Appendix C

A COMPARISON OF THE COMPONENTS OF LENDER TRANSACTION COSTS AMONG EACH CREDIT SOURCE.

C.1 The Comparative Administration Costs of Each Credit Source

By comparing the administration costs of each source of credit, it is found that the BAAC has the lowest administration costs. In contrast, commercial banks have the highest costs. There are two explanations for the lower costs of the BAAC. First, the joint liability grouping of BAAC can sharply reduce administration costs. An informal group of 5-20 sugar cane farmers requires only paperwork and all members of the group need to contact the BAAC at the same time, which reduces the time spent searching for document cards. If the sugar cane farmers are not required to contact as a group, the search time for document cards increases by a ratio of the former, times the number of people in the group. Secondly, for a credit transaction, the search for the document card of a borrower need only be made twice: once when making the loan contract and again when the loan is repaid. In contrast, commercial banks require much paperwork for each borrower and, with a given loan transaction, the interest payment is spread over twelve months. The bank officer needs to search for the document card every time the borrower contacts the bank.

Looking at the administration costs of sugar mills and the BAAC, the administration costs of the sugar mills are considerably higher than BAAC. There are two reasons for this. The first is that each member of the first group guarantee does not repay the loan during the same period and a particular member may not pay back at the same time, depending on the delivery quota of sugar cane. This requires more search time for document cards by the sugar mills than by BAAC. The second is that the mills keep one record for one member, independent of the group, since members do not deliver sugar cane at the same time.
Even though the method of providing a loan by sugar mills is similar to the big sugar cane farmers, the latter have lower administration costs. The more restrictive stipulations on the credit delivery system can give some explanation for this, as the more restrictive the stipulation, the higher the cost incurred to the lenders. The sugar mill, which sets more restrictive stipulations for credit delivery systems, bears higher costs than do the big sugar cane farmers who set less restrictive stipulations.

C.2 The Comparative Information Costs of Each Credit source

In comparing the information costs of these four sources of credit, the big sugar cane farmers have the lowest information costs, while commercial banks have the highest. The explanation for this difference is that the big sugar cane farmers are the ones who live in the same area as the small farmers who borrow money from them. They generally operate in a small geographic area and are able to accumulate reliable information on the creditworthiness of their borrowers. The big sugar cane farmers sometimes have a personal relationship with the borrowers, as a friend or a relative, and, as their farms are established side by side, the big sugar cane farmers have knowledge of the small farmers' conditions. Based on this knowledge, the big sugar cane farmers can extend credit by spending a smaller proportion of time and effort in acquiring additional information about borrowers. Since they are independent business lenders, they do not need to maintain elaborate records to justify their actions and they do not pay tax for their operations. Consequently, their credit delivery systems are simple and result in low information costs. For new borrowers, who previously have not had contact with the big sugar cane farmers, loans will be made to the farmers who obtain guarantees from old and creditworthy borrowers. The guarantors normally have a responsibility to ensure the new borrowers' repayment. The guarantors guarantee only the small farmers in whom they believe. The big sugar cane farmers collect information about the new borrower from the guarantors.

At the other extreme, the commercial banks do not know borrowers personally. Some ways to obtain information about a borrower are from registered land titles, indicating a farms' ownership, or tax records with a stamp or official signature and the
history of farmers' assets and financial habits. These are good sources of information about his ability to repay loans. The creditworthy people are those who have these signs. The commercial banks have to evaluate a borrower's collateral and wealth for every loan application. Regardless of the relationship between lenders and borrowers, the commercial banks' officers have to spend more time and effort to evaluate the borrower's creditworthiness and check updates of information about the borrower. Commercial banks also check the amount of the delivery quota and the behavior of farmers on delivery of sugar cane to a mill. This information incurs only a small proportion of the information costs, as commercial banks can directly ask the mill. The details of this information are important documents to support the bank's officer's action and level of responsibility. The high information costs of commercial banks is also caused by the rigid loan interest rate of commercial banks to the agricultural sector. Commercial banks try as much as possible to lend their money to credit-worthy people.

Considering the information costs of a sugar mill and BAAC, the information costs of these two sources are lower than those of commercial banks. This is because the group guarantee required by a sugar mill and the joint liability grouping of BAAC can reduce information needed by these two sources. In practice, members of the group have already obtained information from each other before the group was formed. Supervisors and BAAC officers spend less time and effort collecting information on borrowers. They can ask for it directly from members of the group.

Even though a sugar mill and BAAC require a group guarantee, the information costs of a sugar mill are considerably higher than BAAC. The explanation for this difference is that the sugar mill spends more effort and time acquiring information about borrowers than BAAC. For the mill, if there are defaults, it does not only affect the loan repayment, but also sugar production, which is the most important activity of the sugar mill. Sugar mills deduct loans that are lent out during the production period from sugar cane money that is paid during the milling period. The more borrower information the mill has obtained implies less uncertainty. This includes both loan repayment uncertainty and input uncertainty.
C.3. The Comparative Enforcement Costs of Each Credit Source

In a comparison of the enforcement costs of these four sources of credit, commercial banks have the highest and the big sugar cane farmers the lowest. There are two explanations for this difference.

The first is the mode of enforcement chosen. The big sugar cane farmers choose a punitive method of enforcement on small farmers, fining the small farmers who deliver less than 80% of the contracted amounts of sugar cane. There are at least three reasons for shortfall in delivery of sugar cane. First, bad harvests due to faulty land preparation or unsuitable fertilizer application can reduce production. Second, the small farmers sell their cane to other big sugar cane farmers. By doing so, they obtain the full amount of the contracted price, which always occurs in Thailand. Third, a particular small farmer may obtain loans from more than one big sugar cane farmer, but they contract the full amount that they plant with all of them. If the shortage was due to the latter two reasons, the big sugar cane farmers punishes the small farmer by setting a fine for a shortfall and by not providing loans to them in the next production year. On the contrary, commercial banks choose to enforce repayment of the borrower by using legal means. The commercial banks send warning notices to the borrowers and if the borrowers do not make another contract for repayment with the banks, the loan contract and mortgages are brought to court. This practice incurs substantial enforcement costs to commercial banks. Before a default case is brought to the court, the banks have to prepare much documentation on the defaulter.

The second is the terms of repayment. The big sugar cane farmers accept repayment in cash and kind, i.e., money, sugar cane or sugar cane planting area, depending on each contract, because it is not difficult for them to market these assets. In doing so, the big sugar cane farmers can reduce enforcement costs. In contrast to big sugar cane farmers, commercial banks do not accept repayment in kind, since it incurs a substantial marketing cost to the banks. If the borrower does not have enough money to repay, the banks will force the borrower to market the collateral and then repay the debt in cash. (i.e: fire-sale)
Looking at the enforcement costs of commercial banks and BAAC, these formal credit sources accept repayment only in cash. The enforcement costs of commercial banks are relatively higher than BAAC. This is because BAAC has the joint liability grouping, in which all members of the group are responsible for individual repayment. Members of the group enforce each other’s repayment of the loan. If there is only one member who can not fully repay a loan, then all members of the group are unable to contract a loan during the next period. The enforcement cost is partially shifted to the borrowers.

Comparing the enforcement costs of BAAC and a sugar mill, in which both have a group guarantee for repayment, the enforcement cost of BAAC is relatively lower than that of the sugar mill. The BAAC sets a much stricter stipulation of group repayment than the sugar mill. If there is only one member of the BAAC group who does not repay a loan or fails to extend the period of the repayment contract, then all members of the group cannot make loan contracts during next period. The sugar mill will still give a loan to the sugar cane farmers who have already repaid, regardless of the remainder of the group. BAAC officers spend less time and effort in enforcing repayment, than the supervisors who enforce repayment for sugar mills.

C.4. *The Comparative Risk Premium of Each Credit Source*

Comparing the risk premium of sugar mills and big sugar cane farmers, sugar mills have a relatively lower risk premium than the big sugar cane farmers. This is because the sugar mill requires the group guarantee for any loan granted, but the big sugar cane farmers do not. Members of the group supervise each other and this reduces the probability of loss due to default.