ACCESS TO RURAL CREDIT IN VIETNAM

A Case Study of Tan Linh Commune, Ba Vi District, Ha Tay Province[1]

Abstract

Demand for rural credit from formal institutions of developing countries remains unsatisfied due to limited access to credit. Using data from Tan Linh commune in Vietnam, this study investigates the factors affecting the access to credit for rural households in Vietnam. It further examines the demand for credit and the factors affecting the borrowing level of rural households, the lending behavior of the formal lender in rationing credit and the impact of credit on rural household production. The results show that a large demand for formal financial institutions are limited in their outreach and provide limited credit access to households in rural areas. Factors like dependency ratio, sick family members, farm-owned land, and ownership of Land Use Certificates (LUCs) are factors that influence credit rationing decisions of the financial institutions like Vietnam Bank for Agriculture and Rural Development (VBARD).

Key words: credit rationing, credit demand, credit access.

JEL classification numbers: Q14, Q12, R20

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[1]Since August 1st, 2008, Hatay province was merged into Greater Hanoi. The name Hatay, therefore, is no longer an official administrative designation. In this study, however, we still keep the title unchanged as the study was conducted long before August 1st.

1. Introduction

Demand for rural credit in developing countries amidst poverty and low accumulation capacity, remains large. The seasonality of agricultural expenditures and revenues imply that the household not only has to satisfy an annual cash income constraint, but also to balance its budget during the lean season when consumption and input expenditures are high and revenue is limited (Sadoulet and de Janvry, 1995). According to the International Fund for Agriculture Development (IFAD, 2004), over one billion people world-wide still lack access to basic financial services, depriving them of the means to improve their income, secure their existence, and cope with emergencies.

In Vietnam, 80 percent of the population lives in rural areas and derives its main income from the agriculture sector. Twenty years of economic reforms have had a remarkable success. Reforms in agriculture and rural areas have contributed to a rapid increase in agricultural output. With these emerging opportunities for expanding production, farm households have shown an extraordinary demand for funds to finance their production (Duong and Izumida, 2002). However, despite the efforts of the Vietnamese government in developing financial systems, only 27 percent of the total loans are obtained from institutional credit services[2].

In order to understand this, we investigate the factors influencing the access to credit for rural households in Vietnam. We further examine the implications that these might have for the development of the formal credit system. The paper specifically aims to determine the factors that affect the demand for rural credit, the rationing of credit, and the influence of credit on rural household production.

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[2] Source: Vietnamese Living Standard Survey (LVSS), 1993.

The analysis is based on the household survey data from 11 villages of Tan Linh Commune of Ba Vi district in Ha Tay province of Vietnam. The empirical evidence shows that strong demand for credit exists to cover expenditures regarding both consumption and business. Up to 64 percent of the total survey households were found to be credit rationed reflecting credit status and this has a particular effect on livestock production.

The following section offers a discussion on characteristics of the rural credit market in Vietnam. Section 3 describes concisely the study site and the methods of data collection. Participation of rural households in the credit market is examined in section 4 which also investigates the evidence on the demand for credit, diversity in purpose for access to credit, access to credit from financial institutions and borrower characteristics. Section 5 takes an in-depth look at the formal lending behavior and investigates evidence on credit rationing and the factors leading to it. The credit constrained households and livestock production is discussed in section 6. The final section draws policy implications and presents the conclusions.

2. Rural Credit Market in Vietnam

The lack of rural agriculture credit reflects imperfections of the rural credit markets in developing countries.[3] These include the high costs of setting up banking operations in rural areas, the difficulty and cost of securing adequate information on potential borrowers, the risk of default on loans and the absence of collateral to put up against loans (Ellis, 2000). Many studies show that there exists a low population density and significant heterogeneity of rural areas in terms of equity of resource distribution, resource endowments, production, and

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[3] Although in general the governments of these countries have a numerous policies to increase households' access to credit many households remain credit constrained. The formal banking sector does not meet the growing demand for credit and many households have to look for informal loan sources to expand production and cover consumption expenditures at critical time.

consumption (Adhikari, 2005; Barret *et al.*, 2000; Bardhan and Dayton-Johnson, 2000; Hackett, 1992), which make the provision of formal financial services costly. Information asymmetry further results in the rationing of credit demand for lenders (Stiglitz and Weiss, 1981).

The rural credit market in Vietnam is quite segmented (Duong and Izumida, 2002). The formal sector specializes in lending for production purposes whereas the informal sector's lending is diverse. According to the Vietnamese Living Standard Survey (1993) about 73 percent of the total loans were obtained from informal sources (Dat, 2001). Barslund and Tarp (2007) further show that credit rationing exists for institutional credit and rural households continue to rely on informal networks.

The formal sector is led by the Vietnam Bank for Agriculture and Rural Development (VBARD), which provides over 75 percent of the total formal credit to rural households. Vietnam Bank for the Social Policies (VBSP), People's Credit Funds (PCFs) and commercial banks are other institutional sources of credit. The VBARD branch network extends to the district and reaches the commune level in highly populated areas. At the end of 1995, VBARD started a program of poverty-oriented lending, drawing from the government's Preferential Credit Fund[4]. By 1995 end, the fund was transferred to Vietnam Bank for the Poor (VBP). However, VBARD still continues lending to poor households. In 2000, roughly four million households accounting for 30 to 40 percent of rural households accessed VBARD loans (of which 20 percent are poor households). VBARD continues to be the

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[4] Preferential Credit Fund was established in 1995 by the Decision 17/QĐ –NH14. Via the State Bank, the Government invested a large capital into preferential lending program to poor households. The governor of the State Bank distributed this amount of capital to provinces and entrusted VBARD with implementation and management of the Fund.

largest provider of financial services to rural areas and the second largest provider to the poor households (Hung, 2005).

The purpose of loans for rural households provided by the bank is mainly agricultural production.

It has a nationwide network down to the village level and has the full support of rural organizations. This is crucial when VBARD lends to a group. The Women's Unions, the Farmers' Association and other mass organizations within the villages are involved in organizing groups that are later approved by the local authorities. This procedure relieves the lender from investigating the creditworthiness of the borrowers. In group loans, individual borrowers do not have to provide collateral for their loans. However, these groups suffer from a significant weakness that they are joint borrowing group (JBG) but not a joint liability group (JLB). The group leader just provides information relating to group's members, collects loan applications, and convinces the members to repay their loans. Whereas, the credit officers disperse the loans and collect repayments directly from each "group" member. Most of the lending through JBG provides loans of the same size and duration, to all "group" members whose credit demands as well as borrowing purposes are very different.

VBARD can provide a loan of up to 10 million VND without collateral. For loans larger than 10 million VND, households have to offer collateral. Land use certificates (LUCs) are the only collateral available to households in rural area which the banks will hold until the loan is repaid. However, in Vietnam currently only 60 percent of total rural households have LUCs (Hung, 2005). Besides, there are few cases where land has been liquidated in the event of a farmer's default (Duong and Izumida, 2002).

Vietnam Bank for the Social Policies (VBSP) is the second largest institution providing loans to rural areas. Established in 2003, it operates as a non-profit organization to provide loans to

poor households and promote poverty alleviation programme. By the end of the year 2003, 2.8 million of poor household had accessed VBSP with total loans value approximating 10,349 billion VND (Hung, 2005). The average loan size is 3 million VND with maximum loan duration of 36 months. Moreover, VBSP also provides micro-credit to support job creation and poor students. VBSP is limited in its capacity to mobilize deposits due to low lending interest rate of 0.5 percent per month. The operational capital of the bank mainly depends on the State's budget. People's Credit Funds (PCFs) and commercial banks involved in rural lending such as Rural Shareholding Banks (RSBs) are other institutional sources of credit. These have limited outreach as the PCF network currently provides 5 percent of the outstanding rural credit in the formal financial sector covering only 6 percent of the rural households.

The non-institutional credit, which is the dominating sector in rural Vietnam, consists of moneylenders, relatives, friends and Rotating Savings and Credit Associations (ROSCAS). According to VLSS (1993), the informal sector represents as much as 73 percent of the total loans. Moneylenders account for about 33 percent of the total loans whereas friends and relatives account for 40 percent of the total loans (Dat, 2001). Private moneylenders charge very high interest rates (ranging from three percent to 10 percent a month) that are much higher than those charged by formal financial institutions (Hung, 2005). Most informal financial operations provide short-term credit for emergency situations and indispensable demands of rural households that are not met by the formal sector.

3. Data

Surveyed data were undertaken in 11 villages of Tan Linh Commune of Ba Vi district in Ha Tay province of Vietnam. Tan Linh commune is representative of the agricultural production patterns as other provinces in the Red River Delta about 60 km on the West of Hanoi, and has

a mountainous and plain terrain.Agriculture plays a vital role in the local economy with 87 percent of the households depending on it for their livelihood. In 2001, the production value of agriculture makes up 70 percent of the total local GDP. Most farmers grow rice for household consumption. Beside growing rice, local farmers also cultured other crops such as maize, sweet potatoes, cassava, peanut, soybean, and vegetables. In addition, raising cattle, pigs and poultry is common livestock production but it is small scale. However, livestock accounts for 80 percent of the agricultural output.

The household survey, group discussion, key informant interviews were used to collect primary data on various socio-economic factors including information on land, water resource, production patterns, human resource (labour, age, education, etc.), credit and agricultural output etc. Information about credit is the main component including credit demand, sources and use of loans, disadvantages in getting the loans from the formal sector and level of borrowing compared to demand. Besides, other secondary data sources provided by the People's Committee of the commune and the banks support the primary data.

The household survey data collects information on about a hundred households[5]. These were selected randomly from a list of 2,218 households provided by the Commune People's Committee. The village heads were then instructed to classify these randomly selected households using the criterion described in Table 1, into groups of better-off, medium or poor households. The criteria used for classifying the households (Table 1) was constructed on the basis of a group discussion[6]. According to this classification, 19 better-off, 54 medium and 27 poor households were selected. The purpose of this household classification is to estimate

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[5] The sample was randomly selected, and a total of 100 households is rather small. Due to limited budget and time we were restricted to this sample size. However, we have tried to support this data with information from focus group discussions, key informant interview and other secondary data.
[6] The discussion was organized as follows: the author asked all village heads to define what 'wealth' is in the community and with respect to this definition, how many different types of households existed within in the community. This question was debated among village heads to specify distinctive characteristics of each group

'reputation' variable of each household that can be considered as a proxy for household's economic position and relationship with the community. Reputation is defined as 1 if household is poor, as 2 if household is medium and as 3 if household is better-off. Social status only reflects the position of the household head in the society. It is defined as 1, if household head hold a post (for example, leaders of the villages, or head of the social unions like the Women's Union, the Farmers' Association, etc.), as 0 if not.

There are few large commercial livestock production units. On average, each agricultural household keeps 1.16 head of cattle mainly for reproduction and draught which can be sold when farmers need cash. Compared with other livestock, the cattle are considered a more valuable household asset and they can easily be 'converted' to cash in case of emergency.

Among sample households, about 58 percent borrowed from formal sector, 79 percent borrowed from informal sector and 46 percent borrowed from both sectors. Most surveyed households reported no savings in the formal sector. Whereas, only 10 households reported small savings by way of lending to their friends or relatives (on zero interest). This is not surprising as VBARD's performance report (2005) shows that in the seven mountainous communes including Tan Linh only 6% of the total 15 thousand households have deposits in VBARD.

4. Participation of Rural Households in the Credit Market

4.1 Demand for credit

The household survey shows a strong demand (93 percent) for credit in Tan Linh. About 69 percent of these households were rationed as they did not obtain the amount of credit that they demanded. The farmers reported that[7] they need capital for investment to expand their

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[7] Source: farmer group discussion

production further. Initially, they rely on available funds within the households like savings and agricultural products that can be easily liquidated. However, to finance their production on a larger scale they need to borrow from outside. Moreover, during lean harvest, health and other shocks they had to borrow for consumption purposes.

The average amount of total credit demanded is 17.4 million VND[8] and is calculated as the total amount of credit that was demanded and was applied to the credit sources (11.1 million VND, about 63 percent of the total) and the credit that was demanded but not applied (6.3 million, 37 percent). It is worth noting that there was a sharp difference in the credit demand between three groups of household (Figure 1). On average, better-off households wanted 21.7 million VND for both consumption and production. These households did not hesitate to apply for loans that were close to their loan demand amount. In contrast, the average amount of credit demand of a poor household was the lowest at 12.8 million VND. It is interesting to note that the poor households self rationed themselves to more than 50 percent. This indicates that poor households anticipated refusal to their loan applications to the formal sector.

4.2 Diversity in purpose for credit demand

Households borrow for both consumption and production purposes. Of the total 180 loans, 57 percent are for production purposes and 43 percent for consumption purpose. Of the total loans demanded for the farm and business purposes, 82 percent are for raising livestock. Medium households with 52.4 percent have the highest number of loans demanded for raising livestock (Table 2).

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[8] Credit demand was calculated as the amount of loans applied by household from all credit sources plus the amount of credit that has not been applied by households.

The consumption loans are mostly borrowed by poor and medium households for school, medical fees, weddings and funeral. Poor households predominantly borrow for buying food and paying urgent debts.

4.3 Access to credit from financial institutions

The survey households depend considerably on informal sources for their credit demand. About 58 percent of those households borrowed from the formal sector and 46 percent borrowed from both sectors (Figure 2). About 44 percent of the households borrowed from VBARD with an average borrowing amount of 7.6 million VND, which is much larger than those of VBSP and public funds borrowing (Table 3). Better off-households borrow much larger loans (13.5 million VND).

Better-off households have accumulated fixed capital in the form of production instruments and farming machinery. Beside the economic benefits, they have other advantages in terms of health, education, social relations and information access which make them more credit-worthy in the lenders' eyes. These potential advantages explain why they might obtain larger amount of credit from VBARD. However, this figure was much less than the amount of 21.7 million VND that they desired. Better-off households account for only 18 percent of the total households borrowing from VBARD. Medium households are the dominant borrowers (61.4 percent) from VBARD with an average loan size at a modest 6.6 million VND, although they have a much higher demand for credit (17.7 million VND). This implies that to fulfill their credit demand households have to borrow from other financial sources. Poor households on average borrowed only 5.5 million VND from VBARD.

Other formal lenders are marginal, with VBSP and public funds providing loans to only 10 percent and 15 percent of the survey households respectively. Although the VBSP loans are supposed to target the poor households, the household survey results indicate that up to 70

percent of the households that get loans from VBSP are medium and better-off households. Similarly, only 20 percent of the households that got loans from public funds and projects are poor.

Medium and poor households are the main borrowers from the informal credit sources. Data in Table 3 show that medium households account for 38.7 percent of all the households who borrow from their relatives, 61.7 percent of those who borrow from neighbours and friends and 43.3 percent of those borrowing from moneylenders. Thus, there are sharp differences in access to credit among the three kinds of households. Better-off households have the largest formal loan size, medium households are the most active in the market while poor households have the most limited access to credit in formal sector as well as informal sector.

4.4 Borrowers characteristics

Data in Table 4 examines the evidence on the borrowers' characteristics by the amount of loan borrowed from the formal credit sources. The households that borrowed less than 3 million VND have the highest number of dependants, the highest number of the sick person, and the lowest total value of livestock production. Their indicators of reputation and social status are lowest which are in the sense that they are poor and do not hold position in the community. Such disadvantages could make them less confident in claiming their credit demand to formal lenders as well as being less credit-worthy in the appreciation of lenders.

It is also possible that these households may borrow mostly for consumption purposes. As discussed earlier, loans are seldom sanctioned by the banks for purposes other than production, except for some cases that are in line with specific directives from the government.

Evidence from Table 4 also implies that the number of dependents, sick members within the household may also hinder households' borrowing characteristics such as reputation, social status and scale of livestock production are the factors facilitating borrowing from formal lenders. Duncan test shows that only the indicators of reputation and total value of livestock has statistically significant differences at 5 percent among group 1, group 3 and group 5. The other indicators including the number of dependents and sick people and social status are statistically insignificant.

Similarly, examining the household characteristics of borrowers from the informal sector, we find that the dependency ratio, the total value of livestock and the number of sick person are the main characteristics that influence the amount of loans that households borrow from the informal sector.[9]

5. Formal Lender's Behaviour in Responding to Credit Demand of Local People

5.1. Credit rationing

A credit transaction takes place if the borrowers' have a positive demand for credit and apply to the bank for a loan and the bank takes the decision to give the loan. Two questions arise here: What are the factors that influence the decision of the bank in rationing credit? And how do these same factors affect the households in applying to VBARD for credit?

VBARD and VBSP are the two main formal institutions in Tan Linh commune. VBARD is the sole state-owned commercial bank in Tan Linh commune and has a primary mandate to provide financial services to the rural sector. On the contrary VBSB lends subsidized credit to

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[9] Duncan test shows that the difference of the total value of livestock between group 2 and the other groups is statistically significant at 10 percent. The differences of number of sick persons and dependency ratio among groups are statistically insignificant.

poor households, who are defined and determined under strict criteria regulated by the government. Formal sources including VBSP, credit projects of NGO and funds such as those raised by the Women's Union and Farmers' Association do not appear to be that important in Tan Linh commune. Thus these latter institutions are not to be considered in the credit rationing analysis.

The lending interest rates of VBARD to the rural sector are basically determined by the same level as those of other commercial banks. Even though 73 percent of the total survey households said that had a positive demand for credit from VBARD; however, only 66 of them had actually applied to VBARD for loans while the others were afraid of being turned down. Of the households that applied for credit from VBARD, only 46 percent obtained the credit amount they applied for and the remaining received less than what they had applied. Eight percent were turned down by VBARD. So, credit rationing by VBARD is a problem that exists in Tan Linh commune. As the vice director of VBARD's local branch explains, due to a limited bank staff, one bank officer has to undertake all the work, such as, receiving applications, assessing household economic status, lending approved loans, collecting debts and monitoring loans of borrowers in the whole commune.

This makes it difficult to determine whether a client is credit-worthy or not especially since collecting further accurate information about the client is costly. Hence, for household's that showed signs of high risk in being able to repay loan, VBARD staff often refused to lend to them or lent them less than what they had asked for What are the factors that contribute to the households credit-rationing by VBARD?

5.2. Factors leading to credit rationing by VBARD

In order to explore the factors affecting credit rationing, we examine the following four groups. Group 1 includes households that were granted loans that equal the credit amount that

they demanded. Group 2 consists of those households that got the loans that were smaller than what they had applied for. Households that did not apply to VBARD though they had a positive demand for credit from VBARD, make group 3. Group 4 contains households with no demand for credit from VBARD.

As results, credit rationed households demanded twice as much credit from VBARD as compared to the non-rationed households (Table 5). In addition, the total value of livestock of rationed households was much bigger than that of non-rationed households. As mentioned earlier, raising livestock is the key source of income for local farmers. This implies that rationed households demanded credit from VBARD to expand their livestock production to a larger scale.

The total value of livestock reflects the ability of a household to repay the loan as it can be liquidated easily for loan repayment. Therefore, the higher the value of livestock, the greater is the chance of repayment of the loan. However, this indicator is never sufficient for the lenders to make their decision on whether to lend. This becomes clearer when comparisons are made between group 1 and group 2. Even though households in group 2 have higher total value of livestock, they are rationed by the bank. Similar pattern is observed when it comes to the indicators of reputation and total assets value. This is consistent with the in-depth interview of the bank officer who stated that the total assets value and scale of production is not enough to guarantee the safety of a loan. The decision to provide a loan is often based on the combination of a series of different observations to assess a client.

The dependency ratio of the credit rationed households is higher than that of non-rationed households. This poses the risk of using loan for purposes other than production and lack of labour to carry out an effective expansion of production. Higher dependency ratio partly explained their limitation in terms of savings and insurance compared with households in

group 1. Moreover, households belonging to group 2 have the highest number of seriously ill members which might lead to an unstable economic situation. The Duncan test shows that the difference of the number of sick person between rationed group and non-rationed group is statistically significant at 5 percent.

Another important reason for rationing is the amount of credit households applied for. Evidence shows that households applying for an average credit amount of 15.08 million VND are rationed by VBARD while households belonging to non-rationed group (group 1) on average applied for 7.8 million VND. This difference in the applied amounts between the two groups is statistically significant at 5 percent. Under the regulations issued by VBARD, loans that are more than 10 million VND, have to provide collateral. In Vietnam, the Land Use Certificate (LUC) is the main, if not the only asset which rural households can offer as collateral. However, the land markets are not completely developed because land use prices determined by the government in LUCs are lower than those in actual market transactions. According to the bank staff's experience it is very difficult to sell a debtor's land in case of a default because nobody in the community has the heart to buy the houses of a neighbour who is experiencing economic difficulties. Moreover, it is difficult to find buyers from other areas. There are very few cases when land is liquidated in the event of a default. Thus the use of LUC as collateral only serves as a kind of threat for rural borrowers to comply with credit contracts (Duong and Izumida, 2002). According to the commune's report, issuing LUCs to households is taking place rather slowly and with a lot of conflicts and lawsuits. As of December 2005, only 49 percent of the total 1932 agricultural households in the commune received LUCs. Obviously, these limitations on LUCs as realizable collateral lead to the credit rationing for the loan size over 10 millions.

Thus, households that demanded credit amounts of more than 10 million VND to expand their livestock production were rationed by VBARD. These households have production scales bigger than that of non-rationed households but they are disadvantaged in terms of the number of dependents, sick members and amount of farm-land owned. Therefore given the limitations of LUCs as collateral the VBARD responds to their rationing credit demand.

About 25 percent of total survey households have a positive demand for credit from VBARD but did not apply to the bank (Table 5). Indicators of reputation, total value of livestock, and assets show that these households are the poorest. They have the lowest farm size, livestock production, social status and value of LUCs. These households also have a high the number of dependents and sick members. Since these are the indicators that the bank staff uses to assess the potential risk of a client, the poor households fear that their application may be declined by the bank and hence do not apply for credit despite a wish to do. The Duncan test shows that apart from the number of dependents, the differences of all remaining indicators (including the number of labourers, the number of sick persons, social status, owned farming area, LUCs, total value of livestock, total assets and reputation) between credit group who had demand but did not apply and the rationed and non-rationed groups are statistically significant at five percent.

Moreover, results from the discussion with the farmer groups showed short-term loans from VBARD sharpen their problems. Currently, most of the loans are for animal husbandry, mainly reproductive cows, but the loan durations are less than the livestock life cycles. The average amount of 7 to 10 million VND that the bank lends them is only enough for buying one cow. The current loan duration is 12 months while it will take at least 18 months to have a mature calf, provided there is no shock. Short loan durations make farmers worry about their ability to repay the VBARD loans. Moreover, the annual reports of VBARD branch at the commune level also showed that VBARD has sharply reduced its medium-term loans

(decreased by 35 percent between 2003-05) and increased the proportion of short-term loans (by 15 percent between 2003-05).

6. Credit Constrained Households and Livestock Production

Livestock production is the main source of cash income for the survey households. Table 6 presents the indicators of credit-constrained households in relation to the value of livestock production. It is interesting to note that the total credit amount demanded and received increased substantially for households with higher livestock production. The application of the Duncan test shows that the differences of the demanded credit amount and the total actual credit received amount among groups is statistically significant at 5 percent.

Interviews with the credit-constrained farmer households revealed that limited access to loans hindered their production plans. For instance, one farmer mentioned that in early 2005 he applied for an amount of 16 million VND to VBARD with the intention of buying a good quality reproductive cow and raising two swine with the expectation that he would have a calf and around 48 breeding pigs in early 2006. Selling them in the market would bring him about 15 to 16 million VND – enough to repay the principal to the bank. However, the bank only lent him 8 million VND, which was just enough for him to buy a cow of mediocre quality. By the end of 2005, the cow was pregnant but the farmer had to borrow from the moneylender and sell all of his 50 chickens to repay the loan on schedule to VBARD. Subsequently, he was planning to sell the calf to repay the moneylender. This implied that being credit constraint pushed the farmer into a more difficult situation and hindered him from expanding his production scale.

7. Conclusions

Our study indicates that there exists a large demand for credit by local farmers in Vietnam. The results indicate that the poor households apply for loans that amount to only 50 percent of their total credit demand because they fear rejection. Borrowing purposes of local farmers are quite diverse while the formal sector is specialized in lending for production purposes, mainly livestock raising. The informal sector provides loans for both production and consumption purposes. Hence, borrowing from the informal sector becomes logical options for local farmers to cover other expenditure purposes. About, 46 percent of the borrowers take the loans from both sectors formal and informal. This is due to partial credit rationing by the formal lender which forces the local farmers to borrow from the informal sector to satisfy its remaining demand for credit. Other households that are completely credit rationed by the formal financial institutions have no choice except for borrowing from the informal sector to cover their expenditures at critical times.

Given a positive demand for credit, analysis shows that VBARD rations the size of loans. The result indicates that the majority of credit-rationed households are the poor and medium households who want to develop intensive livestock production. Our analysis illustrates that the number of dependents, sick members, the total value of livestock, and the applied amount of credit and social status of household are factors that influence the credit decision of the formal sector. These factors also discourage mainly the poor households from applying for credit to VBARD, even though they had a positive demand for credit. Thus, the poor are forced to borrow from informal sources. Evidence also shows that the short-term VBARD loans are incompatible with the loans borrowed for livestock purposes.

It is obvious that VBARD has been leading the local credit market and has apparently made considerable effort in providing credit to rural households. However, it suffers from some

limitations. For instance, it has limited staff resources appropriate medium and long-term loan products, and a scheme to liquidate collateral. Other formal organizations including VBSP do not have substantial outreach in Tan Linh commune and are limited in their ability to reach the poor. Hence, there is a need to improve the lending strategy of the formal financial institutions to satisfy better the credit demand of rural households, especially the poor.

These findings carry some important policy implications for the formal sector development, particularly VBARD. Formal sector should not limit itself to providing only production loans but should diversify borrowing purposes to include consumption loans as well. Furthermore, to address the lack of medium and long-term loans for production and business purposes, optimal loan period should be extended to better suit the activities for which they are used. It is clear that rationing is a serious problem for the survey households, which constrains the households from expanding their production scale. At the same time, the poor households self-ration themselves in their credit demand from the formal sector. Therefore, lenders need to improve loan screening in order to meet better credit demand of rural households, especially poor households. In the context of asymmetric information and inefficient scheme of collateral liquidation, formal sector should provide loans through joint liability group to reduce credit rationing. In addition, formal lenders should have more competitive policies to mobilize sufficient long-term that are funds needed to increase long-term loans to the farmers.

It is evident that local reputation, bureaucracy and agency issues influence the procurement of the loans by rural households. To develop the financial system in rural Vietnam, it is therefore necessary to create a more competitive rural financial market, which forces institutional lenders like VBARD to strengthen their institutional capacity.

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LIST OF FIGURES

Figure 1: Credit demand of surveyed households
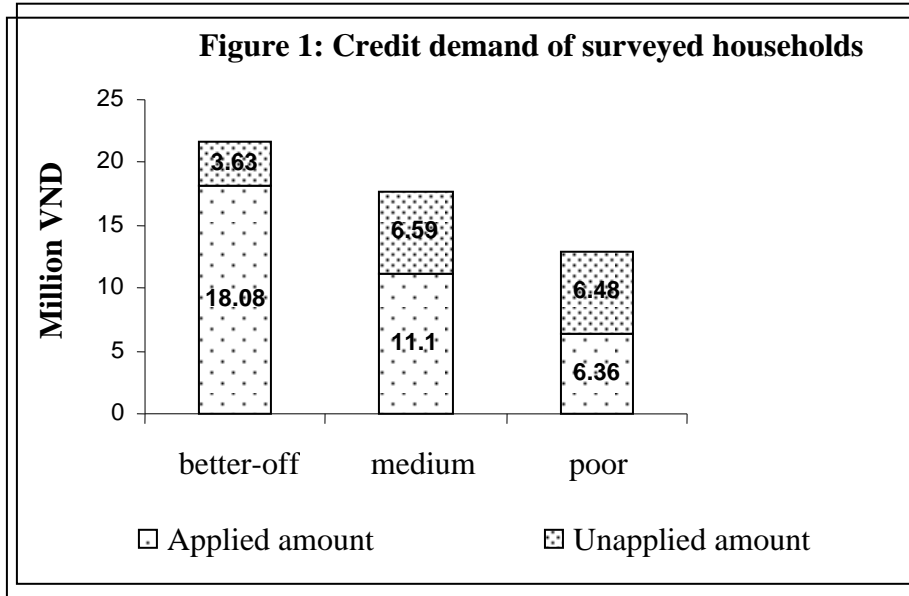
Source: Household survey, 2006

Figure 2: Sources of borrowing
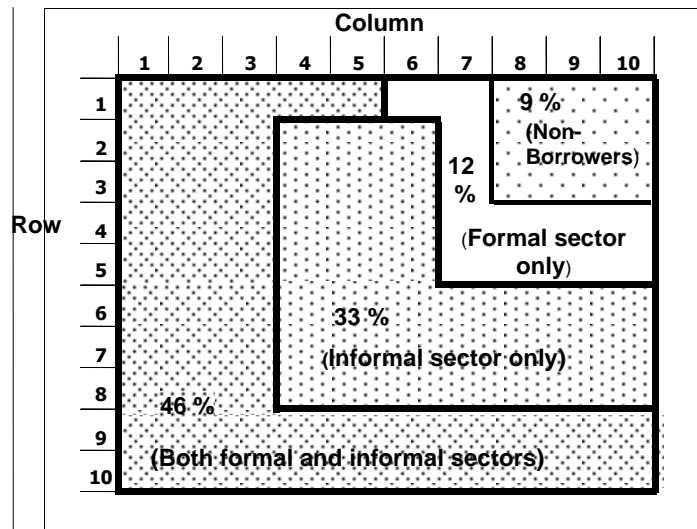
Source: Household survey, 2006

TABLES

Table 1. Criteria of the community for classifying households

ID	Indicators	Better off	Medium	Poor
1.	Income	20-30 million VND/year	10-15million VND/year	4-7 million VND/year
2.	Durables (TV, motorbike, radio, bikes, etc)	Sufficient durable with high quality	insufficient or sufficient durable but lower quality	serious lack and very low quality
3.	Production instrument and farming machine	Having sufficient necessary instruments for their own production. They even have leased them to earn more money	Enough necessary instruments but they do not work well	Lack of essential instruments for production or their quality is bad
4.	Number of cattle	5 – 6	2-3	0-1
5.	Number of poultry	200-300 per year	50-70 per year	30 per year
6.	Number of pigs	40-60 per year	10-15 per year	2-4 per year
7.	House type	Houses have two floors or solid ones with flat roof	solid house with flat roof	Tile –roofed house has been downgraded
8.	Accumulation (savings and insurance)	having insurance or lending to relatives and friends	having very low accumulation	having to borrow from others
9.	Extra job/secondary job	doing business, tourism, providing decorative plants	small doing business, building worker	Cultivate for the better off, bricklayer, porter
10.	Relationship within the community	Having a wide circle of acquaintances. Very often participate in merrymaking and meetings	being expansive and confident to have relation with others	having a feeling of inferiority, keeping away from contact with community

Source: Village heads group discussion in Tan Linh commune, field survey, 2006.

Table 2. Borrowing purposes by wealthy categories

Purposes	Sample		% of loans		
	Number of loans	% of loans	Better off	Medium	Poor
I. Farm/business	**103**	**57**			
1. Raising livestock	84	47	20	52	27
2. Breeding facilities	8	4	13	75	13
3. Purchasing farming machinery	3	2	33	67	0
4. Doing business	8	4	13	88	0
II. Consumption	**77**	**43**			
5. Medical fees	15	8	7	60	33
6. School fee	18	10	22	61	17
7. Durable equipment	3	2	0	67	33
8. House building	9	5	33	44	22
9. Food	9	5	11	33	56
10. Weddings and funerals	14	8	0	64	36
11. Paying debts	7	4	29	14	57
12. Fee for applying for children's job	2	1	100	0	0

Source: Household survey, 2006.

Table 3. Credit sources and average amount of loans

Financial sources	Total sample		Poor		Medium		Better-off	
	% of borrowing households	Average loan size (million VND)	% of poor HHs	Average loan size (million VND) Mean (sd)	% of medium HHs	Average loan size (million VND) mean (sd)	% of better-off HHs	Average loan size (million VND) mean (sd)
Formal sector								
1. VBARD	44	7.63	21	5.50 (2.35)	61	6.59 (2.48)	18	13.50 (12.57)
2. VBSP	10	4.7	30	3.33 (1.53)	40	5.75 (0.96)	30	4.67 (2.08)
3. Funds and Projects	15	4.45	20	0.17 (0,06)	67	5.24 (9.80)	13	7.60 (10.46)
Informal sector								
1. Relatives	31	7.89	39	3.82 (4.92)	39	5.17 (4.82)	23	19.57 (14.18)
2. Friends	47	2.40	23	2.12 (2.44)	62	2.46 (1.86)	15	2.76 (2.77)
3. Moneylenders	30	4.65	37	2.14 (2.71)	43	7.15 (10.46)	20	3.83 (2.48)

Source: Household survey, 2006.

Table 4. Borrower's characteristics by the amount borrowing from formal lender[10] (Duncan[a,b] sig. 0.05)

Indicators	<3 million n = 8	3-6 million n = 20	6-9 million n = 12	9-15 million n = 11	>15 million n = 7
	mean (sd)	mean (sd)	mean (sd)	mean (sd)	mean (Sd)
1. Education of HH Head (school year)	8.75 (1.16)	8.00 (1.45)	7.50 (3.06)	8.55[a] (0.93)	9.71[b] (1.60)
2. Family size	5.38 (1.19)	4.85 (1.31)	4.58 (1.73)	4.45 (1.21)	5.29 (0.95)
3. Number of labour	3.25 (1.04)	3.40 (1.19)	3.25 (1.36)	2.64[a] (0.92)	3.86[b] (0.69)
4. Number of dependants	2.25 (1.67)	1.45 (1.23)	1.33 (0.78)	1.82 (1.33)	1.43 (0.98)
5. Number of the sick	0.13 (0.35)	0.20 (0.52)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
6. Social status	0.13 (0.35)	0.15 (0.37)	0.17 (0.39)	0.18 (0.40)	0.43 (0.53)
7. Reputation	1.75[a] (0.71)	2.00 (0.73)	1.83[a] (0.39)	2.00 (0.63)	2.57[b] (0.53)
8. Total farming area (360 sq. mts)	12.00 (5.00)	15.00 (10.00)	12.00 (8.00)	15.00 (8.00)	14.00 (7.00)
9. Total value of livestock (million VND)	21.72[a] (21.00)	31.68 (18.74)	35.78 (26.43)	43.62 (28.00)	46.14[b] (30.22)

Source: Household survey,2006.

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[10] The level of borrowing from formal sector is classified into five groups: group 1 includes households that borrowed less than three million VND; group 2 includes households who borrowed from three million to six million VND; group three: from six million to nine million VND, group 4: from nine million to 15 million VND, and group 5: more than 15 million VND.

Table 5. Means of indicators by credit status of households to VBARD (Duncan[a,b] sig. 0.05)

Indicators	Applied to VBARD for loan		Non-applied to VBARD for loan	
	Non-rationed households[11]	**Rationed households[12]**	**Credit demanded households[13]**	**Non-demanded credit households[14]**
	n=22	**n=26**	**n=25**	**n=27**
	mean (sd)	**mean (sd)**	**mean (sd)**	**mean (sd)**
Family size	4.82 (1.47)	4.88 (1.37)	4.40 (1.19)	4.73 (1.12)
Number of labour	3.41^b (1.22)	3.00^b (1.23)	2.48^a (0.87)	2.81 (0.92)
Number of dependent	1.45 (1.22)	1.88 (1.21)	1.92 (1.38)	2.22 (1.40)
Number of sick person	0.00^a (0.00)	0.27^b (0.53)	0.22^a (0.52)	0.00 (0.00)
Social status[15]	0.27^b (0.46)	0.12 (0.33)	0.04^a (0.20)	0.11 (0.32)
Reputation[16]	1.82^b (0.66)	2.15^b (0.54)	1.44^a (0.58)	2.22^b (0.64)
Owned farming area	10.02^b (8.54)	8.34^b (5.15)	3.81^a (3.95)	8.13^b (7.24)
LUCs[17]	0.55^b (0.51)	0.58^b (0.50)	0.20^a (0.41)	0.70^b (0.47)
Total value of livestock	34.39^b (22.96)	45.28 (38.59)	19.02^a (23.57)	45.80^b (25.47)
Total assets	47.66^b (29.71)	58.54^b (41.10)	27.67^a (28.66)	60.97^b (27.91)
Total savings	0.82 (3.84)	0.35 (1.41)	0.00 (0.00)	2.32 (6.33)
Total informal credit	2.99 (3.22)	7.46 (12.44)	4.04 (4.18)	5.09 (8.62)
Total formal credit	8.08 (8.59)	7.46 (4.95)	1.42 (6.00)	1.61 (3.59)
Total credit demand applied to VBARD	7.80^b (8.60)	15.08^c (8.70)	0.00^a (0.00)	0.00 (0.00)

Source: Household survey, 2006.

11 These households took the loans with an amount equaling their applied sum

12 The households took the loans whose sizes are smaller than what they applied for

13 The households that did not applied to VBARD although they had demand for credit from VBARD

14 The households had no demand for credit from VBARD.

15 Social status reflects position of household head in the society. It is defined as 1, if household head hold position, as 0 if not.

16 Reputation reflects the household's economic position as well as prestige. It is defined as 1 if household is poor, as 2 if household is medium and as 3 if household is better-off. The classification was conducted by village heads under the criteria discussed by them in the group discussion.

17 LUC reflects the ownership of land use certificate of a household. It is defined as 1 if household has LUC, as 0 if not.

Table 6. Some indictors of constrained households by value of livestock production[18](Duncan[a,b] sig. 0.05)

Indicators	0- 6 million n =12	6-12 million n = 10	12 - 32 million n = 16	32- 60 million n = 17	>60 million n = 9
	mean (sd)	mean (sd)	Mean (sd)	mean (sd)	mean (sd)
Total received credit	4.06^a (3.54)	6.10^a (5.69)	11.06^b (9.01)	11.76^b (7.11)	15.71^b (12.61)
Total demanded credit	13.48^a (5.16)	16.90^a (8.52)	20.26^c (11.74)	26.65^b (12.48)	30.00^b (13.89)
Ratio of received credit and demanded credit	0.28^a (0.19)	0.32^a (0.18)	0.49^b (0.19)	0.44 (0.15)	0.50^b (0.20)

Source: Household survey, 2006.

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[18] Table 6 presents indicators of credit-constrained households via the value of livestock production, on the basis of which credit constrained households were classified into 5 groups. Group 1 includes households whose value of livestock production is less than six million VND; group 2: from 6 to 12 million VND; group 3: from 12 to 32 million VND; group 4: from 32 to 60 million VND and lastly, group 5: more than 60 million VND