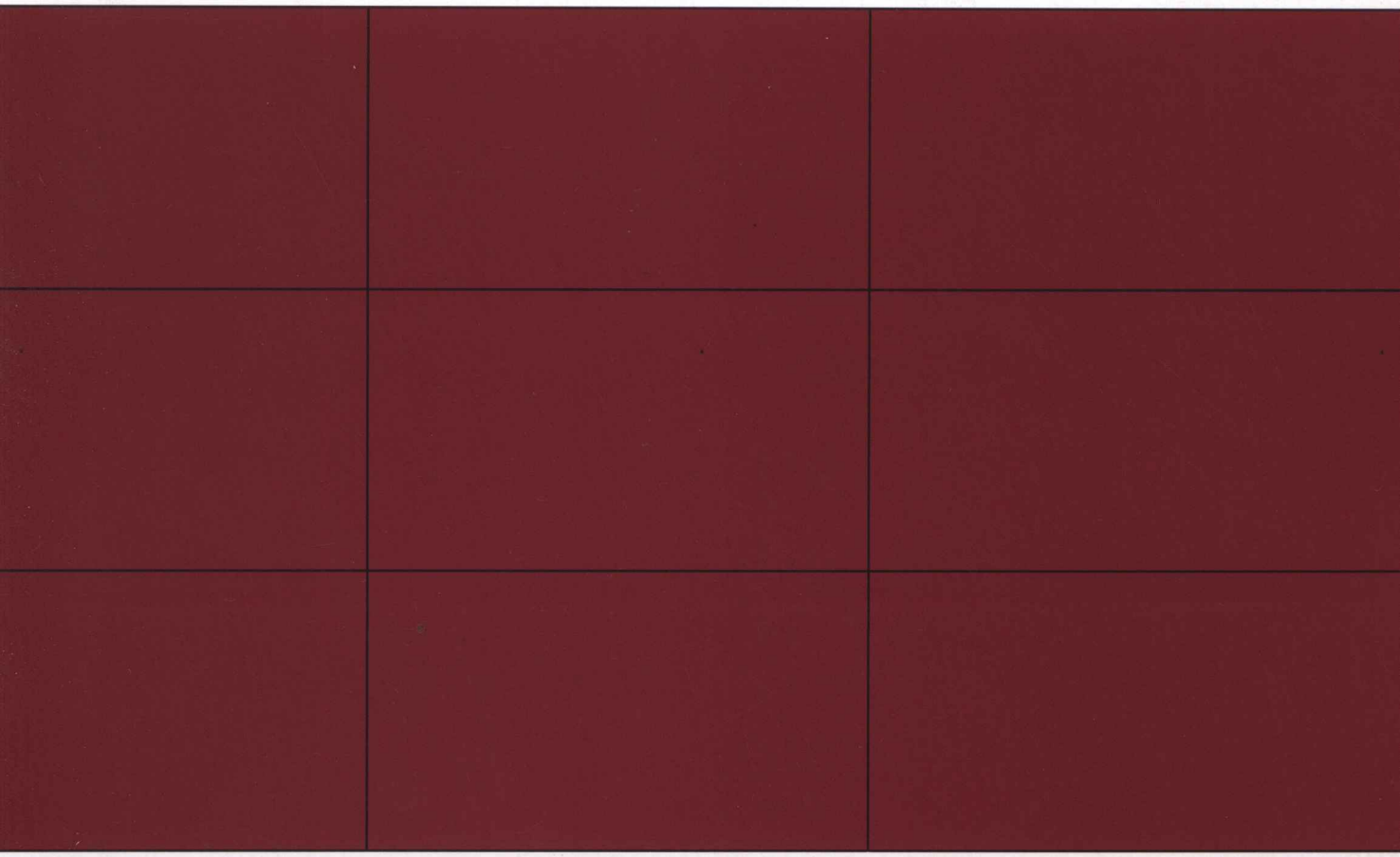
Finance, Credit and Provincial Industrialization



Finance, Credit and Provincial Industrialization

By

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FINANCE, CREDIT AND PROVINCIAL INDUSTRIALIZATION

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EXECUTIVE SUMMARY

In the production and provision of goods and services of regional industries investment in various assets has to be made. According to the project survey, the total assets of provincial industries of all sizes are, on average, equivalent to approximately Baht 16 million. The average total assets of small-, medium- and large-scale businesses amount to Baht 4, 13 and 260 million respectively.

The demand for long-term capital for investing in fixed assets is equivalent to about two-third of total assets. In other words, short-term capital required for investment in current assets amounts to approximately one-third of total assets. The demand for working capital fluctuates due to the seasonality of product demand as well as the supply of raw materials and labor.

The rate of return on investment of regional industries is on average equivalent to 26 percent . The rates of return on investment of small-, medium- and large-sized businesses are 11, 78 and 33 percent respectively.

Provincial industries derive required capital from three major sources, namely internal sources, financial institutions and unorganized financial sources. According to the project survey, 24 percent of regional industries exclusively depend on internal funds; 52 percent rely on commercial bank loans to different degrees and 34 percent, in addition to internal funds, solely derive their capital from commercial banks. 12 percent borrow from financial institutions other than commercial banks (mostly finance and securities companies), and 6 percent obtain financing from unorganized sources.

Small-scale provincial industries depend on internal sources and the unorganized money market to the highest degree (during business establishment, expansion and the survey).

The result of the pattern of the use of funds earlier mentioned is as followed. Large industries expand faster rapidly. More investment is made in modern machinery and equipment. Besides, the cost of capital is lower.

Small-scale provincial industries face more problems in borrowing from financial institutions and unorganized sources than large-scale industries. The major problems encountered by entrepreneurs in seeking financing from commercial banks include insufficient loans and excessive collaterals required by commercial banks. These problems may result from interest ceilings and lack of information. Interest ceilings create excess demand for loans. As a consequence, commercial banks ration loans to large-scale firms with lower risks and borrowing costs. Excessive collaterals are required in order to offset incremental risks. Moreover, the lack of information or imperfect information on borrowers' creditability and projects' feasibility leads to commercial banks' requirement of excessive collaterals. The type of collateral required also creates a problem because banks accept only land or buildings as securities for loans, either short-term or long-term. Thus, assets to be used as securities for loans are limited. Problems in seeking loans from the Industrial Finance Corporation of Thailand and the Small Industry Finance Office is excessive documentation which is time-consuming. This is due to the fact that these institutions extend long-term loans and emphasize project lending which requires detailed project evaluation. Small provincial firms do not systematically keep the information required; thus, some time and efforts have to be allocated to seeking and verifying the information. Loan project approvals cannot be undertaken at regional offices. In case of IFCT, shareholders are mostly private sector and interest rates must be low. This results in the low priority given to lending to small provincial industries. Problems of borrowing from unorganized sources are high interest rates and necessity to borrow from various sources due to the market fragmentation. Lenders will only extend loans to people whom they know very well, leading to the monopoly situation. Moreover, borrowers are exposed to high risks and their cost of capital is high because the borrowed funds are partly derived from financial institutions or other unorganized sources.

Regarding interest rates, unorganized sources generally demand higher interest rates than financial institutions, and large-scale firms pay lower interest rates than small-scale ones.

Commercial banks are the most important sources of funds for regional industries. Commercial bank loans amount to 84 percent of the total credits extended by financial institutions. Nonetheless, commercial bank credits are mostly extended to industries in Bangkok and the Central region. The ratio of credits received by industries in other regions to the total credits is lower than the ratio of industrial value-added to the gross national product. Over 90 percent of total credits are given to large-and medium-scale industries or approximately 6 percent are extended to small-sized industries.

Large commercial banks have a relatively more complicated management and organization structure than small ones; however, the loan approval process of large banks can be more efficiently undertaken. Less time is required and a larger loan size is granted because approval authorization is decentralized to regional offices and branches. In case of project analysis, credit provision limitations include the inadequacy of personnel and equipment as well as lack of accurate information. Another drawback is the small size of the maximum loan that can be authorized by branch managers. The survey reveals that 87 percent of provincial branches handle loan sizes larger than what can be authorized by branch managers.

Loans rejected by financial institutions are mostly those requested by small-scale industries due to the following major factors. Financial institutions are not confident in the rates of return of the proposed projects or the ratio of a loan to the project total investment is excessively high. Moreover, borrowers do not have sufficient creditability.

The scope of financing of IFCT, SIFO and of the Small Industry Credit Guarantee Fund (SICGF) is still very limited. In particular, IFCT extends negligible loans to small-scale industries due to

limitations regarding the number of branches, personnel, sources of funds, costs of capital and the loan approval process. In case of SICGF, problems arise from the lack of independence because service provision relies on the willingness and readiness of commercial banks. Limitations encountered by SIFO include its non-juristic entity status and the lack of co-operation from Krung Thai Bank.

The rediscount facilities offered by the Bank of Thailand totaled Baht 142 billion in 1988, growing at the annual rate of 17.6 percent over the past 10 years. 94 percent of services were done through the Bank of Thailand headquarters in Bangkok. Rediscounts mainly consist of those from large businesses (for export). The reason why small businesses use rediscount facilities to a very limited degree because they are unaware of the service availability. Additionally, they do not have or do not wish to disclose the information required by the Bank of Thailand for fear of having to pay more taxes. Moreover, they do not possess sufficient collaterals. Commercial banks reveal that the process is complicated and considerable information is needed. Thus, the costs of lending are high and interest margins are low.

The assistance of the Bank of Thailand through the "Rural Credits" policy is geared towards credits extended to small-scale industries. In 1987, credits extended to small industries constituted 6 percent of the total credits offered to the entire industrial sector.

The unorganized money market supporting rural industries consists of various sources such as rotating funds groups, commercial credits, check discount and borrowing from parents, relatives and friends. Despite high interest rates charged, unorganized financial sources are conveniently available and speedy. Besides, the process is quite simple and no collaterals are required (except in case of large loan sizes or long-term loans). Lending is based upon trust and borrowers' creditability rather than the feasibility of loan projects or collaterals. Lenders derive their funds from their own savings and other unorganized sources. The borrowed funds are used for not only production but also consumption and speculation. The unorganized money market consists of numerous small lenders because of the imperfect

information on borrowers' creditability and repayment ability. Thus, financing can be sourced only from those who have very good information on borrowers.

In the situation where small industries are numerous, the free float of loan rates may not enable small industries to receive extensive credits from financial institutions. With the imperfect information, financial institutions may decide not to raise interest rates, but may undertake borrower screening mechanism. Credit rationing still exists because high interest rates may induce only borrowers with high risks. Moreover, high interest rates may force borrowers to select merely projects with more risks.

The survey on the attitudes of managers of provincial bank branches on preferred interest rates yield the following conclusions. Firstly, the maximum interest rate preferred should be higher than the current interest ceiling. Secondly, the average interest rate preferred should be approximately 0.5 percent higher than the present average rate. Thirdly, interest rates charged upon small-scale industries should be higher than those charged upon large-scale industries. 76 percent of branch managers believe that the preferred interest rates mentioned earlier will lead to additional credits to small-sized industries.

Leasing and hire purchase are other methods of asset acquisition. At present, the leasing service is still at the minimal level because of low profit margins. Income taxes are based upon income, not service fees. The hire purchase service is very popular and widely available due to high profit margins and the collateral requirement.

Policy Issues

The following policy issues aim at providing provincial industries, particularly small industries, with additional opportunities and ability to obtain financing from financial institutions.

1. In order to encourage financial institutions to extend more credits to small provincial industries, interest rates should freely

float. Financial institutions should be able to demand interest rates that can compensate with risks and costs of lending. The expected results are as follows. Firstly, interest rates charged by financial institutions will not substantially rise, and interest rates will have a wider spread. With the free float, the average interest rate will not be greatly differ from when interest ceilings exist. Secondly, demand for credits from financial institutions and excess demand will decline, particularly in case of investment projects with low rates of return. Thirdly, the lift of interest ceilings will induce more savings mobilization of financial institutions. Fourthly, investment projects with high rates of return which were originally rejected due to limited credits available and the imperfect information will be given better chance of receiving credits. Fifthly, total investment should not recede. Although investment projects with low rates of return will be screened out and replaced by projects with high rates of return. Sixthly, dependence on the unorganized money market will decline.

2. The rural credit policy should continue because it results in more credits extended to provincial industries. The funds that commercial banks deposit at special financial institutions to be discussed later should be included in the credits to rural industries.

3. The assistance of the Bank of Thailand via rediscount facilities is a type of financial support that should be eliminated. If this service is to be maintained, only small industries should be eligible and the service should be given under the condition that business operations must be efficient. In addition, interest margins should be improved in order to encourage commercial banks to pay more attention to this service. Information required by the Bank of Thailand other than that possibly derived from balance sheets, income statements and statements of changes in financial positions which must be regularly prepared should be deleted. This information includes types of product, production process and production cycles, etc.

4. A specialized financial institution should be established to provide small industries with credits and other services. Drawbacks that are currently encountered by IFCT and SIFO should be avoided.

Firstly, the types of service should be identical to those offered by commercial banks. Credits should not be restricted to long-term loans. Secondly, interest rates should not be lower than those demanded by commercial banks. Thirdly, an emphasis should be placed upon savings mobilization to develop their own source of capital. Fourthly, project lending should be applied to only extensive long-term loans. In case of short-term loans, financial ratios should be considered. Fifthly, in case of short-term loans, assets other than land should be acceptable as securities for loans. Sixthly, branches should be established in every province to facilitate contacts with borrowers and obtain more information on borrowers. Seventhly, authorization should be given to the highest-ranking officer at each branch to approve loans. Eighthly, this new institution should be a juristic entity supported by law (act), with the government as the owner or the major shareholder. This new entity can be established by separating an IFCT's department directly responsible for extending credits to small-scale industries, and IFCT holds some stake in this special temporary institution.

5. In case where there still exist interest rate ceilings, the credit guarantee service provided by the Small Industry Credit Guarantee Fund is still necessary for businesses with inadequate collaterals. The credit guarantee service should be a part of services offered by this new financial institutions. In addition, in order to simplify the process, commercial banks should be eligible to extend this credit guarantee service.

6. The Industrial Finance Corporation of Thailand should place more emphasis on medium-and large-scale industries as well as the development of the capital market.

7. The Small Industry Finance Office should be a part of the new financial institution or the Industry Promotion Department in order to extend services to cottage industries promoted by the Industry Promotion Department.

8. The government should not be involved in the unorganized money market, but should promote the competition between financial institutions and unorganized financial sources.

9. Tax incentives should be granted to leasing companies investing in new machinery and equipment via investment tax credits or accelerated depreciation in order to encourage leasing companies to extend services to small provincial industries.

10. Entrepreneurs should improve themselves by applying more systematic management. Financial data should be systematically recorded and fully used. New methods should be applied to financial management and the decision-making process in investing in current and fixed assets, etc.

CHAPTER 1

INTRODUCTION

1.1 BACKGROUND

The importance of rural industries to the national economic development has been widely recognized. The government has initiated rural industrial development plans, particularly regarding small-scale industries since the Third National Economic and Social Development Plan, and has placed an even stronger emphasis in the present National Economic and Social Development Plan.

Finance and credit is one of the main factors affecting the rural industrial development. The production of goods and services requires investment in land, buildings, machinery, equipment, vehicle and working capital for procuring raw materials, hiring labor, etc. This investment requires funds. Equity funds are usually insufficient. Additional funds are sought from outside both from institutional and non-institutional sources. Despite low interest rates, funds from financial institutions have many restrictions. Many industries, especially those in rural areas are obliged to acquire funds from non-institutional sources which charge high interest rates. Thus, measures and policies facilitating the acquisition of adequate funds, both short-term and long-term, from financial institutions at an appropriate interest rate is an indispensable factor for rural industrial development.

1.2 STUDY OBJECTIVES

The objectives of this study are to examine the sources and uses of funds of rural industries, to study the credit provision of financial institutions and informal sources and to recommend policies and measures to provide sufficient funds to satisfy the needs of provincial industries in the future.

1.3 STUDY APPROACH

The data used in the study consists of secondary data derived from previous researches and publications of various organizations, and primary data derived from the survey undertaken among bank managers and entrepreneurs. Regarding the secondary data, survey years, places and industries and sample sizes of some relevant research projects are presented in Annex 1.

This study consists of a descriptive analysis (by industry size and region). The data is presented in tables showing actual values, means and percentage.

1.4 SAMPLING, SAMPLE SIZE AND DISTRIBUTION OF SAMPLED BANK BRANCHES

Data used in this study was derived from sampling among two groups, namely rural industrial entrepreneurs and commercial bank branches in provinces. Sampling methods, sample sizes and distribution of entrepreneurs is described in another project's report.

In the group of sampled banks, the population was selected from commercial bank branches in the Muang district and sample districts in every province where the entrepreneur survey took place. A simple random sampling method was employed. A total of 200 questionnaires were distributed to bank managers and 62 of those returned were usable. The distribution of questionnaires by region and district is presented in Table 1.1.

1.5 STRUCTURE OF THE REPORT

This report consists of six sections : (1) the introduction; (2) sources of funds, interest rates, loan and problems of acquiring funds from external sources; (3) the scale of investment in assets and rates of return on investment; (4) the financial system, credit provision of financial institutions including the Bank of Thailand and credit provision problems; (5) depicts the importance, characteristics and types of funds outside the organized market; (6) conclusion and recommendations.

Table 1.1
Distribution of Sample Commercial Bank Branches

District	Region									
	North		Northeast		Central		South		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Muang	2	9	10	45	5	23	5	23	22	100
Outside	9	23	13	32	10	25	8	20	40	100
Total	11	18	23	37	15	24	13	21	62	100

CHAPTER 2

SOURCES OF FUNDS OF RURAL INDUSTRIES

The sources of funds discussed here refer to the stock of funds, not the flows of funds, as of a certain date. These sources of funds include those set aside for enterprise establishment, business expansion and current operations. This section will also discuss the sources of working capital and financing problems of provincial industries.

2.1 SOURCES OF FUNDS

Sources of funds are divided into two major categories, namely internal and external sources. Internal sources include equity, which can be the funds owned by entrepreneurs , partners and other shareholders. Shareholders can be individuals, venture capital and investment funds. Thus, equity can be derived from domestic and international sources. Internal sources also includes retained earnings derived from the net profit not distributed to shareholders as dividends.

External sources of funds include institutional and informal sources. The institutional sources of funds come from commercial banks, finance and securities companies, the Industrial Finance Corporation of Thailand (IFCT) and the Small Industry Finance Office (SIFO). Informal sources of funds include parents, relatives, friends, partners, chit funds (rotating credit associations) and trade credits. Available in many forms such as overdrafts, term loans, debentures, preferred stocks, other financial papers, and check discounts, etc., external funds can be short-term (to be repaid within one year), moderate-term and long-term. Like internal funds, external funds can be derived from domestic and international sources. Moreover, external funds can be found through factoring, pledging and loans secured by inventory. In case of high dependence on loans from an external source, enterprises may

acquire fixed assets without creating more loan obligations via leasing and hire purchases.

2.1.1 Sources of Initial Capital

Funds for establishing an enterprise are mostly derived from internal sources. However, the percentage of external funding increases as the size of enterprise expands.

Rozental in 1965 indicated that 88 percent of establishment funds were from internal sources, and the remaining 12 percent were from external sources. Fifty percent of external funds were from financial institutions which were mostly commercial banks. Funds from relatives and rotating credit associations amounted to 23 and 6 percent of external funds respectively. The larger an industry was, the lower the percentage of internal funds became. With regard to small-scale industries, 95 percent of funds were derived from internal sources. This percentage declined to 81 and 56 percent for medium and large-scale industries respectively. In other words, at the establishment stage, large-sized industrial enterprises were more dependent on external sources of funds, particularly commercial banks, than small-scale industries.

The study by Saeng et al. in 1976 revealed the same result as Rozental. Seventy three percent of establishment funds were from internal sources. Small-scale industries relied on internal funds to a higher degree than large-sized industries. With regard to cottage industries, 90 percent of establishment funds were from internal sources, and this percentage increased to 61 percent in the case of large industries. Regarding external funds, 55 percent were derived from informal sources, the remaining 45 percent coming from financial institutions. Relatives were the most important informal source, representing approximately 40 percent of funds raised from informal sources. About 25 and 12 percent were provided by raw material suppliers and rotating credit associations respectively. Ninety percent

of funds from financial institutions were derived from commercial banks. Funds from IFCT and SIFO constituted a mere 10 percent (Table 2.1).

The study by Saeng et al. in 1978 gave a similar result. Approximately 74 percent of establishment funds were from internal sources, and 26 percent were externally raised. Sixty five percent of external funds were provided by commercial banks (Table 2.1).

The study by Tongroj et al. in 1985 indicated that sources of funds varied among industries and localities. However, funds required for enterprise establishment were mostly from internal sources. Commercial banks were the most important source of external funds, and funds from informal sources represented only a small percentage (Table 2.1).

Although studies on sources of funds for establishing an enterprise were different with regard to study time, locality, industry group and sample size, these various studies revealed the following similar conclusions.

One: At the establishment stage, industrial enterprises used more internal funds, from the entrepreneur, partners or other shareholders, than external funds. This was due to the fact that lenders, either financial institutions or informal sources, were not assured of the performance of the borrower, and the personal expertise as well as experience of the entrepreneur. Thus, the risk of loan provision was still very high. If available equity capital was limited, the high possibility of being driven out of business existed.

Two: Various researches revealed that larger enterprises raised funds from external sources, particularly financial institutions, at a higher percentage than smaller enterprises for many reasons. The owners of large enterprises usually operated other businesses, and had already created some connections with lenders. For instance, those entrepreneurs who were originally involved in trading, and then expanded their business into manufacturing. Many activities were linked to large-scale international enterprises such as cold storages, fish canning and concentrated tomato juice factories, etc.

These factories were modern, and systematically managed. Thus, despite being at the stage of establishing a new enterprise, lenders were more willing to provide loans due to the existing connections with the owner, partners or headquarters whose credit standing and repayment capability were widely known. On the other hand, as previously noted, small-scale enterprises were mostly owned by new entrepreneurs. Despite their experience and expertise, the ability to successfully manage is still questionable mainly because the owner of a small enterprise has to deal with every aspect of the business, production, marketing, financing , and personnel management. In addition, these small enterprises usually had no financial records or references for lenders to trace the working and personal records. The repayment capability was questioned because most small enterprises manufactured products for confined markets, such as markets within the province, districts or neighboring provinces. With low barriers to entry, these markets are highly competitive. Moreover, entrepreneurs usually possessed limited reserves, and inadequate assets to be pledged as collateral. From the lenders point of view, the size of loan per contract was smaller in case of large enterprises, leading to lower lending costs. Therefore, when all the various factors concerning borrowers and lending costs are taken into consideration, lenders tended to provide loans to larger enterprises than smaller ones.

The study results starting from those by Rozental to those by Tongroj indicated that the percentage of external funds allocated at the establishment stage tended to rise over time, compared to that of internal funds. This change resulted from the following factors. First, as the expertise of entrepreneurs increased, so did the possibility of acquiring loans from external sources. Second, financial institutions had expanded their services to provincial areas, and gained more information concerning entrepreneurs. Third, the investment size dramatically increased, resulting in the need for more external funds.

When considering only those funds from institutional sources, it is found that large-scale enterprises' borrowing was in the form of overdraft loans rather than term loans. This indicated the high credit standing of large enterprises. Lenders were willing to offer more

overdraft loans due to the fact that they were more confident in entrepreneurs' competence. Small enterprises acquired overdraft credits at a much lower percentage compared to large and medium-sized entrepreneurs. Regarding borrowing from informal sources, borrowing from rotating credit associations represented a lower percentage than loans from parents or friends probably because the rotating credit associations consisted of many people who have to trust one another. Thus, borrowing from rotating credit associations was restricted, while borrowing from parents, relatives and friends was easier due to the fact that these people were more naturally ready to provide support. Furthermore, the entrepreneur's personal and working records were well-known among these people; and borrowing involved only the lender and the borrower. In the case of borrowing from rotating credit associations the lending/borrowing involved many lenders and/or borrowers.

2.1.2 Sources of Funds for Business Expansion

The survey results on entrepreneurs' attitudes on business expansion in the next five years revealed that about 26 percent of all enterprises planned to expand their operations, and that 30 percent were not very sure. The remaining 34 percent did not plan to expand their business within the next five years (Table 2.2). Regarding the business size, a higher percentage of large businesses planned to expand. Almost 60 percent of large enterprises planned to expand their operations whereas only 20 percent of small businesses had an expansion plan. Almost 40 percent of the businesses with no expansion plan were small enterprises while only 15 percent of large businesses did not plan to expand. This pattern of business expansion attitude was affected by the fact that large enterprises in provincial areas had a high growth rate and had accumulated considerable expertise, which in turn led to confidence in a rapid business expansion program. Small enterprises were still at the early stage; thus the possibility of going out of business still existed. Although, expansion opportunities were also available there were limited because their operation was in a limited market, which although the entry was relatively sample the competition was high.

According to the survey, each industrial enterprise needed, on average, about Baht 10 million for business expansion. Approximately 50 percent or Baht 5.1 million was short term working capital to invest in current assets and the remaining 50 percent was long-term funds to invest in fixed assets (Table 2.3). Short-term working capital was needed to keep higher inventories and offer more credit sales. Long-term capital would be needed to replace deteriorating fixed assets, to augment the production capacity of existing products, to manufacture new products, and to modernize machinery and equipment. In so doing, the firms would be able to manufacture higher quality products and reduce unit production costs.

The survey under this project revealed that most enterprises could raise funds from external sources for their business expansion without difficulties. Seventy-seven percent of those with a business expansion plan could easily acquire loans (Table 2.4). Small-scale enterprises encountered more problems than large enterprises. Twenty six percent of small enterprises intending to expand their operations ran into a problem when seeking for loans from external sources whereas only 17 percent of large enterprises with an expansion scheme reported this problem.

The fact that enterprises envisaged problems in acquiring loans from external sources resulted from many factors such as low liquidity, poor financial conditions, high leverage, sensitivity to economic condition changes, insufficient collateral and high interest rates, etc. The most frequently reported factor was insufficient collateral because loans, particularly by financial institutions, were usually provided under the condition that land was pledged as collateral, and the amount of loan was limited to a certain percentage of the land price. Thus, enterprises unable to pledge land as collateral usually encountered problems when seeking additional loans. Those most frequently citing this obstacle were small and medium-scale enterprises. Large enterprises did not report this problem at all. The factor that large enterprises considered an obstacle to borrowing were poor financial conditions caused by existing high debts, and high interest rates (Table 2.5).

The study by Tongroj et al. in 1985 on the sources of funds for business expansion revealed a different outcome. The percentage of external funds in the study by Tongroj et al (Table 2.6) was higher than that found in this project. This might result from the fact that; (1) the study by Tongroj and associates emphasized the sources of funds for investing in fixed assets, but for this project the study focused on the sources of funds for investing in all assets; (2) during the period when Tongroj and associates were conducting their study, enterprises' debt to total assets ratio was low, therefore, expansion could be financed by higher external funds. But this ratio during the period of this project was high, and a high percentage of internal funds had to be utilized to maintain an appropriate debt level.

2.1.3 Sources of Working Capital

Regarding working capital, important sources of funds included equity funds; loans from domestic financial institutions i.e. commercial banks, finance companies and finance and securities companies; loans from foreign financial institutions; loans from relatives; check discount; rotating credit associations; and trade credits.

The survey of the project on the sources of working capital indicated that 82 percent of all sampled enterprises considered cash inflow from sales as the most important source of working capital. About 12 percent identified commercial banks as the most important source of working capital. Some enterprises reported other sources as the most significant source, but the number of these enterprises was small. Moreover, no enterprises reported that informal lenders and the Small Industrial Finance Office were the most important sources of working capital (Table 2.7). That informal lenders were not a major source of funds might probably be because of high interest rates. Inconvenience and limited credit lines made the SIFO's an unimportant source of working capital.

The high dependence on internal funds may have been brought about by the convenience of having nobody else involved. Moreover, entrepreneurs thought that internal funds imposed no interest burden and overall opportunity cost was considered to be lower than the borrowing interest rate. If internal funds were used, profits did not need to be shared. On the contrary, some enterprises might acquire a considerable amount in loans because their own working capital was insufficient or because loans were utilized as a tool to raise the rate of return on the owner's equity.

Compared to large enterprises, small enterprises derived their working capital from sales at a higher percentage, and depended on funds from commercial banks at a lower percentage. Eighty four percent of small enterprises reported that their most important source of working capital was the sales of goods while only 11 percent specified commercial bank loans as the most significant source of working capital. In case of large enterprises, 68 percent deemed the sales of goods the most important source whereas 15 percent were highly dependent on commercial bank loans. The number of small enterprises relying on funds from unorganized sources exceeded that of large enterprises. No large enterprises derived the majority of loans from non-institutional sources while a number of small enterprises acquired most of their working capital from non-institutional sources (Table 2.7). Small enterprises depended on loans from financial institutions to a lesser degree when compared to large enterprises due to the fact that their collateral was limited. Thus, small enterprises were obliged to rely on funds from outside the organized market. In addition, less trade credits were given to small enterprises again, probably due to their lower creditability.

2.1.4 Source of Funds during the Survey

The survey results showed that 24 percent of the sampled enterprises did not acquire any loans from external sources, i.e. only internal funds were used. Major sources of external funds included commercial banks, non-bank financial institutions and informal sources.

Loans could be acquired from only one source or many sources. The survey results revealed that commercial banks were the most important source of external funds, followed by non-bank financial institutions and informal sources. Up to 34 percent of all enterprises surveyed derived their external funds exclusively through commercial banks, and 12 and 6 percent had non-bank financial institutions and informal sources outside the organized market as their only source of external funds, respectively. The remaining 25 percent of all enterprises raised external funds from various sources. The largest group was commercial banks and informal sources. Twelve percent of all sampled enterprises depended on these sources (Table 2.10). Only 52 percent of surveyed enterprises depended either wholly or partially on funds from commercial banks.

Regarding the size, a higher percentage of small enterprises did not get external capital, when compared to large enterprises. Among enterprises depending upon external funds, small enterprises that get loans from commercial banks and other financial institutions represented a lower percentage than large enterprises. On the contrary, the percentage of large enterprises raising funds from informal sources was lower, compared to small enterprises. Approximately 27 percent of small enterprises used no external funds while only 15 percent of large enterprises did not depend upon external funds. Forty-four percent of large enterprises and 32 percent of small enterprises acquired loans from commercial banks. As high as 7 percent of small enterprises were solely dependent on funds from informal sources while no large enterprises encountered this situation (Table 2.10). This situation was caused by many factors such as high lending costs of providing loans to small enterprises, financial institutions' lack of information concerning small enterprises, higher risks, and insufficient collateral. In addition, banks could not charge interest at a rate above the ceiling, which was lower than the equilibrium market rate, resulting in excess demand and credit rationing.

The analysis of the firms' financial structure revealed that external and internal sources contributed more or less equal funds required (based on balance sheets). Internal funds included equity,

retained earnings and reserves, representing 49 percent of total capital. In other words, 51 percent of capital was externally sourced in forms of different types of loans, both short-term and long-term (Table 2.8).

Previous studies had indicated that the majority, about two-thirds, of capital needed by industrial enterprises was derived from internal sources such as equity and retained earnings. The rest was externally raised from institutions and informal sources to the same extent. Commercial banks were the most important source among institutional sources of funds.

The study by Saeng et al. in 1976 indicated that 64 percent of total investment was financed from internal sources and 36 percent was financed from external sources. Half of the external funds were as loans from financial institutions, and the other half was raised via borrowing from non-institutional sources such as rotating credit associations, relatives and friends all of which were equally important. The study by Saeng et al. 1978, revealed similar results. Sixty-two percent of investment was internally derived. However, the percentages of funds from financial institutions and non-institutional sources were very different. Eighty percent of external funds were provided by financial institutions, usually commercial banks. The reason why the results of this study greatly differed from those of the study conducted in 1976 was that types of industries included in the analysis were different (See Annex.) The study done by Saroj in 1982, indicated that about 70 percent of investment made by small industrial enterprises were internally raised, and the remaining 30 percent were external funds or loans, of which 45 percent were short-term loans and 55 percent were long-term loans. With regard to short-term loans, 12 percent were from commercial banks and the remaining 88 percent were from unorganized informal sources. Loans from commercial banks constituted 50 percent of short-term and long-term loans combined. Loans from informal sources were mostly provided through rotating credit associations. Loans from relatives and friends were the second most important. The study by Tongroj et al. 1985, revealed that 60-75 percent of total investment was internally financed. Funds from external sources were of less

importance, that is 25-40 percent of total funds required. Nevertheless, this study yielded a different conclusion from those earlier studies. Almost all external capital, about 90-100 percent, was derived from institutions which were mainly commercial banks (Table 2.8).

According to the survey under this project, the percentage of external funds was higher than that in previous studies. This may result from the fact that enterprises constantly changed the share of funds from various sources so that the percentage of funds from each source would lead to the lowest weighted average cost of capital.

A comparison of enterprises of various sizes showed obvious differences. The survey results revealed that small enterprises used internal funds at a much higher percentage than large enterprises. Approximately 83 percent of total capital required by small enterprises was from internal sources whereas only 46 percent of large enterprises' capital was internal funds (Table 2.9). Previous studies also came to the same conclusions. The study by Saeng et al. in 1976, indicated that the share of external funds increased from 13.9 percent for small enterprises to 37.9 percent for large enterprises. The study conducted by Tongroj et al. in 1985, reported that the share of external funds rose from 26.6 percent in case of small enterprises to 35.8 percent in case of large enterprises.

Borrowing from commercial banks could be done through overdraft facilities or by obtaining term loans which could be either short-term or long-term. The survey indicated that about 39 percent of all enterprises obtained approximately 76-100 percent of their commercial bank loans in the form of overdrafts, and that about 51 percent of all enterprises had 0-25 percent of total commercial bank credits in the form of overdraft loans (Table 2.11).

In case of small enterprises, overdrafts represented a smaller share of financing while terms loans constituted a higher share. The opposite situation to that found in large enterprises. Approximately 55 percent of small enterprises constitute overdrafts within a range of 0 to 25 percent of total loans while only about 34 percent of large

enterprises showed the same share of overdrafts in the total loans (Table 2.11). Most enterprises preferred overdrafts because borrowing contracts did not need to be frequently made and can more easily be renewed. Large enterprises depended on overdrafts to a greater extent due to the fact that their financial condition was superior and they thus possessed more bargaining power with the commercial banks.

An overdraft facility provides short-term funding and therefore should be used to finance the required working capital. However, since commercial banks usually renew overdrafts, so they have also been used for financing investment in durable fixed assets, even though, revenues from this form of investment could not be generated fast enough in the short period to repay the loans. The investment in fixed assets financed by overdrafts therefore has resulted in higher business risks. If the commercial banks cease to renew the overdraft loans, enterprises would inevitably encounter loan repayment problems, and might have to liquidate some assets to pay the debts. The survey revealed that about 50 percent of responding enterprises still relied on overdrafts when making an investment in long-term fixed assets. A higher percentage of small enterprises financed investments in fixed assets through overdrafts, when compared to large enterprises, indicating that large enterprises had more appropriate financial management, and had lower risks (Table 2.12).

2.2 RATES OF INTEREST

According to previous studies on interest rates, borrowing rates by charged financial institutions were generally lower than those of informal sources. Commercial banks interest rates were also lower than those of finance and securities companies (Tables 2.13, 2.14 and 2.15). Among informal sources, rotating credit associations charged the lowest interest rates.

In terms of the relationship between interest rates and enterprise sizes, large enterprises, particularly those with over 200 employees paid lower interest rates than those either demanded by financial

institutions or informal sources than small enterprises. In case of rotating credit associations large enterprises were charged very low interest rates because large enterprises could possibly act as fund managers themselves.

The reason why interest rates differed among various sources was that the credit markets, both in the organized and informal markets, were not competitive, but fragmented. The informal credit market was much more fragmented. The fragmentation of credit markets results from varying risk perceptions and insufficient information on various enterprises. Credit worthiness information in particular was limited as many risk aspects had to be considered such as honesty, efficiency and the uses of funds (i.e. working capital versus consumption).[1]

Since the credit markets were fragmented, interest rates in each market varied, depending upon the capital opportunity cost or the cost of capital, lending costs, risks and the monopoly power of lenders.[2] Furthermore, with regard to commercial banks and finance and securities companies, interest rates depended on the interest rate ceiling specified by the Bank of Thailand and the liquidity of financial institutions at that time. The study by Tongroj (1985) indicated that the interest rates of informal sources were highly correlated with the rates charged by commercial banks in the sense that individual lenders would re-lend loans acquired from commercial banks. Therefore, it was not surprising to find that interest rates of informal sources were higher than those in the organized markets.

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1. Prasarn Triratworakul and Nut Tabsnan, Research Division, Bank of Thailand, "Some Considerations on Rates of Return outside the Organized Money Market"

2. U Tun Wai, "Interest Rates outside the Organized Money Markets of Underdeveloped Countries", IMF Staff Papers, Vol VI, Nos. 1-3, Nov. 1957-58, pp. 80-142; U Tun Wai, "A Revisit to Interest Rates outside the Organized Money Markets of Underdeveloped Countries," Banca Nazionale Del Laroro Quarterly Review, No. 122, September 1977, pp. 291-312. and Antony Bottomley, "Interest Rate Determinations in Underdeveloped Rural Areas," American Journal of Agricultural Economics, Vol. 57, May 1975, pp. 279-291.

The interest rates in rotating credit associations depended upon both internal and external factors.[3] Internal factors included previous bidding value, special characteristics of each group such as urgency of funding needs, socio-economic groups and time period (if the time period is short, bidden interest is usually high.) External factors included confidence in the stability of rotating credit associations and the situation in the organized monetary markets. The degree of influence of the organized monetary markets depended upon the relationship between the organized markets and the demand for and supply of capital among rotating credit associations' members. The higher the relationship was, the greater influence the organized markets would impose, and vice versa.

2.3 BORROWING COLLATERAL

Assets used as collateral included land and fixed assets, borrowers' creditability and financial condition, deposit accounts, checks and etc. In some cases, loans could be acquired without collateral.

The types of collateral depended upon the category of lenders. Financial institutions, namely commercial banks and finance and securities companies, usually required land, long-term assets and enterprises' financial condition as securities for loans. Seventy eight percent of small enterprises and 53 percent of medium enterprises pledged those assets as collateral in their borrowings from commercial banks and finance and securities companies. Approximately 28 and 19 percent of those applying for loans from finance and securities companies pledged financial condition and post-dated checks, respectively as collateral against loans (Table 2.16). Only a small number of loan applicants from financial institutions could acquire loans without providing collateral.

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3. Prasarn and Nut, ibid.

The borrowing of rural industries from informal sources also required collateral. The type of the most frequently pledged included borrowers' creditability, enterprises' financial condition and post-dated checks. Sixty-five to 85 percent of borrowing from relatives, friends and rotating credit conditions required these assets as collateral. Borrowing without collateral accounted for 23 and 14 percent of borrowing from relatives and rotating credit associations respectively. About 10 percent of borrowing from relatives required land as a collateral whereas land was, in no cases, secured for borrowing from rotating credit associations (Table 2.16). At present, the importance of each type of collateral may have changed after the collapse of numerous rotating credit associations in 1984, resulting in a decline in the creditability of issuing post-dated checks since that time.

The requirement of securities for loans raised lending costs by adding more costs such as those incurred by inspection, estimation and maintenance etc. As a consequence, if the borrowers' credit rating was acceptable, collateral assets might be unnecessary. On the other hand, borrowers with good credit rating might provide lenders with collateral to obtain interest rate discounts. However, lenders, especially financial institutions, mostly required securities for loans (land and other fixed assets) either because the borrowers' credit rating was unacceptable or because the financial institutions could not demand higher interest rates to compensate for higher risk due to the interest rate ceiling determined by the Bank of Thailand. Informal lenders did not encounter restrictions on the ceiling rate; therefore, they could afford to demand less strict collateral, such as credit worthiness in borrowers, enterprises' financial condition and post-dated checks. In some cases, no collateral was required. According to the study conducted by Tongroj (1985), a very high rate of repayment existed when borrowing from informal sources, but less strict securities for loans were required. Thus, interest rate ceilings and collateral requirements were obstacles to access to services from financial institutions, particularly for those small enterprises with limited fixed assets. Moreover, the determination of the amount of credit available as based on the value of the collateral pledged resulted in

insufficient credit being offered. Normally, land and long-term assets should be pledged as securities for long-term loans. Short-term loans should be secured by account receivables or inventory. In Thailand, pledging land and fixed assets as securities for short-term loans (overdrafts) has drained many opportunities to acquire long-term loans.

2.4 BORROWING PROBLEMS

Although an enterprise may have relied on internal funds to a higher extent than external funds, about 24 percent of surveyed enterprises did not use funds from any external sources, a large number of enterprises were inevitably dependent on external capital. Without this facility, sales and revenues would sharply drop, resulting in insufficient available funds for business expansion. This section of the report will deal with survey results on the problems encountered in borrowing from various sources, both financial institutions and informal sources.

2.4.1 Problems in Borrowing from Financial Institutions

Financial institutions for the purpose of the report included commercial banks, finance and securities companies, the Industrial Finance Corporation of Thailand and the Small Industrial Finance Office.

As previously mentioned, approximately 24 percent of all enterprises did not raise any external capital, and another six percent exclusively borrowed from informal sources. The study results to be discussed later deal with the remaining 70 percent which borrowed from financial institutions.

The study on rural industries' problems in borrowing from financial institutions revealed that about one-third or 34 percent of borrowing encountered financing problems (Table 2.17). The details of problems classified by institution will be further discussed. With regard to

the enterprise size, small and medium-scale enterprises faced more financing problems than large ones. This was due to factors involving both the financial institutions and the industrial enterprises. Financial institutions often considered small enterprises as risky investment, and the lending costs were correspondingly higher when compared to large enterprises. Regarding borrowers, their management experience might be insufficient and financial records were not properly and accurately prepared or recorded. General background information was never taken into consideration in the business decision-making process. The highest percentage of medium-scale enterprises also reported that they encountered financing problems probably because, during the survey period, medium-sized enterprises showed the highest debt-total assets ratio among enterprises of different sizes. Financial institutions were then more cautious when considering extending credit to medium-scale enterprises.

1) Problems in Borrowing from Commercial Banks

The most important problem reported by enterprises facing financing problems was insufficient credit. Small and medium-scale enterprises more often encountered this problem. The second most important problem was the high interest rates demanded by commercial banks. Enterprises of all sizes reported this problem. Commercial banks' requirement of excessive collateral for loans was found to be the third most important problem. Large and small enterprises both suffered from this obstacle.

Insufficient credit and excessive collateral requirements were interrelated and were directly related to the ceiling rate determined by the Bank of Thailand. Since commercial banks could not charge interest rates above the ceiling rate, they could not raise interest rates to sufficiently compensate for risks incurred and lending costs. As a consequence, banks allocated their available credit to businesses with low risk and low lending costs i.e. mainly to large enterprises. This then resulted in insufficient credit being raised and the requirement of excessive assets as security for loans. Since interest rates above the ceiling rates could not be charged, commercial banks

compensated for associated risks through demanding excessive pledged assets. This requirement then naturally screened out all borrowers with lower qualifications. However, the fact that enterprises reported insufficient capital raised indicated that additional good investment projects with higher rates of return than the cost of capital were still available. The problem of high interest rates mostly faced by small and medium-scale enterprises was reported because commercial banks often charged lower interest rates to large enterprises.

2) Problems in Borrowing from Finance and Securities Companies

Most enterprises did not encounter problems when borrowing from finance and securities companies. The most frequently reported problem was that of high interest rates. The second important problem was the requirement of an excessive amount of pledged assets. It was noticeable that those reported these problems were medium-scale enterprises (Table 2.19). The claim that interest rates were too high was probably brought about by the comparison with those charged to large enterprises and borrowing from commercial banks and other financial institutions which demanded interest rates not exceeding the ceiling rates determined by the Bank of Thailand. The problem of insufficient collateral for loans was partly caused by interest rate ceiling, risks and lending costs as previously mentioned in the case of commercial banks.

3) Problems in Borrowing from the Industrial Finance Corporation of Thailand

The problem most frequently quoted was high interest rates, mainly faced by medium and large-scale enterprises. Other important problems included complicated documentation (red tape), lack of ability to produce investment project proposals and incompatibility of repayment schedules and the borrowers' cash inflows pattern. These problems were mostly encountered by small and medium sized enterprises (Table 2.20). The claimed high interest rates were presumably caused by the fact that IFCT demanded fixed interest rates throughout the loan term.

During the time when general interest rates move downwards, IFCT's interest rates remain constant. Thus, it seems that IFCT demand a higher interest rate. The problem of complicated documentation and requirement of written project proposal results from IFCT's practice of loan evaluation where the approach is project lending and an investment project proposal must first be appraised. In addition, information on production techniques, marketing and finance was required, but most enterprises, especially rural enterprises did not systematically keep these records, leading to further problems of information availability and project writing.

4) Problem in Borrowing from the Small Industrial Finance Office (SIFO)

The problem most frequently quoted was lack of experience in writing a project proposal partly because the management of small enterprises were not experience, and this information was not systematically recorded. In most cases, the management had never written a project proposal for loan application. Thus, SIFO's practice regarding loan evaluation using project lending technique had caused some problems when it came to preparing project proposals.

2.4.2 Problems in Raising funds from Informal Sources

1) Problems in Borrowing from Parents and Relatives

Nearly all the problems reported were faced by small enterprises. Large enterprises did not identify any problems at all. This may be due to the fact that large enterprises hardly ever borrow from these sources, or could raise capital from other sources without any difficulties. The most significant problem was insufficient amount of credit. The second most important problem was high interest rates. Other obstacles included the need to borrow from many sources to raise sufficient capital and the excessive amount of pledged assets required (Table 2.22). An insufficient amount of credit available and need to acquire loans from many sources were interrelated problems. When a loan

from a single source was not sufficient, additional loans from other sources had to be provided if possible. The limited amount of credit offered may be due to lack of at all information. Each lender was aware of borrowers' loan repayment ability to a different degree. Only well-informed lenders would provide loans. However, borrowing from various sources was also limited because the borrowers' ability to pay back to existing loans would decrease. In general, existing lenders would not allow borrowing from several sources; consequently, only one source would actually provide loans. Thus, the loan size is dependent the lenders' available capital. If several borrowers applied for loans from the same source, the available capital had to be allocated, thus resulting in insufficient capital raised for each borrower, and high interest rates were imposed. As mentioned earlier, imperfect information created lenders' monopoly and economic rents were charged.

2) Problems in Borrowing from Friends and Rotating Credit Groups

Problems in borrowing from friends were similar to those in borrowing from relatives and parents. The problem most frequently reported was the insufficient amount of the loan. The second and third most significant problems were high interest rates and multi-source borrowing. The reasons behind these obstacles were the same as described in the previous section (Tables 2.23 and 2.24).

2.4.3 Borrowing Problems Identified in Previous Studies

Although many enterprises borrowed from external sources, a large number of enterprises encountered problems in gaining access to services provided by external financial sources.

The study conducted by Saeng et al. in 1976 indicated that about 60-70 percent of enterprises did not face funds accessibility problems. In other words, 30-40 percent encountered obstacles in gaining access to financial services provided by external sources. The seriousness of the problem varied among enterprises of different sizes. Medium-scale enterprises suffered most while large enterprises hardly

ever had to face this problem (Table 2.25). Two major factors obstructing access to external sources for enterprises of every size included insufficient collateral and high interest rates. For small enterprises, these two factors were of equal importance. Medium and large-scale enterprises, were mainly concerned by the high interest rates. The study conducted by IFCT in 1982 gave similar reasons but came to different conclusions. Small and medium-scale enterprises reported that the most important obstacle was lack of collateral but at that time large enterprises stated that external funds were not utilized because internal capital was adequate. Another limitation noted was the complicated borrowing procedures.

2.5 USES OF CERTAIN TYPES OF CREDITS AND PROBLEMS

Some credit categories to be discussed in this section include those offered by the Industrial Finance Corporation of Thailand which handles export credits, small industry credits, and small industry credit guarantee funds as well as those offered by the Bank of Thailand consisting of packing credit, rediscount of industrial bills and rediscount of small industrial bills. The survey results are as follows.

Service Availability Awareness

The survey results indicate that most surveyed industrial factories had never heard of services mentioned above. For instance, about 45 percent of industrial factories did not know about small industry credits as provided by IFCT, and as much as 60 percent had never heard of the facilities offered by the Small Industry Credit Guarantee Fund (Table 2.27).

This lack of awareness indicates insufficient public relations information which might possibly be caused by budget constraint or lack of publicly or inappropriate uses of communication media. From the part of borrowers, if entrepreneurs were not interested in acquiring this information, it was difficult to be aware of these facilities. However,

this latter reason did not seem strong as it was unlikely that 40-50 percent of enterprises were not enthusiastically searching for information which would be useful to their business requirements.

Uses of Facilities

These credit services, therefore, were utilized at a very low rate, even though about 40-50 percent of all surveyed enterprises were aware of this service availability. However, enterprises using the provided services in each category accounted for less than 5 percent (Table 2.27). The problems encountered by this low access rate will be discussed later.

Problems in Using Services

As previously mentioned, the number of those who utilized available services was very small. According to this survey, the low rate of service use results from four factors, the most important being that some enterprises were not categorized as suitable users. For example, export credits could only benefit those who were involved in manufacturing for export. Credits for small-scale industries could only be made available to those classified as small-scale industries. Similarly rediscount facilities were given to a particular group of borrowers, other groups of enterprises were not eligible to use. Moreover, since these loans came with certain fixed maturity dates, most enterprises preferred overdrafts which they could pay back whenever they wished. In addition, some enterprises did not want to disclose their detailed financial records for fear of being levied higher taxes.

The second most important factor was that enterprises did not know where and how they could acquire such services. This indicated inefficient publicity or improper communication media selection. The third and fourth significant reasons were interrelated. The third reason stated the complicated procedures and the fourth was that enterprises did not have the information required. Prior to the provision of credits from IFCT and the Small Industry Credit Guarantee Fund, project proposals must be evaluated. This process required

disclosing a considerable amount of information. Although the evaluation process was eventually reviewed and moderated, many steps to gain approvals still existed, both within IFCT and the Small Industry Credit Guarantee Fund. Borrowing through rediscounts also required detailed information, such as balance sheets, and income statements dating back to many years. Rural industrial enterprises usually did not have this information available, and thus, many enterprises were deprived of these services (Table 2.27).

Table 2.1
Sources of Initial Capital by Firm Size in 1965, 1976, 1978 and 1984

Percent

Sources of Funds	1965 1/				1976 2/				1978 3/				1984 4/		
	Size of Firms				Size of Firms				Size of Firms				Size of Firms		
	Small	Medium	Large	Average	Small	Medium	Large	Average	Small	Medium	Large	Average	Small	Medium	Large
Internal Sources	96.5	81.5	56.1	88.1	65.0	71.2	61.5	72.6	72.0	82.2	63.3	74.0	84.8	46.7	62.3
External Sources	3.4	19.0	44.0	11.9	39.0	28.9	38.7	27.4	28.0	17.8	36.7	26.0	15.2	53.3	37.7
Unorganized Market	1.8	6.7	23.0	6.1	24.3	11.8	19.3	15.1	9.7	7.4	-	9.1	5.9	-	-
-Family/Friend/Relative	1.4	5.4	0.7	1.4	12.3	4.6	-	5.8	7.6	4.3	-	6.7	1.8	-	-
-Chit Fund	0.4	1.3	-	0.4	3.1	1.9	-	1.8	-	-	-	-	0.3	-	-
-Others	-	-	22.3	4.3	8.9	5.3	19.3	7.5	2.1	3.1	-	2.4	3.8	-	-
Organized Market	1.6	12.3	21.0	5.8	10.5	17.1	19.4	12.3	18.3	10.4	36.7	16.9	9.3	53.3	37.7
-Commercial Banks	1.6	12.3	20.2	5.6	9.4	16.0	17.8	11.1	18.3	10.4	36.7	16.9	9.3	31.3	37.7
-Finance Companies					0.2	0.0	1.6	0.5	-	-	-	-	-	-	-
-IFCT			0.8	0.2	0.8	0.2	-	0.6	-	-	-	-	-	22.0	-
-SIFO					0.1	0.8	-	0.1	-	-	-	-	-	-	-
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Internal: External Ratio	1:.03	1:.23	1:.78	1:.13	1:.12	1:.54	1:.41	1:.38	1:.39	1:.22	1:.58	1:.35	1:.18	1:1.14	1:.60

Sources: 1/ Rozental, Alek A., 1970, Finance and Development in Thailand.
2/ Sanguanruang, Saeng et al., 1976, Small and Medium Scale Industries in Thailand.
3/ Sanguanruang, Saeng et al., 1978, Development of Small and Medium Manufacturing Enterprises in Thailand.
4/ Onchan, Tongroj et al., 1985, Rural Industrialization and Employment Generation: A Study of Regional Industries in Thailand.

Table 2.2
Expected Expansion in the Next 5 Years by Firm Size

Number of Sample Firms

Item	Small		Medium		Large		Total	
	No.	%	No.	%	No.	%	No.	%
No Expansion	265	40.8	23	22.8	7	17.9	295	37.3
Uncertain	229	35.2	26	25.7	8	20.5	263	33.8
To Expand	156	24.0	52	51.5	24	61.5	232	28.9
Total	722	100.00	109	100.00	42	100.00	873	100.00

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 2.3
Average Investment Per Firm Anticipated for the Expansion

Type of Asset	Amount (Million Baht)
Working Capital	5.09
Fixed Assets	5.17
Total	10.26

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 2.4
Number of Sample Firms Expecting External Fund Raising Problems by Firm Size

Item	Small		Medium		Large		Total	
	No	%	No	%	No	%	No	%
No Problem Expected	110	74	26	87	15	83	151	77
Problem Expected	38	26	4	13	3	17	45	23
Total	148	100	30	100	18	100	196	100

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 2.5
Fund Raising Problems Anticipated by Sample Firms

Percent

Expected Problem	Small	Medium	Large	Average
Poor Liquidity Condition	13.5	0.0	0.0	11.4
Poor Financial Condition	2.7	0.0	33.3	4.5
Sensitive to Changing Economy	2.7	0.0	0.0	2.3
Insufficient Collateral	62.2	96.8	0.0	59.1
High Rate of Interest	10.8	3.2	33.3	13.6
Others	8.1	0.0	33.3	9.1
Total	100.0	100.0	100.0	100.0

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 2.6
Sources of Funds for Business Expansion (in Fixed Assets)
by Firm Size, 1984

Percent

Sources of Funds	Small	Medium	Large
Internal Sources	40.4	36.0	51.5
External Sources	59.6	64.0	48.5
Organized	51.2	64.0	48.5
Commercial Banks	51.0	64.0	48.5
IFCT	-	-	-
SIFO	-	-	-
Finance Co.	0.2	-	-
Unorganized	8.4	-	-
Friends	3.5	-	-
Parents	1.2	-	-
Credit Asso.	3.5	-	-
Others	0.2	-	-

Source: Complied from Onchan, Tongroj et al., Rural Industrialization and Employment Generation. A Stydy of Regional Industries in Thailand. Center for Apply Economics Research, Kasetsart University. 1985.

Table 2.7
Percentage Distribution of Firms by Prime Sources of Working Capital and Firm Size

Sources	Small	Medium	Large	Average
Current Operation	83.6	75.3	67.6	81.9
Borrow from Partners/Shareholders	0.2	0.0	5.9	0.4
Borrow from Commercial Banks	11.4	18.5	14.7	12.4
Borrow from Finance and Security Co.	0.2	0.0	0.0	0.1
Borrow from IFCT	0.3	0.0	0.0	0.3
Borrow from Parents,Relatives,Friends	0.8	1.2	0.0	0.8
Rotating Credit Associations	0.3	0.0	0.0	0.3
Credit from Input Suppliers	1.5	1.2	2.9	1.6
Others	1.7	3.7	8.8	2.3
Total	100.0	100.0	100.0	100.0

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 2.8
Percentage Distribution of Sources of Funds on the Survey Date by Firm Size

Percent

Sources of Funds	1976 1/				1978 2/				1981 3/
	Size of Firms				Size of Firms				
	Small	Medium	Large	Average	Small	Medium	Large	Average	Small
Internal Sources	66.7	63.1	62.1	64.2	71.1	52.6	46.3	61.5	70.2
External Sources	33.3	36.9	37.9	35.8	28.9	47.4	53.7	38.5	29.8
Unorganized Sources	20.0	18.2	14.7	17.2	10.1	4.8	8.5	8.1	14.5
-Friend/Family/Relative	8.9	8.3	0.6	5.7	8.9	2.9	8.5	6.3	5.0
-Chit Fund	2.5	1.1	12.2	5.2	-	-	-	-	7.5
-Others	2.6	8.8	1.9	6.2	1.2	1.9	-	1.8	2.0
Organized Sources	13.3	18.7	23.1	18.6	18.8	42.6	45.2	30.4	15.3
-Commercial Banks	11.8	16.6	22.9	17.3	18.8	42.6	45.2	30.4	15.3
-Finance Companies	0.4	1.5	-	0.7	-	-	-	-	-
-IFCT	0.8	0.5	0.2	0.5	-	-	-	-	-
-SIFO	0.3	0.1	-	0.1	-	-	-	-	-
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
External Sources									29.8
Short Term Debt									13.6
-Unorganized Sources									11.7
-Organized Sources									1.9
Long Term Debt									16.2
-Unorganized Sources									2.8
-Organized Sources									13.4

Table 2.8 (Continued)

Sources of Funds	1984 4/ Size of Firms			1988 5/ Size of Firms			
	Small	Medium	Large	Small	Medium	Large	Average
Internal Sources	73.4	63.2	64.2	83.4	37.1	45.8	48.7
External Sources	26.6	37.7	35.8	16.6	62.9	54.2	51.2
Unorganized Sources	3.1	-	4.0				
-Friend/Family/Relative	-	-	-				
-Chit Fund	1.2	-	-				
-Others	1.9	-	4.0				
Organized Sources	23.5	37.7	31.8				
-Commercial Banks	23.0	33.6	31.8				
-Finance Companies	-	-	-				
-IFCT	*	4.1	-				
-SIFO	0.5	-	-				
Total	100.0	100.0	100.0				
External Sources				16.6	62.9	54.2	48.7
Short Term Debt				6.1	59.4	11.0	26.8
-Unorganized Sources							
-Organized Sources							
Long Term Debt				10.5	3.5	43.2	24.4
-Unorganized Sources							
-Organized Sources							

Note: * Negligible

Sources: 1/ Sanguanruang, Saeng et al., 1976, op.cit.
2/ Sanguanruang, Saeng et al., 1978, op.cit.
3/ Aungsumalin, Saroj, 1982, Financial Structure and Credit Needs of Small Scale Industries.
4/ Onchan, T. et al., 1985, op,cit.
5/ Rural Industries and Employment Project Survey, TDRI, 1989.

Table 2.9
Financial Structure of Sample Firms

Million Baht

Financial Structure	Small		Medium		Large		Average	
	Amount	%	Amount	%	Amount	%	Amount	%
Short Term Debt	0.23	6.15	14.65	59.38	28.78	10.98	4.34	26.81
Long Term Debt	0.40	10.46	0.87	3.53	113.44	43.26	3.96	24.44
Total Debt	0.63	16.61	15.52	62.91	142.21	54.24	8.31	51.25
Equity	3.15	83.39	9.15	37.09	120.00	45.76	7.90	48.75
Total Debt and Equity	3.78	100.00	24.66	100.00	262.21	100.00	16.21	100.00

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 2.10
Frequency of Sample Firms by External Sources of Funds

Percent

Sources of Funds	Small	Medium	Large	Average
Commercial Banks Only	32.3	39.4	43.6	33.8
Commercial Banks and Informal Sources	12.2	13.8	5.1	12.0
Non-Bank Financial Institutions only	10.1	20.2	15.4	11.5
Non-Bank Financial Institutions and Informal Sources	7.6	2.1	0.0	6.6
Informal Sources Only	6.6	2.1	0.0	5.8
Commercial Banks and Other Financial Institutions	3.1	6.4	10.3	3.8
All Sources	1.4	7.4	10.3	2.5
Do not Borrow	26.6	8.5	15.4	24.1
Total	100.0	100.0	100.0	100.0

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 2.11
Frequency of Sample Firms by Percent of
Overdraft Loans to Total Loans

Percent

% Overdraft Loans/Total Loans	Small	Medium	Large	Average
0-25	55.1	34.1	34.3	51.8
26-50	5.3	13.6	14.3	6.5
56-75	1.7	6.8	14.3	2.8
76-100	37.9	45.5	37.1	38.9
Total	100.0	100.0	100.0	100.0

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 2.12
Frequency of Sample Firms by The Use of Overdraft Loan
for Long Term Investment

Percent

	Small	Medium	Large	Average
Use	51	45	38	49
Do Not Use	49	55	62	51
Total	100	100	100	100

Source: Rural Industries and Employment Project Survey,
TDRI, 1989.

Table 2.13
Average Rates of Interest by Lending Sources and Firm Employment Size

Percent Per Annum

Firm Size (persons employed)	Lending Sources					
	Relatives and Friends	Commercial Banks	Finance Companies	Chit Fund	Others	Average
Less Than 10	18.7	13.3	21.0	17.0	18.7	16.8
10-49	19.3	13.4	14.8	17.0	19.3	16.3
50-99	18.3	13.6	17.1	13.2	18.3	15.5
100-199	20.6	13.6	16.2	5.5	20.6	16.2
200 and Over	18.0	12.9	12.0	3.0	18.0	9.6

Source: Sanguanruang,Saeng et al. 1976, Small and Medium Scale Industries in Thailand.

Table 2.14
Interest Rates of Loans by Lending Sources

Percent Per Annum

Lending Sources	Size of Employment					
	Average	< 10	10-19	20-49	50-99	100+
Commercial Banks	17	18	17	16	15	17
Chit Fund	16	24	16	8	13	NA
Shops/businesses	15	8	NA	10	NA	60 1/

Note: 1/ Only one observation

Source: USAID, 1984, Small Industries Survey.

Table 2.15
Interest Rates of Share Schemes, 1984

Case Number	Number of Members	Amount Paid /Member/Times	Interest Rate	
			First Bidder %	Last Bidder %
1	13	5,000	3.9	97.2
2	19	10,000	2.6	27.6
3	14	20,000	3.5	54.7
4	16	5,000	3.1	103.2
5	12	10,000	4.2	132.0
6	21	10,000	2.4	103.2
7	21	20,000	0.8	70.8

Source: Compiled from Onchan, Tongroj, 1985, Informal Credit and The Development of Non-Farm Enterprises in Thailand.

Table 2.16
Types of Collateral by Lending Sources, 1976

Percent Based on Number of Reponses

Collateral	Lending Sources			
	Relatives	Commercial Banks	Finance Companies	Share Societies
Land and Other Fixed Assets	9.6	78.5	53.5	-
Personal Credit and Firm's Finance Position	45.6	16.4	27.6	42.4
Overdraft Account	-	2.7	-	-
Post Dated Cheque	20.7	0.6	19.0	43.2
No Collateral	23.4	1.4	-	14.4
Others	0.4	0.4	-	-
Total	100.0	100.0	100.0	100.0

Source: Sanguanruang, Saeng, et al., 1976. Small and Medium Scale Industries in Thailand.

Table 2.17
Frequency of Sample Firms that Expect Problems in Loan Acquisition from Financial Institutions

Percent

	Small	Medium	Large	Average
Expect No Problem	66	61	77	66
Expect Some problems	34	39	23	34
Total	100	100	100	100

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 2.18
Frequency of Sample Firms by Problems in Loan Acquisition from Commercial Banks

Percent

Problem	Small	Medium	Large	Average
Insufficient Amount	41.7	43.5	33.3	41.8
Take Long Time	4.8	13.0	0.0	6.4
High Rate of Interest	33.3	34.8	33.3	33.6
Too Much Paper Work	1.2	0.0	0.0	0.9
Insufficient Collateral	14.3	4.3	33.3	12.7
Repayments Do Not Coincide With Cash Inflows	3.6	0.0	0.0	2.7
Others	1.2	4.3	0.0	1.8
Total	100.0	100.0	100.0	100.0

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 2.19
Frequency of Sample Firms by Problems in Loan Acquisition from Finance Companies

Percent

Problem	Small	Medium	Large
High Rate of Interest	0.0	66.7	0.0
Insufficient Collateral	0.0	33.3	0.0
Total	0.0	100.0	0.0

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 2.20
Frequency of Sample Firms by Problems in Loan Acquisition from IFCT

Percent

Problem	Small	Medium	Large	Average
High Rate of Interest	0.0	50.0	100.0	50.0
Too Much Paper Work	0.0	25.0	0.0	16.7
Inability to Prepare Project Paper	100.0	0.0	0.0	16.7
Repayments Do Not Coincide With Cash Inflows	0.0	25.0	0.0	16.7
Total	100.0	100.0	100.0	100.0

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 2.21
Frequency of Sample Firms by Problems in Loan Acquisition from SIFO

Percent

Problem	Small	Total
Inability to Prepare Project Paper	100.00	100.00
Total	100.00	100.00

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 2.22
Frequency of Sample Firms by Problems in Loan Acquisition from Parents and Relatives

Percent

Problem	Small	Medium	Average
Insufficient Amount	70.4	100.0	71.4
High Rates of Interest	7.4	0.0	7.1
Have to Borrow from Many Lenders	3.7	0.0	3.6
High Collateral Requirement	3.7	0.0	3.6
Others	14.8	0.0	14.3
Total	100.0	100.0	100.0

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 2.23
Frequency of Sample Firms by Problems in Loan Acquisition from Friends

Percent

Problem	Small	Medium	Average
Insufficient Amount	60.0	20.0	53.3
High Rates of Interest	32.0	80.0	40.0
Have to Borrow from Many Lenders	8.0	0.0	6.7
Total	100.0	100.0	100.0

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 2.24
Frequency of Sample Firms by Problems in Loan Acquisition from Rotating Credit Associations

Percent

Problem	Small	Medium	Average
Insufficient Amount	44.0	0.0	37.9
Time Consuming to Obtain	4.0	0.0	3.4
High Rates of Interest	40.0	75.0	44.8
Have to Borrow from Many Lenders	8.0	0.0	6.9
Others	4.0	25.0	6.9
Total	100.0	100.0	100.0

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 2.25
Frequency of Sample of Firms by Problems on Access to External Sources of Funds, 1976

Percent

Problem	Small	Medium	Large
Complicated Procedures	2.5	2.6	3.6
Lack of Collateral	9.7	10.3	7.1
High Interest Rates	9.8	17.1	14.3
Irregularity	1.9	1.8	-
Short Credit Term	2.6	1.4	-
Undertable commission	2.0	3.1	-
Irregular Payment Schedules	0.6	0.4	-
Uncertainty in Obtaining Funds	2.2	0.4	-
Others	0.2	1.4	3.6
No Problems	68.5	61.5	71.4
Total	100.0	100.0	100.0

Source: Compiled from Sanguanruang, Saeng, et el., 1976, Small and Medium Scale Industries in Thailand, 1976. Table 6.18, p2.

Table 2.26
Frequency of Sample of Firms by Reasons for Not Obtaining Funds from Commercial Banks, 1982

Percent

Reason	Small	Medium	Large
Complicated Procedures	7.0	25.0	25.0
High Interest Rates	14.0	-	15.0
Short Credit Term	9.0	-	-
Lack of Collateral	67.0	41.0	-
Adequate Internal Funds	-	-	50.0
Others	3.0	34.0	10.0
Total	100.0	100.0	100.0

Source: Research and Planning Division, IFCT, 1982, Investment of Manufacturing Companies.

Table 2.27
Awareness and the Use of Various Financial Facilities Offered by IFCT and the Bank of Thailand (through Commercial Banks) by Firm Size

Percent

Facility/Awareness/Use of Service	Small	Medium	Large	Average
Export Credit Service (IFCT)				
Unaware of Facilities	61.1	28.7	9.8	54.9
Had Received Services	0.7	9.6	19.5	2.7
Know of Them but Never Use	38.1	60.6	65.9	42.0
Know (No Indication About Use)	0.1	1.1	4.9	0.5
Total	100.0	100.0	100.0	100.0
Small Industry Credit (IFCT)				
Unaware of Facilities	48.5			
Had Received Services	3.9			
Know of Them but Never Use	47.4			
Know (No Indication About Use)	0.1			
Total	100.0			
Small Industry Credit Guarantee Fund (IFCT)				
Unaware of Facilities	63.7			
Had Received Services	0.3			
Know of Them but Never Use	35.9			
Know (No Indication About Use)	0.1			
Total	100.0			
Rediscount of Promissory Notes from Export (BOT)				
Unaware of Facilities	78.6	38.0	15.0	70.6
Had Received Services	0.7	16.3	30.0	4.0
Know of Them but Never Use	20.5	43.5	47.5	24.7
Know (No Indication About Use)	0.1	2.2	7.5	0.7
Total	100.0	100.0	100.0	100.0
Rediscount of Promissory Notes from Industrial Operation (BOT)				
Unaware of Facilities	76.6	37.8	18.4	69.3
Had Received Services	2.2	14.4	13.2	4.1
Know of Them but Never Use	20.8	46.7	63.2	25.9
Know (No Indication About Use)	0.4	1.1	5.3	0.7
Total	100.0	100.0	100.0	100.0
Rediscount of Promissory Notes from Small Industry Operation (BOT)				
Unaware of Facilities	74.0			
Had Received Services	1.5			
Know of Them but Never Use	24.0			
Know (No Indication About Use)	0.6			
Total	100.0			

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 2.28
Frequency of Sample Firms by Reasons for Not Using
Export Credit Service at IFCT

Percent

Reason	Small	Medium	Large	Average
Unaware of Such Service	62.8	41.8	39.5	59.3
No Knowledge of Location/Procedures	4.2	4.4	0.0	4.0
No Need of the Facilities	27.1	36.3	55.3	29.6
Lack Necessary Financial Records	1.3	2.2	0.0	1.3
Facilities Unknown to Bank Branches	0.1	0.0	0.0	0.1
Bank Refuses to Process Application	0.4	1.1	2.6	0.6
Insufficient Collateral	0.3	2.2	0.0	0.5
Complicated Steps & Procedures	2.6	8.8	2.6	3.3
Distant Location	0.6	0.0	0.0	0.5
Others	0.6	3.3	0.0	0.8
Total	100.0	100.0	100.0	100.0

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 2.29
Frequency of Sample Firms by Reasons for Not Using
Small Industry Credit at ICFT

Percent

Reason	
Unaware of Such Services	54.3
No Knowledge of Location/Procedures	8.0
No Need of the Facilities	28.1
Lack Necessary Financial Records	1.7
Facility Unknown to Bank Branches	0.3
Bank Refuses to Process Application	0.6
Insufficient Collateral	0.7
Complicated Steps & Procedures	5.2
Distant Location	0.4
Others	0.7
Total	100.0

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 2.30
Frequency of Sample Firms by Reasons for Not Using
Small Industry Credit Guarantee Fund

Reason	Percent
Unaware of Such Services	66.0
No Knowledge of Location/Procedures	5.5
No Need of the Facilities	22.2
Lack Necessary Financial Records	1.2
Facility Unknown to Bank Branches	0.1
Bank Refuses to Process Application	0.6
Insufficient Collateral	1.5
Complicated Steps & Procedures	1.9
Distant Location	0.1
Others	0.9
Total	100.0

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 2.31
Frequency of Sample Firms by Reasons for Not Using
Export Rediscount Facility

Reason	Small	Medium	Large	Average
	Percent			
Unaware of Such Services	80.2	56.2	55.3	73.0
No Knowledge of Location/Procedures	2.8	4.5	2.6	3.3
No Need of the Facilities	14.4	27.0	39.5	19.4
Lack Necessary Financial Records	0.9	2.2	0.0	1.3
Bank Refuses to Process Application	0.0	1.1	2.6	0.3
Insufficient Collateral	0.0	1.1	0.0	0.1
Complicated Steps & Procedures	1.2	6.7	0.0	1.9
Others	0.6	1.1	0.0	0.7
Total	100.0	100.0	100.0	100.0

Source: Rural Industries and Employment Project Survey, TDRI, 1989

Table 2.32
Frequency of Sample Firms by Reasons for Not Using Rediscount Facility of Promissory Notes from Industrial Undertaking

Percent

Reason	Small	Medium	Large	Average
Unaware of Such Services	79.1	55.2	40.0	74.5
No Knowledge of Location/Procedures	3.4	4.6	2.9	3.5
No Need of the Facilities	14.8	31.0	54.3	18.5
Lack Necessary Financial Record	0.7	2.3	0.0	1.0
Facility Unknown to Banks Branches	0.1	0.0	0.0	0.1
Bank Refuses to Process Application	0.0	1.1	2.9	0.3
Insufficient Collateral	0.0	1.1	0.0	0.1
Complicated Steps & Procedures	1.2	4.6	0.0	1.5
Others	0.6	0.0	0.0	0.5
Total	100.0	100.0	100.0	100.0

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 2.33
Frequency of Sample Firms by Reasons for Not Using Rediscount Facility Arising from Small Industry Undertaking

Percent

Reason	
Unaware of Such Services	76.1
Do Knowledge of Location/Procedures	4.0
No Need of the Facilities	16.7
Lack Necessary Financial Records	1.0
Facility Unknown to Bank Branches	0.1
Insufficient Collateral	0.1
Complicated Steps & Procedures	1.2
Others	0.6
Total	100.0

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

CHAPTER 3

USES OF FUNDS OF RURAL INDUSTRIES

In chapter 2, we discussed various sources of funds available for industrial enterprises. This chapter will describe the uses of funds, use patterns and rates of return.

3.1 INVESTMENT IN ASSETS

The uses of funds consist of two broad sectors. The first category is investment in fixed assets which can be long lasting but requires a huge initial capital investment, such as land, buildings, machinery, equipment, automobiles and trucks. The second category covers investments in short-term assets. This type of investment is also referred to as working capital and, as such, is used for the procurement of necessary items for the production of goods and services, administration and selling of goods. Current assets include cash on hand and bank deposits, financial assets, accounts receivable and inventories consisting of work-in-process and finished products as well as raw materials. Investment in assets, to be discussed later, is investment at a point in time (during the survey) because current assets constantly change. Most surveyed on current assets usually excluded cash on hand, bank deposits and other financial assets because these assets are of high liquidity and because enterprises are generally not willing to disclose these figures.

A survey of 106 samples in eight types of small-scale industries in Roi Et, Khon Kaen and Chiang Mai in 1981 indicated that investment in total assets or the value of total assets of small-scale industries, on average, amounted to Baht 640,000 (Table 3.1). Approximately 75 percent or Baht 480,000 was investment in fixed assets, and the remaining 25 percent or Baht 160,000 was invested in current assets.

Regarding investment in fixed assets, investment in land and buildings represented about 50 percent of total investment, with investment in land slightly higher than that in buildings. Investment in land and buildings accounted for about 28 and 22 percent of total investment, respectively. Investment in machinery and equipment constituted almost the same percentage as that in automobiles and trucks. Each of these categories of investment represented about 13 percent of total investment or almost half of investment in land.

Over 50 percent of investment in current assets was in the finished products. Investment in the finished product inventory represented about 15 percent of the total investment. As in other industries, small-scale industries had to offer credit sales. Investment in accounts receivable amounted to about 5 percent of the total investment.

Two further studies on rural industries discussed investments made by provincial industries. These two studies were conducted by Kuroda and Kasajima , and Tongroj et al. in 1984. The study of Kuroda and Kasajima collated data derived from JICA experts' surveys, covering a total of 542 enterprises in small- and medium-scale industries throughout the country. The study of Tongroj et al. was based on the survey in the Central, Northeast and South (in Kanchanaburi, Khon Kaen and Songkhla), covering 74 samples in 14 industries.

The studies revealed similar results concerning investment size. The total assets of small industries in this case amounted to approximately Baht 2.6 million. Those of medium-and large-scale industries averaged Baht 10-13 million and 19 million respectively (Table 3.1).

The more recent project survey of almost 1,000 enterprises distributed in every region of the country indicated that the average total investment or value of total assets amounted to about Baht 16 million, of which one-third (about Baht 5 million) was invested in current assets and two-thirds (about Baht 11 million) was in fixed assets. Nearly 60 percent of the investment in fixed assets was made on

machinery and equipment. Investment in land represented only about 20 percent of total investment in fixed assets (Table 3.1).

The amount invested varied greatly among industries of different sizes. The investment of small industries totaled about Baht 4 million whereas that of medium- and large-scale industries amounted to Baht 24 and 260 million respectively. Medium-sized industries were approximately six times that of small industries, while large industries were almost 70 times that of small industries or 10 times of medium-scale industries (Table 3.1). Differences in size were also reflected in manufactured product value (as the proxy of sales). The value of products manufactured by small, medium and large industries totaled Baht 4, 48 and 280 million, respectively (Table 3.2).

The sizes of investment made by rural industries surveyed in 1981, 1984 and 1988 (project survey) showed wide variations because the surveys were conducted in different areas, and among varying industry types and number of samples in each industry. Moreover, the surveys were carried out at different periods of time. Thus, the asset value was affected by rising inflation rates. It was possible that the study by Tongroj et al. underestimated the investment size of large enterprises. In addition, increased investment resulted in the increase in value of total assets, particularly in case of large enterprises which showed a higher rate of return and more retained earnings, when compared to small enterprises. Finally, large enterprises could more easily acquire loans at low interest rates from financial institutions, when compared to small enterprises.

The survey in 1984 yielded slightly different results regarding the ratio of fixed, or current assets to total assets. The study of Kuroda and Kasajima indicated that fixed assets represented a range of 55 to 59 percent of total assets, but the study of Tongroj et al. identified a slightly higher percentage. This percentage rose to about 67-72 in case of small- and medium-scale industries. This discrepancy can be accounted for by the different types of industry surveyed.

Although previous studies did not state that the large industrial enterprises invested in fixed assets at a higher rate than small enterprises, the study by Tongroj et al. found that small industrial enterprises showed a higher percentage of investment in fixed assets, that is 71 percent of total investment, and this percentage was increased to 74 percent in case of large industrial enterprises (Table 3.1).

The survey under this project came to different conclusions. The percentage of current assets increased as the industry size increased. Investment in short-term assets of small industries represented 22 percent of total investment while the percentage rose to almost 40 percent in the case of large industries (Table 3.1). In general, current assets showed a seasonal change pattern. However, current assets, particularly inventory would never reduce to zero, and permanent working capital always existed. Inventory fluctuated according to sales. With increasing sales, more inventory had to be carried and more credit sales were offered. Consequently, there was more cash on hand to be maintained. When the enterprise size became larger, the percentage of various types of current assets had to rise. In other words, the percentage of investment in fixed assets were decreased as the enterprise was getting larger.

The study by Tongroj et al. revealed that investment in land, buildings, machinery and trucks followed a particular pattern. Small industrial enterprises had the highest percentage of investment in land, followed by investment in buildings. As the enterprise was getting larger, the share of investment in land gradually declined and investments in buildings and machinery correspondingly increased. The percentage of investment in land of small, medium and large industrial enterprises were 35, 20 and 6 percent respectively, of the total investments (Table 3.1). In the meantime, the percentage of investment in buildings and machinery rose from about 30 percent of the total investment in case of small enterprises to around 50 and 60 percent respectively in case of medium- and large-scale enterprises.

The project survey yielded the same conclusion. The percentage of investment in buildings, machinery, instruments and equipment in total fixed assets increased as the enterprise grew larger. With regard to small enterprises, investment in buildings and machinery represented about 45 percent of total fixed assets. In case of large enterprises, this percentage rose to 89 percent (Table 3.1).

These noticeable changes in shares of investment in each fixed asset type revealed that growing large-scale rural industrial enterprises attempted to raise their operating leverage by investing in more modern machinery and equipment, leading to higher investment expenses, but lower unit variable costs. Thus, profits per unit were higher. If the breakeven point was reached, profits were higher than in the case of smaller investments in modern machinery and equipment. Moreover, this type of investment would improve product quality and increase production capacity while maintaining quality uniformity. Large orders could also be fulfilled within limited time.

According to the previous studies, investment in current assets included accounts receivable and inventories. The studies revealed that current assets were mostly in the form of inventories, and represented about 70-100 percent of total current assets (Table 3.1). The finished product inventory accounted for the highest share of total inventories. The comparison of the shares of accounts receivable among industrial enterprises of different sizes showed that the percentage of accounts receivable decreased as the enterprise became larger. Accounts receivable of small industrial enterprises represented 9 percent of total assets. This percentage declined to 0.1 and 0 in case of medium- and large-scale enterprises respectively. This indicated that small enterprises at the survey date provided customers with more credit sales. Medium- and large-sized enterprises offered few or no trade credits. Enterprises of these two sizes probably offered credit sales, but customers had already paid all or most all accounts payable during the survey. The interpretation regarding the shares of various types of inventory has to be carefully interpreted because the percentages shown in tables were as of the survey date. The shares on any other

date may differ because production fluctuated, depending upon the season. raw material availability and product demand.

3.2 SEASONAL DEMAND FOR CAPITAL (WORKING CAPITAL)

The investment size and distribution of investments by asset type discussed in section 3.1 refers to the investment stock at one given time. Since investment in fixed assets require huge capital and fixed assets are long-term, the fixed asset stock does not change so frequently. On the contrary, current assets constantly change. This section will describe changes in current assets or working capital.

The demand for working capital of enterprises in each business varies mainly due to two factors, namely seasonal demand for goods and raw material availability. Some types of raw materials, especially agricultural products, are available only at certain times of the year. Other types of raw materials, particularly industrial goods are available all year round. Apart from seasonal product demand and raw material availability, other factors which may affect the demand for working capital are sales to government agencies, export sales and trade credits.

One: Seasonal availability of raw materials and seasonal demand

Examples of businesses facing seasonal availability of raw materials and seasonal product demand are agricultural product processing factories, such as fruit and vegetable processing plants, concentrated tomato juice plants and canned fish factories. In the fruit and vegetable processing plants for instance, the largest possible quantity of fresh fruits and vegetables will be purchased during the peak season, and then processed and kept in warehouses for selling all year round. For example, preserved garlic factories need large amount of working capital in February and March. Preserved peach factories need most capital in May and June. The demand for capital will decrease in other months due to lower expenses. Income revenues at this time will, on the contrary, reduce the need for capital. During the product

demand period, sales are high. In general, however, the period of high product demand does not always coincide with the period when factories need capital for raw material procurement. Thus, during the time when sales are high, loan repayment will be made or earnings will be retained for further investment.

Two: Nonseasonal availability of raw materials, but seasonal product demand

Examples of this type of industry include garment manufacturing factories, furniture manufacturers, cement product factories, noodle factories, makers of agricultural equipment and machinery. Raw materials required are industrial goods or processed agricultural products. The availability of raw materials is generally constant throughout the year, but the product demand is seasonal. For example, the demand for cement products (i.e. bricks, pipes) peak during December - May; thus, the need for capital is not high during the rainy season from July-November. Although capital demand may not be high during this period, the needs for credit still exists. With lower sales, despite a decline in production, revenues may not be sufficient to finance further production and family expenses. Earnings retained during the sales peak periods will be used. When these retained earnings decrease, factories will need more credit. The need for capital will rise when factories start to accumulate inventories one month prior to the selling season, and these needs will remain high until the end of the selling season when factories start to decrease the production. The demand for credit increases when accumulating inventories and during the first one or two months of the product demand peak period. When revenues start to flow in, the need for credit will decline. The pattern of demand for capital and credits of other factories in this group is similar.

With regard to manufacturers supplying government agencies, the need for capital and credit will peak during August-September when government agencies try to use up their available budget before the end of the fiscal year. During October-November, when the government approves new projects, the need for capital and credits remains high

because factories, after winning a bid, have to pay for labor and raw materials. When goods are produced and delivered according to the contract, only then can reimbursement process be initiated and this make take some time. During the period when factories are not manufacturing goods production will decline, and most workers except skilled ones will be laid off, resulting in a low demand for capital and credit.

In case of manufacturing for export, the need for capital peak when the goods ordered are being produced. For example, export-oriented garment manufacturers in San Kamphaeng District, Chiang Mai Province operate at high capacity for six months of the year and at a very low capacity during another six months. The need for capital and credit gradually increases from the beginning of winter when the product demand starts to rise. After receiving orders, the manufacturers have to purchase raw materials, pay labor costs and fulfill the orders. It is during this period that expenditures are made all the time, as payments will only be made to after goods have been shipped or inspected by customers representatives in Bangkok. Garment manufacturing for export therefore requires a lot of capital and credit inputs in October, November, December, January and February. After February, the demand will gradually decline. In case of manufacturing for export, manufacturers can use a letter of credit as security for short-term loans under the packing credit facility. These manufacturers can also borrow the amount specified in the letter of credit with less strict conditions. If either the customers or importers do not possess a high credit standing, exporters may require some advanced payments, resulting in lower demand for credit.

In each case cited, the need for working capital rises if credit sales are offered to customers. On the contrary, if manufacturers are given credit sales by the suppliers, the demand for working capital will be proportionately less.

3.3 RATES OF RETURN ON INVESTMENT

The rates of return on investment to be discussed in this section include the rate of return on net worth and the rate of return on total assets.

The rate of return on total assets is equal to the owner's net profits minus returns on fixed assets (depreciation) and returns on family's labor, plus any interests paid on loans divided by total assets and multiplied by 100. Net profits that the owner obtains are sales deducted by production costs (i.e. raw materials, labor, administration and selling). In effect, the net profits are net returns on fixed assets, labor of the owner and family members contributing to the operation, capital and profits.

Rates of return on net worth is equivalent to net profits received by the owner subtracted by returns on fixed assets and returns on family labor, and then divided by the owner's capital and multiplied by 100.

Both types of rates of return were studied in 1981 and are presented in table 3.7. The aggregate rate of return in the studied industries was not high. The rate of return on total assets was approximately 13 percent per annum, and the annual rate of return on net worth was about 19 percent. Yet the borrowing rate was 18-19 percent per year. When considering each industry, we found that brick and noodle manufacturing yielded a relatively low rate of return, while other industries had satisfactory rates of return. The reasons why brick and noodle manufacturing yielded these low rates was that competition during the study period was very strong, resulting in a lowering of product prices while raw material prices were rising. The unit profit at this time was thus very low.

Rates of return on investment of rural industries were also estimated in 1984 as shown in Table 3.3. The rates of return varied greatly from industry to industry, ranging from 3 percent to 195 percent, per annum. Rates of return on net worth also differed among industries, ranging annually from 2 to 205 percent.

Rates of return in the animal feed, tapioca flour, furniture, door and window frame and tire casting industries were quite low due to many factors such as high competition, rising raw material prices, and the existence of only a few major buyers, etc.. The market was a buyer's market, where only a handful of major buyers could influence the demand and determine the price. This decrease in demand leading to higher competition considerably affected the furniture, door and window frame and tire casting manufacturers. Animal feed and tapioca flour industries also encountered problems of rising raw material prices and a small number of major buyers.

On the other hand the canned fish, cold storage, smoked rubber, fish packing for export and fish meal industries yielded extremely high rates of return due to the following factors. The canned fish industry was promoted by the Office of the Board of Investment. The cold storage and fish packing for export industries had low unit costs or high unit profits (sales subtracted by costs of raw materials, labor and overheads). Moreover, sales turnover was very high. The smoked rubber sheet industry had an advantage in a sense that most of the enterprises were large-scale, and were mainly granted low interest loans from the Industrial Finance Corporation of Thailand and packing credit from the Bank of Thailand. The silk industry yielded a high rate of return because its unit profits were high. And, during the survey, the demand for ground fish was high and the prices were good. Thus, the rate of return of this industry was high.

Attempts were made to calculate rates of return on capital of rural industries surveyed by the project. Rates of return can be explained through rates of return on total assets and rates of return on net worth which can be derived by the following formula.

$$\text{Rate of Return on Total Assets} = \frac{(\text{Profits} + \text{Interests})}{\text{Total Assets}} \times 100$$

$$\text{Rate of Return on Net Worth} = \frac{\text{Profits}}{\text{Net Worth}} \times 100$$

Profits and paid interests were derived from income statements, and total assets and net worth were derived from balance sheets. In this study, balance sheets (assets, liabilities and equity) were estimated, but income statements were not because the data was very sensitive and entrepreneurs did not wish to disclose it. Thus, it was indirectly estimated by asking for the profit margin on sales, and used the value of products manufactured in the survey year as a proxy. (Assuming that the beginning and ending inventories were equivalent.) Profits could then be derived by multiplying these two variables. Equally, the data on interests paid during the year could not be obtained. Consequently, only rates of return on net worth was calculated.

The result of the analysis on rates of return on net worth of industries in provincial areas and Bangkok is presented in Table 3.4. The profit margin on sales used in the calculation was the mode of data taken from the survey.

According to the analysis, rural industries, on average, had a higher rate of return on net worth than those in Bangkok. The annual rate of return of rural industries was about 26 percent while that of industries in Bangkok was 17 percent, which however was still above the borrowing rate ceiling of commercial banks (15 percent). The higher rate of return of rural industries was probably the result of higher associated business risks caused by operating in a small and limited market. Competition was then higher. Moreover, higher financial risks existed due to a greater debt ratio. Opportunity costs were also higher because capital was limited. If the rate of return on total assets remained above the borrowing rate, the higher debt ratio would lead to a higher rate of return on net worth.

The comparison on rates of return among industries in provinces of different sizes revealed that medium- and large-scale enterprises showed a higher rate of return than small enterprises. The rates of return of small, medium and large enterprises were approximately 12, 78 and 33 percent respectively. The higher rate of return of large enterprises resulted partly from economies of scale and a larger sales volume. Large enterprises' more systematic and professional management also contributed to the higher rate of return. Additionally, large enterprises usually used more debt than small ones (higher debt to total assets ratio). Medium-sized enterprises' rate of return was higher than that of large enterprises due to the fact that large enterprises were too large to thoroughly control or the management and owner (shareholder) of a large enterprise were usually not the same person. As a consequence, the management did not maximize the return, but tried to maintain the rate at a level that shareholders or owners were satisfied with.

Industries in Bangkok were slightly different from those in rural areas in a sense that the rate of return of large enterprises was the lowest (lower than that of small industries) possibly because the shareholder's equity in the capital was higher.

The interpretation of rates of return must be carefully assessed due to high probability of calculation errors caused by the following factors: (1) Data used in the analysis was the result of data collected during survey year only. If conditions concerning market raw material availability and success etc., changed, profits and rates of return would naturally change; (2) Data on prices and production costs were derived from what was happening at the time of the survey, and then applied in calculating the annual rate of return. Thus, if prices and production costs at the time were not representative of annual prices and production costs, the result derived would then be misleading.

Table 3.1
Investment in Assets of Rural Industries by Firm Size

Thousand Baht

Item	1981 1/		1984 2/						1984 3/				1988 4/							
	Small		Small		Medium		Large		Small		Medium		Small		Medium		Large		Total	
	Amt.	%	Amt.	%	Amt.	%	Amt.	%	Amt.	%	Amt.	%	Amt.*	%	Amt.*	%	Amt.*	%	Amt.*	%
Current Assets																				
Accounts Receivable	31	5	228	9	76	1	0	0												
Inventory																				
Raw Materials	30	5	314	12	2424	18	4689	24												
Finished Goods	95	15	144	6	1391	11	240	1												
Goods in Process	-	-	56	2	412	3	100	1												
Total	156	25	743	29	4303	33	5029	26	1064	42	4664	45	0.86	21	5.96	24	102.4	39	5.41	33
Fixed Assets																				
Land	177	28	900	35	2102	16	1256	6					1.30	32	6.42	26	13.13	5	2.25	14
Building	139	22	508	20	4117	31	7667	40					0.78	19	3.76	15	16.38	6	1.68	10
Machinery	86	13	237	9	2119	16	4237	22					0.59	15	5.48	22	127.1	48	6.12	37
Vchicle	79	12	215	8	572	4	1156	6					0.51	13	3.15	13	4.95	2	0.95	6
Total	481	75	1861	71	8909	67	14315	74	1500	58	5719	55	3.18	79	18.81	76	161.6	61	11.00	67
Total Assets	637	100	2603	100	13213	100	19343	100	2564	100	10383	100	4.04	100	24.77	100	264.0	100	16.41	100

Note: * Million Baht

Sources: 1/ Aungsumalin, Saroj. 1982. Financial Structure and Credit Needs of Small Scale Industries
2/ Calculated from Onchan, T., et.al., 1985. Rural Industrialization and Employment Generation: A Study of Regional Industries in Thailand.
3/ Kuroda A. and S. Kasajima, 1987, The Development Strategies for the Small and Medium Scale Industries in Thailand.
4/ Rural Industries and Employment Project Survey, TDRI, 1989.

Table 3.2
Rates of Return for Selected Rural Industries, 1981

Percent Per Year

	Rate of Return on	
	Net Worth	Total Assets
Processed Vegetables and Fruits	30.3	16.8
Brick	5.2	3.9
Cement Product	22.9	15.1
Furniture	18.3	15.6
Ready-Made Garment	24.5	15.3
Noodle	6.1	3.7
Bean Curd	23.8	19.5
Overall	19.2	13.5

Source: Calculated from Aungsumalin, Saroj., 1982, op. cit.

Table 3.3
Rates of Return for Selected Rural Industries, 1984

Percent Per Year

Industry	Rate of Return on (%)	
	Net Worth	Total Assets
Feed	-2.00	2.90
Flour	11.60	10.80
Furniture	6.80	9.40
Wooden Frame	3.60	6.60
Farm Machinery		
Iron Plough	28.40	22.20
Plough Blade	25.50	24.60
Farmers' Cart	15.70	10.40
Ready-Made Garment	59.30	43.90
Silk Weaving	50.10	41.50
Canned Food	115.60	74.50
Cold Storage	121.30	84.30
Smoked Rubber	165.80	144.30
Tyre Casting	9.40	8.60
Fish Packing	204.70	194.50
Fish Meal	114.20	118.20

Source: Onchan, T., et al., 1985, op. cit.

Table 3.4
Rate of Return on Net Worth of Industries by Location

Percent Per Year

Region	Small	Medium	Large	Total
Rural	11.6	78.2	33.5	26.0
Greater Bangkok	18.5	35.7	14.1	17.2
Total	11.1	41.1	16.5	18.0

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

CHAPTER 4

CREDIT FROM FINANCIAL INSTITUTIONS

4.1 FINANCIAL INSTITUTION SYSTEMS PROVIDING CREDITS TO RURAL INDUSTRIES

Financial institutions providing rural industries with services are composed of two groups, namely those financial institutions exclusively giving services to industries and those servicing general activities and industries.

Financial institutions specifically servicing industries include the Small Industry Finance Office (SIFO) and Industrial Finance Corporation of Thailand (IFCT). SIFO was established in 1964 with the objective to provide small industries[1] with short-term and long-term loans. At present, loans extended by SIFO include direct SIFO loans and those provided jointly with the Krung Thai Bank. The size of these two types of loan are different. The loan directly extended by SIFO does not exceed Baht 1 million while the maximum loan jointly provided by SIFO and the Krung Thai Bank does not exceed Baht 3 million. Long-term loans must be paid back within 3-7 years with an annual interest rate of 11-12 percent.

The Industrial Finance Corporation of Thailand was established in 1959 and offers mainly medium and long-term loans. At present, some short-term loans are also granted, but only to those enterprises who also take medium-term or long-term loans from IFCT. A special emphasis is placed upon project loans and proof of project feasibility is very important. No limitations or restrictions on borrowers' total assets and maximum loan size exist. Most long-term loans must be repaid with 10 years, and short-term loans within one year. Both the short-term and

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1. Refers to industrial enterprises with total assets not exceeding Baht 5 million.

long-term loans are fixed term loans. Interest rates range between 11.5 - 13.5 percent per year, and remain constant throughout the loan period. Apart from regular loans, IFCT deals in special loan projects. For example, special loans are offered to small-scale industries with total assets not exceeding Baht 10 million. The maximum available loan is Baht 5 million. Export credit is another special type of loan which is given to exporters at a very low interest rate (13 percent) with a 4-7 year maturity period. The IFCT also offers services not related to financing but contributing to the development of capital market and industries. IFCT has a total of six regional offices and branches around the country (except in the Central and East regions).

Another institution that does not directly offer credits, but increases the possibility for small industries to obtain institutional loans is the Small Industry Credit Guarantee Fund founded by order of the Cabinet in 1984 to guarantee credits given to small-scale industrial projects with high potential but insufficient collateral so that these small projects would then be able to acquire loans from financial institutions. The Small Industry Credit Guarantee Funds guarantees both short-term and long-term loans for industrial enterprises with total assets not exceeding Baht 10 million by charging a service fee of 1.5 percent per annum above the current interest rate. At present, IFCT is responsible for managing the Fund. In addition, the Small Industry Credit Guarantee Fund operates a special project financed by the United States Agency of International Development (for long-term loans only) by limiting the maximum guaranteed to Baht 2.5 million. Since the Small Industry Credit Guarantee Fund is in its initial stage, only a head office has been established. As yet no branches have been set up.

Apart from special financial institutions, particularly those mentioned earlier, the Industry Promotion Department, of the Ministry of Industry runs a special co-operation project together with the Canadian government and the Small Industry Finance Office for providing industries in the Northeast with assistance concerning credits and other facilities. This project will last for five years, and is scheduled to start around mid-1990. Advice will be given on industrial enterprise

development and project feasibility evaluation. Both short-term and long-term loans will be made available.

The Bank of Thailand is another institution running a special program to provide industrial enterprises with financial assistance. This program comes under the regulations on rediscounts on bills in important economic sectors. Regulations on industrial activities include those concerning the rediscounts of industrial bills and bills of small-scale industries (Whose total assets do not exceed Baht 10 million) and export credit services. The system furnishes industrial enterprises with short-term loans at a low interest rate. The Bank of Thailand can rediscount 50 percent of the amount specified in the promissory notes, and a financial institution will extend from its own funds the remaining 50 percent. A maximum of 10 percent interest per year can be charged on borrowing through rediscounts. These regulations have been effective since January 1989. Regulations concerning rediscounts may be changed in accordance with what the Bank of Thailand deems appropriate. The rediscount facilities are not transacted directly by the Bank of Thailand, but through commercial banks. Industrial enterprises can use this service through commercial bank branches all over the country.

In addition to these financial institutions established to offer services to industrial enterprises, other financial institutions providing rural industries with financial services include commercial banks, finance and securities companies and the Securities Exchange of Thailand. These financial institutions normally offer services to every type of business.

Commercial banks are the most important financial institutions. Credits given by commercial banks to the industrial sector far exceed those offered by all the other financial institutions combined. Commercial banks provide the industrial sector with both short-term and long-term loans, however, most of their loans are short-term. Borrowing can be arranged as either an overdraft or term loan. Unlike the Industrial Finance Corporation of Thailand and the Small Industry Finance Office, the evaluation process of loan applications places more

emphasis upon assets to be pledged as securities, not the project feasibility. The maximum interest rate charged is determined by the Bank of Thailand. The maximum interest rate at the present time (April 1990) is 16.5 percent per annum. Prime rates which are lower than the interest rate ceiling will be offered to some customers with high credit standing. In general, commercial banks charge large enterprise with a lower interest rate than that charged to smaller enterprises. Commercial banks have a very extensive network covering almost every district in Thailand and consisting of about 2,130 branches throughout the country. Apart from those credits voluntarily extended by commercial banks, the Bank of Thailand enforces some regulations to encourage commercial banks to contribute to the country's development to a larger extent. For instance, new bank branches in remote areas are obliged to extend 60 percent of its credit services to local activities, of which 20 percent are to be set aside for agricultural activities. Extending credit for rural areas projects is another measure enforced by the Bank of Thailand and practiced by commercial banks to provide important economic sectors with financial assistance. Under this project, commercial banks must extend 20 percent of their previous year's deposits as credits for the agricultural sector, small-scale industries and agro-based activities of which 14 percent should go to the agricultural sector and small-scale industries. In addition to credits, the commercial banks also offer other services to assist business operations such as a deposit service, money transfer, currency exchange and issuance of financial documents supporting both domestic and international trade. Moreover, commercial banks directly and indirectly assist business operations by co-operating with the government and international organizations in providing other forms of financial service such as the setting up of finance and securities companies, the Small Industry Credit Guarantee Fund, co-operation in extending credits and credit guarantee under some special projects, and jointly establishing leasing and venture capital companies, etc.

Finance and securities companies also extend financial services (credits) to industrial enterprises. Lending can be done in the form of loans with a gradual repayment schedule or notes receivable. In early 1988, many finance companies initiated another type of service: a

discount on short-term checks from small enterprises at the current maximum annual rate of 18.5 percent, the rate of which is determined by the Bank of Thailand. Currently, there are 98 finance and securities company headquarters and 36 branch offices. Most of these companies are located in Bangkok. Both short-term and long-term loans are available.

Another institution that is a source of long-term capital is the Securities Exchange of Thailand. The Securities Exchange of Thailand differs from other financial institutions in that while the aforementioned financial institutions are sources which provide capital for businesses in the form of credits or loans, which increases business liabilities, the Securities Exchange of Thailand provides capital in the form of equity which ameliorates the financial status of businesses (i.e. lower the risk). The capital must be executed through securities companies or finance and securities companies which act as investment bankers for the businesses. Nevertheless, companies raising funds in the Securities Exchange of Thailand must be qualified according to very strict standards. Most of the listed companies at present are large-scale institutions. New or small businesses may raise capital by selling their stocks in the "over the counter" (OTC) market through finance and securities companies.

Many other financial institutions do not extend financial services to either small or large businesses. These institutions include Bank for Agriculture and Agricultural Co-operatives, Government Housing Bank, Government Savings Bank and insurance companies, etc.

4.2 FINANCIAL INSTITUTIONS' CREDIT PROVISION TO RURAL INDUSTRIES

The financial institutions discussed here include commercial banks, finance and securities companies, the Industrial Finance Corporation of Thailand and the Small Industrial Finance Office.

4.2.1 Importance of Financial Institutions

Among the financial institutions mentioned earlier, commercial banks are considered to be the most important. Most of the credits extended to the industrial sector come from commercial banks. Based on the data of outstanding loans extended to the industrial sector at the end of 1986, about 84 percent came from commercial banks (Table 4.1). Finance and securities companies and the Industrial Finance Corporation of Thailand were the second most significant financial institutions, but their share only amounted to 13 and 3 percent of the total outstanding loans, respectively. Credits extended by other financial institutions constituted a very small share.

4.2.2 Commercial Banks

Commercial banks play a very important role in extending credits to the industrial sector. Over the past 11 years, credits given to the industrial sector have increased 7.6 times. The amount of outstanding loans extended to the industrial sector in 1978 totaled Baht 29.6 billion, and rose sharply to Baht 223.9 billion in 1988, representing an annual growth rate of 23.1 percent which was higher than the 18.6 percent annual growth rate of the credits extended by the entire commercial banking system (Table 4.2). The share of credits offered to the industrial sector increased from approximately 17-18 percent during 1978-80 to about 21-23 percent during 1981-1987 and around 26 percent in 1989.

Most of commercial bank credits were concentrated in Bangkok and the Central region. The share of credits extended to regional activities was very low.[2] During 1981-86, 83 percent of total commercial bank credits were extended to businesses in Bangkok and the Central region (Table 4.3). Credits supplied by commercial banks to

2. Regions refer to regions other than Bangkok and the Central such as the North, South and Northeast.

businesses in each of other regions amounted to only 5-7 percent of total credits.

The share of industrial loans in the regional credits was rather low. The highest share was that of the Central region and Bangkok of which during 1981-87, about 21 percent of the total credits were extended to industrial activities, and this percentage tended to rise every year. The share of industrial loans in the total loans of the Central region and Bangkok rose from 19 percent in 1981 to 25 percent in 1987. The share of industrial credits in total credits of the North, South and Northeast amounted to 9, 11 and 17 percent, respectively (Table 4.4).

Based on the shares of each region's industrial credits in the total commercial bank credits during 1980-87, credits extended by commercial banks to industrial enterprises in the North, South and Northeast were on average negligible. Credits extended to industrial activities in each of these regions represented only 0.5-1 percent of the total commercial bank credits. However, industrial activities in Bangkok and the Central region obtained a high share, about 20 percent of the total commercial bank credits (Table 4.5).

A comparison of the shares of each region's industrial credits in the total commercial bank credits (Table 4.5) and the shares of the industrial value-added of each region in the gross domestic product (Table 4.6) during 1981-87, revealed that both shares in the Central region and Bangkok were equivalent, but the share of industrial credits in each of other regions was lower than the share of industrial value-added in the gross domestic product. The region with the highest discrepancy was the North. On a national basis, the percentage of industrial credits was lower than the share of the industrial value-added in the gross domestic product. Thus, the industrial sector received lower credits than it should have, particularly regional industries.

The commercial banks services were implemented through the bank branches. Currently, the entire commercial bank system has about 2,130

branches spread throughout the country. Thus, rural industrial enterprises could have convenient access to commercial bank facilities. However, about 30 percent of all branches were located in Bangkok. When those in the Central region and Bangkok are combined, the share rose to approximately 60 percent. The remaining 40 percent were quite equally distributed among other regions (Table 4.7). The growth rate of bank branches in Bangkok was higher than that in the North and the South, however, the growth rate of bank branches in the Northeast was the highest (Table 4.7).

Over 90 percent of industrial credits provided by commercial banks were extended to medium- and large-scale industrial enterprises. According to the Bank of Thailand's statistics during 1981-83 and in 1987, only about 6-7 percent of credits offered to the industrial activities throughout the country were extended to small industrial enterprises (with a loan size of below Baht 3 million) (Table 4.8).

The survey on commercial banks under this project indicated that credits extended by rural bank branches over the past three years were on average lower than the country's mean. The loan-deposit ratio of commercial banks during this period was about 90 percent. The survey showed that only 25 percent of the surveyed branches could provide loans at a rate of 80-100 percent, and 62 percent of bank branches extended credits at a rate below 80 percent. The remaining 13 percent of commercial banks could provide loans at more than 100 percent or above the average for the whole country (Table 4.9).

This survey indicated that the mobilization of savings from banks in rural areas to branches in Bangkok and neighboring provinces existed. We tried to identify whether commercial banks intentionally transferred rural savings. The survey revealed that the intention of commercial banks was not a major cause of the loan-deposit ratio of rural bank branches being lower than the average ratio of the country. The most important factor resulting in the lower rate of credit provision of rural bank branches was the lack of readiness of commercial bank branches. For example, the number of credit officers was limited. Necessary equipment such as cars, motorcycles and computers, etc. were

insufficient (Table 4.10). The second most important factor was the low level of local economic activities leading to low demand for loans. The policy or intention of headquarters or the branch manager not to extend loans to rural activities was of the least significance. The headquarters had a policy to encourage loans in rural areas, and personnel at headquarters co-operated reasonably well in providing loans to local activities. Nonetheless, the fact that headquarters determined the maximum loan size that a branch manager could authorize introduced further limitations on local loan provision. The branch manager's decision to transfer funds to headquarters, which was a less risky choice, had little impact on the inactive loan provision facilities.

According to the survey, 18 percent of bank branches in rural areas extended no industrial credits while four percent of bank branches in Muang district and 25 percent of branches in remote districts did not provide industrial loans. This phenomenon could be explained in the same manner as above (Table 4.11).

With regard to bank branches extending credits to industrial activities, industrial credits represented about 10-30 percent of the total credits of most of these branches (90 percent). The share of industrial credits of branches in Muang district was higher, when compared to branches in distant districts and amounted to 20-30 percent whereas that of branches in distant districts usually ranged from 0 to 20 percent (Table 4.11). The higher share of industrial credits of bank branches in Muang district is a direct result of more industrial activities being located in that area.

The survey also revealed that most industrial credits were extended to small-scale industrial enterprises (loan size per one account lower than Baht 5 million). A total of 81 percent of all branches released small-sizes credits which represented 60 percent of the total loans. Bank branches in Muang and distant districts also extended more credit to small enterprises than large ones. Moreover, concentration of bank branches extending industrial loans existed, and about 65 percent of all bank branches showed the 90 - 100 percent share of credit extended to

small enterprises in the total allocation of industrial credits (Table 4.12).

Borrowing from commercial bank branches included overdrafts and term loans. The survey indicated that banks providing overdrafts slightly outnumbered those extending term loans. About 56 percent of all branches provide overdraft services (Table 4.13).

Data on commercial banks' refusal to release loans is interesting. The survey on commercial banks indicated that below half of all commercial bank branches (46 percent) approved all submitted loan applications. The remaining 54 percent turned down some loan applications, with most bank branches rejecting within a range of 1-20 percent of loan applications (Table 4.14). The percentage of branches refusing loan applications in Muang district was lower than that in remote districts.

The reasons for refusing loan applications were numerous. The most important reason stated was that commercial bank branches were not assured of the revenue generating capability of the project. This lack of confidence was expressed in many ways such as identifying low project feasibility, claiming the lack of reliable financial records, considering the project sensitive to economic changes and unsuitable in the existing economic climate (Table 4.15). The second most important reason was the size of entrepreneurs' capital. Owners' equity represented a too low percentage of the project's total investment, and the financial status of the project owner was not secure enough. Insufficient securities for loans were a third important factor and yet another reason was the applicant's reputation. Commercial banks may turn down some loan applications if applicants had debt default records.

Most rejected loans applications were soliciting a small loan. Seventy-eight percent of all branches who had turned down loan applications identified that most were those of small-scale industries (Table 4.16). Ninety percent of bank branches in remote areas claimed that most of the rejected applications were those of small industries.

This finding is in direct relationship with the fact that rural industries mainly consist of small-scale industries.

Comments on Interest Rates and Lending

As widely known, the interest rates which commercial banks can charge their customers cannot exceed the ceiling rate determined by the Bank of Thailand. The current ceiling rate is 15[3] percent per annum. Some bank customers pay interest at the ceiling rate while others repay at a rate below the ceiling.

This section reports on the results of the survey among bank branch managers of interest rates charged on loans to industrial enterprises of different sizes and other activities, and the preferred interest rate where no interest rate ceiling exists.

Current Overdraft Interest Rate

The annual interest rate which commercial banks charged small industrial enterprises ranged between 12 and 15 percent. The model interest rate was 13.5 percent per annum which 39 percent of all bank branches charged (Table 4.17). However, the weighted average interest rate was 13.97 percent. Varying interest rates charged to members within a small industry group revealed different risks and costs of lending within the group.

The annual interest rates charged on loans extended to large-scale industries ranged between 12-15 percent (Table 4.18). The model interest charged was again 13.5 percent per annum. However, the weighted average interest rate of large-scale industries was 12.69 percent per annum which was lower than that of small enterprises. We then conclude that the costs and risks associated with lending to large-scale industries were lower.

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3. during the survey period, the ceiling interest rate was 15 percent per annum. At present, it is 16.5 percent per annum.

The annual interest rate which commercial banks charged other activities ranged between 13 and 15 percent (Table 4.19). The model interest rate was 14 percent, and the weighted average rate was 14.3 percent. Overall, commercial banks demanded a higher interest rate from general activities than from industrial activities. Thus, the costs and risks related to lending to industrial activities were considered to be lower than those of other activities.

Preferred Interest Rates

A survey among bank branch managers was implemented to discover the interest rate that banks would like to charge for a one-year term loan with certain risks and lending costs taken into consideration. The rate may be above the ceiling level determined by the Bank of Thailand. The survey results are as follows:

The interest rates charged on loans to small-scale industries would have been between 12 and 18 percent per year (Table 4.20), showing a wider range than the existing range which was 12-15 percent. The model rate in this case was 14 percent per annum, and the weighted average rate was 13.88 percent.

The interest rates at which commercial banks should have charged large-scale industries ranged from 12 to 18 percent per year (Table 4.21). The model rate was also 14 percent, however, the weighted average rate was 12.88 percent.

The interest rates that would have been demanded from other types of activities ranged between 13 and 20 percent per year (Table 4.22) with the modal rate of 15 percent. The weighted average rate was 14.8 percent.

The following remarks were made on this survey: (1) The preferred maximum interest rate was higher than the ceiling rate determined by the Bank of Thailand; (2) Both preferred modal and weighted average rates were slightly above the existing rates. The difference, however, did not exceed 1 percent per year in case of modal rates and 0.5 percent in

case of weighted average rates; (3) The interest rates preferably demanded from small industries would have been higher than those demanded from large industries, and those demanded from other types of activities were the highest.

The following conclusions can be drawn concerning the preferred interest rates: (1) Bank managers believed that rates of return on lending (borrowing rates), together with the cost of capital, lending costs, risks and profits would have been slightly higher than the existing rates; (2) The existence of the ceiling rate was one factor obstructing bank managers from demanding desired interest rates and possibly resulting in rationing credits mainly to customers with low risks and lending costs; (3) Banks tended to demand different interest rates from customers with different risks and lending costs.

Seventy-five percent of responding managers stated that if interest rates could be leveled up as mentioned earlier, they would be willing to extend more industrial loans, particularly to small-scale industries (Table 4.23). The remaining 24 percent reported that additional industrial loans could not possibly be extended due to various reasons. The major reason was that the maximum amount of credit had already been given to local industrial enterprises. The existing lending portfolio was appropriate. Even with the possibility of charging higher interest rates, being able to provide more credit was still in question (Table 4.24).

Co-operation with the Bank of Thailand and the Small Industry Credit Guarantee Fund

This section will report the results of the bank branch survey on the following issues: Have banks ever provided the rediscount facilities or used the credit insurance service offered by the Small Industry Credit Insurance Funds? What are the reasons for the existing low service rate? What can be done to improve the service rate?

a) Service Provision

The survey revealed that of the banks extending industrial credits, only 10, 18 and 29 percent offered rediscount facilities for export, industry and small-scale industrial, respectively. Only eight percent used the credit guarantee with the Small Industry Credit Guarantee Fund (Table 4.25).

Although only a small number of banks offered these services, the percentage of banks implementing the rediscount facilities for small-scale industries was the highest because most rural industrial enterprises were small-sized.

The survey also revealed that more services, with the exception of the Small Industry Credit Guarantee Fund which was provided by bank branches in all districts at the same rate, were provided by branches in Muang district rather than those in remote districts because of the larger number of rural industrial factories located in Muang district.

b) Causes of a Low Service Rate

The most important reason why rediscounts were hardly ever transacted by commercial banks was that nobody applied for the service either because it was not known that this type of service was available or that the service was not popular due to several factors. The rediscount is a type of short-term loan with a fixed maturity date. The loan contract must be re-negotiated if an extension is required. This inconvenience accounts for the greater popularity of borrowing through overdrafts. The rediscount service also requires some information that borrowers might not have available or do not wish to disclose for fear that it would be released to the Revenue Department, resulting in higher taxes being levied. Lack of collateral may be another obstacle. The second most important reason for the low service rate was inconvenience in providing the service. An application had to be submitted to the head office, even further complicating the procedure. Since bank branches are far from the regional offices of the Bank of

Thailand, communications were difficult and the costs of service provision were consequently higher (Table 4.26).

c) Recommendations

Most branch managers could not make any recommendations on how to encourage the use of rediscount facilities. The suggestion most frequently reported was to have the Bank of Thailand simplify the procedure and reduce the documentation and information requirements. Another second recommendation was to increase the awareness of the availability of this service among the potential customers (Table 4.27).

In recommendations on how to further encourage the use of the Small Industry Credit Guarantee Fund, most responding managers suggested that increased awareness of the service among entrepreneurs would be a solution (Table 4.28).

4.2.3 Finance and Securities Companies

Loans extended to the industrial sector by finance and securities companies doubled between 1978-88. They increased from Baht 10.5 billion in 1978 to Baht 33.6 billion in 1988, representing as annual growth rate of 10.9 percent. This growth rate was approximately close to the 10.1 percent growth rate of loans extended to all activities combined (Table 4.29). Industrial loans accounted for 21-26 percent of the average total loans during 1981-87. The share of credit extended to industrial activities by finance and securities companies exceeded the share of the industrial value-added in the gross domestic product.

We could not acquire any secondary data describing these finance and securities companies lending to regional enterprises of different sizes, types and length of lending.

4.2.4 Industrial Finance Corporation of Thailand (IFCT)

As of the end of 1988, the outstanding loans of the IFCT amounted to Baht 8.3 billion, compared to Baht 2.5 billion in 1979. Loans provided by the IFCT have increased by 3.5 times over the past 10 years. The average growth rate was 17 percent per year (Table 4.30). The growth rate of loans extended by the IFCT was higher than that of industrial loans provided by finance and securities companies, but lower than that of industrial loans offered by commercial banks. The IFCT's services were still limited and as of 1988, a cumulative total of only 1,290 projects entered into a loan contract with the IFCT, and the outstanding number of borrowers as of January 31, 1987 was only 597.

Most IFCT's credits were extended to large-scale enterprises, although more credits were offered to small-sized enterprises in later years. The size of loans given to small-scale enterprises was limited to a certain extent, and this type of loan represented only a small percentage. During 1978-1982, loans extended to small-scale enterprises (loan size below Baht 4 million) each year amounted to approximately Baht 20-40 million while those given to large-scale enterprises totaled between Baht 600-1,200 million (Table 4.31). During this period, loans extended to small-scale enterprises represented a mere three percent of the total loans. In terms of number, about 24 percent of all projects acquiring loans from the IFCT were those of small enterprises. In later years (1984-87), loans given to small enterprises (loan size not exceeding Baht 5 million) were limited to Baht 200 million each year whereas those extended to large-scale enterprises could amount to Baht 1,200 million. Loans given to small-scale enterprises increased to 12 percent of total loans. Loans extended to large-sized enterprises accounted for 88 percent, but the percentage was falling. In terms of the number of projects, 60 percent of approved loan projects belonged to small enterprises.

The IFCT's lending was mostly limited to Bangkok and the Central region. Enterprises in other regions obtained only a small percentage of loans from IFCT. The percentage distribution of loans by region does not have an evident tendency either to rise or fall. Data on the

distribution of loans by region is presented in Table 4.32. About 75 percent of total loans were extended to enterprises in the Central region and Bangkok. Those in Bangkok alone obtained about 34 percent or one-third of the total loans, while enterprises in each of the other regions acquired a mere 4-9 percent of the total loans.

IFCT's lending behavior is affected by many factors. First, according to government policy, the IFCT is a financial institution established for industrial development to provide industries with long-term loans with interest rates below the market rate. Second, IFCT attempts to maximize profit under these constraints, and over half of the shareholders are private financial institutions. Thus, its objective is contrary to its endeavor to be an industrial development institution. The low interest rates impose difficulties in raising capital for industrial activities, particularly long-term loans. This limitation results in IFCT's high dependence on the Bank of Thailand and foreign soft loans and the government loan guarantee (through the Ministry of Finance). IFCT is therefore also highly exposed to foreign exchange risks. Since the available capital is limited and interest rates are below the market rates, excess demand for loans exists, particularly when the liquidity of commercial banks is low and market interest rates are high. Consequently, IFCT rations a large portion of its available funds to large-scale enterprises because the lending costs per one Baht of loan to large enterprises are much lower. The services offered to rural small-scale industries are given low priority due to high lending costs, the limited number of branches and lack of personnel. Moreover, it is estimated that the default risk of rural small-scale industrial enterprises is higher, compared to large enterprises.

4.2.5 Small Industrial Finance Office (SIFO)

The Small Industrial Finance Office was established to provide credit exclusively small-scale enterprises. The role of the SIFO was inferior to that of other financial institutions. There were two types of loan, namely loans directly provided by the SIFO and those jointly

offered by the SIFO and the Krung Thai Bank. As of December 1988, the SIFO approved a total of Baht 533.7 million for 1,712 borrowers (Table 4.33).

SIFO's Services

The SIFO has offered credit since 1964 or for about 25 years. The service provision of SIFO can be categorized into five periods.

1) During 1964-67 : Initial Period
2) During 1968-69 : Problem Emerging Period
3) During 1970-75 : Problem Period
4) During 1976-88 : Direct Lending Growth Period
5) 1988 : Readjustment Period

a) Initial Stage (1964-67)

During this period, the SIFO provided loans in close co-operation with Krung Thai Bank. The SIFO deposited funds allocated by the government at the Krung Thai Bank, and the interest earned was used for financing operation expenses. The loans extended belonged to the Krung Thai Bank, but loan applications were evaluated by the SIFO, whereas the Krung Thai Bank assessed securities and provided funds. Project approval was implemented by the Board of SIFO.

During this period, over 100 applications were received each year. An annual average of 120 applications.

Despite the large number of loan applications, SIFO's performance based on the number of approved applications and loans was not very impressive. During a period of three years, over 100 applications were received but below 50 projects were approved. The loan amount approved each year ranged between Baht 10-30 million (Table 4.33).

Of the many loan applications which were rejected the most important reason was the lack of collateral. During this initial

period, 74 percent of rejected applications lacked sufficient securities (Kuroda and Kasajima, 1987). The Krung Thai Bank had imposed strict guidelines because they had to bear any default risks without participating in the loan evaluation. The second most important reason was unrealistic investment projects which indicated the applicants' lack of planning and estimation techniques as well as skills in evaluating projects' rates of return.

A total of 22 percent of applications were also withdrawn during this period (Kuroda, Ibid.). Major reasons for withdrawal were as follows:

1) The loan evaluation procedure took too long. Applicants could not wait and so they solicited loans from other sources.

2) Applying for loans from SIFO required a considerable amount of information.

3) Applications were withdrawn after applicants talked to SIFO's credit officers and found that the project was not acceptable.

b) Problem Emerging Period (1976-78)

More conflicts between SIFO and the Krung Thai Bank emerged during this period because SIFO's deposits at the Krung Thai Bank got only a four percent interest rate. The interest earned was not sufficient to support SIFO operations. The income statement of SIFO during this period thus showed losses and at the end of 1978 the SIFO negotiated with Krung Thai Bank to increase their savings rate from four to six percent. The latter turned down the request because market interest rates at that time were rising, resulting in a much lower spread of lending to SIFO's customers. The Krung Thai Bank finally withdrew their co-operation after an extensive dispute.

c) Problem Period (1980-83)

After Krung Thai Bank discontinued their support in 1980, the number of approved loans drastically declined, and there were no joint loans provided in 1981. Despite a compromise between the Krung Thai Bank and SIFO in 1982, some conflicts still continued and SIFO's operations were affected for a further period of time. The number of applications during 1982-85 fell sharply, even when compared to the initial period, thus indicating the Krung Thai Bank's reluctance to work with SIFO.

d) Direct Lending Growth Period (1986-88)

After this slump period of five-six years, SIFO evaluated their various problems and obstacles and concluded that dependence on the Krung Thai Bank was not viable. If SIFO were to expand, it had to become more self-sustaining. Thus, SIFO implemented many marketing activities to increase their direct lending power:

1) Credit officers visited industrial promotion centers in various regions, for a short period, to seek more customers.

2) SIFO requested co-operation from industrial promotion centers in receiving applications and helping entrepreneurs complete applications.

3) Pamphlets and posters were distributed to promote SIFO's activities.

4) The loan application form was simplified.

5) SIFO increased the number of credit officers by transferring officers from other departments.

6) The time required for evaluating an application was shortened.

7) Loan sizes were increased.

Since 1986, the number of approved loans has risen. The increase resulted from SIFO's direct lending policies and the joint lending arrangements with the Krung Thai bank declined.

SIFO's service upgrading and reorganization had included integrating the customer screening section and loan section in order to reduce resource duplication. These changes led to a sharp increase in applications. However, some problems were still persisted. The evaluation process was still lengthy because considerable information was required. In many cases where the size of the loan was small, some information could have been waived. Consequently, loan approvals could not be matched with the increase of applications.

e) Re-adjustment Period after 1988

From 1988 SIFO had gained more confidence in providing services, and more direct loans were released. When SIFO's available funds started to recede, a total of Baht 100 million was allocated to SIFO by the government to support service expansion. Moreover, SIFO attempted to turn itself into a juristic person.

In conclusion, SIFO's credits were mostly extended to regional industries. Based on the statistics on credits during 1964-84, about 53 percent of total loans were acquired by regional enterprises, and 47 percent were extended to enterprises in Bangkok and five neighboring provinces (Table 4.34). In terms of the number of approved applicants, the similar tendency existed. About 30 percent of approved applicants were in Bangkok and neighboring provinces while the remaining 70 percent were distributed in various regions (Table 4.35). The share of loans or those receiving services from SIFO in regional areas was higher than the share of small-scale industrial factories (with less than 500 workers) in regional areas. With regard to the distribution of factories by location, about 50 percent were located in Bangkok, and the remaining 50 percent were scattered in regional areas (Table 4.36).

Most SIFO's credits were offered to very small-scale enterprises. About 50 percent of all factories were those with no more than 9 workers, or 85 percent employed no more than 19 workers (Table 4.37). SIFO also extended credit to new enterprises. The average employment size of new enterprises was 16.

4.2.6 Operation of the Small Industry Credit Guarantee Fund

Some information on the services of the Small Industry Credit Guarantee Fund is as follows:

1) Industries eligible for insurance include

- Small-scale industries with net fixed assets not exceeding Baht 10 million as of the loan application date
- Loan size with the lower limit of Baht 200,000 and the upper limit of Baht 5 million, including existing credit

2) Credits applying for insurance must be those of commercial banks and/or the Industrial Finance Corporation of Thailand

3) Small-scale industries eligible for promotion include the manufacturing industries, handicrafts, the service industries and agro-industries. These industries are also eligible to apply for loans from the Industrial Finance Corporation of Thailand. Industries temporarily ineligible for support include rice mills, saw mills, printing houses and tapioca product factories.

4) The types of credits that the Small Industry Credit Guarantee Fund guarantees are those extended by commercial banks and IFCT.

Small Industry Credit Guarantee under USAID's Assistance

Apart from a regular credit guarantee program, a special guarantee program for small-scale industries is available under USAID. This

special program is differs from the regular program in the following ways:

1) Small-scale industries must have net fixed assets (excluding land value and land improvement costs) not exceeding Baht 5 million as of the loan application date.

2) The loan limit does not exceed Baht 2.5 million, with including existing credits.

3) The industries must be located outside Bangkok, Samut Prakan, Nonthaburi, Pathum Thani, Samut Sakhon and Nakhon Pathom.

4) Guaranteed credits must be long-term loans from commercial banks or IFCT with a maturity of less than 1 year with a minimum six month grace period.

5) Only the portion of a long-term loan that is not guaranteed is eligible, but the amount must not exceed 50 percent of total credits.

After the signing of the joint agreement on the establishment and operation of the program on April 17, 1985, guidelines and regulations concerning credit security had been set and the first trial of the credit guarantee service was carried out in November 1985 in Songkhla, Khon Kaen, Pitsanulok and Kanchanaburi, which are all areas with active small-scale industry development. The service was expanded to every province throughout the country in May 1986. Small-scale enterprises can use the service through every commercial bank branch, IFCT and every regional office.

The services provided by the Small Industry Credit Guarantee Fund has drastically expanded as shown in the following statistics:

Year	Guarantee (million Baht)	No. of Projects	Remark
1985	-	-	Operations started in 1985
1986	8.4	16	Improvement Period
1987	76.9	118	
1988	107.1	126	
Total	192.4	260	

Since the Small Industry Credit Guarantee Fund only started in late 1985, no services were provided at that time. In 1986 when regulations and procedures were reviewed, services were still limited, however, these started to increase dramatically in 1987.

The credit guarantee service was mostly extended to rural small-scale industries. During 1986-87, services given to enterprises in Bangkok and five neighboring provinces constituted only 18 percent of total projects and 22 percent of total credit guarantee (Table 4.38).

Approximately 50 percent of projects had a credit guarantee of no more than Baht one million, and about 85 percent were granted a credit guarantee not exceeding Baht three million (Table 4.39).

The Small Industry Credit Guarantee Fund (SICGF) exclusively guaranteed the loan portion that was unsecured, and this was limited to 80 percent of the unsecured loan. Thus, the remaining 20 percent had to be provided by the borrower or the banks as unsecured loans. However, in case of small-scale industries, which the government had targeted for support, a 100-percent SICGF could be granted. The evaluation of a project, need for loans and the value of its collateral was implemented by commercial banks. In this case, the SICGF charged fees amounting to 1.5 percent of the guaranteed credit.

Nonetheless, services provided by the SICGF did not greatly help small-scale industries because as the fund only started in 1986 the number of personnel and their experience were still limited, resulting in their restricting credit guarantees to the size of available capital. Moreover, SICGF required co-operation from commercial banks. As a consequence, if bank branch managers were not aware of this service, or bank headquarters did not issue policies to offer the credit guarantee service, it was impossible to implement this service, despite its availability.

Commercial Banks' Attitudes towards SICGF

Commercial banks agreed with the concept and objectives of establishing an agency such as the Small Industry Credit Guarantee Fund because it could help lessen the financing burden of small industrial projects with high potential but insufficient collateral. Moreover, SICGF was useful not only to small-scale industries but also to commercial banks because their revenues would increase as more credits were provided.

However, commercial banks, in practice, only utilized SICGF's services to a small extent due to factors concerning both SICGF and the banks. SICGF had just recently started operation. Apart from their limited numbers, its personnel also lacked experience, and SICGF thus tried to limit the growth of its service provision to a certain level. SICGF's management may not have wished to immediately expand their operation because the evaluation of the fifth-year plan was to be conducted, and the future of SICGF was still uncertain.

Commercial banks, as a SICGF service recipients, had the following comments: (1) The credit guarantee application and approval procedures were complicated. Application had to be done through the bank's head office. Some commercial bank branches could directly forward an application to their headquarters, some branches had to submit an application to the head office via the province, area and regional offices, and finally the application would then be forwarded to SICGF. Both bank branches and their customers had to wait a long time before

the application result was known; (2) The information required by SICGF imposed a burden on both commercial banks and applicants; (3) Bank headquarters had instigated policies to diversify their risks, and set high targets for the growth of their branch credits. This resulted in imposing a heavy workload on the commercial bank branches, apart from the credit guarantee service; (4) Commercial bank customers who were not granted credits had poor qualifications or their investment projects did not possess good potential. Thus, the guarantees of SICGF did not help upgrade the quality of customers or of investment projects.

Commercial banks, particularly the small ones, reported intricate credit guarantee procedures and burdensome information requirements even though SICGF had simplified application forms. This may be the result of the fact that commercial bank credit officers were not familiar with the evaluation of credits, especially long-term credits, for small-scale industries.

4.2.7 Operation of Commercial Banks under the "Rural Credit" Policy

The target amount of credits extended to rural areas by the entire commercial bank system in 1987 when the "rural credit" policy was first introduced totaled Baht 124,188 million, with Baht 86,932 million being allocated to farmers and small-scale regional industries, and Baht 37,256 million to agro-industries. The commercial bank system could also extend credits to various target groups totaling Baht 117,156 million, or 18.9 percent of total deposits. The discrepancy between actual and target credits amounted to Baht 7,000 million. In 1988, the target credits to the agricultural sector and small-scale industries totaled Baht 104 billion, but the actual credits amounted to a mere Baht 87 billion, Baht 17 billion below the target representing 2.3 percent of total deposits (Table 4.40).

Based on actual credits, the performance of commercial banks under the "rural credit" policy in 1987 was superior to that in 1986. The entire commercial bank system could increase their rural credits by over Baht 28,000 million or 31.9 percent, compared to the 22.6 percent growth

of the total credits. Credits extended to the new target group, rural small industries, rose by 85.1 percent. The target credits for businesses related to agriculture increased from two to six percent of total deposits, and the actual credits to this sector also grew at a high rate, 51.8 percent (Table 4.41). Credits extended to small industries rose by Baht 6.42 billion or 64 percent from Baht 10.02 billion in 1987 to Baht 16.44 billion in 1988, representing a growth rate higher than that of total industrial credits and total credits which were 38 and 25 percent, respectively.

The assistance of the Bank of Thailand to small industries under the "rural credit" policy led to commercial banks' stronger emphasis on small industries. In 1987, credits extended to small industries by commercial banks accounted for six percent of total industrial credits. It was difficult to identify the effect of this policy because the percentage of credits to small industries had remained at this level prior to the introduction of this policy.

4.2.8 Bank of Thailand's Rediscount Facilities

Rediscount facilities include those for exports, industries and small industries.

The Bank of Thailand's rediscounts dramatically increased from Baht 27 billion in 1977 to Baht 142 billion in 1988. Rediscounts in 1988 were 5.3 times of those in 1977, representing an annual growth of 17.6 percent (Table 4.42).

Rediscounts were mostly implemented through BOT head office in Bangkok, who represented 94 percent of the total rediscounts. Rediscounts through each BOT's regional branch were negligible (Table 44.42).

Rediscount facilities for industries and small-scale industries were still scanty, particularly those for rural industries. Although rediscounts could be implemented for exports, industries and small

industries, about 90 percent of the total rediscount facilities were for exports, and the remaining 10 percent were for industries. Rediscount facilities for small industries were negligible and were only initiated in 1988 (Table 4.43). In terms of growth, rediscounts for exports grew at a very high rate, 14 percent per year through head offices and at 30 percent through regional branches. Rediscount facilities for industries are decreasing through head offices at the rate of 15 percent per year. On the other hand rediscounts through branch offices increased at the low rate of about 5 percent per year (Table 4.43). The decrease was a result of the termination of assistance to many industrial enterprises (after 5 years).

The distribution of rediscounts for industries and small industries was similar to the national distribution pattern of rediscounts. Only 0.2 percent of total rediscounts were done through BOT's branches, with the remaining 10.4 percent through BOT head offices (Table 4.43).

Although rediscount facilities for industries and small industries accounted for only a small share, industrial enterprises could use rediscount facilities for exports. Based on the statistics of the Bank of Thailand, about 60, 30 and 10 percent of commodities using rediscount facilities under the packing credit window were industrial goods, agricultural products and other products, respectively (Table 4.44). Rediscount facilities under the packing credit grew at an annual rate of 14 percent. The growth rates of agricultural goods, industrial goods and others were 15, 12 and 39 percent, respectively (Table 4.44). Industrial goods or industrial enterprises were granted rediscount facilities to a high degree, that is a total of 55 percent.

Most rediscounts under the packing credit window were agro-based primary commodities such as sugar, tapioca products, jute products, tobacco, molasses, rubber products, wood products, animal feed, canned food and frozen meat. In 1987, these goods accounted for as much as 75 percent of rediscounts under the packing credit window, and the remaining 25 percent consisted of non-conventional goods such as garments, gloves, cement, electrical appliances and pharmaceutical

products, etc. (Table 4.45). In other words, non-conventional goods or activities constituted about 14 percent of total rediscounts.

The assistance given by the Bank of Thailand was mainly to large-scale enterprises. About 55 percent of rediscount facilities under the packing credit window were utilized by 122 large exporters, most of whom paid a seven percent interest rate to commercial banks. The remaining rediscounts under the packing credit window were used by 2,000 medium- and small-scale exporters. With regard to rediscounts for industries, 57 percent were for large enterprises (approved loans exceeding Baht 31 million), and only 15 percent were of small scale (approved loans not exceeding Baht 10 million).

Commercial banks were enthusiastic in providing rediscount facilities under the packing credit window because the determination of each bank's rediscounts was done on an aggregate basis, and not classified by type. Commercial banks then used rediscount facilities as an incentive to attract large exporters which require considerable financing (low lending costs) with low risks because the rediscount interest rates were much lower than the prime rate. Furthermore, commercial banks earned some profit from foreign exchange transactions. Consequently, commercial banks were not interested in providing rediscount facilities for medium and small industries, although the margin here rose from 2 to 3 percent in 1985.

4.2.9 Capitalization through the Securities Exchange of Thailand (SET)

Apart from raising capital from internal sources through equity and retained earnings and external sources through loans from various sources, businesses can raise funds through the Securities Exchange of Thailand by issuing new securities in the primary market.

However, raising capital by industrial enterprises through the Securities Exchange of Thailand accounted for only a small share of the market. In regard to capitalization through a government bonds issue,

state enterprise bonds and equity in the Securities Exchange of Thailand, only 0.4 percent was equity issued by large industrial firms, and almost 90 percent of this was in government bonds (Table 4.46). No available statistics could identify the percentage of capitalization of rural industries through the SET with in the total industrial capitalization.

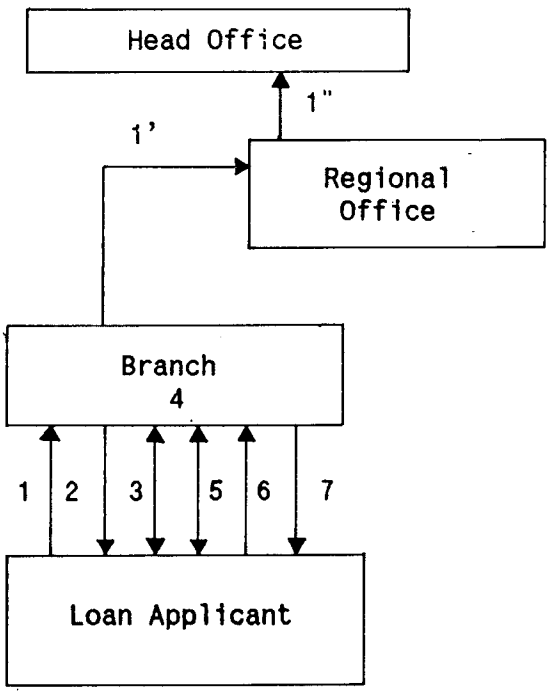
4.3 CREDIT APPROVAL PROCESS

4.3.1 Credit Approval Process of Commercial Banks

Each commercial bank has its own credit approval process. However, the general credit approval procedure is as follows: (see Figure 4.1)

1. An application giving details of the loan size and objective of borrowing is submitted. The size of the loan indicates whether the bank to implement needs more a complicated evaluation process or not. Moreover, each individual bank determines the size of loan that can be authorized by branch managers. If the loan size exceeds the authorized limit, the application then has to be forwarded to the head office for evaluation. The branch manager also decides whether the application should be further evaluated or should be approved by head office, in which case it will be forwarded to the head office. The reasons given for borrowing assists the bank in assessing whether the loan is eligible, and the bank can immediately inform the applicant if the objective of borrowing contradicts bank credit policies so that the applicant does not waste time waiting for approval. If the loan is eligible for the bank's financial support, the possibility of eventually obtaining a loan increases. The banks will also consider how the capital raised will be used in order to properly categorize the loan and assign an appropriate credit evaluation method. For instance, if capital is to be used as working capital, an overdraft loan should be considered. If capital is to be invested in fixed assets, term loans will be more appropriate.

Figure 4.1 Credit Approval Process of Commercial Banks



1. An application is submitted.
   1' The loan size exceeds the amount that can be authorized by the branch manager; the application is then forwarded to the regional manager for consideration.
   1" The loan size exceeds the amount that can be authorized by the regional manager, the application is then forwarded to the head office.

2. The bank analyzes the applicant and the project; then contacts the applicant to inspect the actual status and request for information required for the analysis.

3. Conditions are determined such as loan size, interest rate and collateral, etc. .

4. An approval is granted.

5. The bank and the approved applicant sign the loan contract and the guarantee contract.

6. Capital is disbursed.

7. Follow-up activities are implemented.

2. The bank must evaluate the applicant's ability and willingness to pay. In case of small loans, simple evaluation methods will be applied such as the five C's. If the loan size is large, the analysis will be more complicated, requiring the evaluation of techniques, finance and marketing. Proforma cash budgets, income statements and balance sheets for several years will be prepared. During the loan analysis process, credit officers will visit entrepreneurs to acquire more information.

3. The bank and the approved borrower will settle collateral agreements. Securities for loans include savings deposits, a party of at least two persons, buildings, land, machinery, government bonds, inventory and automobile plates, etc. In the case of buildings, land, machinery and inventories, bank officers have to inspect the condition of these assets and assess their value. Additionally, the bank and the borrower have to agree on the amount of loan, interest rate, loan period, disbursement methods, grace periods and maturity dates, etc.

4. When agreements in above have been settled, the next step is credit approval. Bank credit officers will present a report to the authorized persons such as branch managers, provincial directors, regional managers and credit committees, etc. (The structure of each bank is different; thus, the titles of authorized persons at each level are also different.)

5. When a loan is granted, responsible bank officers will proceed with mortgaging the assets proposed as securities for the loan, or make arrangements for a guarantee contract through individuals or juristic persons. A credit contract will then be drawn up such as an overdraft contract, a loan contract, etc. and signed by both parties.

6. After the primary (loan) contract and the secondary (guarantee) contract have been made, the bank's credit officers will forward the issue to the accounting department for further disbursement.

The overall time required for commercial bank credit approval is very short. When the borrowers are bank customers, and if the loan

amount is within the branch manager's authorized limits and the financing requested is an overdraft loan secured on a fixed time deposit, the loan approval process will only take one day. However, it does take longer to evaluate a large loan where land's offered as collateral because bank officers must first make an appointment to inspect the land and assess its value, and the credit officers then write a project for further approval consideration. This process will take no less than two weeks. After the approval has been granted, more time is needed for mortgaging assets before loan disbursement can be made.

The survey result indicated that in 32 percent of the cases surveyed by bank branches it was unnecessary to carry out a detailed analysis of a project feasibility prior to approval. (i.e. rates of return, proforma balance sheets and income statement were never prepared.) This, by no means, shows that the feasibility of a loan project has never been studied, but that the analysis was not done in depth. Thirty-nine percent of the surveyed commercial bank branches identified that 80-100 percent of industrial loan applications were thoroughly analyzed prior to the loan approval process (Table 4.47).

Since numerous bank branches have to analyze the feasibility of a project before granting approval, surveyed bank branches were asked whether they faced any analysis problem and if so, what the problems were. The survey revealed that 74 percent of bank branches reported that a thorough project analysis was done, and that project analysis problems existed (Table 4.48). The number of bank branches located both in and outside Muang district facing analysis problems were almost identical. The problem most frequently faced was in obtaining the necessary information. Borrowers tended to give inaccurate information, and the actual information required was not always available. Other problems resulted from the lack of experience and the insufficient number of credit officers (Table 4.49).

Bank Branch Managers' Authorization

The trends in commercial bank credit allocation over the past three-four years differs from that of earlier years. Commercial banks started to realize the risks associated with lending to only a few major customers. More recently, commercial banks have tended to extend more loans to small customers over a more diversified range of businesses. The recent growth of commercial bank branches reflects both the policy of the Bank of Thailand and the internal adjustments taking place in commercial banks.

In many cases, commercial banks have implemented a policy to enable each branch to be self-sustained or even become a profit center. The survey indicated that 87 percent of rural bank branches were currently carrying out a self-sustaining program. The ratios of bank branches both in and outside Muang district that implement a self-sustaining policy showed little variation, that is the total was about 87 percent (Table 4.50). Bank managers reported that this policy had contributed to increased efforts to extend more local credits, because mobilized if savings were transferred to the head office, branches could not possible be come self-sustaining.

In general, bank branch managers were authorized to approve a loan within a certain limit. The size of this loan varied from bank to bank. Even within the same bank, the size of loan approved by their branch managers differed according to the branch size, the managers' experience, the managers' length of service and past performance. The survey results indicated that the managers of about 50 percent of all bank branches could authorize a maximum lending limit exceeding Baht 300,000 or about 75 percent of all bank branches could authorize a maximum lending limit of not over Baht 500,000 (Table 4.51). The survey also revealed that the maximum lending limit of bank branches in Muang district was higher than that of branches outside Muang district. The managers of approximately 60 percent of the bank branches outside Muang district could only authorize a maximum lending of Baht 300,000 while those of 65 percent of the branches in Muang district could approve a maximum lending of between Baht 300,000-1,000,000. The size of maximum

lending was in direct relationship with the bank structure because most bank branches in Muang districts were generally larger than those outside Muang district.

If the loan size exceeds the maximum lending limit, managers then forward the loan applications to bank officers with higher authorization. The survey showed that the maximum lending limit was set rather low, in comparison to the size of loans that had been applied for at each branch. The managers of only 13 percent of all banks surveyed did not have to forward any loan applications for further approval. In other words, as much as 87 percent of branches received applications for loans exceeding their maximum lending limit (Table 4.52). The percentage of bank branches in Muang district that had to forward applications was higher than that of branches outside Muang district. Forty-six percent of all bank branches surveyed had to forward no more than 30 percent of their total loan applications.

Commercial Banks' Administration Structure

Although the administration structure of large banks was more complicated than that of small ones, large banks did not necessarily take any longer time in approving loans because these banks delegated more authority to individual departments, regional or area offices and branches. The authorized maximum lending limit of branches, regional offices and departments of the large banks was higher, when compared to small banks. The amount of the loan may have to be authorized at departmental levels or higher if applied to small banks, but the same amount could be authorized by branch or regional managers in case of large banks.

The observations also revealed that large banks delegated more autonomy than small banks, probably because large banks had a superior human resource development system, wider experience and better internal control.

The number of credit officers in each branch varied according to the amount of credit offered, and the workload was related more to

credit accounts handled than to loans. Branches offering a considerable number of individual lending services may have a greater workload than those extending industrial financing because the loan size per account is lower. Thus, the branches extending most individual lending services usually had more credit officers.

Based on the bank size, large banks generally employed more credit officers per branch than the smaller banks because the number of customers and loan applications was greater and that large bank branches could authorize a higher maximum lending limit. This naturally resulted in more credit analysis workload of large bank branches. On average, large bank branches had at least three credit officers whereas small bank branches had at least one-two credit officers.

Large bank branches were more capable in analyzing project lending which requires analysis of production techniques, marketing and finance, proforma balance sheets, income statements and cash budgets. When several project loan applications were received, some large bank branches had sufficient credit officers to handle them or they could solicit assistance from their regional offices. If this same number of loans was received at any one-time at a branch of a small bank, the some applications may have to be forwarded directly to the head office for lending analysis. However, if the analysis method was not complicated (i.e. the five c's method) and the amount of loan not very large, the credit officer and managers of both large and small bank branches could handle all the loan applications themselves.

Large banks recognize the importance of the development of credit officers and other bank personnel to a higher degree than smaller banks. Large banks have been training their personnel for many years while small banks only initiated a systematic training program one-two years ago. In the credit officer training program each officer's record would be prepared, and decisions made as to who would attend the training and on what topics. As the large banks had numerous officers, this training would provide a ladder to climb up the hierarchy, and the officers may be requested to take an examination before attending a training program.

Lecturers recruited from both within and outside banks participate in the training program. For instance, in case of practice method training, lecturers or experienced officers within the banks would be utilized, and in case of training on new issues, lecturers from outside the banks such as university professors would be recruited. With regard to the training programs organized by the Thai Bankers' Association, the lecturers were mostly officers from large banks.

The training programs of the Thai Bankers' Association are offered to both branch managers or regional directors. This training program would also be of great benefit small banks. As attending training programs on the same issues by the same lecturers would not be beneficial, the training provided by the Thai Bankers' Association would be useful only when new topics and new lecturers were introduced. A broader training program would also provide participants with an opportunity to meet colleagues from other banks, which could create beneficial connections for their future businesses.

4.3.2 Loan Approval Process of Finance and Securities Companies

In general, the loan approval process of finance and securities companies is identical to that of commercial banks, but considerations on the size loan and collateral are more flexible. The amount of loan acquired can be larger with the same value of security or the same amount of financing can be obtained with less collateral or less secure collaterals (i.e."not land or buildings). In case of leasing, finance and securities companies may require borrowers to purchase an insurance policy for leased assets in which finance and securities companies are beneficiaries and borrowers pay insurance premiums.

4.3.3 Loan Approval Process of Specialized Financial Institutions

4.3.3.1 Loan Approval Process of the Industrial Finance Corporation of Thailand (IFCT)

a) General Credits

The loan approval process of IFCT has the following steps.

1. Loan Application Consideration
2. Project Preparation
3. Detailed Project Analysis
4. Settlement
5. Investment Committee and Loan Approval
6. Project Monitoring and Follow-up

Loan application consideration starts from customers contact through either walk-in or IFCT's promotional efforts to attract more customers to use their available facilities. Customers can directly contact the head office or one of the six regional offices (In the Northeast : Nakhon Ratchasima and Khon Kaen; In the North: Lampang and Phitsanulok and in the South : Surat Thani and Hat Yai, Songkhla)

Loan applications are filed with the Marketing and Business Development Department which will then consider whether loans are eligible. The IFCT has identified those industries temporarily ineligible for financial assistance, and this list is constantly changing. Several, other aspects concerning loans are also taken into consideration during the preliminary evaluation such as expenditures, raw material sources and marketing policies. If the loans are eligible for financial support, the applications will then be forwarded to the Project Department for further project paper preparation.

To prepare project paper, IFCT officers meet with the entrepreneur to give advice and help ameliorate any drawbacks in the project. Suggestions regarding the reporting process are also given. The project paper preparation requires information on background, objectives, rates

of return, investment size, financing sources, capital structure, important operation policies, products, markets, management capability, finance, performance evaluation, conditions and project limitations. This step basically provides the complete preparation of the project for submitting for further analysis.

With regard to the detailed project analysis, loan projects will be classified into groups and forwarded to concerns. The departments Project Lending 1 Department supervises heavy industries. Project Lending 2 Department deals with agro-industries. Project Lending 3 Department handles services, and the Small Industries Department copes with small-scale industries. The Project Lending Department will conduct a detailed analysis covering three aspects. The marketing analysis will scrutinize the demand for goods currently produced, and to be manufactured, pricing methods, distribution channels, prices and raw material sources. The technique aspect deals with the production process, machinery and equipment, buildings, production capability, production costs, production plans, construction plans and environmental effects. The financial analysis prepares the financial budgets to evaluate the project's financial feasibility (Financial rates of return are estimated), including the ability to pay back the loan. The Project Lending Department will prepare an analysis report to be submitted to the Investment Committee.

Following the project evaluation, the lending conditions will be determined based the survival of the project. Settlements will be made by taking into account many aspects such as loan amount, disbursement method, principal repayment, interest rate, and etc. IFCT will the ask the borrower to make the settlements, and the agreements will then be included in the evaluated project document to be submitted for loan approval. The negotiation will also cover agreements on collateral. The collateral accepted by IFCT includes factory land, other land and assets, buildings and other constructions, machinery and equipment, bank guarantees promissory notes issued by finance and securities companies. Using assets other than bank guarantees promissory notes issued by finance and securities companies as securities for loans requires a further asset evaluation as a part of the loan settlement. Furthermore,

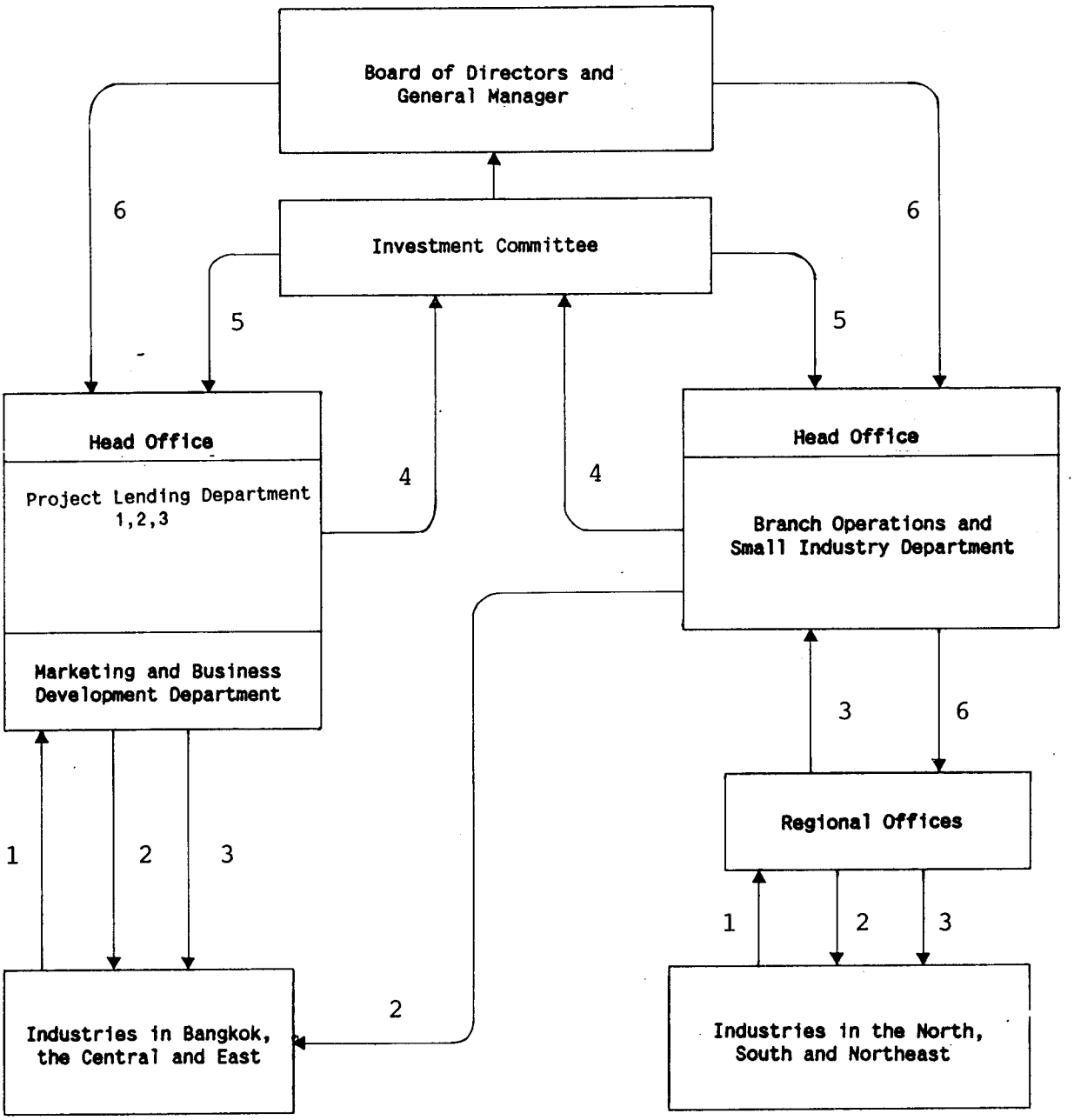
assets already used as securities for loans from other financial sources are not acceptable as collateral for loans from IFCT.

The Investment Committee consists of IFCT's high-ranking officers. When the Project Lending Department has thoroughly analyzed a loan application, a report will be prepared and submitted to the Investment Committee for further consideration. The project will then be presented to the managing director for approval. In case of large investment projects, a report containing the opinions of the Investment Committee and IFCT management will be submitted to the Board of Directors for approval.

If a loan project is approved, IFCT will request that the applicant prepare the necessary contracts. Disbursements will be made in installments according to the stage of the project implementation. When the disbursements are fully paid, the monitoring stage will commence requiring the borrower to make repayments as specified in the loan contract. Usually, IFCT grants a grace period when only the interest is to be paid. After the grace period, repayment will be made in installments as determined. For instance, in case of medium and large-scale industries, principal repayment has to be made every six months and the interest must be fully paid every three months. In case of small industries, principal repayment is made every three months and the interest is paid on a monthly basis. A flowchart, showing the project lending approval process of IFCT, is presented in figure 4.2.

The IFCT places a strong emphasis on long-term lending and project financing. Projects granted loans must first be analyzed with regard to marketing, techniques and finance. This project lending analysis is rather time-consuming, particularly for small projects requiring a small loan and projects whose entrepreneurs are not familiar with alternative services. Prior to a project analysis, entrepreneurs must prepare a project paper with which they are often not familiar and this imposes an increased burden on the IFCT officers who are requested to give advice from the very start. Thus, the time from first applying for a loan to a final result can be no less than one month. Apart from its complications, the loan analysis process also requires a considerable

Figure 4.2 Credit Approval Process of IFCT



1 Loan Application Submission
2 Project Analysis
3 Consideration of Settlements, and Preliminary Approval
4 Submission of a Report on Project Analysis Results and Settlements
5 Inform Final Approval Result
6 Results Informed, Loan Contract and Follow-up

amount of information. Even more time has to be devoted to the verification and acquisition of this information.

b) IFCT Approval procedure for credit to small-scale industries

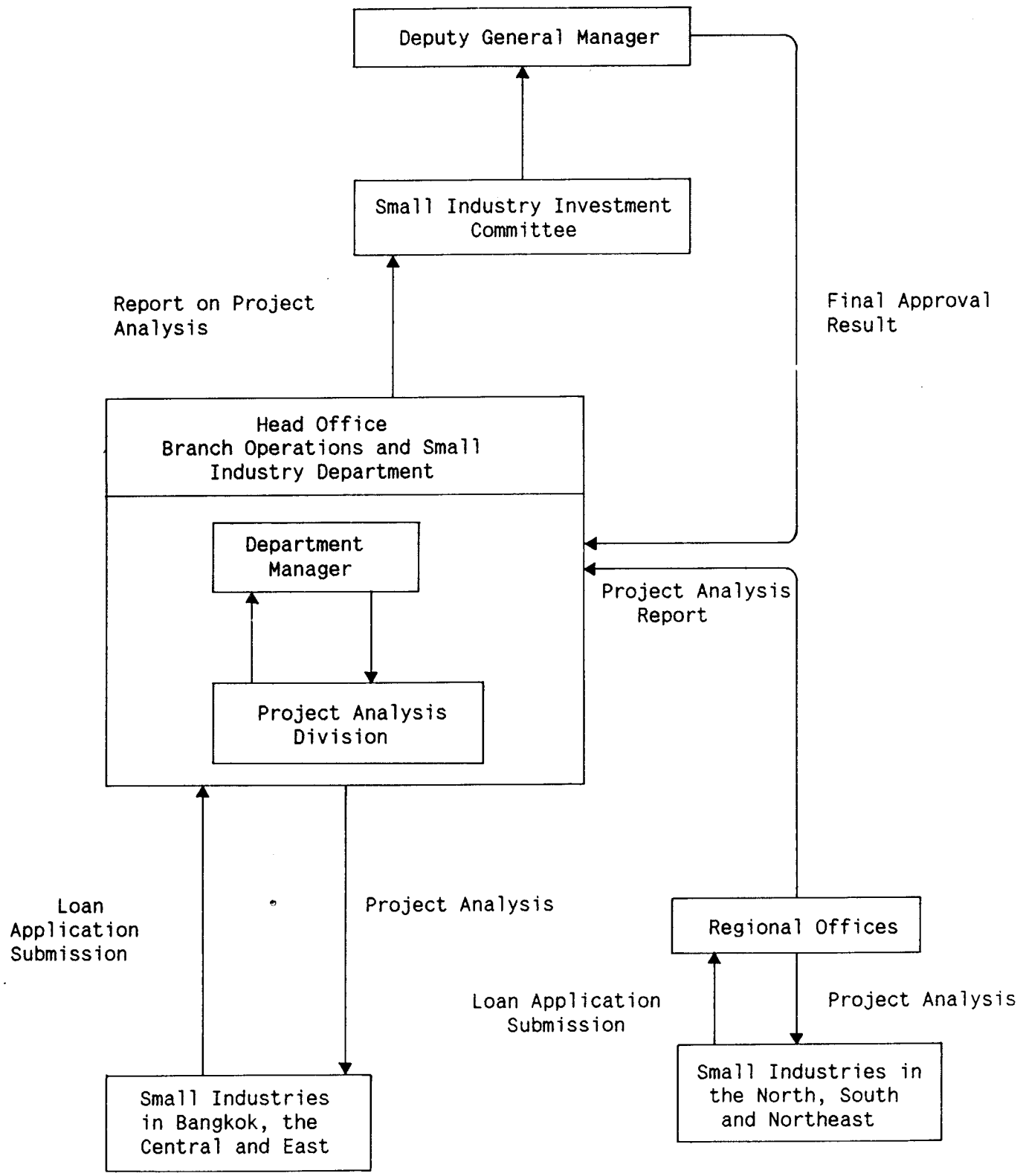
Small industrial entrepreneurs can request loans and file loan applications either at the IFCT head office or at any of the six regional offices. At the head office, the Branch Operations and Small Industry Department is responsible for handling small industry credits.

When an application is submitted, the Branch Operations, the Small Industry Department and regional offices will screen and implement the preliminary evaluation by meeting the entrepreneurs to check their intention and the feasibility of the project. The project analysis officers will then thoroughly scrutinize the project's feasibility regarding marketing, techniques and finance. When the analysis is completed, the regional offices will send a report to the Branch Operations and Small Industry Department for further action. These Departments not only analyze the feasibility of the projects directly submitted to the head office but also examines the evaluation reports forwarded by regional offices. They will then present a report to the Small Industrial Investment Committee and to the Managing Director for further consideration. (Figure 4.3)

The approval decision is exclusively made at the head office. Regional offices are not authorized to make an approval mainly because a huge amount of capital is involved and also that the regional office managers are not well-experienced.

The IFCT attempts to simplify and speed up the evaluation process concerning small industrial projects. In general, three officers (one financial analyst, one marketing analyst and one technical analyst) are required when evaluating a large investment project, and each analyst will thoroughly scrutinize the project. The process has now been improved and only one analyst is needed. He will examine the financial, marketing and technical aspects of the project, and will then prepare a less detailed (10 page) report.

Figure 4.3 Small Industry Credit Approval Process



The analysis process for small industrial projects takes about one month per project. However, the overall time needed also depends on the availability and accuracy of the information given by entrepreneurs. Although IFCT has simplified the project evaluation process and established regional offices to provide provincial industries with financial services, the process starting from application submission to disbursement can take from two-three months which is a long time when compared to commercial bank loan evaluations. Installing computerization, requiring less details in a project analysis and having the head office forward the necessary information will help reduce the analysis time. And, if the credit guarantee services of the Small Credit Guarantee Fund is required, the entire process will take at least two more weeks.

4.3.3.2 Credit Provision of the Small Industry Finance Office (SIFO)

a) Loans Jointly Extended with the Krung Thai Bank

SIFO's lending via the Krung Thai Bank can be explained as follows.

- SIFO deposits certain amount of capital with the Krung Thai Bank. In 1987, this deposit totaled Baht 25.5 million, which was allocated by the Ministry of Finance. (The funds originally allocated amounted to Baht 52.5 million.)

- The Krung Thai Bank must provide small industries with loans totaling four times the SIFO's deposit at the bank. This means that Krung Thai Bank has to allocate additional capital amounting to three times the SIFO's deposit or in this case Baht 76.5 million.

- The Krung Thai Bank receives loan applications which will be screened by SIFO

- SIFO evaluates projects' financial needs and feasibility while the Krung Thai Bank evaluates the value of the collateral offered.

- SIFO prepares submits a report to the Loan Committee for consideration.

- In case of loan approvals, the Krung Thai Bank will sign a contract with the borrowers, mortgage the collateral and make loan disbursements.

- The Krung Thai Bank receives loan repayments and deals with the repayments due.

- The Krung Thai Bank prepares a report on the status of outstanding loans and loan repayments.

The credits that SIFO extends in conjunction with Krung Thai Bank are be explained in Figure 4.4

The structure of this joint lending process between SIFO and the Krung Thai Bank is rather strange and not particularly practical on the part of the Krung Thai Bank.

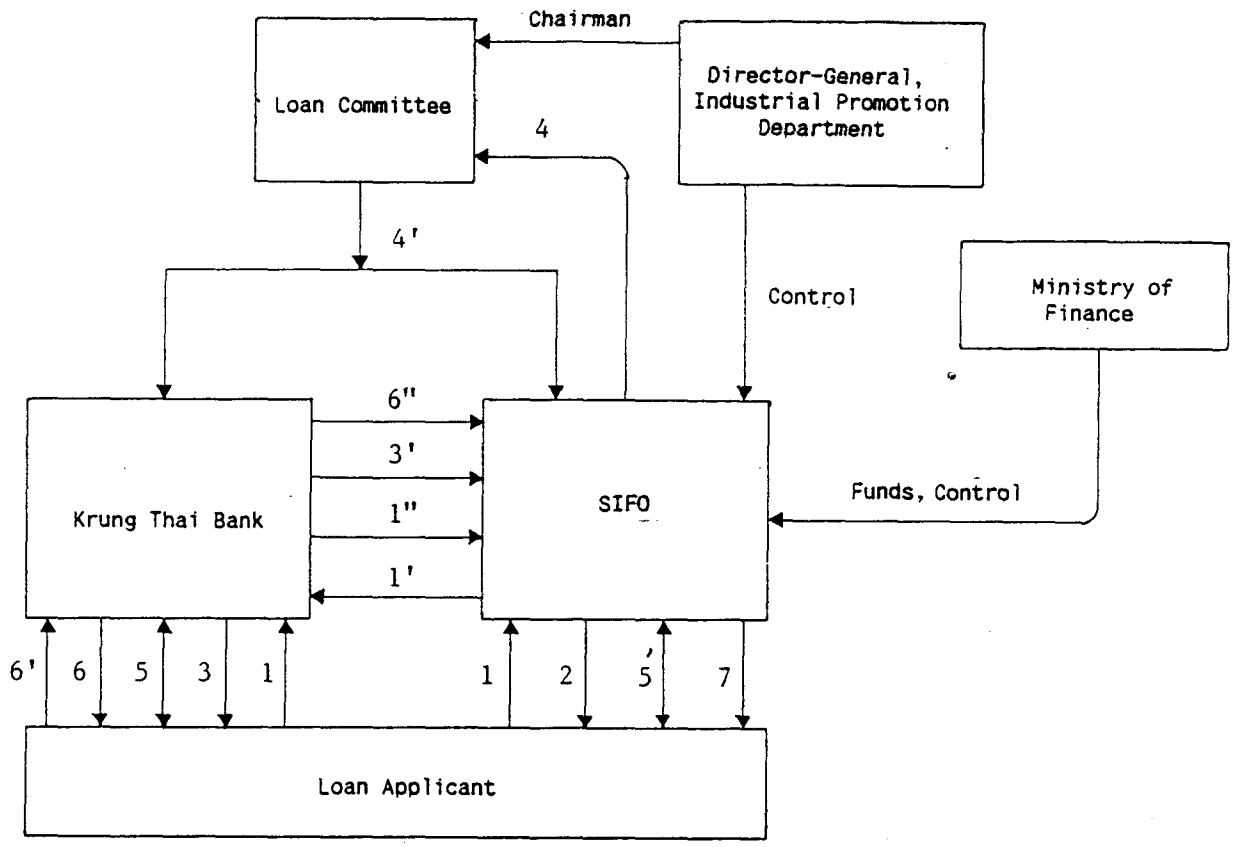
- The Krung Thai Bank has to bear all the risks although the bank is not allowed to be fully involved in either the credit analysis or credit approval.

- SIFO does not share any of the responsibilities in bearing default risks, but does analyze the loan applications.

- The approval for loans is made by a Loan Committee consisting of government officials from various public agencies, some of whom lack experience regarding lending.

- The Loan Committee can work without blame if the performance of their approved loan projects is not satisfactory. The default rate is rather high even though the Loan Committee monitors and approves SIFO' s lending.

Figure 4.4 Joint SIFO and Krung Thai Bank Lending



1) A loan application can be directly submitted at SIFO or through Krung Thai Bank. If an application is filed at SIFO, SIFO will inform Krung Thai Bank (1'). If submitted at Krung Thai Bank, an application will be forwarded to SIFO. (1")

2) Credit officers meet with the applicant to analyze the loan and evaluate the project feasibility.

3) Krung Thai Bank evaluates collaterals proposed by the applicant, and the evaluation result is reported to SIFO (3').

4) The credit analysis report is presented to the Loan Committee for approval. The consideration result will then be reported to Krung Thai Bank and SIFO (4').

5) After the Loan Committee has approved the loan, a loan contract is made with Krung Thai Bank whereas a credit use contract is made with SIFO (5').

6) A loan disbursemant is made by Krung Thai Bank. 6' represents loan repayment (including bad loan monitoring). 6" represents Krung Thai Bank's reporting to SIFO on loan repayment.

7) SIFO monitors the loan use and gives an advice.

Since this structure has its problem, the Krung Thai Bank did not wish to continue the co-operation, thus, start forcing SIFO to provide more direct lending in later years.

Another obstacle put in the way of the joint lending arrangement between SIFO and the Krung Thai Bank was low interest rates. A Cabinet decree in 1981 stated that the SIFO must charge interests rates two percent below commercial bank rates. These low interest rates discouraged the Krung Thai Bank in extending any loans exceeding SIFO's deposit at the bank. If loans exceed this deposit, the bank lost opportunities to obtain a higher interest rate elsewhere. In other word, the bank could gain a higher rate of return through its regular lending channels.

b) SIFO's Direct Lending

Direct loans were initiated after SIFO encountered the problems of joint lending with the Krung Thai Bank and SIFO's officials acquired more experience and expertise other than in credit analysis and project feasibility, such as collateral mortgages, loan repayment management, etc.

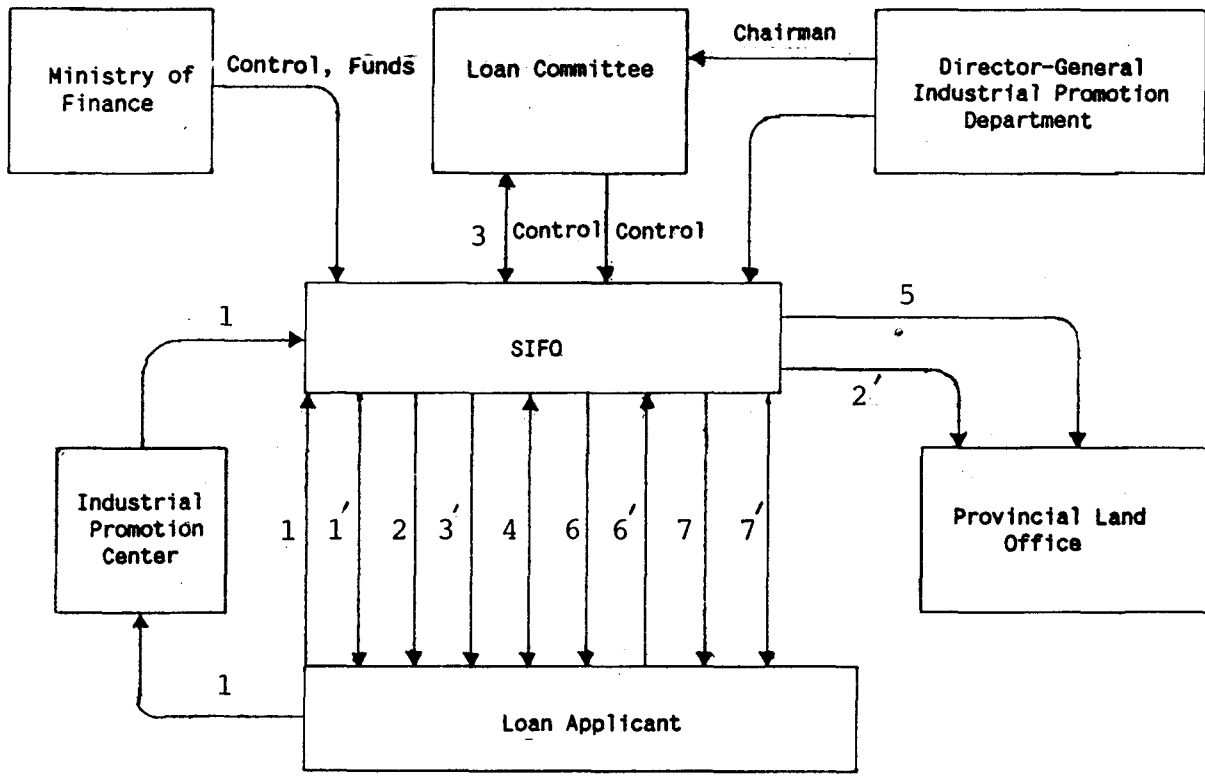
SIFO's direct lending started in 1978. The SIFO in this case assumes all the responsibilities and risks associated with lending. However, the authority to approve loans continues to be limited because the Loan Committee assumes the authority to approve loans.

Direct loans" are derived from SIFO's deposits at the Krung Thai Bank. Consequently, this deposit is depleting as the direct lending is increased.

One result of SIFO's direct lending policy is the decreasing amount of interest earned, but the SIFO can create more revenue from extending loans. This indirectly forces SIFO to be more careful when offering credits because defaults will now lower their revenue.

Direct lending by the SIFO is explained in Figure 4.5.

Figure 4.5 SIFO's Direct Lending



1) Application Submission : An application can be directly filed at SIFO or through Industrial Promotion Centers (1). When the application has been received, SIFO will inform the applicant (1').

2) Credit Analysis and Project Evaluation : SIFO credit officers meet with the applicant to acquire more information needed in analyzing the loan and evaluating the project feasibility (2). In the meanwhile, SIFO contacts the Provincial Land Office to appraise the land used as a security for the loan (2').

3) Loan Approval : A report is submitted to the Loan Committee for approval (3). The consideration result is reported to the applicant (3').

4) Loan and Mortgage Contracts : 4 represents contracts between SIFO manager and the applicant.

5) The collateral is mortgaged at the Provincial Land Office (5).

6) A loan disbursement is made (6), and 6' represents loan repayment.

7) Monitoring and Advice : 7 represents loan repayment and project progress follow-up. 7' shows overdue loan repayment monitoring.

It can be see, however, that direct lending is less complicated and time-consuming, and this in the long term will benefit entrepreneurs applying for loans.

4.3.3.3 SICGF's Credit Guarantee and Disbursement Practice

a) Guarantee

SICGF's credit guarantee is determined by the calculated value of unsecured credit, and credit guarantees will not generally exceed 80 percent of that amount. However, in case of industries which the government wishes to promote, a 100-percent guarantee can be granted. The unsecured credit amount is determined by commercial banks and IFCT. In other words, commercial banks analyze credit limits, evaluate collaterals and report the portion of credit that is still unsecured. SICGF will automatically accept the evaluation done by commercial banks and IFCT.

Guarantee fees amount to 1.5 percent per annum as based on the credit guaranteed. Fees must be paid when loan disbursements are made. However, guarantee fees will decrease when loan repayment is made because the amount of the unsecured loan also decreases.

Credit Guarantee Consideration Process

The credit guarantee is as follows. (Figure 4.6)

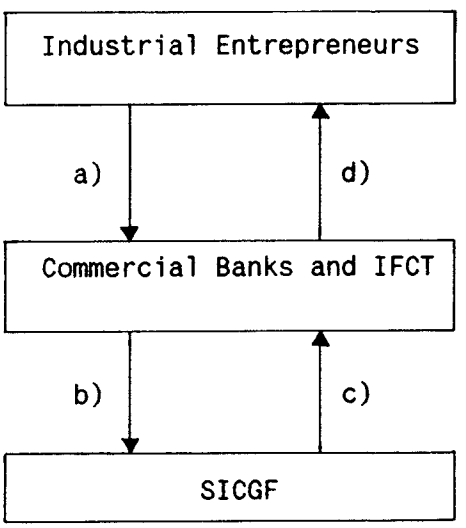
1) Small industrial entrepreneurs submit loan applications to commercial banks (either at the head offices or branches) as well as to the IFCT, and complete the necessary credit guarantee application forms.

2) Commercial banks and the IFCT evaluate the projects' feasibility, credit needs, unsecured credit limits, verify the credit guarantee application forms and forward these forms to SICGF through their head offices.

3) SICGF again verifies the credit guarantee application forms, and further considers the application.

4) Commercial banks and the IFCT approve the loans which are partially guaranteed, charge guarantee fees which are then forwarded to SICGF.

Figure 4.6 Credit Guarantee Approval Process



4.4 PROBLEMS FACED BY FINANCIAL INSTITUTIONS IN PROVIDING INDUSTRIAL CREDITS

This section discusses the problems and limitations encountered by financial institutions in providing industrial credits.

4.4.1 Commercial Banks' Attitudes towards Limitations of Industrial Loan Provision

According to the study by Koruda and Kasajima, the most important limitation in extending credits to small and medium-scale industries was the lack of collateral. Fifty percent of the surveyed banks reported this problem. The second most significant problem was the

unreliability of financial information as presented by the loan applicants. Other problems also existed, but to a much lesser degree. These included low profit margins derived from loans extended to small and medium-sized industries due to high risks and small loan sizes, borrowers' limited funds, borrowers' tendency to be excessively leveraged and their lack of marketing management (Table 4.53).

4.4.2 Problems and Limitations of IFCT

IFCT cannot directly mobilize savings from the public, but savings can be implemented through issuance of bonds, debentures or other financial instruments. This type of savings mobilization has to be approved both by the shareholders and the Ministry of Finance. The market for domestic saving mobilization of financial institutions is still limited to major investors i.e. commercial banks and insurance companies. Credits extended by IFCT are mostly in the form of long-term loans with fixed interest rates which are set lower than those charged on the commercial banks' long-term loans. This therefore accounts for the IFCT's high dependence on foreign soft loans, at present representing about 60 percent of the total capital. Despite low interest rates, foreign soft loans are highly exposed to foreign exchange risks. As of the end of 1988 the IFCT had foreign exchange losses amounting to as much as Baht 4,830 million. Moreover, low interest rates create excess demand for loans, and IFCT has to spread their available funds among various industrial activities.

Problems in Extending Credits to Small Industries

1) One major problem when extending credits under the small industry credit scheme is the low or negative interest rate margins. The study conducted by Kuroda and Kasajima indicated that the cost of loans was rather high, averaging 10 percent per annum, because obtaining low-interest funds from bilateral aid was limited and the bulk of its had to be funds obtained from regular sources. The cost of these lending services accounted for approximately 1.5-2.0 percent of total outstanding loans. IFCT also had to maintain reserves totaling about

2.0-3.0 percent of the total outstanding loans as a cushion against loan defaults. Thus, the total cost of lending was about 13.5-15.0 percent per annum. In addition to high costs, the IFCT could only charge low interest rates due to government policies. In 1987, the loan rate was equivalent to 13 percent per annum. At this rate, IFCT was suffering losses of 0.5-2.0 percent per year.

Consequently, in response to government policies, the IFCT extends credits to small industries but limits the loan size to about Baht 200 million per year.

2) Although IFCT places its emphasis on project lending, collateral is still required. Thus, IFCT's actual lending practice differs little from that of commercial banks. Despite being somewhat simplified, the analysis of small industrial loans is similar to that applied to large projects and still requires information that many small entrepreneurs do not possess. As a consequence, some time has to be dedicated to seeking and verifying information, leading to delays and raising the costs of providing the service.

3) The limited number of branches results in a decrease in entrepreneurs' accessibility to IFCT's services as well as to much higher costs for acquiring information on borrowers and their projects. An increase in the number of branch offices will not only lower these information costs but also make some analysis methods more practical by applying (i.e. the five c's: capacity, capital, collateral, character and condition or the five p's: people, purpose, payment, protection and perspective). The project analysis method currently used, which is based on cash flow analysis, will then be of less importance. Time and costs of analysis will correspondingly decrease.

4) The regional office manager's authority is limited. At present, regional office managers cannot approve loan projects. Every loan application has to be forwarded to the head office, resulting in increased costs and time.

5) The IFCT has a primary claim on every collateral used as a security for an IFCT loan. Thus, if a borrower encounters financial problems or goes bankrupt, the collateral has to be liquidated to pay the debts, and IFCT will then be paid in full for their outstanding loans. Any remaining funds derived from the asset liquidation will go to other lenders. Consequently, many rural industrial enterprises cannot acquire loans from IFCT because assets to be used as securities for loans have already been used as collateral for other existing loans.

4.4.3 SIFO's Problems

The causes of SIFO's limited service provision can be summarized as follows:

1) Joint lending agreements with the Krung Thai Bank is one major problem. The Krung Thai Bank is reluctant to co-operate with SIFO because they do not participate in analyzing loan applications, but do have to bear all default risks. Moreover, the bank's own lending arrangements yield a higher interest margin than joint lending with SIFO at a ratio of 1 to 3. The interest rate margin of joint lending with SIFO was only 29-79 percent of that of the bank's regular lending (1980 excluded) (Kuroda and Kasajima, 1987). The more the Krung Thai Bank extends credits jointly with SIFO, the less profits they can earn.

Year	Interest Margin [1]		Interest Margin Ratio
	Regular Lending	Joint Lending with SIFO	SIFO/ Bank
1978	4.5	2.50	55
1979	6.0	1.75	29
1980	6.0	-0.50	-8
1981	6.0	3.25	54
1982	6.0	4.75	79
1983	4.5	3.25	72
1984	4.5	3.25	72
1985	6.5	4.75	73
1986	6.0	4.75	79

Note: [1] Calculations of Kuroda and Kasajima

2) Second important problem faced by SIFO is by their not being a juristic entity. The SIFO is not a limited company, a state enterprise nor even a government agency. It is merely an office with a Loan Committee who control policies and implement SIFO's activities.

The non-juristic entity status imposes many obstacles. According to the regulations of the Bank of Thailand, SIFO is not a financial institution. Thus, SIFO cannot use the rediscount facilities of the Bank of Thailand. If SIFO was a juristic entity and eligible to use these facilities, SIFO could then utilize this service to a larger extent than the commercial banks mainly because SIFO cannot mobilize savings and the interest rates charged on rediscounts are low. Moreover, because of its status , SIFO cannot draw on funds from the BOT in the same manner as the Bank for Agriculture and Co-operatives and IFCT. SIFO cannot use the credit guarantee service extended by the Small Industry Credit Guarantee Fund either.

This status also affects the moral of SIFO's staff members because they are not assured of SIFO's future. Because the government at any time could dissolve the offices, their job security is questionable. This situation results in a high turnover rate among trained staff members.

3) By imposing low interest rates, the Krung Thai Bank does not have any incentive to co-operate with SIFO. Although SIFO has placed a stronger emphasis on direct lending, low interest rates lead to low profit margins and few retained earnings for expansion.

4) SIFO cannot directly mobilize savings, and must rely on funds occasionally allocated by the government (Baht 50 million as initial capital and Baht 200 million in 1988), and co-operation from the Krung Thai Bank. If SIFO was able to directly mobilize funds, the low loan rates would further become a disincentive (as in the case of the Bank for Agriculture and Co-operatives) because the narrow interest margins may not sufficiently offset the costs and risks associated with lending.

5) With no provincial branches established, SIFO's services to rural industries are limited. The SIFO has recently asked industrial promotion centers to give assistance in the distribution and filling out of loan applications forms. However, every other responsibility has to be assumed by SIFO headquarters. Its annual working budget is restricted by the amount of interest earned from deposits placed at the Krung Thai Bank and the revenues generated from this direct lending still constitute only a small percentage. It should be noted that almost all revenues earned are spent on wages and salaries. Revenues set aside as variable expenditures for extending services in provincial areas are negligible. In 1986, 92 percent of SIFO's total expenses were fixed expenses, namely salaries, administrative expenses and fixed asset investment (Kuroda and Kasajima, 1987). Given no provincial branches, the costs of information dissemination from the head office to rural industries are extremely high and the costs and risks associated with bad loans far exceed any increased interest revenues to be gained from expansion of services. The overall stability of SIFO will be also affected.

6) SIFO's service provision is not efficient. The process starting from loan application submission to loan disbursement takes approximately 142 days or nearly 5 months in case of direct lending, and over 6 months in case of lending via the Krung Thai Bank. The delay is caused by many factors as discussed earlier as well as the capability of SIFO's personnel.

4.4.4 Problems and Limitations of the Small Industry Credit Guarantee Fund (SICGF)

- The operations of the SICGF are still below the breakeven point. In other words, revenues derived from guarantee fees are still much lower than expenses. (See expense details shown in SICGF's balance sheet in Annex.) The SICGF should expand its operation to the level that guarantee fees can cover the total expenses. However, based on the expenses in 1988, the credit guarantee required would have been at least Baht 615 million.

- SICGF's credit officers are currently working at full capacity. If the credit guarantee service is to be expanded, more staff members are needed.

- Commercial banks either do not pay much attention to or support the credit guarantee service. Since the service has to be implemented through commercial banks, rapid service expansion cannot be possible without first assuring the co-operation of commercial banks.

- Commercial banks, on the other hand, have to absorb any additional expenses incurred due to offering the credit guarantee service.

4.4.5 Problems and Limitations of BOT's Rediscount Facilities

Assistance to entrepreneurs through rediscount facilities offered by the Bank of Thailand has to be furnished via commercial banks, but commercial banks are not interested in advising small customers to use rediscount facilities even though the Bank of Thailand increased the margin from 2 to 3 percent in 1985. This is mainly due to the customers' lack of bargaining power with commercial banks. Some borrowers may have insufficient collateral, leading to higher lending risks. Inadequate dissemination of information is also another problem. Many entrepreneurs, particularly small ones in rural areas, are not aware of the availability or method of this service. During a period of high liquidity, commercial banks usually extend loans from their deposits because they are obliged to pay interest on these deposits and the profit margins derived from these loans are greater. As a consequence, commercial banks give low priority to rediscounts.

Table 4.1
Outstanding Credit Given to Manufacturing Sector, 1988

Source of Credit	Billion Baht	Share (%)
Commercial Banks	223.9	83.8
Finance Companies	33.6	12.6
IFCT	8.3	3.1
SIFO	*	-
Bank of Thailand **	1.4	0.5
Total	267.2	100.0

Notes: * Negligible
** Rediscount facilities provided to industries and small industries

Source: Bank of Thailand

Table 4.2
Value and Share of Credit Given to
Manufacturing Sector by Commercial Banks

Year	Value (Billion Baht)		Share (%)	
	Manufacturing	Total	Manufacturing	Total
1978	29.6	160.9	18.4	100.0
1979	34.3	198.4	17.3	100.0
1980	41.2	224.3	18.4	100.0
1981	58.3	258.1	22.6	100.0
1982	64.9	306.7	21.2	100.0
1983	88.7	412.0	21.5	100.0
1984	106.1	481.9	22.0	100.0
1985	122.6	529.5	23.2	100.0
1986	125.0	549.0	22.8	100.0
1987	162.2	691.8	23.4	100.0
1988	223.9	866.9	25.8	100.0
Avg. Growth	23.1	18.6		

Source: Bank of Thailand

Table 4.3
Distribution of Commercial Bank Credit by Region

Percent

Year	North	South	Northeast	Central	Total
1980	6.1	4.5	4.1	85.3	100.0
1981	6.6	4.7	4.9	83.8	100.0
1982	6.8	4.9	5.6	82.7	100.0
1983	7.1	4.9	6.4	81.6	100.0
1984	7.2	4.8	6.3	81.7	100.0
1985	7.0	4.7	6.1	82.2	100.0
1986	6.7	4.7	5.9	82.7	100.0
1987	5.8	4.4	5.2	84.6	100.0
Average	6.7	4.7	5.7	83.0	100.0

Source: Bank of Thailand

Table 4.4
Distribution of Credit to Regional Manufacturing
in Total Regional Credit Given by Commercial Banks

Percent

Year	North	South	Northeast	Central
1980	9.7	14.1	17.2	19.3
1981	9.8	13.7	19.2	24.3
1982	8.3	9.2	17.7	23.1
1983	7.1	9.1	17.2	23.9
1984	7.7	8.6	16.5	24.5
1985	8.0	9.7	17.2	25.7
1986	8.9	10.6	16.9	25.0
1987	10.0	10.6	18.0	25.4
Average	8.7	10.7	17.2	20.8

Source: Bank of Thailand

Table 4.5
Distribution of Credit to Regional Manufacturing in Total Commercial Bank Credit by Region

Percent

Year	North	South	Northeast	Central	Total
1980	0.6	0.6	0.6	16.5	18.3
1981	0.7	0.6	0.9	20.4	22.6
1982	0.6	0.4	1.0	19.2	21.2
1983	0.5	0.5	1.1	19.5	21.6
1984	0.6	0.4	1.0	20.0	22.0
1985	0.6	0.5	1.1	21.1	23.3
1986	0.6	0.5	1.0	20.9	23.0
1987	0.6	0.5	1.0	21.4	23.5
Average	0.6	0.5	1.0	19.8	21.9

Source: Bank of Thailand

Table 4.6
Regional Manufacturing Value Added to Gross Domestic Product

Percent

Year	North	South	Northeast	BMA+ Central	Total
			Rural		
1981	1.1	0.8	1.2	19.2	22.6
1982	0.9	0.7	1.1	18.8	21.5
1983	0.8	0.6	1.0	18.9	21.4
1984	1.0	0.6	1.2	19.6	22.4
1985	1.0	0.7	1.1	19.4	22.1
1986	0.8	0.5	1.0	21.1	23.3
1987	0.7	0.5	0.9	21.8	23.9
Average	0.9	0.6	1.1	19.8	22.4

Source: NESDB

Table 4.7
Distribution of Commercial Bank Branches

Percent

Year	North	South	Northeast	Central (exc. BKK)	Bangkok	Total
1978	16.2	12.3	12.9	27.4	31.3	100.0
1979	16.2	11.9	13.0	27.3	31.7	100.0
1980	16.1	11.8	13.6	27.3	31.2	100.0
1981	15.9	11.8	13.5	27.5	31.3	100.0
1982	15.9	12.0	13.6	27.5	30.9	100.0
1983	15.9	11.9	13.8	27.3	31.0	100.0
1984	16.1	12.0	13.7	27.3	30.9	100.0
1985	16.1	12.1	13.5	27.5	30.8	100.0
1986	16.0	11.9	13.8	27.9	30.5	100.0
1987	15.9	12.2	14.1	28.0	29.7	100.0
1988	16.1	12.2	14.2	28.1	29.4	100.0
1989	16.3	12.1	14.3	28.5	28.9	100.0
Jan 31,90	16.2	12.2	14.3	28.5	28.8	100.0
Average	16.1	12.0	13.7	27.7	30.5	100.0
Average Growth Rate	4.0	4.2	5.5	4.9	4.0	4.6

Source: Bank of Thailand

Table 4.8
Small Loans to Manufacturing Sector Given by Commercial Banks
(Outstanding Amount) - All Commercial Banks -

Million Baht

	Loan Outstanding to Manufacturing Sector (A)	Loan Outstanding of Less-than-3-Million Baht loans (B)	Percent of (B)/(A)
End of 1981	58,239	3,639	6.2
End of 1982	64,893	4,558	7.0
June of 1983	78,319	4,546	5.8
1987	162,238	10,026 *	6.2
1988	223,931	16,446 *	7.3

Note: * Excluding Bangkok and Five Surrounding Provinces

Source: Bank of Thailand

Table 4.9
Distribution of Commercial Bank Branches
by Loans/Deposit Ratio and Location

Number of Branches

Region	District	Loans/Deposit (Percent)						
		0-20	20-40	40-60	60-80	80-100	>100	All
North		2	1	1	0	3	1	8
	Muang	0	0	0	0	0	0	0
	Outside	2	1	1	0	3	1	8
Northeast		0	2	3	6	7	3	21
	Muang	0	1	3	1	3	1	9
	Outside	0	1	0	5	4	2	12
Central		1	3	3	4	2	0	13
	Muang	0	0	2	2	0	0	4
	Outside	1	3	1	2	2	0	9
South		0	4	1	3	2	3	13
	Muang	0	1	0	2	1	1	5
	Outside	0	3	1	1	1	2	8
Overall		3	10	8	13	14	7	55
	Muang	0	2	5	5	4	2	18
	Outside	3	8	3	8	10	5	37
Overall (%)		5	18	15	24	25	13	100
	Muang	0	11	28	28	22	11	100
	Outside	8	22	8	22	27	14	100

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.10
Factors Determining Lending by Commercial Bank Branches

Number of Branches

Region	Location	Factor							
		1	2	3	4	5	6	7	8
North		6	0	1	1	5	2	1	1
	Muang	1	0	0	0	2	1	0	0
	Outside	5	0	1	1	3	1	1	1
Northeast		7	0	6	2	8	7	8	2
	Muang	6	0	1	1	4	4	3	0
	Outside	1	0	5	1	4	3	5	2
Central		9	0	2	2	6	5	6	4
	Muang	3	0	1	0	1	1	2	0
	Outside	6	0	1	2	5	4	4	4
South		11	0	1	1	4	4	5	0
	Muang	3	0	0	1	3	3	3	0
	Outside	8	0	1	0	1	1	2	0
Overall		33	0	10	6	23	18	20	7
	Muang	13	0	2	2	10	9	8	0
	Outside	20	0	8	4	13	9	12	7
Overall (%)		60	0	18	11	42	33	36	13
	Muang	72	0	11	11	56	50	44	0
	Outside	54	0	22	11	35	24	32	19

Notes: 1. Local economy does not permit further credit extension.
2. Head office's policy does not support local area lendings.
3. Branch managers' limited authorization to approve local lending
4. Lower risks from transferring savings to head office
5. Limited number of loan officers
6. Limited number of project analysts
7. Inadequate facilities (cars, computer, etc.)
8. Inadequate cooperation from head office in project analysis
% = Percent of total sample commercial bank branches

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.11
Percentage of Industrial Loans to Total Loans by Number of Commercial Bank Branches, 1987

Number of Branches

Region	District	Percent											
		0	1-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	All
North		4	2	0	1	0	0	0	0	0	0	0	7
	Muang	0	0	0	0	0	0	0	0	0	0	0	0
	Outside	4	2	0	1	0	0	0	0	0	0	0	7
Northeast		0	4	7	7	0	0	1	0	0	0	0	19
	Muang	0	2	1	5	0	0	0	0	0	0	0	8
	Outside	0	2	6	2	0	0	1	0	0	0	0	11
Central		3	5	1	1	1	0	0	0	0	0	0	11
	Muang	0	0	1	1	1	0	0	0	0	0	0	3
	Outside	3	5	0	0	0	0	0	0	0	0	0	8
South		2	4	2	2	0	0	0	0	1	0	0	11
	Muang	1	0	2	1	0	0	0	0	0	0	0	4
	Outside	1	4	0	1	0	0	0	0	1	0	0	7
Total		9	15	10	11	1	0	1	0	1	0	0	48
	Muang	1	2	4	7	1	0	0	0	0	0	0	15
	Outside	8	13	6	4	0	0	1	0	1	0	0	33
Total (%)		19	31	21	23	2	0	2	0	2	0	0	100
	Muang	7	13	27	47	7	0	0	0	0	0	0	100
	Outside	24	39	18	12	0	0	3	0	3	0	0	100

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.12
Distribution of Commercial Bank Branches by Percentage of Loans Made to Small Industries in Total Loans to Industry (Value of Each Loan Less than 5 Million Baht)

Number of Branches

Region	District	Percent											
		0	1-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	All
North		0	0	0	0	0	0	0	0	0	0	4	4
	Muang	0	0	0	0	0	0	0	0	0	0	1	1
	Outside	0	0	0	0	0	0	0	0	0	0	3	3
Northeast		0	1	0	0	1	1	0	1	2	2	13	21
	Muang	0	1	0	0	0	0	0	0	2	1	5	9
	Outside	0	0	0	0	1	1	0	1	0	1	8	12
Central		1	0	0	0	0	1	0	0	1	0	5	8
		0	0	0	0	0	1	0	0	1	0	1	3
	Muang	1	0	0	0	0	0	0	0	0	0	4	5
	Outside												
South		0	1	1	0	1	0	0	1	0	0	6	10
	Muang	0	0	0	0	1	0	0	1	0	0	2	4
	Outside	0	1	1	0	0	0	0	0	0	0	4	6
Overall		1	2	1	0	2	2	0	2	3	2	28	43
	Muang	0	1	0	0	1	1	0	1	3	1	9	17
	Outside	1	1	1	0	1	1	0	1	0	1	19	26
Overall (%)		2	5	2	0	5	5	0	5	7	5	65	100
	Muang	0	6	0	0	6	6	0	6	18	6	53	100
	Outside	4	4	4	0	4	4	0	4	0	4	73	100

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.13
Distribution of Commercial Bank Branches by Percent of Overdraft Loans to Total loans Given to Industries

Number of Branches

Region	District	Percent						
		0	0-20	20-40	40-60	60-80	80-100	All
North		1	0	0	1	1	1	4
	Muang	0	0	0	0	1	0	1
	Outside	1	0	0	1	0	1	3
Northeast		2	1	4	4	4	6	21
	Muang	1	1	2	2	2	1	9
	Outside	1	0	2	2	2	5	12
Central		1	0	2	1	1	3	8
	Muang	0	0	1	1	1	0	3
	Outside	1	0	1	0	0	3	5
South		2	0	3	2	3	0	10
	Muang	1	0	1	0	2	0	4
	Outside	1	0	2	2	1	0	6
Overall		6	1	9	8	9	10	43
	Muang	2	1	4	3	6	1	17
	Outside	4	0	5	5	3	9	26
Overall (%)		14	2	21	19	21	23	100
	Muang	12	6	24	18	35	6	100
	Outside	15	0	19	19	12	35	100

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.14
Percentage of Industrial Loan Applications Rejected by Commercial Bank Branches

Number of Branches

Region	District	Percentage of Application Rejected						
		No Reject	1-20	20-40	40-60	60-80	80-100	All
North		2	0	0	1	0	0	3
	Muang	1	0	0	0	0	0	1
	Outside	1	0	0	1	0	0	2
Northeast		8	4	2	1	0	0	15
	Muang	3	2	0	0	0	0	5
	Outside	5	2	2	1	0	0	10
Central		3	4	1	0	0	0	8
	Muang	1	1	1	0	0	0	3
	Outside	2	3	0	0	0	0	5
South		3	5	0	0	1	0	9
	Muang	2	1	0	0	1	0	4
	Outside	1	4	0	0	0	0	5
Overall		16	13	3	2	1	0	35
	Muang	7	4	1	0	1	0	13
	Outside	9	9	2	2	0	0	22
Overall (%)		46	37	9	6	3	0	100
	Muang	54	31	8	0	8	0	100
	Outside	41	41	9	9	0	0	100

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.15
Important Reasons for Loan Rejection by Commercial Bank Branches

Number of Branches

Region	District	Reason												
		1	2	3	4	5	6	7	8	9	10	11	12	All
North		2	1	1	1	1	1	1	1	1	1	1	1	13
	Muang	0	0	0	0	0	0	0	0	0	0	0	0	0
	Outside	2	1	1	1	1	1	1	1	1	1	1	1	13
Northeast		3	3	3	3	3	2	2	1	5	7	6	4	42
	Muang	1	1	1	1	1	1	1	1	1	1	1	1	12
	Outside	2	2	2	2	2	1	1	0	4	6	5	3	30
Central		3	11	10	11	7	5	2	2	7	4	6	3	71
	Muang	2	6	7	6	4	2	1	1	6	3	5	2	45
	Outside	1	5	3	5	3	3	2	1	1	1	1	1	27
South		3	2	4	1	5	2	2	1	3	2	2	2	29
	Muang	2	2	3	0	3	2	1	0	2	1	1	1	18
	Outside	1	0	1	1	2	0	1	1	1	1	1	1	11
Overall		11	17	18	16	16	10	7	5	16	14	15	10	155
	Muang	5	9	11	7	8	5	3	2	9	5	7	4	75
	Outside	6	8	7	9	8	5	5	3	7	9	8	6	81
Overall (%)		7	11	12	10	10	6	5	3	10	9	10	6	100
	Muang	7	12	15	9	11	7	4	3	12	7	9	5	100
	Outside	7	10	9	11	10	6	6	4	9	11	10	7	100

Notes: 1. Customers considered unsafe by Head Office.
2. Unsound financial position of customers.
3. Infeasible or low return projects.
4. Insufficient collateral.
5. Unreliable financial data.
6. Customers lack adequate experiences in proposed project
7. Customers only using bank to verify project feasibility
8. Head office does not have policy to lend in local areas
9. Low equity proportion as compared to total investment.
10. Poor characters (reputation) of customers.
11. High risk, sensitive to changing economy.
12. New customers, banks do not have financial record.

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.16
Loan Rejection of Commercial Bank Branches

Number of Branches

Region	District	No Reject	Size of Loans		All
			Large	Small	
North		2	0	2	4
	Muang	1	0	0	1
	Outside	1	0	2	3
Northeast		8	1	10	19
	Muang	3	1	3	7
	Outside	5	0	7	12
Central		3	4	4	11
	Muang	1	2	1	4
	Outside	2	2	3	7
South		3	1	6	10
	Muang	2	1	1	4
	Outside	1	0	5	6
Overall		16	6	22	44
	Muang	7	4	5	16
	Outside	9	2	17	28
Overall (%)		36	14	50	100
	Muang	44	25	31	100
	Outside	32	7	61	100

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.17
Rates of Interest Charged by Commercial Bank Branches on Overdraft Loans to Small Scale Industries

Number of Branches

Region	District	Percent							
		12	12.5	13	13.5	14	14.5	15	ALL
North		0	0	1	2	0	1	2	6
	Muang	0	0	0	1	0	1	0	2
	Outside	0	0	1	1	0	0	2	4
Northeast		•1	1	1	8	3	2	5	21
	Muang	0	1	1	2	0	1	3	8
	Outside	1	0	0	6	3	1	2	13
Central		0	0	1	3	1	1	3	9
	Muang	0	0	0	1	1	1	2	5
	Outside	0	0	1	2	0	0	1	4
South		0	0	0	5	2	2	1	10
	Muang	0	0	0	3	1	0	0	4
	Outside	0	0	0	2	1	2	1	6
Overall		1	1	3	18	6	6	11	46
	Muang	0	1	1	7	2	3	5	19
	Outside	1	0	2	11	4	3	6	40
Overall (%)		2	2	7	39	13	13	24	100
	Muang	0	5	5	37	11	16	26	100
	Outside	4	0	7	41	15	11	22	100

Note: Weighted Average = 13.97

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.18
Rates of Interest Charged by Commercial Bank Branches on Overdraft Loans to Large Scale Industries

Number of Branches

Region	District	Percent							
		12	12.5	13	13.5	13.75	14	15	ALL
North		1	0	2	1	0	0	1	5
	Muang	1	0	1	0	0	0	0	2
	Outside	0	0	1	1	0	0	1	3
Northeast		5	2	3	4	0	4	0	18
	Muang	3	1	2	0	0	1	0	7
	Outside	2	1	1	4	0	3	0	11
Central		2	0	0	2	1	1	0	6
	Muang	1	0	0	2	1	0	0	4
	Outside	1	0	0	0	0	1	0	2
South		0	0	2	4	1	0	0	7
	Muang	0	0	0	3	0	0	0	3
	Outside	0	0	2	1	1	0	0	4
Overall		8	2	7	11	2	5	1	36
	Muang	5	1	3	5	1	1	0	16
	Outside	3	1	4	6	1	4	1	20
Overall (%)		22	6	19	31	6	14	3	100
	Muang	31	6	19	31	6	6	0	100
	Outside	15	5	20	30	5	20	5	100

Note: Weighted Average = 12.69

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.19
Rates of Interest Charged by Commercial Bank Branches on Overdraft Loans of Other Sectors

Number of Branches

Region	District	Percent							
		13	13.5	13.75	14	14.25	14.5	15	ALL
North		1	0	0	2	0	0	6	9
	Muang	0	0	0	1	0	0	1	2
	Outside	1	0	0	1	0	0	5	7
Northeast		0	2	0	5	1	1	14	23
	Muang	0	2	0	1	1	0	6	10
	Outside	0	0	0	4	0	1	8	13
Central		0	2	1	1	0	1	7	12
	Muang	0	1	0	0	0	1	3	5
	Outside	0	1	1	1	0	0	4	7
		0	0	0	3	0	2	7	12
South		0	0	0	2	0	0	2	4
	Muang	0	0	0	1	0	2	5	8
	Outside								
Overall		1	4	1	11	1	4	34	56
	Muang	0	3	0	4	1	1	12	21
	Outside	1	1	1	7	0	3	22	40
Overall (%)		2	7	2	20	2	7	61	100
	Muang	0	14	0	19	5	5	57	100
	Outside	3	3	3	20	0	9	63	100

Note: Weighed Average = 14.33

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.20
Preferred Rates of Interest Charged on Loans
to Small Scale Industry Borrowers

Number of Branches

Region	District	Percent								
		12	12.5	13	13.5	14	14.5	15	18	ALL
North		1	0	1	1	2	0	0	0	5
	Muang	1	0	0	1	0	0	0	0	2
	Outside	0	0	1	0	2	0	0	0	3
Northeast		1	1	2	5	3	1	3	1	17
	Muang	0	0	2	2	0	1	1	0	6
	Outside	1	1	0	3	3	0	2	1	11
Central		0	0	1	1	4	1	3	0	10
	Muang	0	0	0	0	2	1	2	0	5
	Outside	0	0	1	1	2	0	1	0	5
South		0	0	0	5	5	0	0	0	10
	Muang	0	0	0	1	3	0	0	0	4
	Outside	0	0	0	4	2	0	0	0	6
Overall		2	1	4	12	14	2	6	1	42
	Muang	1	0	2	4	5	2	3	0	17
	Outside	1	1	2	8	9	0	3	1	25
Overall (%)		5	2	10	29	33	5	14	2	100
	Muang	6	0	12	24	29	12	18	0	100
	Outside	4	4	8	32	36	0	12	4	100

Note: Weighted Average = 13.88

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.21
Preferred Rates of Interest Charged on Loans
to Large Scale Industry Borrowers

Number of Branches

Region	District	Percent								
		12	12.5	13	13.5	14	14.5	15	18	ALL
North		1	0	2	0	1	0	0	0	4
	Muang	1	0	1	0	0	0	0	0	2
	Outside	0	0	1	0	1	0	0	0	2
Northeast		4	4	1	3	4	0	0	1	17
	Muang	2	1	1	1	1	0	0	0	6
	Outside	2	3	0	2	3	0	0	1	11
Central		1	0	2	3	2	1	0	0	9
	Muang	0	0	2	1	1	1	0	0	5
	Outside	1	0	0	2	1	0	0	0	4
South		1	2	1	2	2	0	1	0	9
	Muang	0	1	0	0	1	0	1	0	3
	Outside	1	1	1	2	1	0	0	0	6
Overall		7	6	6	8	9	1	1	1	39
	Muang	3	2	4	2	3	1	1	0	16
	Outside	4	4	2	6	6	0	0	1	23
Overall (%)		18	15	15	21	23	3	3	3	100
	Muang	19	13	25	13	19	6	6	0	100
	Outside	17	17	9	26	26	0	0	4	100

Note: Weighted Average = 12.94

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.22
Preferred Rates of Interest Charged on Loans
to Other Borrowers

Number of Branches

Region	District	Percent							
		13	13.75	14	14.5	15	15.5	20	ALL
North		1	0	3	0	5	0	0	9
	Muang	0	0	1	0	1	0	0	2
	Outside	1	0	2	0	4	0	0	7
Northeast		1	0	3	2	11	1	1	19
	Muang	0	0	1	1	6	0	0	8
	Outside	1	0	2	1	5	1	1	11
Central		0	1	0	0	10	0	0	11
	Muang	0	0	0	0	5	0	0	5
	Outside	0	1	0	0	5	0	0	6
South		0	0	1	0	10	0	0	
	Muang	0	0	0	0	4	0	0	4
	Outside	0	0	1	0	6	0	0	7
Overall		2	1	7	2	36	1	1	50
	Muang	0	0	2	1	16	0	0	19
	Outside	2	1	5	1	20	1	1	31
Overall (%)		4	2	14	4	72	2	2	100
	Muang	0	0	11	5	84	0	0	100
	Outside	6	3	16	3	65	3	3	100

Note: Weighted Average = 14.85

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.23
Number of Commercial Bank Branches by Willingness to Lend More to Small Scale Industries If Allowed to Charge Higher Interest Rate

Number of Branches

Region	District	Will Lend More	Will not Lend More	All
North		4	1	5
	Muang	1	1	2
	Outside	3	0	3
Northeast		15	5	20
	Muang	6	3	9
	Outside	9	2	11
Central		10	0	10
	Muang	5	0	5
	Outside	5	0	5
South		6	5	11
	Muang	2	3	5
	Outside	4	2	6
Overall		35	11	46
	Muang	14	7	21
	Outside	21	4	25
Overall (%)		76	24	100
	Muang	67	33	100
	Outside	84	16	100

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.24
Reasons of Commercial Bank Branches for Not Providing More Loans even if Allowed to Charge Higher Rates of Interest

Number of Branches

Region	District	1	2	3	ALL
North		0	0	1	1
	Muang	0	0	1	1
	Outside	0	0	0	0
Northeast		1	0	2	3
	Muang	1	0	1	2
	Outside	0	0	1	1
Central		0	0	1	1
	Muang	0	0	1	1
	Outside	0	0	0	0
South		3	1	0	4
	Muang	1	1	0	2
	Outside	2	0	0	2
Overall		4	1	4	9
	Muang	2	1	3	6
	Outside	2	0	1	3
Overall (%)		29	14	57	100
	Muang	33	17	50	100
	Outside	67	0	33	100

Notes: 1. Local economy cannot absorb more loans.
2. Interest rate is not the only factor determining lending to small scale industries.
3. The present lending portfolio is the most appropriate one.

Source: Rural Industries and Employment Project Survey, TDRI, 1989

Table 4.25
Number of Commercial Bank Branches by Selected Types of Service Provided

Number of Branches

Region	District	Type of Service							
		1	2	3	4	5	6	7	All
North		0	3	6	1	0	0	0	10
	Muang	0	1	4	0	0	0	0	5
	Outside	0	2	2	1	0	0	0	5
Northeast		1	1	5	1	1	1	1	11
	Muang	0	0	4	0	0	1	0	5
	Outside	1	1	1	1	1	0	1	6
Central		2	3	4	2	2	2	3	18
	Muang	1	2	3	1	1	1	2	11
	Outside	1	1	1	1	1	1	1	7
South		3	4	3	1	0	1	1	13
	Muang	2	2	1	1	0	1	1	8
	Outside	1	2	2	0	0	0	0	5
Overall		6	11	18	5	3	4	5	52
	Muang	3	5	12	2	1	3	3	29
	Outside	3	6	6	3	2	1	2	23
Overall (%)		10	18	29	8	21	6	8	100
	Muang	10	17	41	7	3	10	10	100
	Outside	9	18	18	9	36	3	6	100

Notes: 1 = Rediscount facility for export.
2 = Rediscount facility for industry.
3 = Rediscount facility for small industry.
4 = Credit guarantee with SICGF
5 = The purchase of LC, DA.
6 = The issuance of LC.
7 = Lending against trust receipt.

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.26
Reasons for Not Providing BOT's Rediscount Facilities of Commercial Bank Branches

Number of Branches

Region	District	Reason								
		1	2	3	4	5	6	7	8	ALL
North		0	0	0	0	8	1	1	1	11
	Muang	0	0	0	0	2	0	0	0	2
	Outside	0	0	0	0	6	1	1	1	9
Northeast		1	1	1	3	13	1	0	0	20
	Muang	0	1	1	3	3	0	0	0	8
	Outside	1	0	0	0	10	1	0	0	12
Central		0	1	1	2	8	0	1	0	13
	Muang	0	0	0	0	5	0	0	0	5
	Outside	0	1	1	2	3	0	1	0	8
South		0	1	1	1	6	2	0	0	11
	Muang	0	0	1	0	1	2	0	0	4
	Outside	0	1	0	1	5	0	0	0	7
Overall		1	3	3	6	35	4	2	1	55
	Muang	0	1	2	3	11	2	0	0	19
	Outside	1	2	1	3	24	2	2	1	36
Overall (%)		2	5	5	11	64	7	4	2	100
	Muang	0	5	11	16	58	11	0	0	100
	Outside	3	6	3	8	67	6	6	3	100

Notes: 1 = Lack of knowledge about the procedures.
2 = Banks has excess liquidity, no need for support from BOT
3 = Low profit margin
4 = Red tape, have to sent applications to Head Office in Bangkok.
5 = No request from entrepreneurs.
6 = Communication difficulty, banks location are to far from BOT's branches.
7 = No industrial firms
8 = Lack of qualification of entrepreneurs (firms)

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.27
Suggestions to Increase the Use of BOT's Rediscount Facilities of Commercial Bank Branches

Number of Branches

Region	District	Suggestions						
		0	1	2	3	4	5	ALL
North		9	0	1	1	0	0	11
	Muang	1	0	1	0	0	0	2
	Outside	8	0	0	1	0	0	9
Northeast		13	1	2	5	1	1	23
	Muang	8	0	0	1	0	1	10
	Outside	5	1	2	4	1	0	13
Central		15	0	0	0	0	0	15
	Muang	5	0	0	0	0	0	5
	Outside	10	0	0	0	0	0	10
South		12	0	1	0	0	0	13
	Muang	5	0	0	0	0	0	5
	Outside	7	0	1	0	0	0	8
Overall		49	1	4	6	1	1	62
	Muang	19	0	1	1	0	1	22
	Outside	30	1	3	5	1	0	40
Overall (%)		79	2	6	10	2	2	100
	Muang	86	0	5	5	0	5	100
	Outside	75	3	8	13	3	0	100

Notes: 0 = No suggestion.
1 = Trainings of banks' personel are needed.
2 = Needs more public relations.
3 = Reduce red tape, paper work and data requirement.
4 = New regulations make it more difficult to service customers.
5 = Rediscount rate should be lower.

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.28
Suggestions to Increase the Use of SICGF Services
of Commercial Bank Branches

Number of Branches

Region	District	Suggestions						
		0	1	2	3	4	5	ALL
North		10	1	0	0	0	0	11
	Muang	1	1	0	0	0	0	2
	Outside	9	0	0	0	0	0	9
Northeast		12	4	1	3	1	2	23
	Muang	8	0	0	1	1	0	10
	Outside	4	4	1	2	0	2	13
Central		11	4	0	0	0	0	15
	Muang	3	2	0	0	0	0	5
	Outside	8	2	0	0	0	0	10
South		12	1	0	0	0	0	13
	Muang	5	0	0	0	0	0	5
	Outside	7	1	0	0	0	0	8
Overall		45	10	1	3	1	2	62
	Muang	17	3	0	1	1	0	22
	Outside	28	7	1	2	0	2	40
Overall (%)			59	6	18	6	12	100
	Muang		60	0	20	20	0	100
	Outside		58	8	17	0	17	100

Notes: 0 = No suggestion
1 = Need more consultation and public relations in provinces
2 = Simplification of procedures and provision of services the in provinces
3 = Reduction of guarantee fee
4 = Revision of Head Office's policy
5 = Good as it is, expansion of service

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.29
Credit from Finance Companies

Million Baht

Year	Manufacturing		Others		Total	
	Amount	%	Amount	%	Amount	%
1978	10.5	21.8	37.6	78.2	48.1	100.0
1979	11.4	23.9	37.2	76.1	48.6	100.0
1980	14.1	25.7	40.9	74.3	55.0	100.0
1981	16.7	25.7	48.3	74.3	65.0	100.0
1982	21.0	25.3	58.5	74.7	79.5	100.0
1983	21.9	24.2	68.8	75.8	90.7	100.0
1984	22.1	23.3	72.9	76.7	95.0	100.0
1985	23.5	23.9	74.6	76.1	98.1	100.0
1986	23.4	22.9	78.9	77.1	102.3	100.0
1987	24.1	21.3	89.2	78.7	113.3	100.0
1988	33.6	21.8	120.8	78.2	154.4	100.0
Average		24.1		75.9		100.0
Avg.Growth Rate	10.9				10.1	

Source: Bank of Thailand

Table 4.30
Outstanding of Credit Given by IFCT

Year	Number of Loans	Billion Baht
1979	222	2.5
1980	221	3.4
1981	234	4.4
1982	251	4.9
1983	275	5.1
1984	349	6.3
1985	426	8.1
1986	506	8.2
1987	580	8.2
1988	597	8.3
Average Growth Rate	13.2	16.9

Source: IFCT

Table 4.31
Credit from IFCT by Size of Loan, 1978-1988

Year	Number of Loan				Amount (Billion Baht)			
	<4 Million		>4 Million		<4 Million		>4 Million	
	No.	%	No.	%	Amt.	%	Amt.	%
1978	17	34	33	66	0.04	4	1.1	96
1979	13	24	41	76	0.04	3	1.2	97
1980	3	9	31	91	0.02	3	0.6	97
1981	10	23	34	77	0.03	2	1.3	98
1982	14	31	31	69	0.03	3	0.1	97
	<5 Million		>5 Million		<5 Million		>5 Million	
	No.	%	No.	%	Amt.	%	Amt.	%
1983	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1984	72	59	51	41	0.2	9	2.1	91
1985	80	61	52	39	0.2	7	2.8	93
1986	79	60	52	40	0.2	14	1.9	86
1987	87	66	45	34	0.2	14	1.9	86
1988	69	59	47	41	0.2	8	2.1	92

Source: IFCT

Table 4.32
Percentage Distribution of Credit Given by IFCT by Region

Percent

Year	Bangkok	Central	East	Northeast	North	South
1978	39.1	45.5	10.9	0.2	2.7	2.7
1979	29.8	45.2	3.2	9.1	4.0	9.7
1980	41.9	29.0	19.4	-	6.5	4.3
1981	61.5	20.0	3.0	3.7	10.4	1.5
1982	53.9	30.3	1.3	1.3	10.5	1.3
1983	-	-	-	-	-	-
1984	29.7	45.9	3.0	8.1	3.4	9.9
1985	16.5	71.7	2.1	2.1	2.4	5.2
1986	13.3	48.3	7.6	6.3	7.1	17.4
1987	15.4	32.9	15.4	4.9	7.0	24.5
1988	36.4	32.5	20.0	3.0	4.4	3.8
Average	33.8	40.1	8.6	3.9	5.8	8.0

Source: IFCT

Table 4.33
Credit from SIFO

Fiscal Year	Total		VIA KTB		Direct Lending	
	#	Amount	#	Amount	#	Amount
1964	12	2,439	12	2,439		
1965	49	11,049	49	11,049		
1966	70	15,667	70	15,667		
1967	86	22,022	86	22,022		
1968	112	26,257	112	26,257		
1969	119	31,656	119	31,656		
1970	114	26,358	114	26,358		
1971	67	18,554	67	18,554		
1972	79	21,678	79	21,678		
1973	58	16,229	58	16,229		
1974	43	14,917	43	14,917		
1975	72	28,675	72	28,675		
1976	60	26,290	60	26,290		
1977	83	46,195	83	46,195		
1978	85	44,880	79	44,450	6	430
1979	56	28,093	43	26,950	13	1,143
1980	17	5,870	14	5,700	3	170
1981	1	100			1	100
1982	5	3,010	4	2,950	1	60
1983	12	6,895	10	6,770	2	125
1984	15	7,480	10	7,100	5	380
1985	40	16,120	24	14,690	16	1,430
1986	73	22,310	15	11,080	58	11,230
1987	140	35,740	15	14,180	125	21,560
1988	222	40,960	10	13,190	212	27,060
Total	1690	519,444	1248	455,046	442	63,688

Notes: # = Number of Loans
Amount = Thousand Baht
KTB = Krung Thai Bank

Source: SIFO

Table 4.34
Distribution of Credit from SIFO by Region

Percent

Year	Bangkok	Other Provinces	Total
1974	50	50	100
1975	44	56	100
1976	52	48	100
1977	54	46	100
1978	43	57	100
1979	47	53	100
1980	-	100	100
1981	-	100	100
1982	44	56	100
1983	52	48	100
1984	12	88	100
Average	47	53	100

Source: SIFO

Table 4.35
Distribution of Number of SIFO Loans
by Region, 1966-1984

Location	Number of Loans	Percent
Bangkok & Surrounding Provinces	323	27.8
Central Plain	421	36.3
North	150	12.9
Northeast	185	15.9
South	81	7.0
Whole Kingdom	1,160	100.0

Source: Kuroda,A. and S. Kasajima, 1987.

Table 4.36
Distribution of Provincial Industries, 1987

Location	1984 1/		1987 2/			
	Number	Percent	Small Scale		All	
			Number	Percent	Number	Percent
Bangkok & Surrounding Provinces	18,121	49.1	24,576	58.9	26,828	59.7
Central Plain	8,814	23.9	6,366	15.3	6,697	14.9
North	2,960	8.0	2,769	6.6	2,961	6.6
Northeast	4,656	12.6	4,360	10.5	4,539	10.1
South	2,323	6.3	3,624	8.7	3,872	8.7
Whole Kingdom	36,874	100.0	41,695	100.0	44,897	100.0

Sources: 1/ Kuroda, A. and S. Kasajima, 1987. Small Industries only (=< 50 workers)
2/ not include rice mills, Ministry of Industry.

Table 4.37
Distribution of SIFO Credit
Classified by Factory Size 1984

Number of Workers	Number of Credit Granted	Percent
0-4	17	15.9
5-9	33	30.8
10-19	38	35.5
20-29	11	10.3
30-49	6	5.6
50-	2	1.9
TOTAL	107	100.0

Source: Kuroda, A. and S. Kasajima, 1987.

Table 4.38
Projects under Small Industry Credit Guarantee Fund by Region

Location	1986		1987		1988	
	Number of projects	Amount (1000 Baht)	Number of projects	Amount (1000 Baht)	Number of projects	Amount (1000 Baht)
Bangkok & Surrounding Provinces	3	1,900	21	17,333	25	20,372
Central Plain	-	-	11.0	7,244	16	17,937
East	-	-	11.0	9,970	9	8,224
North	8	1,070	14	6,087	21	17,503
Northeast	2	4,222	39.0	21,851	27	16,731
South	3	1,260	22.0	14,443	26	26,341
Whole Kingdom		8,452	118	76,928	126	107,108

Source: Small Industry Credit Guarantee Fund, Annual Report 1988.

Table 4.39
SICGF's Guarantee Approved by Volume of Credit Granted

Credit Guarantee (1000 Baht)	Number of Projects				
	1986	1987	1988	Total	Percent
200-1,000	9	68	50	127	49
1,001-2,000	4	29	34	67	26
2,001-3,000	2	10	18	30	11
3,001-4,000	1	3	16	20	8
4,001-5,000	-	8	8	16	6
Total	16	118	126	260	100

Source: Small Industry Credit Guarantee Fund, Annual Report, 1988.

Table 4.40
Commercial Banks Credit under Rural Credit Policy

Million Baht

Type of Credit	Target		Actual		Actual To Target	
	Amount	Percent of Deposits	Amount	Percent of Deposits	Amount	Percent of Deposits
1987						
Agriculture & Small Scale Industries	86,931.7	14.0	68,203.7	11.0	(18,728.0)	(3.0)
Agri Business	37,256.5	6.0	48,952.6	7.9	11,696.1	(1.9)
Total	124,188.2	20.0	117,156.3	18.9	(7,031.9)	(1.1)
1988						
Agriculture & Small Scale Industries	104,111.4	14.0	87,329.2	11.7	(16,782.2)	(2.3)
Agri Business	44,619.2	6.0	58,406.2	7.9	13,787.0	1.9
Total	148,730.6	20.0	145,735.4	19.6	(2,995.2)	(0.4)
Nov.1989						
Agriculture & Small Scale Industries	123,808.7	14.0	116,129.6	13.1	(7,679.1)	(0.9)
Agri Business	53,060.9	6.0	69,488.7	7.9	16,427.8	1.9
Total	176,869.6	20.0	185,618.3	21.0	8,748.7	1.0

Source: Bank of Thailand

Table 4.41
Commercial Banks' Credit Under Rural Credit Policy by Type of Credit

Million Baht

Type of Credit	Outstanding Credit at End of Period			
	1986	1987	1988	Nov.1989
Lending to Farmers	40,086.8	45,837.8	56,764.8	69,704.8
Deposits at BAAC	11,112.8	12,339.9	14,118.5	14,405.1
Small Scale Industries*	5,416.3	10,026.0	16,445.9	26,192.2
Other	-	-	-	5,827.5
Sub Total	56,615.9	68,203.7	87,329.2	116,129.6
Agribusiness	32,241.1	48,952.6	58,406.2	69,488.7
TOTAL	88,857.0	117,156.3	145,735.4	185,618.3

Note: * Credit amounting upto 3 million baht before 1988 and upto 5 million baht after 1988.

Source: Bank of Thailand

Table 4.42
Bank of Thailand Rediscount Facilities

Million Baht

Year	Rediscounting Through the Bank's		Total
	Head Office	Branches	
1977	25,849.2	1,046.0	26,895.2
1978	30,451.3	966.5	31,417.8
1979	44,022.7	2,440.1	46,462.8
1980	50,833.4	3,572.1	54,405.5
1981	58,666.7	3,286.1	61,952.8
1982	67,896.2	3,986.4	71,882.5
1983	74,934.5	6,084.1	81,018.6
1984	84,761.6	6,210.1	90,971.7
1985	83,697.7	7,498.4	91,196.1
1986	90,757.2	7,317.7	98,074.9
1987	84,219.7	7,873.6	92,093.3
1988	129,711.2	12,934.8	142,646.0
1989 *	67,774.9	8,068.1	75,843.0
Average Growth Rate (Exclude 1989)	16.9	31.8	17.6
Average Growth Rate (Include 1989)	11.6	26.0	12.2

Note: * BOT provides only 50% of total credit granted under rediscount facilities.

Source: Bank of Thailand

Table 4.43
Bank of Thailand Rediscount Facilities Classified by Activity

Year	Head Office			Branches			Total
	Exports	Industries	Small Industries	Exports	Industries	Small Industries	
1977	71.2	24.9	-	2.7	1.2	-	100
1978	75.2	21.6	-	3.0	0.2	-	100
1979	79.2	15.6	-	5.1	0.1	-	100
1980	78.5	14.6	-	6.7	0.2	-	100
1981	86.7	8.0	-	5.1	0.2	-	100
1982	86.3	8.2	-	5.3	0.2	-	100
1983	88.0	4.5	-	7.3	0.2	-	100
1984	89.8	3.3	-	6.7	0.2	-	100
1985	89.7	2.0	-	8.1	0.2	-	100
1986	91.4	1.1	*	7.3	0.2	*	100
1987	90.2	1.2	*	8.4	0.1	*	100
1988	90.1	0.8	*	8.9	0.2	*	100
1989	88.7	0.7	*	10.5	0.2	*	100
Average	83.6	10.4	-	5.8	0.2	-	100
Average Growth Rate	14.2	-15.4	-	29.7	4.9	-	11.9

Note: * Negligible

Source: Bank of Thailand

Table 4.44
Bank of Thailand Rediscount Facilities Under Packing Credit Window

Percent

Year	Agricultural Goods	Industrial Goods	Others	Total
1978	28.7	67.4	3.9	100.0
1979	34.1	59.8	6.1	100.0
1980	32.2	61.1	6.7	100.0
1981	26.8	66.4	6.8	100.0
1982	35.4	57.2	7.4	100.0
1983	35.4	57.8	6.8	100.0
1984	36.1	55.4	8.5	100.0
1985	32.4	53.6	14.0	100.0
1986	30.1	54.5	15.4	100.0
1987	24.1	57.9	18.0	100.0
1988	26.5	56.5	17.1	100.0
1989	32.6	64.5	2.8	100.0
Average	31.2	59.3	9.5	100.0
Average Growth Rate	10.1	7.0	25.9	

Source: Bank of Thailand

Table 4.45
Bank of Thailand Rediscount Facilities
under Packing Credit Window by Type of Goods, 1987

Type of Goods	Percent
Agro Industry Products	74.2
Non Agro Industry Products	25.8
Total	100

Source: Bank of Thailand

Table 4.46
Funds Raised Through Security Exchange of Thailand

Percent

Year	Bond		Debenture	Share			Investment Unit	Total
	Govt.	State Ent.		Industry	Others	Sub- total		
1978	93.89	-	0.35	0.26	4.79	5.05	0.71	100.00
1979	94.13	-	1.32	0.13	2.94	3.07	1.47	100.00
1980	96.15	3.48	-	-	0.37	0.37	-	100.00
1981	95.53	3.41	0.41	-	0.66	0.66	-	100.00
1982	98.22	-	-	0.01	1.54	1.55	0.23	100.00
1983	97.06	-	-	-	2.94	2.94	-	100.00
1984	95.19	-	0.54	0.09	4.17	4.27	-	100.00
1985	77.63	9.89	0.72	1.73	10.03	11.76	-	100.00
1986	89.10	8.61	0.44	0.27	1.58	1.85	-	100.00
1987	69.98	3.92	5.19	1.81	14.90	16.71	5.19	100.00
1988	65.06	6.92	10.79			15.63	1.59	100.00
Average	88.36	3.29	1.80			5.80	0.83	100.00

Source: Bank of Thailand

Table 4.47
Proportion of Industrial Loans That Have To Be Analyzed Before Approval

Number of Branches

Region	District	Percent						
		0	1-20	20-40	40-60	60-80	80-100	All
North		1	0	0	0	0	1	2
	Muang	1	0	0	0	0	0	1
	Outside	0	0	0	0	0	1	1
Northeast		5	1	1	0	3	9	19
	Muang	1	0	1	0	2	2	6
	Outside	4	1	0	0	1	7	13
Central		5	1	1	0	1	2	10
	Muang	2	1	0	0	1	1	5
	Outside	3	0	1	0	0	1	5
South		2	3	0	0	1	4	10
	Muang	1	1	0	0	1	1	4
	Outside	1	2	0	0	0	3	6
Overall		13	5	2	0	5	16	41
	Muang	5	2	1	0	4	4	16
	Outside	8	3	1	0	1	12	25
Overall		32	12	5	0	12	39	100
(%)	Muang	31	13	6	0	25	25	100
	Outside	32	12	4	0	4	48	100

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.48
Problems in Loan Analysis

Number of Branches

Region	District	No Analysis	Have Problems	No Problem	All
North		1	3	0	4
	Muang	1	0	0	1
	Outside	0	3	0	3
Northeast		1	16	6	23
	Muang	0	9	1	10
	Outside	1	7	5	13
Central		3	6	3	12
	Muang	1	2	2	5
	Outside	2	4	1	7
South		2	7	2	11
	Muang	1	3	1	5
	Outside	1	4	1	6
Overall		7	32	11	50
	Muang	3	14	4	21
	Outside	4	18	7	29
Overall (%)			74	26	100
	Muang		78	22	100
	Outside		72	28	100

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.49
Important Problems in Loan Analysis

Number of Branches

Region	District	Problem				
		1	2	3	4	All
North		2	1	2	2	7
	Muang	0	0	2	0	2
	Outside	2	1	0	2	5
Northeast		7	7	8	12	34
	Muang	4	4	6	6	20
	Outside	3	3	2	6	14
Central		3	2	4	4	13
	Muang	1	0	2	2	5
	Outside	2	2	2	2	8
South		4	3	4	5	16
	Muang	1	2	2	2	7
	Outside	3	1	2	3	9
Overall		16	13	18	23	70
	Muang	6	6	12	10	34
	Outside	10	7	6	13	36
Overall (%)		23	19	26	33	100
	Muang	18	18	35	29	100
	Outside	28	19	17	36	100

Notes: 1 = Lack of experiences of loan officers
2 = Insufficient number of loan officers
3 = Borrowers cannot supply data for analysis
4 = Borrowers supply inaccurate data

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.50
The Application of The Profit Center Concept
at Commercial Bank Branches

Number of Branches

Region	District	Use the Concept	Do not Use the Concept	All
North		7	3	10
	Muang	1	1	2
	Outside	6	2	8
Northeast		20	2	22
	Muang	9	1	10
	Outside	11	1	12
Central		13	2	15
	Muang	4	1	5
	Outside	9	1	10
South		12	1	13
	Muang	5	0	5
	Outside	7	1	8
Overall		52	8	60
	Muang	19	3	22
	Outside	33	5	38
Overall (%)		87	13	100
	Muang	86	14	100
	Outside	87	13	100

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.51
Maximum Lending Limit of Commercial Bank Branches

Number of Branches

Region	District	Limit (Baht)					
		0-100000	100001 - 300000	300001 - 500000	500001 - 1000000	>1000000	All
North		0	2	2	3	0	7
	Muang	0	1	1	0	0	2
	Outside	0	1	1	3	0	5
Northeast		5	5	5	2	0	17
	Muang	2	0	2	1	0	5
	Outside	3	5	3	1	0	12
Central		5	3	1	1	0	10
	Muang	1	0	1	1	0	3
	Outside	4	3	0	0	0	7
South		0	3	3	2	3	11
	Muang	0	0	1	2	1	4
	Outside	0	3	2	0	2	7
Overall		10	13	11	8	3	45
	Muang	3	1	5	4	1	14
	Outside	7	12	6	4	2	31
Overall (%)		22	29	24	18	7	100
	Muang	21	7	36	29	7	100
	Outside	23	39	19	13	6	100

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.52

Percent of Industrial Loan Applications That Need Approval from Head Office of Commercial Bank Branches

Number of Branches

Region	District	Percent											
		0	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	All
North		0	1	0	0	0	0	0	1	0	0	2	4
	Muang	0	0	0	0	0	0	0	0	0	0	0	0
	Outside	0	1	0	0	0	0	0	1	0	0	2	4
Northeast		4	2	1	2	1	1	1	1	2	0	5	20
	Muang	2	0	0	1	0	1	0	1	1	0	2	8
	Outside	2	2	1	1	1	0	1	0	1	0	3	12
Central		1	5	1	1	0	0	0	0	0	1	1	10
	Muang	0	1	1	1	0	0	0	0	0	1	1	5
	Outside	1	4	0	0	0	0	0	0	0	0	0	5
South		1	3	4	1	0	0	0	1	0	0	1	11
	Muang	0	1	3	1	0	0	0	0	0	0	0	5
	Outside	1	2	1	0	0	0	0	1	0	0	1	6
Overall		6	11	6	4	1	1	1	3	2	1	9	45
	Muang	2	2	4	3	0	1	0	1	1	1	3	18
	Outside	4	9	2	1	1	0	1	2	1	0	6	27
Overall (%)		13	24	13	9	2	2	2	7	4	2	20	100
	Muang	11	11	22	17	0	6	0	6	6	6	17	100
	Outside	15	33	7	4	4	0	4	7	4	0	22	100

Source: Rural Industries and Employment Project Survey, TDRI, 1989.

Table 4.53
Commercial Banks'Opinion on Bottle-Necks in Financing SMIs

Bottle-Necks	Large Banks	Medium Banks	Small Banks	Total
Collateral shortage	3	1	1	5
Financial reports are unreliable	3	1	-	4
Unprofitable because of high risk & small loan size	2	-	-	2
Short of net worth	2	-	-	2
Apt to borrow than necessary	1	1	-	2
Marketing management is poor	2	-	-	2
Financial conditions are worse than big companies	1	-	-	1
Lack of technology, management and marketing ability	-	1	-	1
Lack of operational career	1	-	-	1
Bank's branch net-work is too thin to provide services to SMIs	-	-	1	1
Agro-based industry apts to fall into arrears caused by market fluctuation	-	-	1	1
Total	15	4	3	22
No. of survey banks	5	3	2	10

Source: JICA Expert in DIP/MOI, The Report on Study of SMI Financing.

CHAPTER 5

INFORMAL SOURCES OF FUNDS

This chapter describes the definition, importance, types and major characteristics of informal sources of funds. The relationship between informal sources of funds and the interest rate ceiling will also be discussed.

5.1 DEFINITION

Funds from informal sources refer to funds used in business operations that are derived from external sources other than financial institutions.

The sources of these informal funds are numerous. They include rotating credit associations; trade credits; borrowing from parents, relatives, and friends; and financing through check discounts.

5.2 INFORMAL SOURCES OF FUNDS AS MAJOR SOURCES OF FUNDS FOR RURAL SMALL-SCALE INDUSTRIES

Small-scale industries in regional areas are numerous and scattered. As mentioned earlier, loans extended by financial institutions to rural industries in general have the following characteristics: (1) The financial institution's operation is usually under the supervision of the government who imposes the loan rate ceilings; (2) The costs of lending per one Baht to small-scale industries are higher, and the lending have more risks. Financial institutions therefore allocate most of their available capital to large-scale industries. Informal sources of funds thus act as important financial sources and support the operations of financial institutions

by providing loans to small-scale industries that cannot acquire sufficient funds from financial institutions.

Informal sources also serve small-scale industries more efficiently than financial institutions by providing credit at lower cost and with fewer risks. According to Timberg and Aiyar, four factors account for this:

1) In the informal market, the lenders are closer to the borrowers, and also personally know the borrowers better than commercial banks do.

2) The variable costs of informal lenders are lower because lenders do not have to maintain a large and luxurious office, they have less overheads in the form of wages and salaries and practice a more simplified lending procedure.

3) Competition other than interest rates is not severe because the interest rate is determined by the market.

4) Informal sources do not need to abide by the rules and regulations governing commercial banks e.g. reserve holdings etc.(Timberg, T.A. and C.V. Aiyer, 1984)

Based on the results of a case study in Taiwan, Biggs stated that lending costs of informal sources were low because the evaluation of a borrower's creditability was based upon the fact that lenders had know the borrowers for a long time, as a relative, sibling or friend (Lenders already know whether the borrower is a good risk, will earnestly make a living, has experience, success, has capital and financial stability, etc.,) and that lenders and borrowers are close to each other in social status and are running businesses of the same size (small). Familiarity lowers the costs of credit appraisal. Moreover, in case of Taiwan, the government's strict supervision of commercial banks has forced bank credit officers to work carefully, resulting in higher costs of lending. (Biggs, August 1988)

5.3 TYPES OF INFORMAL SOURCES (LENDERS)

5.3.1 Rotating Credit Associations

Rotating credit associations are created by a group of people pooling a pre-determined amount of money during a certain agreed period of time. One of the members will bid for use of this fund pool. Those who have once won the bid will not allowed to offer a bid again. The bidding will continue until every group member has received the pooling funds.

The bidding price will be the interest paid by the winning bidder. Interest can be paid in two manners. The winning bidder can gradually pay interest to a group member every time where there is a bidding or can immediately pay a lump-sum interest to all group members when he wins the bidding.

Payments made to the group members can either be in cash or checks. In practice, if the amount is not large, the payments will be made in cash. In the case of large amount, the payment preferred will be check.

Those who do not win the bid will pay to the successful bidder. In the meantime, the winning bidder will write postdated checks for the dates determined by the group, as an advance repayment. These checks will be given to the group leader to forward to other members.

Bidding schedules are vary, and are usually determined among group members. Bidding can be done everyday, every week, every two weeks or every month.

Rotating funds associations can be organized in two manners: (1) A "group leader" will organize a group. The leader will normally be responsible for making required payments should any members default in their financial obligations. Since the group leader is therefore highly exposed to default risks, the first fund pool will usually go to the

leader without bidding, i.e. the leader pays no interest; (2) A rotating credit company organizes a group by setting various conditions and charging fees from group members. The first method is usually used between relatives and friends who are already familiar with one another, while the personal contract among members of rotating credit associations is much less.

Funds from rotating credit associations are short-term (usually not over 2 years).

Entrepreneurs join rotating credit associations because their capital required exceeds their own available funds and funds from financial institutions. According to the survey, some entrepreneurs possessed insufficient collateral to acquire loans from financial institutions; thus, they had to seek financing elsewhere. Some entrepreneurs reported that the interest rates charged on funds from rotating credit associations were still lower than those from other informal sources. Other entrepreneurs joined rotating credit associations as lenders, as they could obtain high interest rates without incurring repayment problems.

Being short-term, the funds derived from rotating credit associations is used as working capital, and also for business expansion, loan repayments, repayment for other rotating credit associations, investment in land and building speculation, and family consumption, etc.

Rotating credit associations formed by people who trust one another do not usually require collateral. Some rotating credit associations, particularly those organized by companies, require that participants deposit a check with no specific date entered with the group leaders or companies. However, checks with no dates cannot legally be used as collateral; thus, participants who do default cannot be sued.

Default among rotating credit group participants is very rare because this type of financing is based on trust. If any participants defaults on their debts, their lack of creditability will be widely

known, and they will be no longer able to seek financing from rotating credit associations or any other informal sources.

Interest rates charged upon capital from rotating credit associations are, on average, higher than those charged on loans from financial institutions. According to a study by the Bank of Thailand, annual interest rates charged by rotating credit associations were approximately 22-23 percent whereas those charged by financial institutions were equivalent to about 18-19 percent (Chittima et al., 1986). This study also found that interest rates during different time periods were not the same. Interest rates increased when various businesses needed capital simultaneously for example, towards the commercial banks' midyear and year-end balance sheet closing time and when financial institutions were implementing a restrictive credit policy. Moreover, interest rates varied according to business sizes. Businesses with less than 50 workers paid an annual interest rate of 17 percent per annum whereas larger businesses such as those with over 100 workers paid an annual interest rate of only 3-5 percent per annum. This was due to the fact that small businesses joined rotating credit associations almost solely as potential borrowers whereas large businesses could join rotating credit associations as savers, lenders, or as group leaders, who could afford to wait and bid when other participants did not want to win the bidding.

5.3.2 Trade Credits

When credit sales are offered, businesses must pay for goods within an agreed period of time. Trade credits are usually short-term. However, their maturity dates depend on the following four factors: (1) Nature of the product: In case of perishable goods, maturities are short because sales cash inflows are generated quickly. The accounts payable on such products as fruits and vegetables are usually paid within 5-10 days; and clay, rocks, cement and sand within 15-30 days. (2) Suppliers' Financial Status: If the suppliers' financial status is weak, accounts payable must be paid within a short period of time. For example, in the case of farmers selling agricultural commodities to traders and

factories. (3) Sales Promotion: If a business wishes to promote sales, a more lenient credit policy can be a promotional tool. On the contrary, if product demand is high, strict credit sales can be imposed. (4) Buyers' Situation: In general, lenient credit sales will be offered if buyers have a solid financial basis.

According to a study by the Bank of Thailand, interest rates of trade credits ranged between 20 and 30 percent per year. (Praphan Saisongkraw, 1986) Interest rates charged on trade credits exceeded commercial bank rates for the following reasons: (1) The cost of capital was high. Businesses might have to offer trade credits exceeding their available capital, and then depend on loans from commercial banks, other financial institutions and informal sources; (2) Businesses wanted to encourage customers to expedite their payment.

Whether trade credits do incur higher costs than other types of financing is still debatable. In some cases, the costs of trade credits are higher but buyers are obliged to use them because no other options are available. However, if suppliers use trade credits as a sales promotional tool, the costs of trade credits will be low and become a alternative type of financing from the suppliers.

Although trade credits are widely used, default records are very low. The study by the Bank of Thailand indicated that the default risk of manufacturers accounted for only 0.04-0.59 percent of sales value because trade credits were based on trust and no collateral was required. Trade credit recipients naturally had to maintain their creditability; otherwise, working capital management problems would occur through more cash having to be used and borrowing would become increasingly difficult.

5.3.3 Check Discount

The check discount can be explained as follows. Borrowers sell a postdated check to lenders who will deduct interest from the face value

of the check. In other words, the amount lent is smaller than the check face value. The difference is the interest.

The check discount can be implemented through commercial banks or by individuals. In case of commercial banks, this type of financing is called "cleaned bill discount" which includes various types of rediscounts and is considered as borrowing from formal financial institutions. In case of individual lenders, the check discount or "check exchange" is treated as financing provided by informal lenders.

checks discounted at banks are derived from credit sales. This type of financing is basically the acquisition of loans secured against accounts receivable. In case of factoring, borrowers assume no responsibilities in collecting the due payments if banks cannot cash the checks. In case of pledging, borrowers have to make a payment to banks if checks cannot be cashed. Consequently, banks charge higher interest rates in the case of factoring because they have to bear higher risks and the costs of investigating the records of check issuers. Despite the higher interest, check discount financing through checks derived from credit sales is mostly factoring because default risks can be avoided. If checks cannot be cashed when due, time and further expenses will have to be spent to debt monitoring.

Informal lenders accept checks as collateral on loans because checks are legally supported. In general, if the legal objective of check issuance is to pay for a debt, check issuers agree to have checks cashed when due. If checks cannot be cashed because payers do not maintain sufficient money in their account, check issuers are considered to be violating the civil and commercial code. However, in many cases, checks are issued as collateral for loans, not to pay debts, and check issuers do not agree to have the checks cashed. If borrowers do not pay back loans on the maturity date, and the lenders cannot cash the checks, chaos ensues. Thus, the check Act was passed to make wrongful check issuance a criminal suit. This act has resulted in increasing the popularity of using checks as securities for loans. (Anant Srisawang, 1985)

A study by the Bank of Thailand revealed that about 53 percent of funds used in the check discount service were entrepreneurs' own capital, and 14.5 percent were derived from due checks. About 33 percent were from external sources, with 22 percent from financial institutions and the remaining 11 percent from informal sources such as rotating credit associations, relatives and local individual lenders. (Anant, Ibid.)

With regard to the check discount, lenders do not deem collateral to be important, but confidence in check issuers or endorsers are a major consideration. Factors of less importance include guarantees of business colleagues. Only checks issued by personally acquainted or reliable people are acceptable. However, if the loan size is very large, collateral will be required.

The motives of financing through check discount can be explained as follows. Forty-two percent of surveyed enterprises reported that they urgently needed funds, but could not seek financing from other sources. Twenty-five percent indicated that commercial banks would not extend their credit limits, and 23 percent claimed that the check discount service was the most convenient financing method. The rest reported that they were not confident in their credit sales customers; thus, they would rather sell the checks issued by these customers.

The check discount service costs include the cost of the required capital, other expenses listed below and debt default.

Capital used in check discount financing is partly lenders' own funds and partly derived from external sources. The costs of funds externally sourced is 6.01 percent of the total capital in the check discount business. 5.98 percent of this cost is incurred as interest, and the rest is as other expenses such as for asset pledging, mortgage registration, etc. (Table 5.1). If the opportunity cost of funds owned by entrepreneurs and derived from due checks amounts to 15 percent per annum, then the cost of internal capital would be 10.05 percent (=(.67)*(15)) by which .67 is the percentage of internal funds used in

check discount financing as mentioned earlier) Thus, the total cost of capital amounts to 16.06 percent per annum.

Other expenses such as office rents, office expenses and salaries account for 1.52 percent of the total capital used in check discount financing. Office rents constitute the highest share. Other expense items amount to only .06 percent.

Another cost of check discount financing is incurred when discounted checks cannot be cashed. According to the study conducted during 1983-84 when the check discount service grew dramatically due to the commercial banks' restrictive credit policy, about 12.9-15.9 percent of borrowers were considered doubtful debts and approximately 5.1-5.4 percent of these were bad loans (Table 5.2).

With all three cost categories combined, the total cost of the check discount service is 22.69-22.99 percent (with 10.05 percent as the opportunity cost of internal capital).

Interest rates charged on this type of financing depends on the degree of familiarity between lenders and borrowers the availability and of collateral. Interest rates range between 1.5-3.0 percent per month or 30 percent per annum. Moreover, interest rates vary from region to region and from season to season. Varying interest rates among different regions indicate the fragmentation of the credit markets and differences in factors determining interest rates in each region such as costs of capital, service overhead expenses, risks and monopoly power of lenders. Seasonal fluctuations of interest rates reflect the differences between demand and supply during each period of time. The check discount business usually peaks when commercial banks close their balance sheets; when commercial banks implement a restrictive credit policy; during festivals and towards the end of the month. The study by the Bank of Thailand did not indicate the correlation between interest rates and the loan size; time length and business categories. In some seasons, demand for loans is low, but lenders do not decrease the interest in order to encourage more loans. The survey among lenders revealed that lenders would be better off depositing funds with

commercial banks if interest rates charged on check discounts were lower than expected.

About 65 percent of capital derived from the check discount service is used in business operations. Thirty-four percent is used as working capital, 17 percent for investment, and 15 percent is used to finance the accumulation of goods and raw materials. The remaining 17 percent is paid back to commercial banks as loan repayment, and another 8 and 5 percent is set aside for rotating credit associations and consumption respectively.

5.3.4 Individual Lenders, Parents and Relatives

Individual lenders, parents and relatives constitute part of the informal sources.

Borrowing from these sources is usually based on the personal contact between borrowers and lenders. Borrowing from parents and relatives does not normally require any collateral whereas most individual lenders demand postdated checks as collateral on the loans.

Interest rates generally average 2.5 percent per month or about 26-39 percent per annum. (Onchan, T., January 1985)

Borrowing from parents and relatives also usually does not specify maturity dates, objectives or fixed interest rates.

In terms of the uses of funds, the objective of borrowing from individual lenders is to finance production while capital borrowed from parents and relatives is usually used for consumption as well.

5.3.5 Leasing

In general, there are two asset acquisition methods, i.e. leasing (without taking the ownership of assets) and purchase (by taking the

possession of assets). At one time, leasing was normally applied only to such assets as land and buildings. At present, leasing is also extensively applied to equipment and machinery.

Some similarities do exist between leasing and borrowing. However, funds acquired from borrowing can be invested in any assets, but leasing can be applied to only some particular assets. Another characteristic of leasing is that businesses do not need to seek financing to acquire assets required.

Leasing is a contract between lessors and lessees. Lessees assume their rights to use leased assets as long as they abide by the conditions specified in the contract. Who will take ownership of assets when leasing contract expire depends on the settlement of both parties. In general, lessees do not want to own the assets, but merely want to use them in the long run.

There are two types of leasing, namely a financial lease and an operating lease. The characteristics of a financial lease are as follows: (1) Lessees are not responsible for asset maintenance; (2) Rents charged on the use of assets must be reasonable, and compare to the asset value. Lessors must be compensated at the rate with which they are satisfied. Leased assets may be either new assets that lessors directly purchase from manufacturers or distributors, or assets that lessees sell to lessors. The latter case is called "sale and leaseback." When businesses have sold assets to lenders, they will immediately enter into leasing contracts with lessors for the sold assets. Thus, lessees will (1) receive capital from asset liquidation and (2) still assume their rights to use those assets during the period of time specified in the contract. Funds generated from asset liquidation can be further invested.

Operating leases are a commonly practiced type of leasing. In general, maintenance is provided by lessors. Expenses incurred are usually included in total leasing fees. With regard to this type of leasing, the present value of total leasing fees is lower than the price of the leased asset. However, leasing periods are often much shorter

than the assets useful lifetime. Lessors can earn additional income from renewing leasing contracts or selling the assets. Lessors take the ownership of the assets.

In Thailand, no legal definitions are given to the leasing business, and no leasing control acts have been enforced. Thus, many companies use names related to leasing, but are in fact in the hire purchase business.[1] Many companies offer operating leases along with other businesses and use different names. Service provision is restricted to some particular assets such as automobiles and computers.

As of July 1988, only five companies offered financial leases.

Assets leased by these five companies include machinery, computers, automobiles and other fixed assets.

One major characteristic of these companies is their dependence on financial institutions which indicates the close relationship between formal and informal sources.

Leasing rates depend on many factors such as asset value, cost of capital needed for asset acquisition, operating expenses, asset insurance costs, sales taxes, import duties, leasing period, types of leasing (operating lease or financial lease), current interest rates and risk trends. Moreover, leasing companies may demand an advanced rent payment as a guarantee. The rates of advanced payment depend on lessees' creditability.

Leasing companies offer both leases and hire purchase. According to the survey among leasing companies, over 95 percent of services extended are hire purchase. Leasing constitutes only a very small

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1. The hire purchase is a contract between hire purchasers and asset owners. Those who offer hire purchase will retain the asset ownership until the contract expires. If hire purchasers abide by every condition agreed upon, asset ownership will automatically be transferred to them. (Hire purchasers want to take asset ownership, but have insufficient capital to immediately pay for the assets.) Hire purchasers must be responsible for all expenses incurred.

share for the following reasons: (1) profits generated from leasing are very low due to the fact that sales taxes are levied on total leasing revenues (not the difference between revenues and costs). Additionally, corporate income taxes account for five percent of revenues instead of the difference between the principal and interest paid; (2) Rates of return on hire purchase are very high because interest does not decrease as installments are paid throughout the hire purchase period.

Almost 100 percent of the leasing service is extended to businesses in Bangkok and neighboring provinces for the following reasons: (1) Most businesses requiring leasing services are located in those areas; (2) The costs of acquiring information on service users is much higher in provincial areas; (3) The costs of extending services to rural businesses are higher. The costs of monitoring and collecting due rents (travel expenses, accommodation and per diems) are higher than the received net earnings.

Another limitation of leasing occurs with machinery imported by those with factory licenses (Factory Four) or promoted firms which are granted sales taxes and or import duty exemption. If a machine is imported by a leasing company to be leased by a promoted firm, no taxes or duties are exempted because assets belong to the leasing company, except in cases of where permission is given by the Office of the Board of Investment on an individual basis.

The study conducted by the Ministry of Industry during 1982-85 indicated that small businesses (firms with less than Baht one million of registered capital) used the leasing service to the highest degree, and constituted 37 percent of total lessees. Large limited companies (with registered capital exceeding Baht 5 million) accounted for 20.5 percent, and the remaining 42.5 percent were small commercial activities and medium-scale limited companies.

The value of leasing is highly correlated with trade and economic conditions as well as government credit policies. Statistics on leased machinery are as follows.

Year	Value (Baht Million)
1982	135.6
1983	193.2
1984	286.4
1985	242.7

During 1982-83, the Thai economy recovered after the oil crisis. The leasing value then increased. In 1984, a major factor resulting in a rise in leasing value was the restrictive credit policy of the Bank of Thailand. Industries, particularly small and medium-sized ones, used the leasing service more extensively. In 1985, the country experienced an economic slowdown, leading to a decreased leasing value. (Marasri Kittiudomdej, 1986)

5.3.6 Hire Purchase

The hire purchase is another asset acquisition method for business use by which a small amount of capital is paid at the beginning of the agreement and a series of payments are made during a certain specified period of time.

Hire purchasers enter into contractual obligations with those who offer hire purchase facilities, and the assets will belong to the hire purchase agents until the contracts expire and hire purchasers must abide by every condition specified. After that, hire purchasers will immediately take the ownership of the assets. Should the hire purchasers wish to own the assets before the entire payments have been made, all expenses due to asset use must be absorbed by the hire purchasers.

Hire purchase is frequently applied to acquiring houses, land, automobiles, trucks and motorcycles. Hire purchase is very similar to leasing. However, with regard to hire purchase, the purchasers contract to use and eventually take the possession of assets, but the major intention of lessees is not to take the ownership of leased assets.

Hire purchasers do not directly acquire assets from manufacturers, but contact manufacturers in order to check or bargain for the needed assets. Hire purchasers will then contact finance companies or leasing companies (that also offer hire purchase arrangements) to make a contract because they wish to buy assets but lack sufficient initial capital. Hire purchase companies will buy the assets required from manufacturers and enter into a contract with hire purchasers. In other words, hire purchase companies will make a payment for the assets needed by hire purchasers who will in turn make a series of payments to hire purchase companies for the assets. For instance, if a company wants to buy a small truck worth Baht 250,000, but only Baht 100,000 is available, this company will then make a hire purchase contract with a hire purchase company which will make a payment of Baht 250,000 to the truck dealer. The hire purchaser will pay Baht 100,000 to the hire purchase company and then will make installment payments on the outstanding Baht 150,000. A payment schedule and an interest rate must be agreed upon before the hire purchase company buys the needed asset from a manufacturer.

At present, hire purchase is very popular. Hire purchase companies are exposed to very low risks because hire purchase is considered a type of secured financing. In case of automobiles, trucks and motorcycles, the legal title as owners as specified in asset documents is assumed by hire purchase companies until the contract expires. The ownership will then be transferred to hire purchasers. If hire purchasers violate the contracts, hire purchase companies can immediately repossess the assets. This characteristic sets apart hire purchase from other types of financing from informal sources such as check discounts or borrowing from relatives and friends which require less strict collateral i.e. postdated checks (sometimes with no date specified) where the lenders assume more risks.

Interest rates charged on hire purchase are very high because hire purchase companies are legally entitled to calculate interest based on a fixed principal equivalent to the amount specified in hire purchase contracts. However, the actual principal decreases as installments are

made. Thus, actual interest rates are in fact approximately twice those specified in the contracts. For instance, although an interest rate of 15 percent is specified in a contract, the actual interest rate will be equivalent to about 30 percent because the rate was calculated on a fixed principal.

Hire purchase companies maintain close relations with financial institutions or banks. These companies usually arrange an overdraft account with a bank to finance the hire purchase service. Hire purchase companies may also make a direct loan contract with a bank by using for instance an automobile registration as collateral.

Hire purchase companies usually require hire purchasers to take out insurance policies in order to reduce the risk of unexpected damage which may drastically lower the value of the collateral.

5.4 MAJOR CHARACTERISTICS OF INFORMAL LENDING

The characteristics of all forms of informal lending can be summarized as follows:

- Lending of informal sources is mostly short-term, with the exception of hire purchase and leasing.
- The sources of funds of informal sources can include the lenders' own savings as well as loans from financial institutions and other informal sources.
- Funds derived from informal sources are used in production, business operations, consumption and speculation.
- Lending considerations tend to be based upon borrowers' credit records rather than loan project feasibility or collateral.
- Reputation and creditability are the most important collateral in considering extending loans in the informal credit markets. Postdated checks are widely used as collateral for loans. In the case of extensive lending, land or other fixed assets may also be required as collateral.

Apart from these general characteristics the informal sources also possess the following features:

5.4.1 Large Number of Small Lenders

Numerous small lenders exist in the informal credit market because of its being imperfect (Niphon, 1988) in the sense that lenders do not possess information on the loan repayment capacity and willingness to pay of every borrower. Thus, asymmetric information occurs and imposes high risks on lenders. Thus, lenders will often only consider extending loans to those who are personally know by them over a long period of time. The amount of lending per one borrower is not very large.

Many expense items on average increase or remain constant, resulting in drastically rising average costs when the number of borrowers becomes larger. For example, average costs of customer selection increases with a larger number of customers often because more customers are located in distant areas. The costs of debt monitoring and bad debts are accordingly higher due to an increased number of low-quality customers. However, the average costs of contract arrangement per customer does remain constant because arranging each contract requires approximately the same amount of time and excise fee. Average costs of asset evaluation per borrower may decrease because expertise increases with the rising number of customers. Nonetheless, costs will automatically increase in the case of customers in distant areas.

An increase in the number of borrowers leads to rising average costs. The business size appropriate for each lender is small-scale because the number of borrowers is not very large.

Niphon reported in his study on the agricultural informal credit market that the costs of extending loans were the lowest if the number of borrowers did not exceed 30-60. (Niphon , 1989) According to Deschamp et al., each lender had approximately 10-30 customers and lenders in urban and rural areas belonged to different groups. Lenders in rural areas extended loans to rural borrowers whereas urban lenders

had no rural borrowers, and possessed expertise in selecting customers that banks are not interested in or deemed too costly. (Deschamps et al., 1988)

5.4.2 Informal Lending and Monopolization

A certain degree of monopolization exists in the informal credit market which is not very competitive despite the availability of various types of lending and a large number of potential lenders in each lending category. This situation does not imply that borrowers can seek financing from whatever sources are available or easily switch from one source to another. The imperfect information results in high default risks. If collateral contracts are costly and complicated or borrowers lack legally certified collateral, lending will be limited to those whom the lenders know very well or trust (based on the available information on borrowers). Lenders will not extend loans to those they do not know. The most important relationship between lenders and borrowers is through personal connections. Financing is often offered to old borrowers. The shift of lenders to other sources is not very practical. Moreover, for borrowers to change lenders not only creates no advantages, because borrowing conditions are usually similar, but also causes unnecessary delay. Lenders with the advantage of knowing their borrowers will gain economic rents.

5.4.3 Interest Rates of Informal Sources

As mentioned earlier, the interest rates of informal sources are generally much higher those of financial institutions. This situation does not imply that the discrepancy exclusively results from the monopoly power of informal lenders. Other factors such as risks, and cost of capital, etc. also play a vital role. Despite borrower screening, borrowers in the informal markets are riskier than those in the organized market because most of the borrowers in the informal market cannot seek financing from formal sources or cannot acquire sufficient loans due to lack of collateral. Lending in the informal

markets usually does not require land or fixed assets as securities for loans. Additionally, capital acquired from informal sources is sometimes used for speculation and consumption, resulting in a lower debt repayment capacity. Costs of capital extended as loans can also be another explanation of higher interest rates in the informal market. The opportunity cost of lenders' capital is high, and the capital may be partly derived from loans extended by commercial banks or finance and securities companies or even from other informal sources. Consequently, the informal interest rates must be at least equivalent to those of financial institutions. Despite lower expenses related to extending loans in the informal markets, the total costs of informal lending tend to lead to the imposition of higher interest rates.

5.5 INFORMAL LENDING AND INTEREST RATE CEILINGS

Abolishing the interest rate ceiling will not assure that industries or small-scale businesses will automatically be offered services from financial institutions. The imperfect market information may lead to financial institutions' decision not to raise interest rates but instead to screen customers or to ration available credits.

The mechanism of an imperfect market differs from that of a perfect market where interest rates will self-adjust until equilibrium is reached or demand and supply are equal. In the perfect market, interest rates vary among borrowers, depending upon risks incurred and return to be generated. However, if information has to be acquired at high cost, an imperfect market may occur. (Lenders cannot obtain accurate information on risks and expected return of borrowers.) Lenders will then face difficulties in distinguishing between good and bad borrowers, particularly in case of new loan applicants. Thus, credit rationing which is an ineffective credit allocation will benefit lenders (Stiglitz and Weiss, 1981).

According to Stiglitz and Weiss, in case of high costs of acquiring information on borrowers, credit rationing by determining interest rates at levels where there still exists excess demand for credit will create

higher profits than raising interest rates (and increasing loans to the level where no excess demand for credit exists). Broll and Gilroy share similar opinions. In an imperfect market, requirement of excessive collateral agreements will not be beneficial to lenders either. (Broll and Gilroy, 1986)

Stiglitz and Weiss give two reasons why rates of return on lending do not increase in the case of an imperfect market although interest rates can be levered, given the same amount credit and costs of funds extended as loans. The two explanations are adverse selection and incentive effect. Adverse selection means when interest rates are high, those who decide not to borrow are good-quality borrowers (in lenders' opinion). These borrowers may have some good investment projects with low risks. In other words, these investment projects yield reasonably high rates of return with low standard deviations. Adverse selection occurs when commercial banks are not aware of the project risks. When interest rates exceed a certain level, only borrowers with high default risks will apply for loans. Consequently, commercial banks' customers will be those with high risks. Additional revenues generated from higher interest rates may not offset the increasing risks. Lending at a high interest rate may possibly even reduce profits. In case of incentive effects, commercial banks cannot acquire perfect information on borrowers. Thus, high interest rates will indirectly force borrowers to choose riskier investment projects as riskier projects are expected to yield higher returns (Assuming that other factors remained constant).

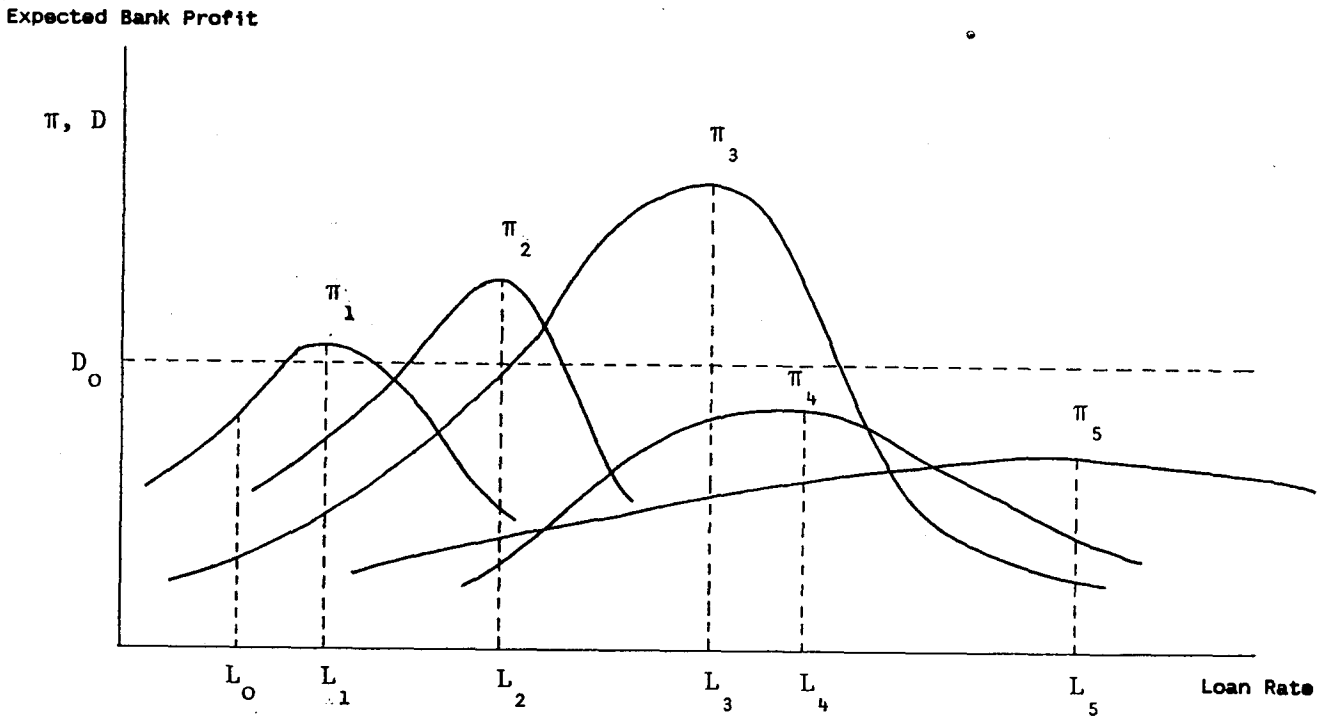
According to the survey among bank managers (at both head offices and provincial branches), although banks are entitled to increase interest rates and may extend more loans, collateral is still required in most cases because an emphasis is placed on the quality of customers. Despite higher interest margins, it will take a long time to recover the repayment if any default occurs. Moreover, banks are not as influential as informal lenders who can force borrowers to make a repayment. Thus, banks prefer to select their customers and ration credits without raising interest rates.

In case of high costs of information on borrowers' investment projects, a certain interest rate will be optimal. At a level above this optimal rate, rates of return will decrease. At the optimal rate, excess demand for loans still exists, but commercial banks do not wish to charge higher interest rates which will eliminate this excess demand. As a result, some businesses have to continue depending on informal sources. In case of high liquidity, however, financial institutions may extend more loans by raising interest rates to compensate for increasing risks.

The indications therefore are that in an economy with high information costs such as developing countries, although commercial banks can demand any interest rate, credit rationing still exists. Additionally, in case of highly diversified business types and sizes, imperfect information may screen out some business groups who will not then acquire the necessary credit. In other words, an equilibrium interest rate may result in the elimination of some customer groups from financial assistance, and these groups will have to continue relying on unorganized financial sources. Rates of return on investment within these groups may exceed those of other credit recipients. This situation results in inefficient credit or resource allocation.

This situation is demonstrated in Figure 5.1. An underlying assumption is that commercial banks can categorize borrowers i.e. by industry, by size, etc. However, commercial banks do not have sufficient information to distinguish each borrower in each category. With this imperfect information, the same interest rate is charged on loans extended to everyone within each group. At this interest rate, each borrower will make a decision as to whether to apply for a loan. The rates of return that any commercial bank will receive are a function of the loan rates charged upon each group. Another assumption is that the commercial bank system is highly competitive and the service cost is zero. In other words, rates of return on lending are equivalent to deposit rates. Thus, the Y-axis indicates both deposit rates (D) and rates of return on lending that commercial banks expect to receive (π). Rates of return of each group is represented by numbers 1-5. For instance, π_1 represents the expected rate of return of group 1. Higher

Figure 5.1 Expected Bank Returns as a Function of Loan Rates to Groups of Borrowers



numbers indicate higher rates of return on investment. The X-axis exhibits each group's loan rates. It should be noted that the group prioritization based on expected rates of return differs from that based on loan rates.

This section will basically evaluate the impact of eliminating the interest rate ceiling on credit allocation efficiency. Assume that the government determines an interest ceiling at L_0. At this level, commercial banks prefer to extend loans to group 1 to group 2, group 2 to group 3 and so on. This is due to that fact that the difference between the desired loan rates and the actual loan rates of group 1 is the lowest $\{(L_1 - L_0) < (L_2 - L_0) \ldots\ldots\ldots\}$ In case of interest rate credit ceilings, credit allocation will be least efficient because the group with the lowest productivity of investment will be selected. The productivity of investment will become higher as the group number is larger. It should be noted that inefficient credit allocation occurs when interest rates are below the equilibrium rate.

It is then assume that no interest ceiling exist and interest rate can fluctuate. However, the information on each borrower in each group remain imperfect. Under this circumstance, commercial banks naturally prefer group 3 to groups 2, 1, 4 and 5 because π_3 or the rate of return on investment of group 3 is the highest. With no interest ceilings, credit allocation is improved, but it is still not the most appropriate. Provided that the deposit rate is at D_0, no credits will be allocated to groups 4 and 5 despite their high rates of return.

Figure 5.1* indicates that the elimination of interest ceilings determined at the level below the equilibrium cannot guarantee efficient credit allocation as long as the information is imperfect or the costs of acquiring information remain high.

Even in the informal credit markets, the preference of not raising interest rates to compensate for increased risks or lack of information also exists. According to a study by Jermsak, lenders are not willing to increase interest rates if customers are considered of low quality or the available information indicates high risks. Whatever the interest

rate it will not offset such high risks because neither principal nor interest will be repaid in case of loan default. Although interest may be paid, losses on the principal are still unavoidable. If borrowers offer very high interest rates, lenders normally will be reluctant to apply for loans and will question the motivation behind the borrowers' offering there high interest rates. (Jermsak, 1989).

Table 5.1
Cost of Funds and Operating Costs of Check Discount Service

Item	Cost (% of total discounted amount)	
Cost of borrowed funds (approximately 33 % of total amount)		6.01
Other Costs		1.52
Office rental fees	1.46	
Office expenses	0.01	
Salary and wages	0.03	
Others	0.02	
Total		7.53

Source: Bank of Thailand

Table 5.2
Loan Status of Check Discount Business, 1983 and 1984

Item	Unit	1983	1984
(1) Total loans	million Baht	576.74	565.1
(2) Doubtful loans	million Baht	74.38	8.94
(3) Bad loan losses	million Baht	29.34	30.42
(4) Percentage of doubtful loans ((2)/(1) * 100)	%	12.9	15.9
(5) Percentage of bad loan losses ((3)/(1) * 100)	%	5.1	5.4

Source: Bank of Thailand

CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

6.1 CONCLUSION

The average capital requirement for provincial industrial enterprises, as indicated by the firms' total assets, amounted to Baht 16 million. The amount of investment varies according to size, approximately Baht 4 million, 24 million, and 260 million for small, medium and large-scale firms, respectively. All firms require short-term funds for investment in current assets and long-term funds for investment in fixed assets. This survey revealed that investment in current assets amounts to approximately 1/3 of the total investments.

The requirements for short-term funds show seasonal variations, mainly because certain raw materials are only available seasonally, and due to seasonal market demand.

A study on the sources of funds of provincial firms shows that internal funds are insufficient for the average firm's operation and expansion, and that these firms are also dependent on external funds both from financial institutions and informal sources. Our data indicates that small-scale firms tend to rely more on funds from informal sources than large scale firms.

The survey shows that 24 percent of the total firms surveyed use only internal funds. For external funds the commercial banks played a dominant role, followed by other financial institutions and informal sources, respectively. About 34 percent of the firms surveyed borrowed from commercial banks only, whereas, only 12 percent and 6 percent had to borrow from finance companies and informal sources, respectively. The remaining 25 percent depended on mixed external sources of funding, and of these 12 percent borrowed from both commercial banks and informal

sources. Therefore, 52 percent of the total are supported to some extent by commercial banks.

When a comparison between the size of business was made, it was found that 27 percent of small-scale firms used only internal funds for their operation, whereas only 15 percent of large-scale firms are internally financed. Forty-four percent of large scale firms borrowed only from commercial banks whereas only 32 percent of small-scale firms fell in to this category. Furthermore, as many as 7 percent of small-scale firms borrowed only from informal sources, while no large-scale firms did this.

Regarding funds for expansion, most firms indicated that the majority of these came from internal sources. Among the firms which had expansion plans, 77 percent of them indicated that there would be minor difficulties in finding funds from external sources. However, it was again found that small-scale firms would have more problems than large-scale firms. Twenty-six percent of small-scale firms and 17 percent of large-scale firms said they expected difficulties.

When surveying the expected rate of return on investments, it was found that, for industrial enterprises in the rural areas, the annual rates of return on stockholder's equity was, on average, 26 percent. To be more specific, the annual rates of return were 12 percent, 78 percent and 33 percent for small, medium and large-scale firms, respectively.

Easier accessibility to funds from financial institutions by large-scale firms is only one of the factors that will have a future impact on provincial industries. Large-scale firms can also expand faster and make more investment in modern plants, machinery and equipment, thus, allowing their operating leverage to increase and therefore reduce average production costs and increase their competitiveness when compared to small-scale firms. This, in the long run, could result in a greater concentration of large-scale firms in the provincial areas.

Problems encountered by firms borrowing from external sources can be summarized as follows:

Borrowing Problems with Financial Institutions (Commercial Banks and Finance and Securities Companies): The major problems reported by provincial industries were insufficient credit lines and excessive collateral requirements.

Both these problems are interrelated and are influenced by the imposition of interest rate ceilings by the Bank of Thailand. When a ceiling is imposed, financial institutions are unable charge higher interest rate to compensate for higher risks and lending costs. Financial institutions are then tried to avoid lending to business activities that have higher risks and/or incur higher lending costs. In other words, financial institutions will first lend to those firms which have lower risks and/or lending costs. These are mostly large-scale firms. Therefore small-scale firms usually indicate that insufficient credit was offered by financial institutions. The imposition of a ceiling rate also encouraged financial institutions to request an excessive amount of collateral to compensate for increased risks. Lack of information regarding the credit worthiness of projects and/or the borrowers may be one of the factors responsible for this.

Other collateral-related constraints include the fact that the financial institutions only take a few types of assets as collateral for loans. Our survey discovered that 78 percent of borrowers from banks, and 53 percent from other financial institutions used land, plant, machinery and equipment as collateral. Only a small number of firms are exempt from such requirements or are able to use other types of collateral.

Borrowing Problems with the IFCT and SIFO: Most firms reported the complicated processes involved in completing the paperwork including the number of documents required, preparation of the project proposal; and the lengthy loan approval process as their problems with IFCT and SIFO. Normally the IFCT's loans are granted on the basis of project lending

(for which collateral is still required). Regardless of the size of investment, the project appraisal process requires that firms prepare a full application document including production data, marketing, and finance. The fact is that data collection by regional firms is unsystematic and often difficult to retrieve for specific purposes. Consequently, problems arise at every step starting from preparation of the project proposal to the provision of supplementary information resulting in excessive delays in obtaining a result.

In case of the IFCT, the analysis of a small-scale project takes approximately one month. The whole process starting from the submission of the application to loan disbursement takes three to four months, and at least another two weeks are required for firms requesting a credit guarantee service by SICGF. In the case of SIFO it takes 142 days or five months to obtain direct loans, or 189 days or over 6 months for loans jointly provided with the Krung Thai Bank. In addition, the entire SIFO loan approval procedure is carried out in Bangkok only.

Problems with Informal Sources: Insufficient amounts, high interest rates, and necessity to resort to multiple sources are the major problems encountered by those who borrow from informal sources. These problems are closely interrelated. An insufficient credit line from a single source forces the firms to turn to other sources for additional funds. Shortage of information on the borrowers and the projects are the most common reasons for the limited credit granted by informal lenders. In addition, a firm's reliance on these multiple sources of funding could weaken their capability to repay the loans and is thus deemed untrustworthy by the financiers. Although several financial sources exist, a borrower generally obtains a loan from only lender. However, the credit line is also subject to the ratio of available funds to the number and the requirements of the borrowers. High interest rates are cited as a common problem of informal money sources. As previously mentioned, imperfect information results in a monopoly situation with existing lenders which enables them, in turn, to charge economic rent.

Firms' using the services offered by the financial institutions such as credit guarantee offered by the Small Industry Credit Guarantee Funds and rediscount facilities offered by the Bank of Thailand through commercial banks for packing credit, Industrial undertakings, and small industry undertakings remains at the very low level of 5 percent. The problems are as follows: firms either do not want to use, do not need, are unable to use, are unaware of how to use, do not understand the procedures, or do not have information required.

Among the formal financial institutions, commercial banks contribute significantly to the financing of manufacturing firms. In 1987, commercial banks' loans accounted for 84 percent of total year-end outstanding institutional loan balance of the manufacturing sector. The outstanding loan balance accorded to the manufacturing sector of finance and security companies and of IFCT were relatively lower, sharing at 13 percent and 3 percent, respectively.

When comparing the ratio of manufacturing credits granted in an individual region to the credits granted nationwide, with the contribution of manufacturing value added figures of each region to the Gross National Product during the years 1981-1987, it is found that both ratios are equal for the Central region and the Greater Bangkok areas. However, the credit extension ratio is less than the value added ratio for all other regions. The largest discrepancy is found in the North. On average, nationwide, the commercial bank's credit extension ratio is less than the value added ratio. It thus may be concluded that the regional manufacturing sector is not as financially supported by financial institutions as it should be, particularly small-scale enterprises. Only 6-7 percent of the total credit granted to the manufacturing sector is allocated to small firms (those with a credit line of less than Baht 5 million).

There are several reasons why the commercial banks usually reject small-scale firms' loan applications. On the whole, commercial banks are not confident with the proposals or in their capacity to repay. In addition, a relatively low equity capital, the unstable financial condition of project owners, insufficient collateral, and the unsuitable

character of the borrowers such as being gamblers or having a default record, are cited as other reasons for the banks' turning down loan applications.

In the case when detailed project analysis is needed before approving, obtaining the information required is one of the problems encountered by banks. On the customer's side, incorrect or insufficient information was given. On the banks' side, the problems include insufficient qualified personnel and the limited authority of branch managers in approving credit line.

Large banks generally have no management problems and are able to give more autonomy to the regional branches because of their experience in operation, more sophisticated personnel management and better internal control system.

Credit extended to the manufacturing sector by finance and security companies accounted for 21 percent to 26 percent of the total credit approved during 1981-1987. The manufacturing credit extension ratio of the finance and security companies exceeds the ratio of manufacturing value added to the Gross National Product.

The total outstanding on loans approved by IFCT for the year-ending 1988 reached 8.3 billion Baht. IFCT's services are still relatively limited. As of 1988, only 1,290 projects had taken credit contracts with the IFCT. The number of outstanding credit clients by year-end 1988 was 597.

The IFCT tends to approve most of its loans to large-scale industries, despite the recent increasing trend of loan approvals to small-scale firms. The credit lines for small-scale firms are allocated at a specified level. During 1984-1987, for instance, credit approvals for small-scale firms (those not exceeding Baht 5 million per project) were limited to approximately Baht 200 million compared to Baht 1,200 million for large-scale firms.

The IFCT's operational constraints result from conflicts of interest. Firstly, the IFCT is designed by the Government to be an industrial development bank specializing in providing loans at a lower-than-market price to the manufacturing sector. Secondly, the IFCT must operate to maximize its return to its (mostly private) shareholders. Around 75 percent of the IFCT shareholders are private. At a fixed interest rate, the IFCT finds it more difficult to mobilize funds for industrial loans, particularly for long-term loans. Consequently, the IFCT must rely heavily on assistance from the Bank of Thailand and foreign borrowing under soft loan agreements. In addition, it is subject to the willingness of the Government (the Ministry of Finance) to guarantee soft loans from foreign sources and to exchange rate risks. The limited availability of funds and lower than market price interest rates has resulted in an excess demand for loans, especially at times of low liquidity among the commercial banks and high market interest rates. Moreover, in an attempt to maximize the shareholders' returns the IFCT has rationed the majority of loans to large-scale firms. Lending to medium and small-scale industries has consequently been given lower priority. Finally, since the lending has higher costs and risks. IFCT can afford few regional branches and personnel. The amount of loans extending to small-scale industries, therefore, usually depends mainly on the amount of soft loans IFCT gets.

With regard to lending to small-scale industries, the IFCT has many problems. IFCT interest rate margins from loans for small-scale firms are very small, and sometimes even negative. Although the IFCT adopts a project lending policy and simplifies the project appraisal process for small-scale industries, the limited amount of information provided by the borrowers frequently hampers the loan approval process. Furthermore, the fact that the IFCT has only a few regional offices, not only reduces its accessibility to small-scale firms, but also increases the costs of searching for information of firms and projects. The whole process of loan application such as proposal preparation and project analysis appears complicated to the borrowers. On the IFCT's side, regional managers have no authority to approve loan, all applications must be approved in Bangkok, thus making the approval process lengthy and costly. In terms of collateral, the IFCT's

regulations requires that it have the first claim over any securities to be put against the loan. Several regional firms cannot meet this requirement since their eligible properties have often already been pledged with commercial banks.

The Small Industry Finance Office (SIFO) was established in 1964 provide financial assistance to small-scale industrial firms, buy only plays a minimal role in granting loans compared to other financial institutions. The SIFO grants both direct and joint loans with the Krung Thai Bank. From the beginning of its operation up to December 1988, the SIFO approved total credits of about 533.7 million Baht to 1,712 borrowers.

Most SIFO loans are granted to industrial enterprises in the regional areas. Between 1964-1984, 53 percent of the loans were allocated to provincial industries. The other 47 percent were for industrial firms in the Bangkok Metropolitan areas (including 5 nearby provinces). Eighty-five percent of these firms have no more than 19 employees.

Major constraints faced by SIFO are: Firstly, conflicts in the operation with the Krung Thai Bank. Since the bank has to bear all the default risks without having any participation in the project appraisals, the bank is often unwilling to collaborate with the SIFO. Furthermore, when the Krung Thai Bank extends loans directly, the interest margin will be three times higher than that those offered jointly with the SIFO. Secondly, SIFO is also not entitled to purchase any rediscount facilities from the Bank of Thailand or to employ services offered by Small Industry Credit Guarantee Fund due to its status of not being a juristic entity, a corporation, a state enterprise, or a government body. Thirdly, low rate of interest does not only discourage the cooperation from the Krung Thai Bank but also leads to low interest income and retained earnings. Bad debt losses cannot be fully covered and growth will be hampered. Fourthly, sources of funds is another a problem for SIFO. SIFO cannot mobilize savings, and, therefore, has to rely on government grants (Baht 50 million for the start-up and Baht 200 million in 1988), and the Krung Thai Bank

contributions. Lastly, since SIFO has none of its own regional offices, the regional industrial promotion centers and provincial industry offices are requested to distribute forms and assist borrowers in completing their loan applications. This, however, results in high costs for searching for the applicants information in the regional areas. This problem has not been solved, and increasing the services in rural areas will reduce the viability of the SIFO by increasing its lending costs and default risks.

The SICGF performance for promotion of small-scale industrial firms is fair. During the service years from 1986 to 1988, the SICGF granted an investment guarantee to 260 projects, totaling Baht 191 million. The SICGF must however operate with great caution, since it still lacks qualified and experienced personnel. In addition, SICGF's operations are highly dependent on commercial banks. Should the regional bank managers not be aware of SICGF services, or not understand the procedure, or should the bank headquarters not have policy for the SICGF, the SICGF will be unable to extend their services. It was found from the survey that only 10 percent of the commercial bank branches use the SICGF services.

There are many reasons explaining the slow use of SICGF services: (1) the loan guarantee must be approved by the banks' headquarters; (2) Information required by the SICGF for project appraisal adds to the work load of the banks and the applicants; (3) credits are currently extensively extended without the guaranteeing services, due to the policy of diversifying risks by the headquarters; and (4) projects or customers endorsed by the SICGF do not really guarantee their quality or credit worthiness.

The Bank of Thailand's rediscount facility relating to regional manufacturing firms are offered to three sectors, i.e., packing credit for export, industrial undertakings, and small industry undertakings.

In the past, 90 percent of the activities were allocated to export credit facilities. The other 10 percent to industrial undertakings and very few to small-scale industry undertakings which were first extended

in 1986. Ninety-four percent of the allocations of the rediscount facility service were processed through BOT headquarters in Bangkok. The rediscount facilities mostly benefits large-scale firms. For example, 55 percent of the total export credit rediscount facility was taken up by 122 large-scale exporters.

The major reasons why commercial banks tend to support more large-scale exporters are obvious: (1) the global quota for all rediscount facilities regardless of any regulations. This meant, the banks were able to attract the custom of large-scale exporters who required sizable loans for their operations. Extending credits to these customers is more profitable to the banks due to low lending costs and the lower rate of default risks; (2) by purchasing rediscount facilities from the exporters, banks could expect profits from exchange rate fluctuations. Thus, the global quota policy for the purchase of rediscount facilities does not encourage banks to assist small-scale industry, although the Government has increased margin from 2 percent to 3 percent from 1985; (3) Unawareness of the services by firms or, for those who know and may not want to use because the loan term is short; (4) repayment must be made when due, and contracts must be renewed when new loans are needed. This requirement is deemed more complicated than using an overdraft facility; and (5) Some firms do not collect or will not disclose the data required by the BOT.

The BOT's Rural Credit Policy has made possible some commercial bank credit extensions to small-scale industries. In 1987, loans extended by commercial banks under this policy amounted to 6 percent of the total credit extended to the whole manufacturing sector. It is difficult to measure the impact this policy may have on the growth of commercial banks' loan services, as before this policy was implemented the banks had already provided loans to certain small-scale enterprises at this interest rate.

The informal sources of funds as generally existing in regional areas can be described as: rotating credit associations, trade credit, lending between relatives, and checks discount.

Informal lenders are relatively more effective in providing financial assistance to small-scale firms. The costs of lending, servicing and default risks are lower. Informal lenders are typically personally acquainted with the borrower, and the operating costs for offices, wages, and salaries are not as high as commercial banks. Besides changing higher interest rates, the competitiveness is not subject to government regulations. For instance, commercial banks have to conform to BOT reserve regulations which results in higher operational costs.

In general informal lending is characterized as follows:

- Loans are mostly short-term except those of hire purchase and leasing.
- The lender's sources could be in the form of personal savings, loans from financial institutions and other informal sources.
- These loans are used for business operations, and consumption as well as speculation.
- Lending criteria is based on the credit worthiness of the borrowers rather than feasibility of the projects or availability of collateral.
- Reputation and credit worthiness are the dominant factors in the decision to lend. Postdated checks are widely used as collateral. For larger amounts, other fixed assets such as land are required to be put up against the loans.
- The costs of lending and servicing are relatively low.
- The interest rates are generally higher than those of financial institutions. Charges to large-scale enterprises are generally lower than those for small scale firms.
- Informal lending sources tend to comprise of a large number of small lenders.

Interest rates in informal markets are generally higher than those in the formal markets due to the monopoly market for the lenders, the borrowers being in a higher risk sector, and the high opportunity costs of the funds. Some of these funds are loans from commercial banks or finance companies or other informal sources. These factors outweigh the

relatively low operating costs and resulting in the overall higher cost of these loans.

A free floating interest rate in the organized markets does not guarantee that small-scale industries will be able to access to the financial facilities offered. The financial institutions still may not wish to increase the interest rates due to asymmetric information, but may instead resort to policies of customers selection and rationing of credits.

Stiglitz and Weiss explain that with lack of information of the borrowers credibility and the project feasibility, the actual rates of return on loan will not increase despite higher interest rate charges due to the effects of "adverse selection" and "incentive effect". Adverse selection is defined as that point where the increased interest rate may only be able to attract applicants with higher risks of delinquency which may not be sufficient to compensate for the higher income received. Consequently, profits may not in fact increase with higher interest charges. Incentive effect is defined as the point where high interest rates force the clients to take on high risk projects for higher returns. The risk of default on the loans would similarly also increase.

In summary, there is an optimum rate of interest charged when information on the borrowers or their projects is limited. Interest rates charged beyond this point will result in decreased rates of return for the banks. At the optimum point, the excess demand for loans will continue to exist, but the commercial banks will not normally try to eliminate it. However, at a time of high liquidity, banks may consider lending more by increasing interest rates to compensate higher risks.

The survey among commercial bank branch managers showed that annual interest rates for large scale firms should range between 12 percent and 18 percent and with a median rate of 14 percent, and weighted average of 12.9 percent.

This revealed firstly that, the maximum interest rate should be higher than the ceiling rate specified by the BOT. Secondly, both the modal and weighted average interest rates suggested by branch managers should be not over 1 percent and 0.4 percent, respectively, higher than the current interest rate. And thirdly, that interest rates for small-scale firms should be higher than those for the large-scale enterprises.

Approximately 76 percent of the branch managers also stated that if they could charge the interest rate suggested above, they would be more willing to lend to small-scale firms.

The services of leasing companies also include hire purchase agreements. The extension of leasing services is minimal because of tax constraints and low profit margins. Sales tax is collected on gross income (not on the difference between cost and revenue). Corporate income tax is also levied at 5 percent of the gross. In addition, the interest rate on hire purchase is very high since the rate is charged on the full value, even though installments are paid throughout the leasing term.

Nearly 100 percent of services of leasing firms are provided within the Bangkok Metropolitan Areas. The main reasons are: One, most businesses requiring leasing services are located in those areas; Two, the costs of acquiring information on service users is much higher outside the areas; Three, the costs of extending services to rural businesses are higher.

Hire purchase has become very popular. Since it is a collateral-backed loan, the lessor takes only small risks. For examples, in the case of purchasing cars, trucks and machinery through this system, the ownership will not change hands until the lessee has fulfilled the contract. The lessor is also entitled to redeem the contracted assets, should the contract be violated. This provides better security than that in other informal lending, such as rotating credit associations, checks discount, loans from relatives, in which collateral provided is generally insecure (such as in postdated or undated checks).

6.2 RECOMMENDATIONS

In brief, in the regional areas small-scale enterprises operate with relatively higher rates of return and require financial assistance from external sources. Typically, most small-scale firms acquire the more expensive loans from informal lenders than large-scale firms. Consequently, large-scale enterprises are able to raise their operating leverage and thus slash production costs. In the long run, this will limit the growth of small scale firms.

The major causes of the problems are:

1. interest rate policy and regulations of the BOT;
2. financial institutions; and
3. the firms themselves.

The following recommendations are designed to increase the opportunities and capability of small-scale firms to give them better access to the services of financial institutions.

Recommendations

A. Recommendations on Interest Rates and Regulations of the BOT

1. The interest rate policy enforces a ceiling rate on loans as set by the Bank of Thailand. As discussed earlier, since the interest rate ceiling is lower than the equilibrium, leading to excess demand on credits, financial institutions therefore ration the credit funds to customers with lower default risks and lending costs, which in general means to large-scale firms. Only a small percentage of small-scale firms acquire loan from financial institutions and they generally pay higher rates of interest compared to large-scale firms.

The BOT may consider introducing a free floating interest rate which would allow the rate to be adjusted by market supply and demands and in line with the policy of the set interest rates paid on over-one-year fixed deposits. If the financial institutions were able to charge

rates sufficient level to compensate for costs and risks, small-scale firms should have more access to loans. For example, in the Philippines and Indonesia, the abolishment of ceiling rates resulted in higher savings mobilization and more credit being allocated to the agricultural sectors and small-scale industries.

The introduction of a free floating interest rate, in addition to creating the benefits of a high rate of return, could also benefit small scale firms in terms of an expanded credit line, lower their costs of capitalization and production, provide greater competitiveness, and increase profits and retained earnings as well as accelerated investment and growth. These favorable effects would be generated because: (1) The interest rate on loans by financial institutions will not rise out of control due to the effects of "adverse selection" and "incentive effect" as discussed earlier. The commercial banks and finance companies can selectively charge each customer according to his or her potential risk, and provide a wider range of interest rates. The survey of bank branch managers reveals that the preferred average rate of interest, after floating, will not differ significantly from the average rate they are charging under the already established ceiling rate for loans; (2) Demand and excess demand for loans from financial institutions will fall, especially in those activities which have low rates of return; (3) Applications for loans by the firms will be more selective and cautious; (4) The commercial banks and finance companies will mobilize more savings and increase the supply of credit; (5) A larger credit supply and increased profit margins will encourage the financial institutions to search for activities or projects with higher rates of return, but which at present cannot obtain loans due either to the limited credit supply or lack of project information. Firms which already obtain a degree of financial support will be granted increased credit lines and, as a result, we could expect more investment projects having higher rates of return; (6) The aggregate number of investments will not decrease as a result of a diminishing number of low profit investment projects, since they will be replaced by investment projects with higher returns; (7) The application for capital outside the organized market will decrease; and (8) Financial institutions will

increasingly play an important role as financial intermediaries and interest rates will be used to adjust credit allocation.

Should the interest rates not be allowed to float, a specialized financial institution must be established with an authority to charge rates higher than the specified ceiling rate but lower than the rates of the informal money markets. This will create a direct impact on the target sector, but will not affect other activities or other economic sectors. Indonesia, for example, has successfully expanded credit to the rural areas with this measure. Other characteristics of a specialized financial institution will be discussed later.

2. Directives and Regulations of The Bank of Thailand

The directives of "Rural Credit Policy", and the regulations applying to branches of banks located in the outer districts, to extend loans of not less than 60 percent of deposits to activities in the area, should be maintained, since they provide more institutional credit to rural industrial firms than would be the case if no directives were given.

The directives of "Rural Credit Policy" appear to be more beneficial to the manufacturing sector than that of the 60 percent lending regulation of rural bank branches, because manufacturing activities tend to be concentrated around provincial capitals rather than in the outlying districts. A survey taken among commercial banks found that 18 percent of their branches in the outlying areas do not extend loans to manufacturing enterprises, mainly because no manufacturing industries exist in these districts.

According to the directives of the "Rural Credit Policy", if a commercial bank cannot make loans to the amount specified, the bank should deposit the difference with a specialized institution to be mentioned later such as the case of the Bank for Agriculture and Agricultural Cooperatives (BAAC).

The financial assistance provided by the Bank of Thailand through its rediscount facilities provides subsidies to important economic sectors. Our project study revealed that exporters, particularly the exporters located in Bangkok, benefit the most from using the rediscount facility services, while very few rural exporters have access to the service and enjoy the privileges. As discussed earlier, rediscount facilities are a form of subsidy and should therefore be geared towards small-scale industries in the rural areas. The manufacturing industries eligible for this assistance should be efficiently operating entities. An indicator of their efficiency is the capability to export either to foreign or to the Bangkok markets. These types of firms are in general relatively more efficient in production, raw material procurement, marketing, financing etc.

Public relations and dissemination of information on the availability of the rediscount facility service, assistance with applications and procedures should be improved to encourage its use by more small-scale industries in the rural areas. Moreover, training courses for the personnel of commercial banks in the rural area should also be provided. The interest rate profit margins should be improved to make the service more responsive to the requirements of commercial banks and to compensate for operating costs. At present the profit margins to be gained from this activity are lower than the banks' own credit schemes. When providing rediscount facilities for export, the BOT will charge an 5 percent annual interest rate from commercial banks, who then sell the exporters promissory notes, and 4 percent on the notes of small-scale exporters. By so doing, the BOT requests that percent commercial banks charge interest rates from the issuers of the promissory notes at lower rates, which can be 7 percent, 8 percent or 9 percent but not to exceed 10 percent, according to a recent adjustment of the regulation. If the resulting figures show no improvement in the overall accessibility of the service by small-scale firms, the interest rate the BOT charges commercial banks should be lowered to 3 percent, or even further lowered to 2 percent or 2.5 percent in the case for "rural" small-scale firms. Another problem faced by the BOT is the lack of information. It is propose that all information submitted by small-scale industrial firms applying for the service should come from those

accounts which are regularly prepared by the firms i.e. balance sheets, income statements, statements of changes in financial positions. Other irrelevant information, which will only further burden the applicants, for instance types of the output, production techniques, duration of production process, production capacity, quantity and cost of production, monthly expenses, etc., should not be required to be submitted. Further, since commercial banks are responsible for repayments to the BOT, they often request for collateral agreements from the firms, in this case, it is suggested that a Letter of Credit or L/C guaranteed by SICGF be used.

B. Recommendations for Financial Institutions

1. A specialized financial institution should be established to provide funds and other services to small-scale industries. Under the conditions of free floating interest rates, Biggs, Stiglitz and Weiss conceded that interest rates will rise, but not reach equilibrium level. The credit extended by financial institutions will also slightly increase, and credit rationing and excess demand will continue. This specialized institution should target the sector which is currently heavily reliant on the informal money markets.

Problems encountered by the IFCT and SIFO should not be repeated by the above mentioned specialized financial institution, and, since firms prefer to contact a single source of funding, the institution should be able to offer the same services as commercial banks: (1) The credit services should cover both short-term and long-term facilities; (2) The interest rates should not be lower than those charged by commercial banks, and penalties should be imposed for delayed payments. In some countries, a specialized funding agent will charge a higher rate compared to commercial banks', however, deduction will be made to those firms who can repay the loans on time; (3) Financial institutions should concentrate on mobilizing funds from public savings and not rely on soft loans from the Bank of Thailand or foreign financial institutions; (4) The project lending regulations require a comprehensive process of project appraisal which is costly and time-consuming. It also requires considerable amount of information which is

usually either unavailable or needs be to be further verified. This "Project Lending" criteria should therefore only be applied in the case a large loan on a long-term investment. The Commercial banks' criteria, such as the credit worthiness of firms is appropriate for short-term loans. Simple indicators such as current ratios and quick ratios are easy to assess and use in this respect; (5) Collateral is required for all loans. Fixed assets such as land can be pledged against long-term credits. However, since lands are often put up against all loans, a second mortgage principle should be accepted. Current assets, such as accounts receivable, inventory, or L/C or DLC should be accepted as collateral for short-term credit; (6) Branch offices should be evenly distributed in each province (especially in the "Muang" districts, since most industries are concentrated in the provincial city centers). This measure will not only be convenient, but also help in reducing the costs of borrowing. Most importantly, the financial personnel will be able to get better acquainted with the borrowers and learn at first hand about the firms' credit worthiness. Costs of searching for information and the risks involved will be reduced, through achieves more accuracy when making loan decisions; (7) The regional authorities should be authorized to approve loans to eliminate unnecessary red tape. The Commercial banks' organizational structure in approving levels of loans should be followed; (8) The organization should be established by a royal decree, and entitled to rely on assistance from the Bank of Thailand and SICGF. The government should be the major shareholder to protect the industrial development objective. The private sector should not hold the majority of shares (such as in the case of IFCT), to avoid both private and public conflict of interests; (9) Consultations and project development advice should be provided. Participation such as in the form of venture capital should be considered to assist those projects which show high rates of return and growth potential but have a high debt to equity ratio, and lack other forms of financial support.

This specialized financial institution should be established by a royal decree as a development bank for small scale industries and should be operated as a state enterprise under supervision of the Ministry of Finance and Ministry of Industry. The specialized institution could be set by splitting up the IFCT's Branch Operation and Small Industry

Department and allow the IFCT to share some of the equity of this institution.

2. Should a ceiling rate of interest still be imposed, the Small Industry Credit Guarantee Fund would continue to play an important role for those firms which cannot meet collateral requirements. Credit guarantees should also be one of the functions of the specialized institution. The SICGF, attached to the IFCT, could expand on these services and the fees derived from issuing credit guarantees should be sufficient to cover the operating costs. More public relations are suggested to enhance the firms' awareness of the services and the commercial banks' knowledge of the processes involved.

After the loan has been approved by the banks, the SICGF then proceeds to assess the required guarantee amount. Unnecessary information such as type of activity, details of raw materials, details of machinery, capacity, the production process, and quantity of production should be eliminated from the application form. These data are already available from the commercial banks or the IFCT, should it be required. The elimination of these steps will alleviate much of burden imposed on borrowers, banks and the IFCT. The credit guarantee service should also be processed through the branch offices to save time and operating costs.

Commercial banks could also be considered to offer credit guarantee services as a supplement to collateral requirements. The credit guarantee service will allow the banks to charge fees for the higher risks taken above the ceiling interest rate. For example, with an asset value of Baht 1 million, the bank approved a loan of Baht 600,000 while the firm actually needs Baht 700,000. The excess Baht 100,000 loan will be charged on a credit guarantee, say of 1.5 percent, above the ceiling rate. The process will therefore be totally handled the banks which will cut out many steps.

3. At present, the IFCT is providing financial assistance to medium and large-scale firms, and it should also consider extending continue

these services to small-scale firms even when a specialized institution is established.

To increase the role played by the IFCT to small-scale firms in regional areas, following measures should be adopted:

A. Allow an increase in the base interest rate, since: 1) long-term credit is riskier; 2) IFCT sources of funds will increase; 3) rationing of credit will be reduced; 4) collateral requirements will be lowered; 5) IFCT will be more involved in lending activities. The IFCT has already expressed more interest in participation in terms of venture capital and capital market development (because of the higher expected returns) activities rather than lending activities.
B. Give authority for making loan decisions to the regional managers.
C. Expand the services in the regional areas.
D. Accept second mortgage principle.

4. The SIFO should be combined with the new specialized institution or with the Department of Industrial Promotion.

To strengthen the efficiency of the SIFO, the following points are recommended:

a) more emphasis should be placed on SIFO direct lendings;
b) the increase in interest rates to be at least equal to the commercial banks' rate;
c) focus on lending to firms in the Greater Bangkok in the short-term and in the regional areas in the long-term;
d) improve personnel motivation, and capability;
e) be registered as a juristic entity;
f) extend both short-term and long-term loans;
g) should be able to resort to the SICGF and low cost loans from the BOT;
h) require other assets as collateral other than lands for short-term lendings;

i) use financial ratios and credit worthiness in short-term loan appraisals

5. It could be anticipated that although improvements have already been made in terms of the commercial banks' service and through the establishment of a specialized financial institution, there might still exist some small-scale firms which are financially viable but whose project proposals are turned down by these financial institutions, due to imperfect information. The informal lending sources will therefore continue to play a vital role in the operations and expansion of these firms. Any attempt to reduce the supply of informal funds may also reduce the aggregate economic growth of the country (Biggs 1989). The Government could exploit these informal lending sources by channeling funds from the formal system to the informal lenders for re-lending to small-scale firms in the form of, for instance, trade credits, or direct lending using L/C or domestic L/C as credit guarantees.

6. An increase in supply of fixed assets, provided by the activities of leasing and hire purchase companies, could alleviate some the problems of lack of long-term funding for regional industrial enterprises by investing these fixed assets. Measures to promote further leasing and hire purchase activities may include tax incentives, such as reduction of taxes. In addition, investment tax credits, and accelerated depreciation may be permitted to allow leasing companies to purchase new machinery and equipment for leasing.

Another constraint in this business are the sales and income taxes levied on gross revenues, which include asset value and leasing fees, rather than on the gross profit. The implementation of a value added tax system in the near future could help to solve the problem. Finally, those leasing companies who assist in obtaining machinery and equipment from abroad for the BOI promoted firms should also be granted tax privileges.

C. Recommendations on Firms

These financial measures to solve the problems faced by regional industries are only one of many measures recommended in the other sections of this project. In addition to improvements on the supply side of the finance and credit, the enterprises themselves are required to upgrade management techniques, such as collection of systematic financial data: preparation of balance sheets, income statements, cash flow statements etc. The regional small-scale firms should be also be able to use this data in other management activities such as planning and evaluating the strengths and weaknesses of their activities. Without this improvement on the firms' side, the accessibility to commercial banks' and the BOT's services will continue to be limited.

To develop these management skills in the short-term, special training courses should be organized for employers and employees by agencies such as the Industrial Promotion Department, regional vocational colleges, and universities etc. Longer-term measures should incorporate reorganization of the formal education system to this fundamental knowledge provide to students.

The curriculum of the training courses, and provision of various accounting methods: which may include financial management, investment in fixed assets, and the decision making process in long-term investments. Our study discovered several cases where the firms' management was financing fixed assets acquisitions by short-term overdraft facilities and were incapable of evaluating the projects' returns.

D. Accessibility to Services of Financial Institutions

Increasing the number of branches of commercial banks, especially in the provincial capitals where most of the industrial firms are clustered should help these firms gain easier access for financing purposes. Our recommended specialized financial institution should also have branches in every province. Furthermore, we reiterate, that the introduction of measures to provide free floating interest rate will

help to alleviate the problems of collateral requirements. Because of this, the commercial banks will be able to charge the firms according to their perceived risks, and the additional services of SICGF will be very helpful in providing credit guarantees. Finally, the development of the firms' data management and improved administration will contribute significantly to gaining better accessibility to the services of financial institutions.

REFERENCES

Aungsumalin, Saroj. 1982. "Financial Structure and Credit Needs of Small-Scale Industries," Paper Prepared for a Seminar on ROFEAP, Center for Applied Economics Research, Kasetsart University.

Bank of Thailand. 1987. Monthly Bulletin, Vol. 27, No. 8.

Biggs, Tyler S. 1988. "Financing the Emergence of Small and Medium Enterprises in Taiwan: Heterogeneous Firm Size and Efficient Intermediation," Employment and Enterprise Policy Analysis Discussion Paper No. 16.

Bottomley Anthony. 1975. "Interest Rate Determinations in Underdeveloped Rural Areas," American Journal of Agricultural Economics, Vol. 57, pp. 279-291.

Broll, U. and M. B. Gilroy. 1986. "Collateral in Banking Policy and Adverse Selection," Manchester School of Economics and Social Studies, 54 (4).

Deschamps and Others. 1988. Project Paper for the Mahaweli Enterprise Development Project, Development Alternatives, Inc.

Duriyaprapan, Chittima, T. Ratanalangkarn, and L. Siriyotin, 1986. "Share Business in Thailand," Bank of Thailand Monthly Bulletin, Vol. 26 No. 9.

JICA Expert. "The Report on Study of SMI Financing."

Kittiudomsuk, Marasri. 1986. Leasing Business in Thailand, Ministry of Industry.

Kuroda, A. and Kasajima, S. 1987. The Development Strategies for the Small and Medium Scale Industries in Thailand, Small/Medium Industry Promotion and Finance Project, The Department of Industrial Promotion, The Ministry of Industry, Thailand.

Onchan, T. 1985. Informal Credit and the Development of Non-Farm Enterprises in Thailand, Research Paper Prepared for USAID/THAILAND.

Onchan, T. et al. 1985. Rural Industrialization and Employment Generation: A Study of Regional Industries in Thailand, Research Report Prepared for ILO-ARTEP, Center for Applied Economics Research, Kasetsart University.

Research and Planning Division, IFCT. 1982. Investment Financing of Manufacturing Companies.

Rozental, A.A. 1970. Finance and Development in Thailand, New York, Praeger Publisher.

Pintong, Jermsak and P. Netayarak. 1989."Faces of Informal Lenders in Thailand Rural Credit Markets," A Report of the Research Projection Rural Credit in Thailand, Thailand Development Research Institute, Thai Studies Institute, Thammasat University, and Faculty of Economics, Thammasat University.

Puapongsakorn, Niphon. 1989. "Thailand Rural Informal Credit Markets: A Study of Loan Contracts, Market Structure, Behavior and Interest Rates," A Report of the Research Projection Rural Credit in Thailand, Thailand Development Research Institute, Thai Studies Institute, Thammasat University, and Faculty of Economics, Thammasat University.

Saisongkraw, Prapan. 1986. "Trade Credit," Bank of Thailand Monthly Bulletin, Vol. 26, No. 7.

Sanguangruang, Saeng and Others. 1976. Small and Medium Scale Industries in Thailand.

Sanguangruang, Saeng et. al. 1978. Development of Small and Medium Manufacturing Enterprises in Thailand. An ADIPA Research Project, Bangkok.

Scitovsky, Tibor. 1986. "Economic Development in Taiwan and South Korea, 1965-1981," in L. J. Lou (ed.) Models of Development: A Comparative Study of Economic Growth in South Korea and Taiwan, ICS Press.

Srisawangsuk, Anant. 1985. "Check Discount," Informal Financial Markets Study Project, Research Division, Bank of Thailand.

Stiglitz, J. E. and A. Wiess. 1981. "Credit Rationing in Markets with Imperfect Information," AER 71 (3)

Timberg, T. A. and C. V. Aiyar. 1984. "Informal Credit Markets in India, "Economic Development and Cultural Change, 33 (1).

Triratwarakul, Prasan and N. Tapasanant. "Some Notions Regarding Rates of Return in Informal Financial Markets", Research Department, Bank of Thailand.

U Tun Wai. 1957-58. "Interest Rates Outside the Organized Money Markets of Underdeveloped Countries," IMF Staff Papers, Vol. VI, Nos. 1-3, pp. 80-142.

U Tun Wai. 1977. "A Revisit to Interest Rates Outside the Organized Money Markets of Underdeveloped countries," Banca Nazionale Del Laroro Quarterly Review, No. 122, pp. 291-312.

USAID. 1984. Small Industry Survey.

APPENDIX

Data Sources of Previous Researches

A. Data Description concerning the survey by Alek A. Rozental on "the Finance and Development in Thailand".

1. Year 1965-1967
2. Location

Region	Province
North	Chiang Mai
Central	Bangkok
South	Songkhla

3. Types of Industry Surveyed and Number of Samples

Types	Sample
Industrial Enterprises and Trading establishments excluding Transport, Mining, Contracting and other Areas of Business Activity	1,070

B. Data Description of Research Paper of Saeng Sanguanreung and others on "the Small and Medium Scale Industries in Thailand".

1. Published 1976
2. Location

Region	Province
Bangkok and Metropolitan	all except Pathum Thani
Central	Samut Sakhon, Ratchaburi, Phetchaburi, Chon Buri
Northeast	Nakhon Ratchasima, Khon Kaen, Buri Ram, Ubon Ratchathani
North	Nakhon Sawan, Phitsanulok, Chiang Mai, Lampang
South	Nakhon Si Thammarat, Trang, Songkhla, Yala

3. Types of Industry Surveyed and Number of Samples

Types	Sample
Small Industries	1,000
Medium Industries	500

C. Data Description of Research Paper of Saeng Sanguanreung and others on "Development of Small and Medium Manufacturing Enterprises in Thailand".

1. Published 1978
2. Location

Region	Province
Whole Kingdom	Selected provinces depending on the concentration of manufacturing in each provinces.

3. Types of Industry Surveyed and Number of Samples

Types	Sample
Small and Medium Industries	600

D. Data Description of Research Paper of Saroj Aungsumalin on "Financial Structure and Credit Needs of Small Scale Industries".

1. Published 1981
2. Location

Region	Province
North	Chiang Mai
Central	Suphan Buri
Northeast	Khon Kaen, Roi Et

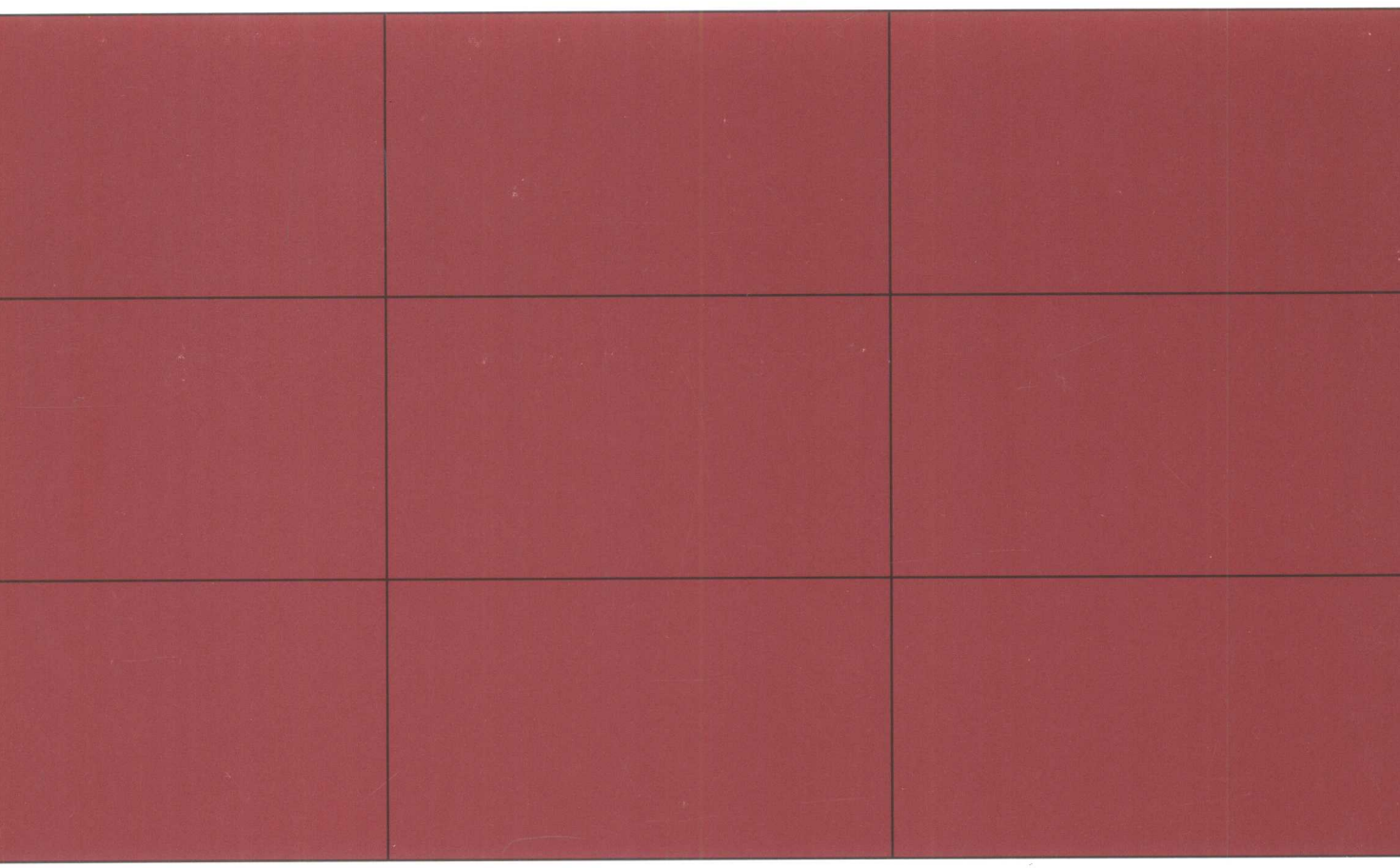
3. Types of Industry Surveyed and Number of Samples

type	Sample
Brick	3
Cement Product	19
Furniture	19
Silk	35
Wood Carving	11
	8
Textile and Garment	29
Noodle and bean sauce	23
Total	147

Statements of Income and Retained Earnings of the Small Industry Credit Guarantee Fund

	1988 Baht	1987 Baht
REVENUES		
Interest income	21,735,611.00	20,708,641.32
Guarantee Fees	1,775,055.80	437,131.93
Administrative costs received from USAID	1,012,107.27	250,000.00
Other income	11,767.00	25,000.00
Total Revenues	24,534,541.07	21,420,773.25
Expenses		
Salaries and other employees' benefits	3,867,022.72	3,324,407.37
Office expenses	572,652.26	329,508.48
Seminar and business development expenses	635,104.25	257,054.00
Advertising and public relations	478,848.00	495,670.00
Travel and car expenses	113,599.53	103,856.27
Transportation for directors and advisors	252,000.00	246,000.00
Depreciation	374,599.97	285,327.40
Provision for guarantee payments	2,864,089.00	350,911.00
Miscellaneous	78,139.98	78,182.93
Total Expenses	9,236,055.71	5,470,917.45
Net income	15,298,485.36	15,949,855.80
Retained earnings at beginning of year	53,063,333.93	38,233,656.84
	68,361,819.29	54,183,512.64
Appropriated for management fee	(1,594,985.58)	(1,120,178.71)
Retained earnings at end of year	66,766,833.71	53,063,333.93

Source: The Small Industry Credit Guarantee Fund Annual Report



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