normal regression it is a significant factor at 10% confidence level. From the interview result, in evaluating a credit utilizing capacity of the borrowers in the current year is one of the most important criteria that increase or reduce agricultural loan from private banks in the next period. Therefore, the impact of credit utilizing capacity of the borrower is somewhat a considerable factor in lending for borrowers in agriculture sectors.

5. Conclusion and Policy Implications

Agriculture which provides job opportunities for more than 85% of the population is the mainstay of the Ethiopian economy. Thus, the government has considered it as a priority sector and long-term economic policy to sustain the double-digit economic growth of the nation. However, in credit distribution of private banks to each economic sector, agriculture is the least considered economic sector in private banks loan portfolio. The trends of agricultural loan from sampled private banks also have shown a decreasing tendency from year to year. Therefore, as compared to other sectors of the economy, agriculture is neglected near private banks.

Fear of liquidity problem, existence of undiversifiable risks in the sector, borrowers' lack of insured collateral, borrowers' hesitation regarding their repayment ability of the loan, lack of large and mechanized farms that attracts private banks and underdeveloped of insurance industry in the sectorand operating under the directives of National Bank are the main reasons why private bank neglected agriculture in Ethiopia. The econometric regression analysis result also revealed, the objective to be large (size of the bank), capital performance, profitability of the bank, competition with the public owned banks and lack of backed collateral are the significant factors for the reason why private banks in Ethiopia neglected the agriculture.

The findings of this study will offer several insights and policy implications. Accordingly, the insights of this study have two chambers. The first chamber is for private banks. Since agriculture is the largest sector and the other sectors or subsectors are also highly dependent of this sector, private banks that serve other sectors do not become as such profitable unless agriculture is become productive. Thus, designing the strategy that improve their profit and strengthen capital-for instance like SCOPEinsights in Cooperative Bank of Oromia, employing agricultural risk analyst, developing cooperation with national and international agricultural development supportive agencies is more suggested.Even when there is no supportive agency, it is advisable to avail loan to the sector and apply a takeover system, for example, in floriculture and poultry production. However, the takeover system should consider the legal right of the businessmen and employees in the business. Keeping the other indicators of creditworthiness, it is also desirable if the private bank's credit manager and credit analysts will consider the ecological characteristics around the borrowers than neglecting the sector as a whole. Because neglecting agriculture borrowers mean neglecting the largest part of the population (demand). The second chamber is for the government or its' agents. In Ethiopia, Crop and whether index insurance is also one of the major factors that contributes for the reason why private banks neglect the agriculture. Therefore, it is advisable if the government should encourage insurance companies to extend their insurance product or service to agriculture. Finally, it is also advisable if National Bank of Ethiopia put a minimum percent of loan to agriculture in its directives.

References

Abe, S.T (1982). *Nigerian farmers and their finance problems*. Retrieved from http://www.krepublishers.com/02-/Abst/.pdf

Abedullah, N. *et al (*2009). *The role of agriculture credit in the growth of livestock section in* Pakistan. Retrieved from http://www.pvj.com.pk/pdf-files/29_2/81-84.pdf

Access capital (2012).'Investing in Ethiopia'*: Ethiopia Macroeconomic Handbook 2011/12*. Retrieved from http://www.accesscapitalsc.com/components/access%20capital%20review/2012%.pdf

Ahmad, M. (2007).*The effect of AKRSP's micro-credit programme on agriculture and enterprise development.in Astore district, Northern area.* Retrieved from http://prr.hec.gov.pk/Thesis/946S.pdf

Alemayehu Yirsaw (2008). *The performance of Micro Finance Institutions in Ethiopia:* A case of six microfinance institutions. Addis Ababa University, Ethiopia.

Asian Development Bank (2003). *India: Rural Finance Sector Restructuring and Development.*Retrieved from http://www2.adb.org/-IND/exec-sum.pdf

Atakilt Admasu and Issac Paul (2010).*The mechanisms and challenges of small scale Agricultural credit from commercial banks in Ethiopia in Ada'a Liben Woreda,*Ethiopia.Retrieved from http://www.jsd-africa.com/Jsda/V12No3_/PDF

Athansasoglou, P., Brissimis, S. & Delis, M. (2006). 'Bank-Specific, Industry-Specific and Macroeconomic Determinants of Bank Profitability'. *Journal of International Financial Markets, Institutions and Money.* Retrieved from: http://ssrn.com/abstract=1106825.

Belayneh, H. (2011). 'Determinants of commercial banks profitability': *an empirical study on Ethiopian commercial banks.* Addis Ababa University, Ethiopia

Berger, A.N. and G.F. Udell (1998), "The economics of Small Business Finance: *The Roles of Private Equity and Debt Markets in the Financial Growth Cycle", Journal of Banking and Finance*, 22: 613-673.

Besley T. (1994). *How do market failures justify interventions in rural financial markets?* World Bank Research Observer 9: 27–47. Retrieved from http://www.princeton.edu/rpds/ Interventions-in/Rural/Credit/Markets.pdf

Bikker, J.A., & Hu, H. (2002). *Cyclical patterns in profits, provisioning and lending of banks and procyclicality*

*of the new Basel capital requirements.*BNL Quarterly Review 221, 143-175.

Bolton P. and Freixas X. (2001).*Corporate Finance and the Monetary Transmission Mechanism.*CEPR, Discussion Paper Series, No. 2982.

Bonaccorsi di Patti and Gobbi, Giorgi (2001). 'The Effects of Bank Consolidation'*: Market entry on small business lending. Retrieved from* http://www.clevelandfed.org/research/conferences/2001/concentration/.pdf

Buchenau, J. (2003). 'Innovative products and adaptations for rural finance': *Paving the Way Forward for Rural Finance.* Washington DC, USA. Retrieved from http://www.basis.wisc.edu/rfc/literature.html

Campaigne and Rausch (2010).*Innovations in Rural and Agriculture Finance.*Retrieved from http://www.ifpri.org/sites/default/files/publications/focus18_14.pdf

Ciaian P., Pokrivcak J. (2011). *Do Agricultural Subsidies Crowd Out or Stimulate Rural Credit Institutions?*Working Paper No. 4. Centre for European Policy Studies, Brussels

Corpuz, J.M. and N.W.S. Kraft (2005).'Policy Options in Agricultural and Rural Finance'; *Asia-Pacific Rural and Agricultural Credit Association, Manila (Philippines).*

Demirgüç-Kunt, Asli and Harry Huizinga (2010). Bank activity and funding strategies: *The impact on risk and returns. Journal of Financial Economics 98, 626-650.*

DeYoung, Robert, Goldberg, and White, Lawrence J., (1999). *Youth, Adolescence, and Maturity of Banks. Credit Availability to Small Business in an Era of Banking Consolidation.* Retrieved from http://ideas.repec.org/p/bdi/wptemi/td_481_03.html

Dinç, Serdar I., (2000). 'Bank Reputation, Bank Commitment, and Effects of Competition in Credit Markets'. *Review of Financial Studies.* Retrieved from http://ideas.repec.org/a/oup/rfinst/v13y2000i3p781-812.html

Ebisa Deribie (2012). 'The Effects of Post 1991 Era financial sector deregulations in Ethiopia': *An Inspirational guide for agribusiness.* Jimma University, Ethiopia.

Elbadawi (2001).*Financial Development and Agricultural Investment in Nigeria.*Retrieved fromhttp://www.wami-imao.org/ecomac/pdf

Flamini, V., McDonald, C. & Schumacher, L. (2009). *The Determinants of Commercial Bank Profitability in Sub-Saharan Africa* IMF Working Papers. Retrieved from: www.imf.org/external/pubs/ft/wp/2009/wp0915.pdf.

Friedman B. (1991), "Comment on 'The Credit Crunch'" by Bernanke B.S. and C.S. Lown, *Brooking Papers on Economic Activity, No. 2, pp. 240-7.*

FAO (2004). 'Agricultural Production Lending': *A Toolkit for Loan Officers and Loan Portfolio Managers.* Retrieved from http://www.ruralfinance.org/ FAO_ Agr 1.pdf

Getahun Nana (2008).*Policy initiatives for improved financial service provision in Ethiopia.* Retrieved from http://www.google.com.et/url?sa.afraca.org

Gilbert, R. Alton, and Michail T. Belongia (1988).*The effect of Affiliation with Large Bank Holding Companies on Commercial Bank Lending to Agriculture.*Retrieved from http://ageconsearch.umn.edu/bitstream/15363/1/31020215.pdf

Hoff, K. and J.E. Stiglitz (1990). 'Imperfect Information and Rural Credit Markets –Puzzles and Policy Perspectives': *TheWorld Bank Econ Rev 4(3).*Available atdoi:10.1093/wber/4.3.235

Hutcheson, G. D. and Sofroniou, N. (1999).*The Multivariate Social Scientist.*London: Sage Publications

Ibrahim G, Kedir A and Sebastián Torres. (2007). *Household-level Credit Constraints in Urban Ethiopia:* working paper No.07/03. Nottingham Trent University, UK.

Jonson, Bruce F and John Cownie (1969).'The seed- fertilizer revolution and labor force absorption.'*American Economic Review LIX: 4 Pp569-582*

Kibret Haile (1998). 'Land Reform: *Revisiting the Public versus Private Ownership Controversy', Ethiopian Journal of Economics 7(2), p. 45–64*

Kishan, R. P. and T. P. Opiela (2000). 'Bank Size, Bank Capital and the Bank Lending Channel', *Journal of Money, Credit and Banking, Vol. 32, No. 1, pp. 121-4.*

Kiyota, Kozo, Barbara Peitsch, and Robert M. Stern,(2007). *The Case for Financial Sector Liberalization in Ethiopia.* Retrieved from http://www.fordschool.umich.edu/rsie/

Kohli, R. (1997). **'**Directed Credit and Financial Reforms. *Economic and Political weekly, XXXII (42):2267-2276.* Retrieved from http://www.epw.in/special-articles/directed-credit-and-financial-reform.html

Kosmidou, K. (2008). 'The determinants of banks' profits in Greece during the period of EU Financial integration.'*Journal of Managerial Finance, 34* (3). Retrieved from http://www.emeraldinsight.com

Lakew L (2000). 'Financial Sector Development in Ethiopia': *Problems and Challenges,National Bank of Ethiopia.Birritu Magazine No.87.* Add is Ababa, Ethiopia.

Levine et.al.(2012). *Livelihoods in protracted crises – FAO.*Retrieved from http://www.typo3.fao.org/fileadmin/Livelihoods-Protractedcrises-Levine.pdf

Levine R. and Demirguc-Kunt, A., (2004). 'Financial Structure and Economic Growth': *Across country comparison of banks, markets and development.* Cambridge, USA.

Levonian Mark E., (1996). *Explaining Differences in Farm Lending among Banks in USA*. Retrieved from http://www.frbsf.org/econrsrch/econrev/96-3/levonian.pdf

Marquez, Robert (2002). Competition, Adverse Selection, and Information Dispersion in the Banking Industry. *The Review of Financial Studies, forthcoming*. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1107562

Md. Al-Mamun, Farida Yasmeen, Fahmi Mehjabeen (2012). *A Logit Analysis of Loan Decision in Bangladeshi Banks*.IJAR-BAE 1(4): p. 19 - 28.

Mishkin, F. S. (2007). "*The Economics of Money and Financial Markets*" Pearson/Wesley.

MoFED (2006). 'National Accounting Statistics of Ethiopia': *The 1998 Ethiopian Fiscal Year (EFY) Update Estimates and Forecasts of the 1999 EFY, 1992 EFY.* Ministry of Finance and Economic Development, Addis Ababa.

Nam, S., Ellinger P. N., and Katchova A.L. (2007). *The changing structure of commercial Banks lending to agriculture*.Retrieved from http://ageconsearch.umn.edu/bitstream/9913/1/sp07na03.pdf

Nikolaou K (2009). Funding Liquidity Risk: *Definition and Measurement. ECB Working Paper*, Series no. 1024.

Okwoche A., Asogwa Ch., and Obinne Ch., P., (2012). *Evaluation of Agricultural Credit Utilization by Cooperative Farmers in Benue State of Nigeria*.Retrieved from http://www.eurojournals.com/EJEFAS.htm

Petrick, M., (2004).*A micro-econometric analysis of credit rationing in the Polish farm sector.European Review Agricultural Economics volume 31 (1): 77-101.* Available at *doi: 10.1093/erae/31.1.77*

Podder B., (2012). *Determinants of profitability of private commercial banks in Bangladesh*: an empirical study. Retrieved from http://www.pmbf.ait.ac.th/www/images/pmbfdoc/research/report_bhaskarpodder.pdf

Rosegrant et.al, (2007).*Sustainable agricultural development in sub-Saharan Africa*. Retrieved from http://onlinelibrary.wiley.com/doi/10.1111/j.1475-2743.2007.00137.x/full

Sacerdoti, E. (2005). Access to Bank Credit in Sub-Saharan Africa: *Key Issues and Reform Strategies." IMF Working Paper, WP/05/166*

Stiglitz, J.E. and A. Weiss (1981).*"Credit Rationing in Markets with Imperfect Information" American Economic Review,71(3)*.Retrieved from http://www.jstor.org

Shipho Mambo (2011**).** *Effects of banking sectoral factors on the profitability of Commercial Banks in Kenya.* Retrieved fromhttp://wwww.businessjournalz.org/efr

Tadesse k.,(2003). *Private investment in commercial agriculture in Ethiopia: Opportunities and Constraints.* Retrieved from http://www.edri eth.org/pdf

Trivelli and Vénéro (2007).*Recent advances in agricultural finance: supply and strategies*. Retrieved from http://www.cerise-microfinance.org/IMG/pdf/ENG_RFM-FARM-pleniere1-07-11-231-1.pdf

Van den Heuvel S.J. (2003), "*Does Bank Capital Matter for Monetary Transmission?"* FRBNY Economic Policy Reviews, forthcoming. Retrieved from http://www.bis.org/bcbs/events/wkshop0303/p06gambmis.pdf

Vento A., G. and Ganga L., P., (2009). Bank Liquidity Risk Management and Supervision*: Lessons from Recent Market Turmoil?* Retrieved from http://www.eurojournals.com/jmib_10_06.pdf

Viganò L., (1993). A Credit Scoring Model for Development Banks*: An African Case Study in Savings and Development.* Retrieved from http://www.microfinance.com/English/Papers/Gambia_RoSCA_ASCRA.pdf

Von Pischke, J.D. (1991). The evolution of institutional Issues in rural finance: *outreach, risk and sustainability:Broadening Access and Strengthening Input market Systems in rural area.* Washington DC, USA.

Wolday A., and David P., (2010).*Agricultural finance potential in Ethiopia.*Constraints and opportunities for enhancing the system. Addis Ababa. Retrieved from http://www.eap.gov.et/?q=taxonomy/term/56.

Wondaferahu M (2010). *The Structure and Development of Ethiopia's Financial Sector.*Andhra University.

World Bank (2004). 'Investments in Rural Finance for Agriculture':*Agriculture Investment.*World Bank, Washington DC, USA.

World Bank, (2008)*Agricultural investment Funds for Developing countries-FAO*. Retrieved from http://www.fao.org/fileadmin/user.upload/ags/publications/investment_funds.pdf

www.iiste.org

ANNEXES:

Table.1: Analysis of private bank loan distribution to economic sectors

Economic sectors	Name of the selected private banks and their loan share (in percentage)									
	AIB	BA	CBO	DB	LIB	NIB	OIB	UB	WB	ZB
Agriculture	3.64	0.23	5.04	2.75	3.54	4.90	1.83	0	1.34	0.56
Construction	21	15.98	1.19	10.02	8.32	21.51	5.1	15.80	10.88	12.23
Manufacturing	7.5	13.58	3.02	25.72	3	24.56	31.44	18.84	26.25	14.65
Export	21.98	13.55	4.02	8.28	7.7	15.1	12.13	17.17	18.95	34.16
Import	14.42	13.35	0.063	10.11	37.45	13.14	3.73	24.20	34.75	15.92
Transport	7.2	3.97	0	7.33	0.39	3.05	5.54	5.98	1.48	6.27
Trade & svc ¥	24.48	39.35	86,67	39.60	17.74	40.23	18.01	6.36	16.20	40.23
¥ - is to indicate domestic trade and service										

Source: Computed by researcher from the private banks annual report of 2009 to 2012/13

Table.2: Trends of agricultural loan share in sampled private banks loan portfolio

	Years				
Name of banks	2009	2010	2011	2012	Total
AIB	0.158391	0.041172979	0.030256692	0.024757111	**0.158391**
BA	0.010038	0.001883823	0.001771465	0.001115472	**0.010038**
CBO	0.231662	0.057945687	0.061535881	0.022828689	**0.231662**
DB	0.114335	0.031589202	0.023567918	0.023604713	**0.114335**
LIB	**	0.036297625	0.032472772	0.035371263	**0.104142**
NIB	0.206198	0.062361226	0.046318459	0.031700932	**0.206198**
OIB	0.084761	0.05365688	0.017467604	0.01114607	**0.084761**
UB	0	0	0	0	**0**
WB	0.06397	0.017002477	0.008488316	0.005061727	**0.06397**
ZB	0.019664	0.009235507	0.004638932	0.005789525	**0.019664**
Total	**0.993161**	**0.311145**	**0.226518**	**0.161376**	**0.993161**
** *shows, the researcher has not obtained the 2009 LIB data to compute it*					

Source: researcher's computation from the private annual report of 2009 to 2012/13

Table.3: Correlation Matrix of Study Variables

```
        |    agln    lob    sob    cpb    pob   cmpbb  rgdpg
------------+-------------------------------------------------------------
     agln |  1.0000
      lob |  0.0527  1.0000
      sob | -0.0716 -0.2109  1.0000
      cpb |  0.1290 -0.2922  0.7291  1.0000
      pob | -0.0177 -0.2274  0.6299  0.8530  1.0000
    cmpbb |  0.0460  0.1459 -0.8281 -0.5380 -0.3482  1.0000
    rgdpg |  0.0651 -0.3102  0.0062  0.2283  0.2246 -0.0746  1.0000
   logcoll|  0.0746 -0.2871  0.5880  0.2991  0.1316 -0.4928 -0.0751
     cucb |  0.2139 -0.0232  0.2227  0.2381  0.1618 -0.2690  0.1942
   ecostra|  0.0752 -0.1710  0.0063  0.1258  0.1033 -0.1034  0.2476


        |  logcoll   cucb  ecostra
------------+-------------------------------------------------------------
   logcoll |  1.0000
      cucb |  0.0691  1.0000
   ecostra |  0.1249  0.4228  1.0000
```

Source: STATA result for the study variables, 2014

Table.4: The OLS Regression analysis of private banks' loan to agriculture sector

agln	Coef.	Robust Std. Err.	t	P>|t|
lob	.0109139	.0384415	0.28	0.778
♣ sob	-.020188	.0112881	-1.79	0.084**
cpb	.1187615	.0523555	2.27	0.031*
pob	1.121173	.4449914	2.52	0.017*
cmpbb	.5052622	.2330209	2.17	0.038*
rgdpg	-.0001835	.0022835	-0.08	0.936
♣♣ logcoll	.020112	.0101531	1.98	0.057**
cucb	.0179167	.0131749	1.36	0.184
ecostra	-.0108792	.0180705	-0.60	0.552
_cons	.7785413	.418362	1.86	0.073

* p<0.05;   ** p<0.1;   *** p<0.01

No. of observations = 40F(9,   30) =   1.58

Prob > F   = 0.1668R-squared   = 0.2580

♣ indicates the variable is not measured in percentages but at its natural logarithm

♣♣ indicates the variable is not measured in percentages but at its logarithm value

Source: STATA regression results based on annual reports of sampled banks, 2014

The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage:
http://www.iiste.org

CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

Prospective authors of journals can find the submission instruction on the following page: http://www.iiste.org/journals/ All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: http://www.iiste.org/book/

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digtial Library , NewJour, Google Scholar