Chapter 7

SME Access to Finance in Thailand

Chaiyuth Punyasavatsut
Thammasat University

September 2011

This chapter should be cited as
Punyasavatsut, C. (2011), 'SMEs Access to Finance in Thailand', in Harvie, C., S. Oum, and D. Narjoko (eds.), *Small and Medium Enterprises (SMEs) Access to Finance in Selected East Asian Economies*. ERIA Research Project Report 2010-14, Jakarta: ERIA. pp.193-230.

CHAPTER 7

SMEs Access to Finance in Thailand

CHAIYUTH PUNYASAVATSUT

Thammasat University

This paper examines financial gaps, and factors required for better financial access for small and medium enterprises (SMEs) in Thai manufacturing. It utilizes information from an enterprise survey in 2010 covering various industries. The results indicate that SMEs obtain only 30 percent of their financing from external sources. Most of them use their own funds, and borrowing from friends and relatives to start and run their businesses. They tend to use overdrafts for their working capital requirements. As far as external finance is concerned, small businesses mostly still depend on banks. Despite various measures of support from the government, only 40 percent of Thai firms, mostly small, gain access to credit.

SMEs perceived that important obstacles to their financial access are lack of information and advice from financial institutions, complexity and cumbersome processes in loan applications and inadequate collateral. Financial institutions identify the main obstacles for SME lending as follows: inadequate collateral, lack of business experience, lack of sound business plans, non-performing loan history, and high transaction per loan application. In addition, Thai banks have traditionally had collateral-based lending practices and lack the know-how to differentiate SMEs' risk. These exacerbate the financial gaps and hinder access for SMEs.

SMEs characteristics associated with better access to finance are those that reflect good performance and the value of the firms. Firm characteristics contributing positively to credit access are a high sales to assets ratio, low leverage ratio (debt to equity), experience in the business (higher age of firm or business owner) and collateral to pledge on loans.

1. Introduction

Limited access to finance faced by SMEs has drawn considerable attention from both academics and practitioners for many decades. Literature on this subject suggests that better financial access for SMEs contributes to economic growth, reduced income inequality and reduced poverty (World Bank, 2008; Levine 2005; Rajan and Zingales 1998; Townsend and Ueda, 2003). At the firm level, lowering financial constraints can enhance entrepreneurial activity, contributing to jobs, innovation and income (Beck *et al.,* 2005; Paulson and Townsend 2004). A recent survey has suggested that limited access to finance still remains one of the key constraints for Thai small business (NESDB 2004; Bank of Thailand 2009; Wesaratchakit *et. al.*, 2010) and worldwide (Schiffer and Weder, 2001).

Despite of various past policy efforts, expanding access to financial services for small and medium enterprises (SMEs) remains an important policy challenge for Thailand. In common with other countries, recent Thai policy efforts have focused on both the demand and the supply sides. Policies improving financial access-the demand side- include programs to encourage banks to provide more SME lending via loan guarantees, to provide more financial assistance via subsidized interest rates, innovation funds and micro finance. At the same time, the supply side policies are intended to lessen asymmetric information between banks and investors, to provide information and counseling services to SMEs, to improve loan approvals, and to target minimum levels for SME loans. Yet, only 40 percent of Thai domestic firms, which are mostly small enterprises selling locally, gained access to credit from banks (Bank of Thailand, 2009). And only 58 percent of small Thai exporters can gain access to bank credits. Evidence indicates gaps between demand and supply for financial credit among Thai SMEs. Such a financial gap implies that some firms that ought to receive financing are systematically unable to obtain it. So far, Thai government attempts at broadening SME financial access have not achieved the desired results.

Financial gaps or limited access to finance, in particular bank credits for SMEs, can arise for a number of reasons. Economic theory emphasizes the role of asymmetric information between lender and borrowers, and high perceived risks in lending to SMEs. in explaining the gap. Literature on gap analyses has shown that both business type and firm characteristic information are important in determining credit access. Identifying key factors contributing to this gap would thus provide insight in formulating financial and development policies for the assistance of SMEs.

This study aims to gain a better understanding of the financial gaps facing SMEs. To achieve this goal, we examine obstacles to SME financing and identify determinants for better access to bank credits. Due to data availability from our survey, we focus on debt financing, in particular bank credits, when examining factors determining a firm's credit access. This study utilizes information from an enterprise survey conducted in 2010. It also reviews recent government financial policies aimed at improving financial access for SMEs.

This paper is organized as follows. Section 2 examines the current status of Thai SMEs, and issues in SMEs financing. We begin with the broad economic significance of manufacturing SMEs, and then describe the financial market landscapes since the 1997 financial crisis. Section 3 analyzes the perceived barriers to financial access by SMEs, from both the demand and supply sides. Then we identify the characteristics of SMEs that gain better access to bank credits. Section 4 reviews recent financial support programs of the Thai government towards SMEs development. The last section concludes and makes some remarks on policy.

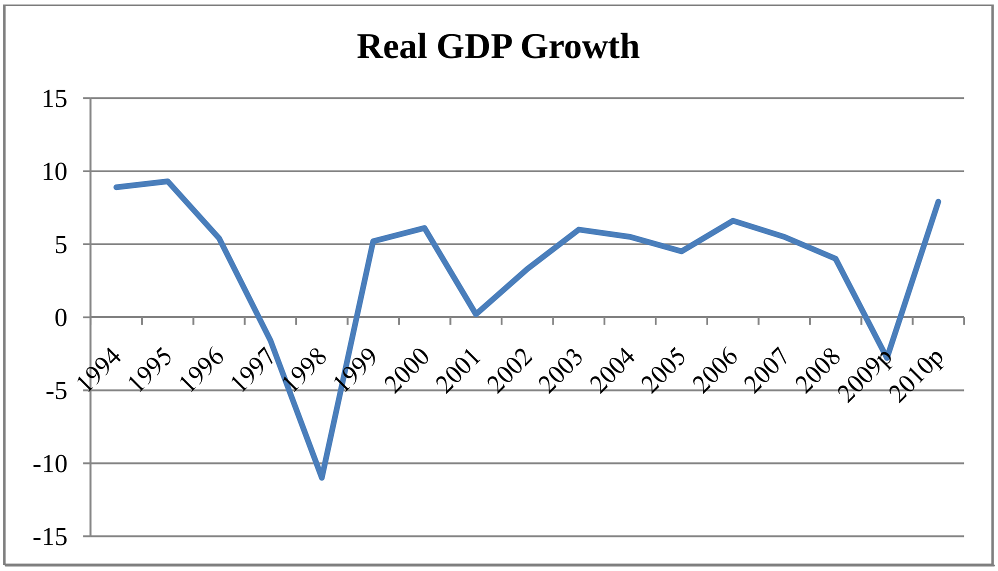
2. Status of SME Financing in Thailand

We begin with a quick overview of Thai SMEs in terms of their economic significance. We then review some findings related to SME financing in Thailand, covering financial sources for existing and start-up business, perspectives of SMEs and financial institutions on bank credits, and suggested policies for better financial access.

2. 1. SMEs in Thailand

Thailand is a lower middle-income country and a reasonably open economy. In the 1980s and much of the 1990s, Thailand was one of the fastest growing economies in the world. During the boom period of 1987-1996, real GDP grew by 9.5 percent. During the 1997-1998 financial crises, real GDP growth was negative. Since then, Thailand has begun to recover and grew on average at 4.7 percent till 2007. However, real GDP growth slowed to 2.6 percent in 2008 and -2.2 percent in 2009 due the global financial crisis and domestic political uncertainty. In 2010, Thailand made a successful recovery from recession along with the global economic recovery, with forecasted economic growth of 7.9 percent (see Figure 1).

Figure 1. Thailand Real GDP Growth Rates



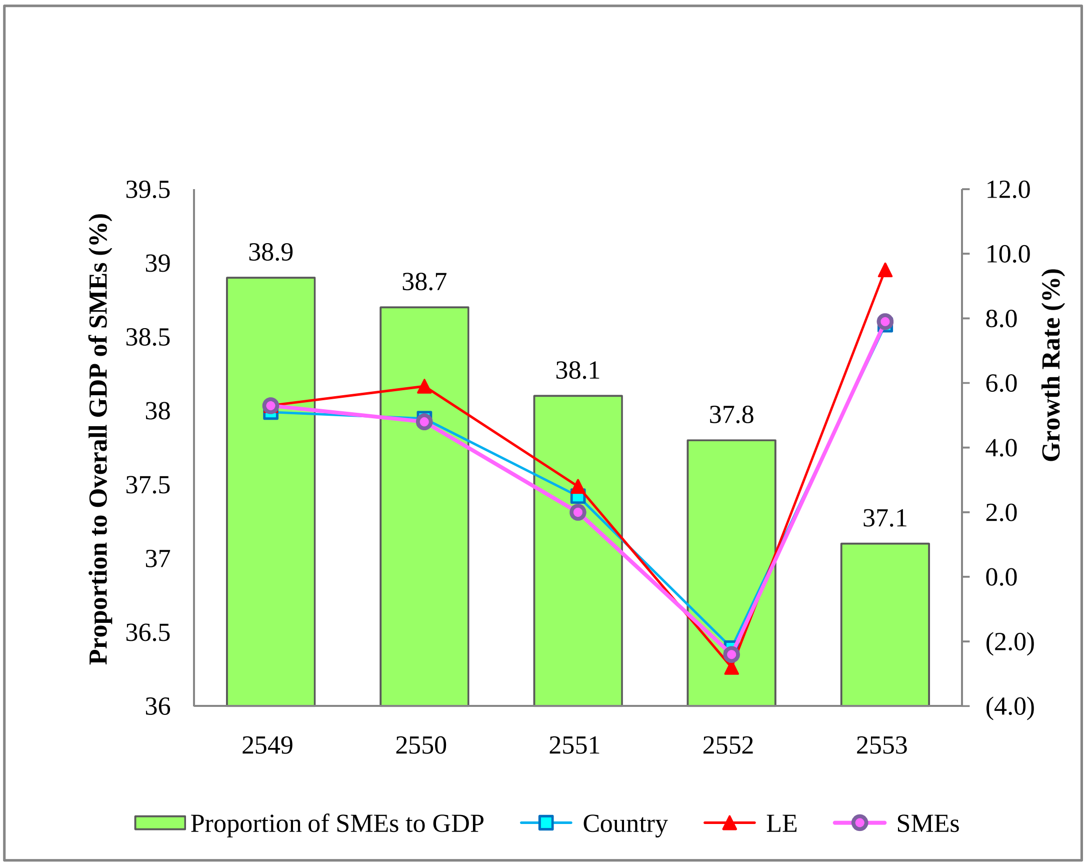
Source: Office of National Economic and Social Development Board.

Contraction of the Thai economy in 2009 was driven primarily by the manufacturing sector. Thai Manufacturing SMEs are defined as firms with less than 200 employees and 200 million Baht of fixed assets (excluding land and properties), equivalent to 5.6 million USD. SMEs make up 99.8 percent of companies operating in Thailand (OSMEP, 2010). In 2009, the number of registered establishments in the manufacturing sector was 548,863, decreasing from 691,926 in 2004. Manufacturing SMEs accounted for 18.9 % of the total. In 2009, manufacturing SMEs generated 34.23 percent of manufacturing value-added. They employed around 3.32 million employees, accounting for 34.2 percent of the SME employment.

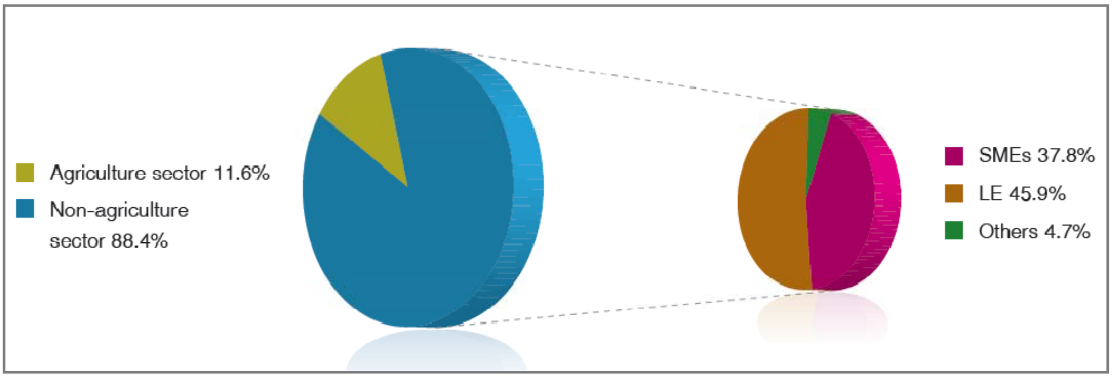
Since 2006, the role of the SME in terms of its valued-added has declined. The SME GDP contribution to the national GDP declined from about 39% to 37.8 % in 2009. The global economic downturn has affected the growth of all sizes of businesses (see Figure 2).

Figure 2. SME's GDP: Proportion to GDP and its Growth Rates by Sizes 2006-2009

(a) Trend



(b) GDP Share in 2009



Source: OSMEP (2010).

In terms of sectoral composition, sectors with the top-three highest shares of SME value-added are Food Products and Beverages (ISIC15), Furniture (ISIC 36) and Chemicals and Chemical Products (ISIC24). SME value-added shares in total Manufacturing in Wearing apparel (ISIC18) and Motor-vehicles and Parts (ISIC34) accounted for only 7.9 percent and 0.8 percent in 2009, respectively.

In terms of exports, the value of exports by SMEs in 2009 was 46,291 million USD a decrease of 8.68 percent from 2008. The share of SME exports to total exports was 30.56 percent, and accounted for 46.5% of the GDP generated by SMEs. The share of SME imports to total imports was 29.9 percent in 2009.

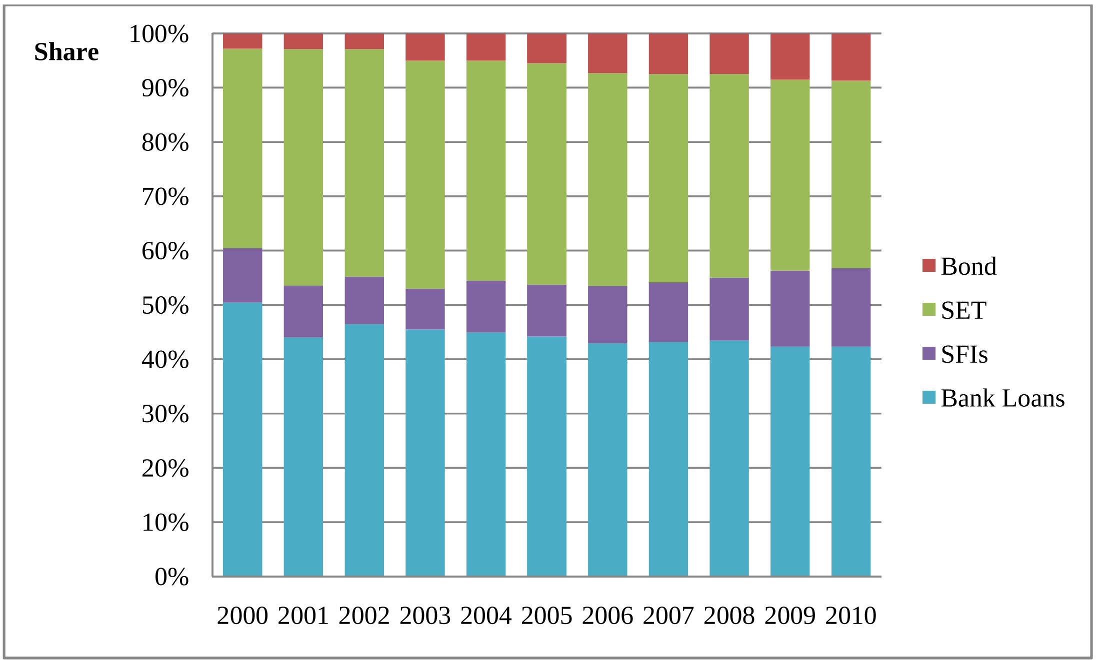
2. 2. Thailand's Financial System: Private Sector Financing

Thailand's financial system consists of four major constituents: commercial banks, specialized financial institutions (SFIs), non-bank financial intermediaries (finance companies, credit foncier companies, life insurance companies, and various co-operatives), and capital markets (including both stock and bond markets).

As of 2010, there are 46 financial institutions, comprising of 32 commercial banks, 8 SFIs, 3 finance and securities companies, and 3 credit foncier companies. Commercial banks are the oldest financial institutions and have long dominated the Thai financial system, accounting for 56 percent of total financial sector assets (excluding capital markets) at the end of 2008. The stock and bond markets began to assume more significant roles after the 1997 financial crises.

The business and household sectors in Thailand still largely rely on bank loans for their finance. In 2008, the share of bank loans to total private sector financing was 42.3%, compared to 34.5% for the stock market and 8.7% for bonds (Wesaratchakit *et al.* , 2010:4) (Figure 3).

Figure 3. Composition of Private Sector Financing (in percentage of total)

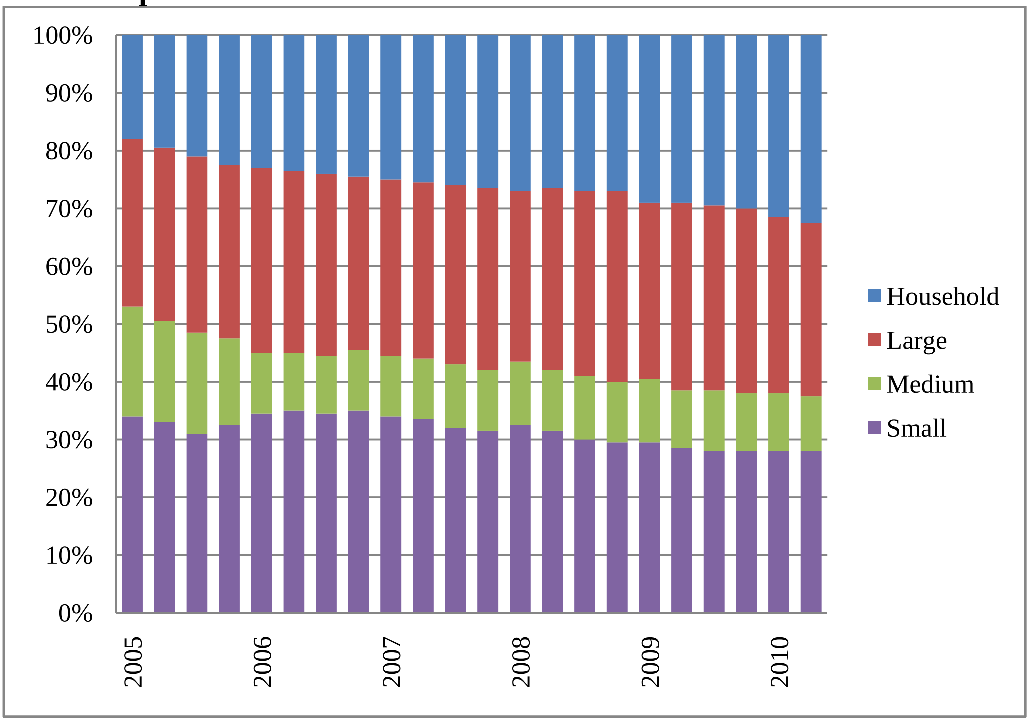


Source: Bank of Thailand (2010).
Note: **Bank Loan:** Claims on Business and Household sectors; **SET:** Set Market Capitalization deflated by SET Index; **Bonds:** Corporate Bond outstanding values; **SFIs:** Claims on business and household sector.

2.2.1. Bank Lending Behavior

Since the 1997 crisis, Thai financial institutions have lent more to smaller enterprises and households, to reduce the banks' vulnerability to the default of larger borrowers. As competition in the financial sector increases and the profitability of lending to large borrowers decreases, banks tend to make more loans to SMEs and households. Statistics from the Bank of Thailand show that the proportion of loans to small firms in the banks' loan portfolios increased until 2006. However, the trend started to reverse in 2008 due to the global economic and domestic political instabilities (Wesaratchakit *et al.*, 2010). The proportion of loans to small firms has declined from the peak of 35% in 2006 Q1 to 25 % in 2010 Q2, as shown in Figure 4.

Figure 4. Composition of Bank Loan on Private Sector



Source: Bank of Thailand (2010).

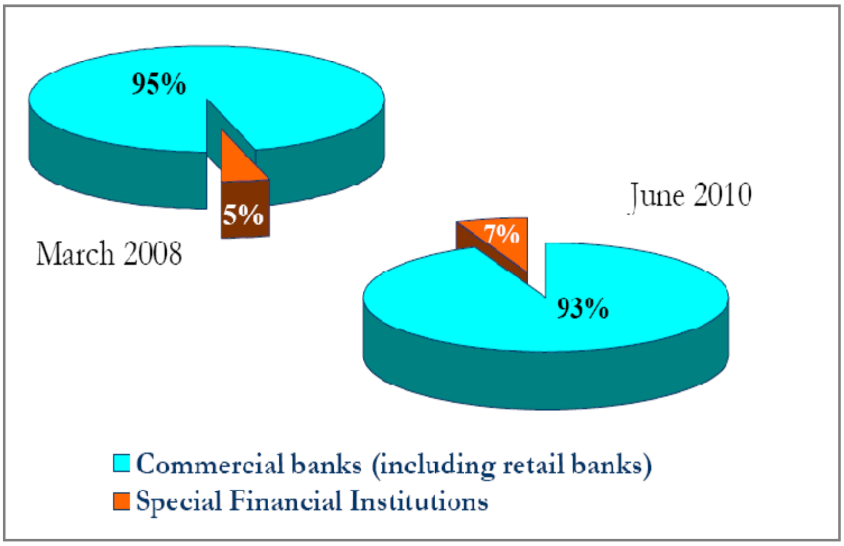
The global financial crisis, beginning in September 2008, had profound impacts on many countries, particularly open economies. As one of the most open economies in the world, where exports account for over 60 % of GDP, the Thai economy witnessed the biggest slowdown for ten years in 2009. Real GDP declined by 2.2% as a result. During the economic downturn, banks tended to cut loans to small firms first. Total loans (claims on business and household sectors) declined by1.8%. Corporate loans declined by 5%. Loans to SMEs, which account for 57% of corporate loans, also contracted, by 8.4 %.

During the same year, more lending from banks went to households. Consumer loans expanded by 8%. In 2009, the share of consumer loans to total loans was 27.1 percent, rising from 13 % in 2005. This evidence indicates that small firms are more sensitive to economic fluctuations. They also face more difficulties in gaining financial access during an economic downturn.

2.2.2. SME's Financial Access and Their Characteristics

As in other countries, Thai SMEs use their own or family funds to start and run their businesses. Few SMEs apply for commercial bank loans. However, if we look at the credit extended to the SMEs, commercial banks still play important roles in Thai SME finance. Figure 5 shows that about 93 percent of loans to the SME sector were from commercial banks (including retail banks) in 2010, while 7 percent was from specialized financial institutions (SFIs).

Figure 5. SMEs Loan Share Classified by Types of Financial Institutions



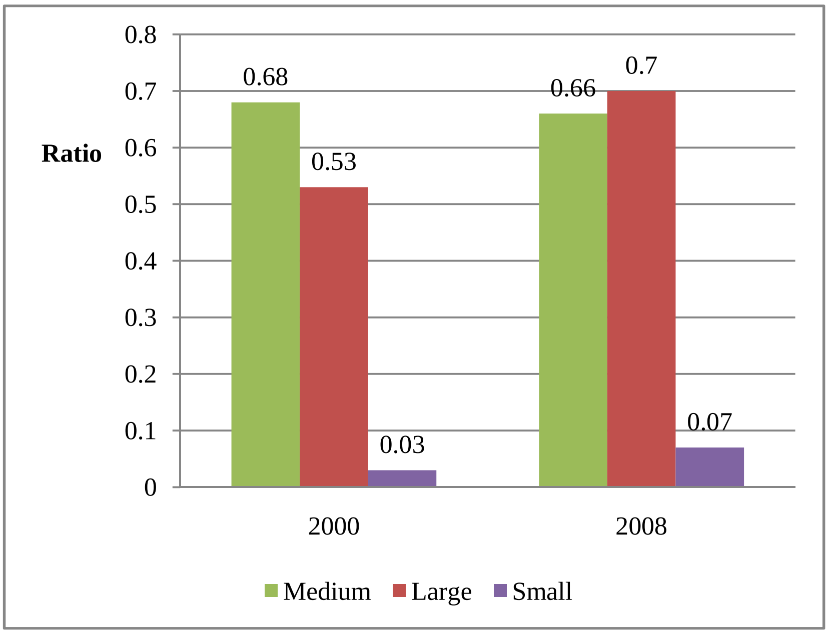
Source: Bank of Thailand, quoted in Wesaratchakit *et al.*, (2010).

In recent years, the government-owned SFIs have assumed more importance in lending to the small and start-up businesses that usually are not main customers of commercial banks. An increase in their intermediary roles was one result of the 1997 financial crisis and the 2008 global crisis. The SFIs were then heavily used to stabilize the economy through targeted lending to lower-income groups and SMEs. For example, the Thailand SME bank increased its corporate loans by 121% in 2009, a year of global economic recession. The numbers of entrepreneurs in receipt of credits increased by 30% in the same year. The Small Business Credit Guarantee Corporation (SBCG) is designed as the main mechanism in providing credit guarantees for SMEs with insufficient collateral security. In 2009, the SBCG recorded total guarantee approval of 21,558 million Baht (627.8 Million USD) for 5,783 projects, which is about 7 times higher than that in 2008.

Next, we look at characteristics of small and medium firms from the most recent data. Using the comprehensive database from the Ministry of Commerce, Wesaratchakit *et al.*, (2010) show that 98 percent of firms are SMEs. These firms tend to be young, 3 years old or less. About 70 percent are registered as limited companies and 30 percent as limited partnerships.

When considering firm capital structure, they found that capital structure varies with firm size, age and business sector. Larger firms have higher debt-to-equity ratios, implying that they rely more on external funding. On the other hand, small firms have low leverage, which is close to zero (see Figure 6). This suggests that small firms find it difficult to access external funding. As a result, they rely mostly on internal funding.

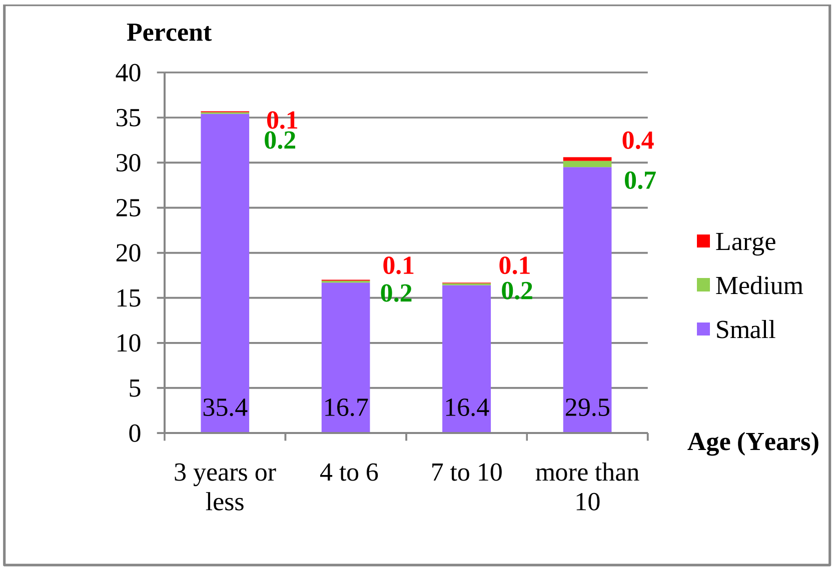
Figure 6. Median of Debt-Equity Ratio in 2000 and 2008 Classified by Size



Source: Ministry of Commerce, quoted in Wesaratchakit *et al.*, (2010).

Moreover, firm age relates to better financial access. Older firms and younger firms tend to have low debt-equity ratios, implying that young firms use their own fund to run the business, and older firm rely less on debt or have more options to finance their businesses (see Figure 7).

Figure 7. Percentage of Firms Classified by Age Group (Average of 1999-2008)



Source: Ministry of Commerce, quoted an compiled in Wesaratchakit *et al.*, (2010).

Moreover, firm capital structure varies across types of business. Manufacturing firms, considered as lower risk, have a higher portion of debt to equity than other sectors.

Other interesting findings from their study can be summarized as follows:

(1) Young firms (age 3 or less) perform less well than older firms in almost every sector. This implies that the start-up firms with less profitability and ability to pay off debt will face more difficulties getting bank credits.

(2) Large firms outperform smaller ones. The ratio of earnings before interest and taxes (EBIT) to total assets, and the interest coverage ratio of large manufacturing firms are about twice as high as those of smaller firms. With all other factors equal, banks will prefer to lend more to larger firms.

2.2.3. Identifying Financial Gaps

Limited access to finance is considered as the key challenge for Thai SME development (OSMEP 2007). The Bank of Thailand (2009) indicated that only 40 percent of Thai domestic firms, mainly small, are able to gain access to credit (see Table 1). The level of credit access is higher for exporting firms and large firms. That is, only 58 percent of Thai small exporters receive credit from banks, when compared to 83 and 91 percent of medium and large firms, respectively (see Table 2). The results of an earlier survey by the Bank of Thailand indicated that almost 70 per cent of SMEs reported having credit access problems, compared to only 13 percent of large firms (Poonpatpibul and Limthammahisorn, 2005). It should be noted here that the observation that some firms cannot obtain financial credits is not yet conclusive evidence of a financial gap. In the light of the asymmetric information concept, a gap exists when suppliers of financial services have less information than those who demand the services. When this occurs, theory suggests that adverse selection and moral hazard problems may occur and the market may not function well.

Table 1. Credit Access of Firms in Thailand

Financial services	% of Access/ (Level of importance)		
	Thai company (export)	**Thai company (domestic)**	**Multinational company**
% Credit access	58	40	86
Current	(4.2)	(4.0)	(3.4)
Next 5 year	(4.3)	(4.4)	(4.0)

Source: Bank of Thailand (2009).
Note:

- Thai company (export) is a company that has > 50% Thai shareholders.
- Export Thai company (domestic) is a company that has >50% Thai shareholders and sell locally.
- Multinational company is a company that has < 50% Thai shareholders.

Table 2. Access to Financial Services of Thai Exporters

Financial Services	% of Access/ (Level of importance)		
	Small	**Medium**	**Large**
% Financial access	100	100	100
Level of importance	(4.4)	(4.4)	(4.5)
% Credit access	58	83	91
Level of importance	(4.2)	(4.4)	(4.1)

Source: Bank of Thailand (2009).

2.2.4. Perceived Problems of Financial Access

Table 3 summarizes a recent survey identifying the problems of financial access perceived by SMEs and financial institutions. The main obstacles from the SME's point of view are (a) lack of information and advice from financial institutions; (b) complexity and inconvenience related to the loan application process. Many documents are required by banks and the average loan application process takes longer than 30 days; (c) inadequate qualification of SMEs; (d) Expenses/fees and interest rate charged; (e) lack of collateral.

Table 3. Challenge to SMEs Financial Access

SMEs Perspective	**Bank Perspective**
▪ Lack of Information and advice from FIs ▪ Complexity and inconvenience related to loan application process ▪ Inadequate qualification of SMEs ▪ Expenses/ fees and interest rate charged ▪ Lack of collateral	▪ Inadequate collateral ▪ Lack of business experience ▪ Unreliable SMEs accounting system ▪ Lack of SMEs business planning ▪ SMEs' NPL history ▪ High transaction and operational costs per-SMEs loan application ▪ Strict government rules and regulations ▪ Unlevel playing field.

Source: OSMEP (2007).

From the point of view of the financial institutions the, obstacles for lending to `SMEs, both start-up and existing, include (a) inadequate collateral to secure loan; (b) lack of business experience; (c) inadequate management and unreliable accounting systems; (d) lack of sound business plans; (e) having an NPL history; (f) high transaction and operational costs per SME loan application; (g) strict government rules and regulations regarding loan loss provision, and poor credit history recorded by a credit bureau.

To remedy financial gaps, SMEs and financial institutions are facing the following challenges. First, young SMEs and those with low assets have limited access to bank loans. They need to demonstrate realistic and sound business plans with good potential returns and viability. Moreover, they need to provide a standard accounting book along with some financial calculations. Starting the borrowing process can be a daunting task for a new firm. Secondly, many banks routinely require enough collateral to cover loans, which makes small young firms with good business plans more vulnerable. RAM (2005) indicated that

Thai bank officers lack the necessary knowledge and skills to properly evaluate risk in SME businesses. Moreover, most banks still make their lending decisions based on the availability of collateral, and sometimes lean to subjective assessment. Credit scoring is seen as less important and has limited use if a potential loan is not fully collateralized.

In summary, a review of evidence indicates that there are financial gaps faced by Thai SMEs. These are gaps between SMEs' funding needs and the funding provided by financial institutions. These financial gaps are the outcome of imperfections in capital markets, a result of information asymmetry and high transaction costs associated with SME financing. That is, financial institutions-suppliers of credit- have less information about the SME's owner who is seeking financing. SMEs are considered as high risk borrowers due to a lack of transparency in their accounting practices and inadequate documents. Thus, financial institutions require high value collateral and charge higher interest rates.

3. SMEs Access to Finance: Empirical Analysis

This section identifies firm characteristics leading to better access to bank credits. We first provide empirical evidence by using our own survey data. The logistic regression is used to identify determinants of credit access for Thai firms. We then supplement our analysis by examining other related studies.

3.1. Sample Description

The data in this study are obtained from the survey conducted in 2010. The survey was designed to obtain from SMEs their views of their most important barriers to financial access, their source of funds and business finance. Details of the questionnaire are presented in the appendix. The sample was focused on small and medium firms from 3 industries (textiles and garment, electronics and machinery, and food processing). Nearly 54 percent of the firms in our sample are in the garment industry. Another 40 percent of the firms are in the food-processing industry.

There are 100 firms in the sample, of which 54 are firms with less than 50 employees and 31 have between 50 and 200 employees. Nearly 91 percent of these firms are fully owned by Thais. About 80% of firms are family businesses with a male major shareholder. The average business owner is 53 years old and has 23 years of experience in business. Almost 50% of firm owners or major shareholders also operate in other firms, of which 70% are in a similar business (see Table 4 for details).

Table 4. Descriptive Statistics of Samples

Variable	Garments	Electronics	Others	Total
Access credit (%)	20.4	71.4	73	44.4
Firm age (in years)	18.6	15.3	15.15	16.87
Sale (in 1000 USD)	1242.7	5644.9	4346.9	2736.9
Sale Growth (%)	-2.1	-0.4	9.2	2.2
Number of employees	77.4	115	110	92.7
Value of Assets	942.7	1075.9	746.6	885.1
Age of owners	54	53	54	54
Business experiences (in years)	22.4	23	21.7	22.2
Loan size (in 1000 USD)	64.6	97.76	171.1	107
Management Capability				
ISO met (%)	20.3	85.7	18.9	25.25
Using ICT (%)	72.2	100	89.2	80.8
New plants/division (%)	4	14.3	2.7	4
New Machines (%)	20.4	57.1	45.9	33.33
Improved equipment (%)	63	85.7	89.2	74.7
Improved production method (%)	22.2	28.6	21.6	23.23
Skill Intensity	11.8	70.3	27.2	22.3
Number of Observation	54	7	38	99

Source: ERIA SMEs Survey 2010.

Firms in the sample covered all ranges of value of firm assets. About 30% of sample had assets valued between 1-3 million Baht (0.03-0.09 million USD), 22% between 3-15 (0.09-044 million USD), and 42% more than 30 million Baht (0.87 million USD). Sample firms operating in the electronics and garment sectors reported negative sales growth in 2009, while firms in the food-processing sector reported positive sales growth of 10%.

3.1.1. *Firms' Sources of Financing*

Table 5 shows the sources of financing for firms in our sample. When considering sources of working capital, more than 90% of firms financed their business from their savings, followed by retained earnings, bank credits, leasing, supplier credits, and family borrowings. Sources of firm finance during business start up are not much different from those used by operating businesses. That is, internal finance remains the most important source.

Table 5. SMEs' Sources of Financing

(a) Own Survey

Sources of Finance	% of Firms Reported as Source for	
	Working capital	Business Opening
Bank credit	80	54
Gov. credit	3	2
Retained earning	86	10
Supplier credit	49	33
Leasing	54	30
Owner's saving	94	90
Family borrowing	33	62
Other borrowing	5	11

Source: ERIA SMEs Survey 2010.

(b) Bank of Thailand Survey

Sources of Financing	Percent
Saving	46.9
Financial institution	24.9
Commercial Bank	17.1
Specialized FI	7.8
Retained earnings	11.8
Borrows from relatives and/or non-formal	7
Trade finance	4.7
Personal loan	1.1
Total	100

Source: Bank of Thailand (2008).

Table 6 shows the sources of financing when firms are grouped by book value of assets and by firm age. The smallest firms, with less than 3 million Baht (0.09 Million USD) in our sample finance often from their profits, saving, supplier credits and loans from their families. Firms with larger assets tend to use relatively more bank credits and leasing although they still rely mostly on profits and saving.

Table 6. Sources of Financing by Book value of Assets and Firm Age

Book Value of Assets (1 Million Baht)	Source of Borrowing: By Size					
	Fraction Borrowed from Each Source					
	Bank Credits	Gov. Credits	Retained Earning	Supplier Credits	Leasing	Saving
Less than 3	10.5	0.0	26.3	15.8	5.3	26.3
3-15	20.5	0.0	18.1	11.8	14.2	25.2
15-30	22.8	1.1	22.8	9.8	14.1	23.9
Over 30	18.7	1.2	22.3	13.3	13.3	21.1
Total	80	3	86	49	54	94

Source: ERIA SMEs Survey 2010.

Table 7 shows the variation of financing sources with firm age, where age is defined as the number of years since establishment. The young firms (age less than 10 years) rely most heavily on loans from the owners and their families. These firms also use bank loans and leasing. The older firms use more of their saving and profits.

Table 7. Sources of Financing by Firm Age.

Firm's Age (Years)	Source of Borrowing: By Age					
	Fraction Borrowed from Each Source					
	Bank Credits	Gov Credits	Retained Earning	Supplier Credits	Leasing	Saving
Less than 5	22.2	11.1	11.1	22.2	22.2	11.1
5-10	18.1	1.2	19.3	15.7	12.0	22.9
10-20	20.2	0.0	21.5	11.4	15.4	22.8
Over 20	20.2	1.2	23.8	9.5	8.3	26.2
Total	80	3	86	49	54	94

Source: ERIA SMEs Survey 2010.

3.1.2. Bank Credits Access

Only 33% of sampled firms expressed their need for credit extended and/ or for new borrowing within a year preceding the survey. However, 80 percent reported using commercial or personal loans and lines of credit from banks in the past. Because of the small sample size, further sample statistics should be read with caution. This is far from being a sector-representative sample.

Firms that had been able to borrow paid interest at 8.2% while the minimum overdraft rate (MOR) in 2009 was between 6.125-6.75%.

3.2. Analyses of Determinants of Credit Access

Following CBA (2002), we can hypothesize the possible determinants of better access to bank credits for SMEs as follows:

- Age of business
- Sales volume
- Number of employees
- Value of firm assets
- Types of business, industrial sectors
- Ownership structure of business
- Age of owner
- Business experience or education of owner
- Purpose of loan or loan size
- Leverage (debt-to-equity ratio)
- Having relationships with lenders; new firms
- Measures of collateral availability
- Management capability

The hypotheses states that firms with least access to credit are those that do not have established relationships with lenders, are unable to provide collateral (as a signal of creditworthiness), and those with less management capability. Established relationships with lenders can be proxied by firm ages. The older a firm is, the more information banks could have accumulated. Both sales and assets can signal the creditworthiness of collateral available. Other attributes of firms are not different for those receiving and being denied credit from banks.

We employ a logistic regression to identify factors aiding SME access to loans and credits from banks and SFIs. The dependent variable has the value of 1 if a firm reports that it can gain access to at least one of them, and 0 otherwise. Descriptive statistics of variables are presented in Table 4.

The regression results of determinants of credit access are reported in Table 8. Most explanatory variables have the predicted sign. We find that likelihood of credit access increases with sales, firm size, profit rate, age of owner, business capabilities (Met ISO, using improved or new machines). But only firm size, business capabilities, and profit margins are statistically significant. We also found that older firms and firms with high share of exports in their sales are both statistically significant and negatively correlated with credit access. One possible explanation for the negative relationship between firm ages and access is these firms are able to rely more on their retained earnings and savings for their business finance. Interestingly, firms which export their products or have a large share of exports in our sample had more likelihood of not obtaining credit. When looking at the characteristics of these export-oriented firms, we found that most were firms with the highest value of assets. This conclusion should be taken with caution, however, since firms with exports are only about one-third of our total sample.

Table 8. Estimates of the Logistic Regression

Variable	Coefficient
Log(Sale)	0.15 (0.26)
Log (age of business)	-2.23*** (0.89)
Number of employees	0.01** (0.01)
Get new machines (dummy)	1.08 (0.74)
Improve old machines (dummy)	2.6*** (1.01)
Age of owner	0.001 (0.79)
Met ISO (dummy)	0.3 (1.34)
Export share (%)	-0.09** (0.34)
Profit (%)	8.2** (5.04)
Constant	1.16 (2.67)
Number of observations	71
LR-Chi-squared	37.85
Pseudo R-squared	0.39
** significant at the 5 percent level	
*** significant at the 1 percent level	

Source: Author's calculation.

It should be noted that the question remains to be answered of whether our results are robust or are driven by the macroeconomic conditions present during the sample period. To address this important issue, we look at results of other similar studies that utilized longer sample periods. Wesaratchakit *et al.*, (2010) examine the characteristics of firms that have better access to bank credits. This study employs the special database of the Bank of Thailand, containing information of each borrower's loan details (credit limit, number of transactions, present outstanding and non-performing loans, and collateral pledged). They combine their database with the Ministry of Commerce database containing firms' balance sheets over the period 1999-2007. Since this database does not contain information on firms which had been denied credit, the study uses characteristics of firms which get additional credit from banks to proxy those which get credits. Before discussing their results, some limitations should be noted here. First, SMEs are under-represented in the database; and secondly, the samples contain only firms whose credit limit exceeds 20 million Baht (0.58 million USD).

Using their panel data, they estimate the fixed-effect model by regressing credit growth on firm characteristics for each industry. Since credit growth also affects a firm's balance sheet characteristics, explanatory variables enter as lagged to avoid the endogeneity problem. The effects of a changing macroeconomic environment and any regulatory changes are captured via time dummy variables.

Table 9 shows the significant variables determining the credit growths for each sector. Their results indicate that firm characteristics leading to lower credits are the default history of firms, and a high existing credit limit. The first reflects inability to repay debt, the latter a high debt burden on the firm. In many cases, high sales or asset growth can sometimes lead to lower credits. One possible explanation is that high sales led to more liquidity and retained earnings, thereby reducing demand for more credit.

Table 9. Factors Affecting Credit Access for Some Selected Industries.

Industry Sector	Factors that Increase Credit Limit	Factors that Decrease Credit Limit
Food and beverage production	• have collateral • high liquidity (quick ratio) • high gross profit margin • high net worth to paid-up capital • high utilization rate	• having high existing credit limit • high earning per share
Cigarettes, cloth, garments, leather, shoes and wood-based, paper-based products and publishing	• older firms • have collateral • high capital to asset ratio • high utilization rate	• having high existing credit limit
Coal, petroleum, chemical, plastic, paint, cleaning agents, glass, cement, ceramics production	• older firms • have collateral • high equity to asset ratio • high utilization rate	• had default history • high retained earnings to asset • high asset growth
Steel, machine, electrical appliances, weapon, ammunition, electronics, medical equipment, watch, automobile, ship, train, motorbike, bicycle, furniture, musical/sport equipment, toy, recycling production	• older firms • have collateral • high return on equity • high equity to asset ratio • high utilization rate	• had default history • high asset growth
Construction	• older firms • have collateral • high cash to asset ratio • high utilization rate	• had default history
Automobile/motorcycle sales, dealers, car repair businesses	• have collateral • high cash to asset ratio • high earning before tax to asset ratio • high utilization rate	• had default history • older firms • high asset growth

Source: Wesaratchakit *et al.*, (2010), Table 3.5.

Firm characteristics leading to increased credit are mostly those reflecting good performance, value and resiliency of firms. Firms with good performance are indicated by high sales to assets ratios, high profit and high return on equity. Resiliency is indicated by a low leverage ratio or debt-equity ratio, or high capital to asset ratio. Additionally, better access to bank credits is also related to the experience of borrowers (firm age) and collateral securities.

Results also indicate that banks prefer to lend more to larger firms, and that new or young firms with less capital and profitability will have more difficulty getting bank credits. These results are consistent with previous studies showing that financial constrains can reduce the chance of starting a new business, especially in poorer regions of Thailand (Paulson and Townsend 2004).

When considering SMEs' choices of funding, Poonpatpibul and Limthammahisorn (2005), using the Bank of Thailand survey of 2002, indicated that medium and large firms access more funding from the formal sector and less from their own savings and the informal sector. Small firms rely more on equity funding than debt. SMEs' own saving is the most important source of their financing. Lastly, foreign firms tend to be biased towards the equity form of funding (saving and retained earnings) regardless of size.

Another study by the Bank of Thailand (2008) explores demand-side factors determining SMEs' access to credit in the Northeastern region of Thailand. Using the Bank of Thailand survey in 2007, they found that important and significant factors are insufficient collateral, complex and time-consuming processes in loan applications, and value of assets. SMEs with insufficient collateral will access bank credit with less probability of 0.34 times of those with enough collateral. Secondly, SMEs who consider loans as too complicated tend to get credit with a smaller change of 0.36 to those who can manage the loan documentation. Thirdly, SMEs with large value of assets will access credit more easily.

There is therefore plenty of evidence that expanding access to SME financing remains an important challenge for Thailand. Market failure related to information gaps imply that the government has an important role in the creation of a more inclusive financial system. So far, Thai governments have provided a comprehensive range of private and government financing channels that support SMEs. Some initiatives are still new and worth exploring. We now turn our focus to these policies. While a better and more efficient financial system is also very important for broadening access for SMEs and the poor, it is far beyond the scope of this study.

4. SMEs Policies and Government Financial Supporting Programs

In this section, we first summarize SME policies and then describe major financial assistance and support programs for SMEs.

4.1. SME Policies[1]

Before 2000, Thailand did not have a basic law on SMEs which could give coordinated and explicit guidelines for the promotion and long-term development of SMEs. Instead, SME-related policies and measures were articulated and embodied in the National Economic and Social Development Plan and cabinet resolutions. Various ministries then translated these policies into action plans. Due to lack of coordinating agencies, which could supervise the direction of SME development plans, and discontinuing emphases of SME significance for economic growth in the national plan, government programs towards SME development in these periods were fragmented and weak.

When the financial crisis occurred in 1997, reviving SMEs was seen as a good means to stimulate the economy. Due to SMEs' growing importance as an economic and political force, policy formulation for SMEs in particular was called for. In 2000, the first SME Promotion Act was promulgated. The Office of SME Promotion was set up in the same year as a coordination body for SME development among government agencies. The main responsibilities of the new office are (a) Formulating an SME promotion master plan and SME promotional policies; (b) Preparing an action plan for the promotion of regional/sector SMEs as well as micro and community enterprises; (c) Serving as the country's SME information center and the central organization conducting researches and studies on SME-related issues, including SME early warning system; (d) Developing information systems and networks to support the operation of SMEs; and (e) Administering the Venture Capital Fund (VC) for SMEs.

[1] This section borrows heavily from Punyasavatsut (2008).

The First 2002-2006 SME Promotion Plan aimed to create more entrepreneurs and to enable SMEs to reach international standards. In detail, the plan aimed to enhance the efficiency of operators in SME businesses as well as other sectors, to create a business environment which would facilitate the founding and growth of SMEs, to improve market efficiency and competitiveness, and to promote grass-roots businesses so that they could play a more prominent role in income distribution and bring prosperity to the provinces.

In all, the government's first SME promotion policy had three main planks: investment promotion, financial assistance, and technical and management consultancy. Investment promotion for SME and large enterprises is operated under the supervision of the Board of Investment (BOI) agency. The BOI was established in 1977 under the Investment Promotion Act as a tool to help promote foreign and domestic investment. In 2006 there were 582 SME investment projects approved by the BOI. Among these, 443 projects or 76.1 percent of the total were approved for small enterprises. The value of SME investment projects promoted by the BOI was 30.139 million Baht (795 Million USD) in 2006. About 62.5 percent were investment projects by small enterprises.

In compliance with the SME Promotion Act, the Small and Medium Enterprise Development Bank of Thailand (SME Bank) was founded in 2002. The new SME bank is an upgrade of the Small Industry Finance Corporation, a small 50:50 financial joint venture between the government and the private sector. The SME bank then took on the role of assisting SMEs in securing sources of funds, preparing business plans and providing advice on business operations.

Another key SME development in the first plan was the establishment in 2003 of a venture capital fund worth 5 billion Baht (0.12 Billion USD), aimed at creating joint ventures with SME projects. The fund has worked in conjunction with an existing SME venture capital fund worth 1 billion Baht (0.02 billion USD) established by the Democrat-led government. The latter is now managed by One Asset Management Corporation.

As for technical and management consultancy measures, the New Entrepreneurs Creation program (NEC) under the Ministry of Industry in 2002 was another initiative intended to encourage people to create their own businesses. Under the NEC program, the

SME bank provided business counseling and training to resolve problems and further develop their businesses. Combined with other measures, which offer financial, production and marketing training as well as fund accessing advice, the plan led to a gross increase of 226,757 new entrepreneurs, or on average 44,550 per year during the plan. Although impressive, the creation of new entrepreneurs was yet behind the plan target aiming at an additional 50,000 entrepreneurs per annum. During the whole plan, SME employment was increased by 3.8 million persons, well above the target.

At the end of the first plan, SME GDP accounted for 39.8 percent of aggregate GDP, a bit below the target of 40 percent. In addition, growths of both SME value-added and exports were still below those of large enterprises. Judging from these key performance indicators, we could evaluate SME policies overall as having enjoyed a moderate success. During this plan, government contributions to Thai SME development tended to focus in the areas of financial assistance, entrepreneurial activities, and information access.

The current SME policy guideline is the Second SME Promotion Plan 2007-2011. The plan vision is to promote SMEs to grow with continuity, strength and sustainability on knowledge and skill bases. In line with the first plan, the second aims to achieve three economic targets: share of SMEs in GDP becomes 42 % during the plan; SMEs export share grows on average faster than the growth of total exports; and total factor productivity of SMEs increases by 3 % per annum on average during the plan, including labor productivity growing at least 5% per annum. The second plan retains targeting at some sectors for promotion, such as auto and electronic parts, software, logistics, healthcare, education, tourism related industry, health-functional food, and rubber product.

Of many measures employed in this plan, measures related to manufacturing SMEs include (1) product quality improvement ; (2) establishing “business incubators” in regional and local areas; (3) trade fairs; (4) establishing exhibition centers for SME products throughout the country; (5) improving logistics or distribution channels; (6) creation of clustering and networks.

Implementing the second plan involves many government offices and the private sector. Besides formulating and evaluating the plan, the Office of SME Promotion

(OSMEP) acts as the intermediary agency to propel and support the implementation of the plan. Government agencies involved with SME development implementation include the Ministry of Industry (MOI), Ministry of Commerce (MOC), Ministry of Tourism and Sports (MOTS), Ministry of Agriculture and Cooperatives (MOAC), and specialized agencies which focus on technological and human resource development. For example, the SME Development Institute is responsible for training and development workforce.

There are also many supporting agencies involved in SME promotion. On financing, there are the SME Bank, and the Small Business Credit Guarantee Corporation providing credit and credit guarantees, and venture capital. On product standards, there are the Thai Industrial Standards Institute and the ISO Management System Certification Institute. On business consultation, there is the Office of SME Promotion. On business location, there is the Industrial Estate Authority of Thailand (IEAT) which promotes establishment of industrial estates for SMEs. In addition, many private agencies are involved in implementing the SME promotion plan.

During 2007-2009, budgets supporting promotion of SMEs amounted to about 9.863 million Baht (287.2 million USD) from both SME promotion Fund and private agencies budget (OSMEP 2010)

4.2. Financial Assistance and Support Programs

In summary, Thai governments have established a number of initiatives in financing. These include:

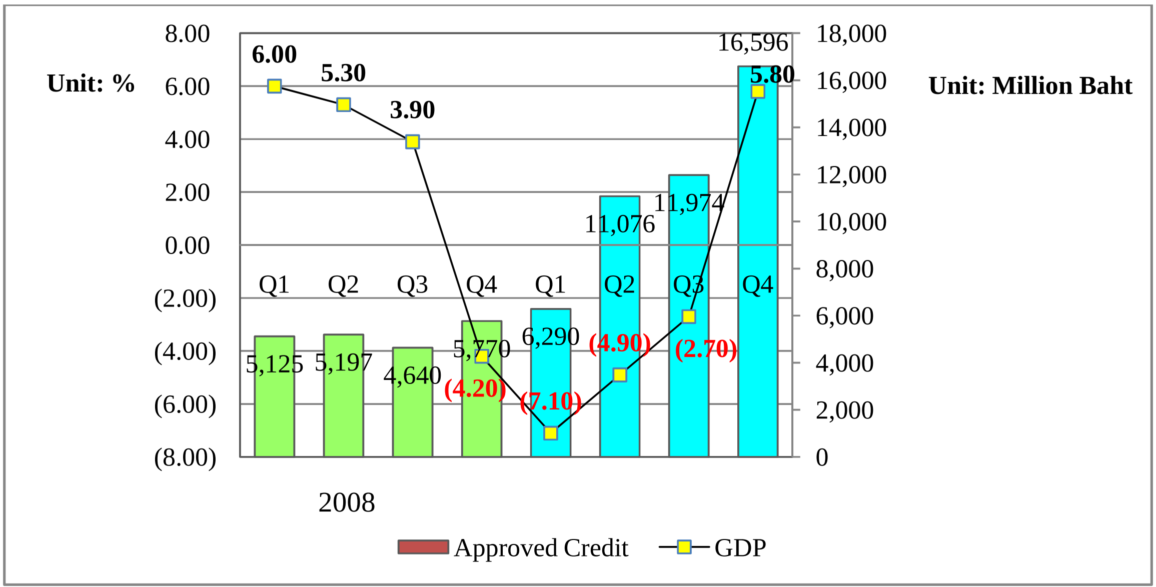
(a) Setting up the SME bank in 2002.

The SME Bank's mandate was to conduct business with the aim of developing, promoting and assisting SMEs to start-up, expand or improve their business, by providing loans, guarantees, venture capital, counseling and other necessary services. As of December 2009, the bank's capital had reached 11.600 million Baht (338 million USD) with total assets of 63,558 million Baht (1,851 million USD).

At the end of 2009, the SME bank had outstanding loans of 56,915 million baht (1657 million USD) and 24,066 debtors (Figure 8). About 70 per cent of the total outstanding loans went to three major business sectors: manufacturing 32%, retail 21% and hotels and restaurants 17%. The ratio of NPL to total loans was still high at 37.1 %. The SME Bank's profit margin was less than the commercial banks' due to its low interest rate charged. In addition, it incurred the additional expense of developing and guiding the entrepreneur, due to its status as a government policy based institution.

To follow government policy, the SME bank launched a number of loan schemes to support the stimulus plan, and to help SMEs who were affected by the economic crisis in 2009. For example, SME Power, SME Power for Tourism, and Extended Employment Credit. In 2009, approved credit increased by 121.54 percent, helping more debtors by 20% (Figure 8). In addition, many projects were launched to support the business growth and to help SMEs with knowledge development.

Figure 8. SME Bank's Role in 2008-2009



Source: SME Bank (2010).

(b) Setting up the Small Business Credit Guarantee Corporation (SBCG) in 1991.

This is a state-owned specialized financial institution. Its roles are to provide credit insurance to SMEs with business potential but inadequate or no collateral security, and to extend cooperation with commercial banks. A recent measure to lessen loan collateral requirements is to allow assets owned by households and firms to be used as collateral for loans. These assets include land and property, leasing and hire-purchasing contracts, land utilization permits, intellectual property, and machines. The new Asset Capitalization Bureau was established in 2003 to promote this measure.

In 2009, the SBCG guaranteed credit lines of 21,558 thousand baht (627,781 USD) for 5,763 SMEs. The targeted total guarantees for credit lines in 2009 was 30,000 million Baht (874 million USD) under the new Portfolio Guarantee Scheme. As part of the economic stimulus program, the SBCG waived its fees in the first year for all SMEs granted credit guarantees by SBCG.

Since its establishment, it has contributed to a revolving credit amount of more than 107,486 million baht (3,130 million USD). It also helps maintain employment for a total workforce of 406,615 people as well as job opportunities for an additional 22,795, as of 2009 (SBGC 2010).

(c) Setting up the Venture Capital Fund (5 billion baht, equivalently 0.12 billion USD) under the Office of SME Promotion (OSMEP) in 2003 to assist SMEs.

The goals of this measure are to encourage investors to invest in SME shares, and to help improve SME business capability. The OSMEP promotes this fund via tax incentives. Only corporate SMEs are eligible for assistance. Targeted sectors are fashion and design, information and communication technology, food processing, automotive, and tourism.

(d) Establishing the market for Alternative Investment (MAI) to increase access to capital via equity financing. The MAI was established in 1999 to provide an investment alternative for investors, and funding for SMEs. Mobilizing capital via equity financing for SMEs is expected to lower financing costs and improving firms' debt-equity ratio.

(e) Establishing the Central Credit Information Service Company Limited and the Thai Credit Bureau Company Limited to collect information and facilitate information sharing for SMEs

(f) Financial assistance program from the Bank of Thailand. Past short-term aid measures for SMEs were (a) subsidized and extended credits to alleviate impacts of Baht appreciation among small and medium firms, via commercial banks, finance companies, and SFIs. The program started in 2000; (b) Tax waiver for community enterprises and SMEs in 2008 as a part of economic stimulus programs; (c) establishment of Center for Credit Access Problem Alleviation during 2009-2010. This center acts as an intermediary between commercial banks and borrowers, to help negotiate debt rescheduling, and credit needs among SMEs.

In summary, it is obvious that Thailand has a comprehensive range of financial channels and programs assisting SMEs. Thai governments have explored and implemented alternative financing sources including the equity market, venture capital, and specialized financial institutes. These initiatives are still relatively new and have not achieved their desired results, however. And degrees of success among these initiatives vary to some extent. Although they are important, it is not an aim of this paper to evaluate these policies. We do, however, offer a few observations on some of these initiatives. First, the government initiatives are more successful on the debt-financing side than the equity-funding side (Poonpatpibul *et. al.*, 2005). Venture capital funds and the MAI progress have been somewhat less satisfactory.

Second, the lending activity of SFIs, which has expanded rapidly over the past two years, deserves closer monitoring. They have been very supportive towards SMEs and micro enterprises during the economic downturn, when the commercial banks refused to expand their lending. However, loan risk assessment should not be too lenient, as these SME loans could end up becoming non-performing. The ratio of NPLs to total loans has been rather high reaching 37.16 percent in 2009.

5. Towards Policies for Better Financial Access for SMEs

Our analyses of the key access routes for finance in previous sections helps identify factors contributing to financial gaps. It is concluded that gaps in funding, due to the asymmetric information problem, are related to the following issues:[2]

Collateral Requirement: Lending decisions of Thai financial institutions are traditionally based on the availability of collateral security, a sound business plan with sufficient cash flow, and personal guarantors for loans. Full collateral, using land and buildings are often required by banks to cover losses in case of default. Personal guarantors can be used to supplement collateral. Thus, SME loans are usually fully secured. Our own interviews with FIs confirmed this. That is, having insufficient collateral is rated as very important when banks turn down financial requests. Often, a bank's evaluation of assets is conservative. Collateral requirements reflect the bank's perception of high risk associated with SME loans and the legal requirements for loan recovery. Insistence on collateral is thus a major impediment to SME financing.

Documentation and Financial Literacy: Banks also demand a sound business plan and various documents for loan appraisal and use them to monitor business activities. For example, banks demand cash-flow projections, financial statements, proof of income and tax, lists of assets and proof of ownership, and business licenses. Preparing this paperwork is not an easy task, and can be time-consuming as many SMEs lack financial literacy and proper financial accounting for various reasons. Most banks do assist those borrowers who are found to be acceptable, by preparing the necessary documentation. The average processing time for an SME loan varies from bank to bank, but some banks will take longer than 30 days. Along with a sound business plan, and full collateral, banks also need

---

[2] Similar conclusions can be found in some previous studies. For example, see Poonpatpibul and Limthammahisorn (2005), Wattanapruttipisan (2003), Reserve Bank of India (2008).

sufficient sales, income or cash flow, which is rated as very important for banks to approve financial requests.

Weak Credit Skills and Practice: Lack of bank expertise and the necessary skills to evaluate and manage an SME is a common problem. Since the information on SMEs is hard to obtain, it is difficult to ascertain if firms have the capacity to pay and/or the willingness to pay. This informational opaqueness undermines lending from banks, which requires transparent information, and proper accounting records. In the past, many Thai bank officers have been trained and equipped to manage large borrowers with proper records. As financing SMEs becomes more important for Thai banks, the skills required to manage SMEs are not sufficiently developed. Rapid stimulus on SME growth has also put a strain on banks' ability to sufficiently fund SMEs. Applying the same techniques used for large borrower evaluation will result in many SMEs not being able to meet bank lending requirements.

It is not clear at present if banks can successfully apply different transaction technologies to SME financing, such as credit scoring, risk-rating tools and processes, and special financial products (asset-based lending, factoring, and leasing). Increases in the loan share of small firms in recent years were in part due to large government subsidies to lending to SMEs.

5.1. Policy Recommendations

Literature on policy recommendations has included three key areas, which can be summarized by as follows:

- Financial Products:
  - Encourage relationship-based lending for small and new firms to address informational asymmetry
  - Encourage financial innovations
  - Encourage usage of credit scoring
  - Improve the credit assessment capability of SME loan officers
  - Simplify the loan application process

- Extend the roles of micro enterprises and microfinance
  - Improve the risk management skills of financial institutions
  - Strengthen the credit guarantee system to support private sector lending, with attention paid to the moral hazard problem
  - Enhance private venture capital for SMEs
- Informational Infrastructure
  - Improve credit information to address the information asymmetry problem
  - Improve availability of information and financial advice for SMEs
- SME capability enhancement
  - Increase SMEs, financial literacy
  - Enhance SME capability through seminars and training
  - Encourage entrepreneurship and innovation through business incubation services and risk sharing." (Sinswat and Subhanij, 2010).

Choosing and/or prioritizing policies for improving access can be a challenge because policies may not be equally effective or universal. Successful policy must be designed within a specific context, and institutional quality level, and should be sensitive to market response. Without a thorough evaluation of these policy options, we offer some practical recommendations that may be appropriate for adoption to improve SMEs, financial access and bridge the financial gaps. Our recommendations are in line with those proposed by Wattanapruttipaisan (2003). In respect of the financial gaps discussed above, three recommendations can be made: two for the supply side, and one for the demand side.

1. Improve the Credit Guarantee Mechanism: Guarantee arrangements are important as a means of helping SMEs with inadequate collateral to gain access to finance. Recent operations of the SBCG during the economic downturn demonstrated some promising progress as a mechanism to broaden financial access for SMEs. Thus, sufficient funding for the schemes should be a key priority at times of crisis.

Successful credit guarantee schemes then require appropriate risk sharing and prudential measures to reduce over-borrowing and moral hazard behavior.

2. Improve financial information disclosure by SMEs. With good record keeping and proper financial accounting, SMEs can provide essential information as loan documentation. Information transparency and disclosure can be viewed as evidence of adequate management and the financial literacy of SMEs. Given that the data and information required in a loan application is not too extensive, this information disclosure will notably help to broaden credit access.

3. Strengthen institutional capabilities in SME credit risk evaluation and management. Credit risk is the assessment of the credit worthiness of a borrower. It involves reviewing the loan applications against the firm's history of borrowing and repayment, assets, and liabilities as well as the soundness of its business plan. Given adequate disclosure of financial information in the SMEs business plan as mentioned above, these capabilities should reduce the opaqueness of the SMEs. In future the availability of and access to credit information on SMES may induce more information-based lending rather than the collateral-based lending seen at present.

References

Bank of Thailand (2008), "Report on SMEs' Access to Finance: A Case Study of Northeast Region." July.

Bank of Thailand (2009). "Financial Services: Corporate and Banks' Perspectives." *Stat-Horizon*, November.

Beck, Thorsten, Asli Demiruc-Kunt, Luc Laeven, and Ross Levine (2005). "Finance, Firm Size and Growth." Policy Research Working paper no. 3485. World Bank. Washington D.C.

Levine, Ross (2005). "Finance and Growth: Theory and Evidence." In *Handbook of Economic Growth*. ed. Philippe Aghion and Stephen Durlauf. Amsterdam: North-Holland Elsevier.

Office of Small and Medium Enterprises Promotion (2007). *SME Promotion Plan: Phrase II (2007-2011)*.

Office of Small and Medium Enterprises Promotion (2010), *White Paper on SMEs 2009 and Trends in 2010*.

Paulson, Anna, and Robert M. Townsend (2004), "Entrepreneurship and Financial Constraints in Thailand." *Journal of Corporate Finance* 10, no. 2: 229-262.

Poonpatpibul, Chaipat, and Watsaya Limthammahisorn (2005). "Financial Access of SMEs in Thailand: What are the Roles of the Central Bank?." Monetary Policy Group. Bank of Thailand. June.

Punyasavatsut, Chaiyuth (2008), "SMEs in the Thai Manufacturing Industry: Linking with MNEs." In *ERIA Research Project Report 2007 No. 5: Asian SMEs and Globalization*, ed. Hank Lim. Jakarta: ERIA.

Rajan, Raghuram and Luigi Zingales (1998), "Financial Dependence and Growth" *American Economic Review* 88(3):559-87.

RAM Consultancy Services Sdn Bhd (2005). "SME Access to Financing: Addressing the Supply Side of SME Financing." REPSF Project No. 04/2003.

Reserve Bank of India (2008), Financing to SMEs. A report prepared by participants of the International Exposure Programme in Thailand and Vietnam.

Schiffer, Mirijam, and Beatrice Weder (2001). "Firm Size and the Business Environment: Worldwide Survey Results." Discussion paper no. 43, International Finance Corporation. Washington, D.C.

Sinswat, Wilatuk, and Tientip Subhanij (2010), "A Cross-Country Survey on SME Financial Access and Implications for Thailand." Bank of Thailand Discussion paper, August.

Small Business Credit Guarantee Corporation (2010), *Annual Report 2009*.

SME Bank (2010). *Annual Report 2009*.

Townsend, Robert and Kenichi Ueda (2003). “Financial Deepening, Inequality and Growth: A Model-Based Quantitative Evaluation.” IMF Working paper Series, no. 193. International Monetary Fund.

Wattanapruttipaisan, Thitapha (2003). “Four Proposals for Improved Financing of SME Development in ASEAN.” *Asian-Development Review* 20, no. 2: 66-104.

Wesaratchakit, Worawut, Tientip Subhanij and Rungporn Roengpitya (2010). “Financing Thailand for Balanced and Sustainable Growth.” Bank of Thailand Symposium 2010. Bank of Thailand, September.

World Bank (2008). *Finance For All: Policies and Pitfalls in Expanding Access*. World Bank Policy Research Report.

Website

Office of the National Economic and Social Development Board. “National Income of Thailand 2009.” http://www.nesdb.go.th/Default.aspx?tabid=92 (accessed March 1, 2011).