The Economic Impact of Small Business Credit Guarantee

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1. INTRODUCTION

After the 1997 financial crisis, the Thai government developed several programs designed to stimulate and stabilize the economy. Strengthening and striving for the development of small and medium-sized enterprises (SMEs) has been an urgent arrangement. In Thailand and many crisis-affected countries, SMEs are generally one of the main drivers of economic recovery, because SMEs contribute substantially to GDP and account for a large number of jobs for local people. Access to financial sources is important to the operation of firms, especially for newly established SMEs which do not have sufficient collateral and reliable financial records to ascertain that they represent acceptable credit risk. In the presence of fundamental information imperfections in the credit market, where there is a high degree of asymmetric information, the aforementioned causes make lenders reluctant to provide financial support to SMEs. Without external financing, SMEs would not be able to expand their business or even to survive in today's highly competitive business environment.

To provide SMEs with opportunities for growth and prosperity, certain mechanisms are needed to correct an imperfect credit market. The literature suggests that credit guarantees may be one important financial tool that helps lessen market imperfections arising from the presence of asymmetric information. Although the establishment of a credit guarantee scheme is conceptually an important tool for reducing the asymmetry, the following questions arise: Does a credit guarantee really contribute to the growth of the economy? If it really does, how does a credit guarantee play a role that affects an economic sector in terms of employment opportunities and the financial cost of SMEs? The objective of this paper is to answer these questions in the context of Thailand's credit guarantee system. This research is based partly on a more comprehensive study entitled "Social and Economic Impact from the SBCG's Credit Guarantee Scheme" conducted by TDRI for Small Business Credit Guarantee Corporation (TDRI 2006).

2. THE ROLE OF CREDIT GUARANTEE IN THAILAND

In Thailand, to stimulate lending or facilitate additional credit to SMEs, the government set up a specialized financial institution named "Small Business Credit Guarantee Corporation (SBCG)," which is under the supervision of the Ministry of Finance. It was established on December 30, 1991 under the Small Business Credit Guarantee Corporation Act B.E. 2534 (1991 A.D.). Its initial registered capital was 400 million baht. SBCG was later recapitalized in 2000, with the injection of 4 billion baht from the Ministry of Finance. Parliament has already approved recapitalizing SBCG with an injection of funds equivalent to 2 billion baht in 2006; however, the recapitalization has not been undertaken yet.

The main objective of SBCG is to assist SMEs that seek a guarantee for the unsecured portion of loans in obtaining adequate credit from financial institutions. The institution currently provides three main types of credit guarantee scheme:

(1) *Normal guarantee:* SBCG provides a guarantee on the non-collateralized portion of a loan. However, the maximum guarantee is limited to 40 million baht; the amount cannot be more than 50 percent of the total loan.

(2) *Automatic guarantee:* For this type of scheme, a pre-approved credit guarantee is given to participating financial institutions. It facilitates faster guarantee approval with less paperwork. The maximum guarantee amount on the unsecured portion of the total loan is 3 million baht.

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(3) *Risk participation:* This newly launched scheme allows SBCG to share the guarantee risk with financial institutions. The maximum guarantee is 40 million baht.

Currently, SBCG charges SMEs a guarantee fee at the annual rate of 1.75 percent of the guaranteed amount; it must be paid in advance. The SBCG committee has already approved increasing its gearing ratio from 5 times to 7 times its capital funds in 2006 in order to play a more active role in facilitating additional credit from financial institutions.

According to the statistics on credit guarantees in Tables 1 and 2, we observe that guarantee approval, measured in terms of the number of projects (guarantee amount), has increased substantially during the past few years, from 1,109 projects (4,112 million baht) in 2002 to 3,376 projects (7,543 million baht) in 2005. Among four types of guarantee schemes, the risk participation scheme has currently constituted the largest part of guarantee approvals, accounting for about 97 percent of total guarantee approvals in 2005.

Table 3 further demonstrates that there has been a surge in guarantees outstanding. Apparently, the outstanding commitment has increased by about 13 times from about 1,327 million baht in 1999 to 17,317 million baht in 2005. As of May 2006, Kasikornbank (K-Bank) shares the largest part of the outstanding SBCG guarantee portfolio. Its share accounts for almost 40 percent of the total guarantees outstanding, followed by Small and Medium Enterprise Development Bank of Thailand (SME Bank) with 13.03% (See Figure 1).

Table 1 Number of Approved Projects Classified by Scheme

Type of scheme	2002	%	2003	%	2004	%	2005	%
Normal	157	14.16	140	7.07	53	1.37	3	0.09
Automatic	926	83.50	982	49.60	500	12.90	71	2.10
Non-Performing Loan (NPL)	26	2.34	12	0.60	3	0.08	2	0.06
Risk Participation	-	-	846	42.73	3,319	85.65	3,300	97.75
Total	**1,109**	**100.00**	**1,980**	**100.00**	**3,875**	**100.00**	**3,376**	**100.00**

Source: Small Business Credit Guarantee Corporation.

Table 2 Guarantee Amount by Scheme (Unit: millions of baht)

Type of scheme	2002	%	2003	%	2004	%	2005	%
Normal	1,287.31	31.30	1,156.26	26.53	348.67	7.50	27.00	0.36
Automatic	2,665.68	64.82	3,050.85	70.01	1,280.70	27.56	139.46	1.85
Non-Performing Loan (NPL)	159.58	3.88	53.37	1.22	3.67	0.08	8.28	0.11
Risk Participation	-	-	97.58	2.24	3,014.22	64.86	7,369.01	97.68
Total	**4,112.57**	**100.00**	**4,358.06**	**100.00**	**4,647.26**	**100.00**	**7,543.75**	**100.00**

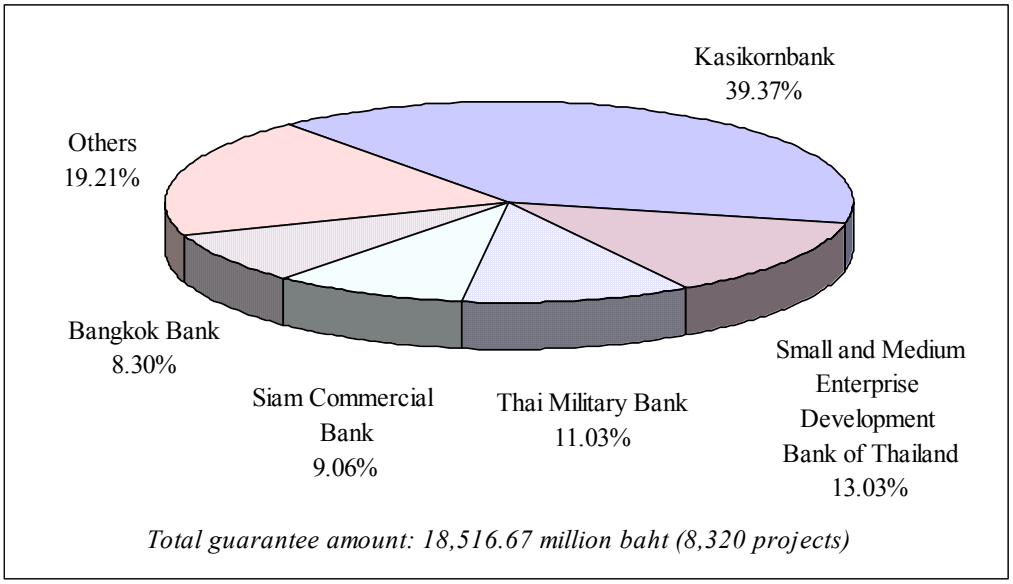
Source: Small Business Credit Guarantee Corporation.

Table 3 Guarantee Commitment

Year	No. of Projects	% Change	Amount (millions of baht)	% Change
1999	780		1,327.40	
2000	975	25.00	1,975.35	48.81
2001	1,663	70.56	4,147.50	109.96
2002	2,531	52.19	7,454.41	79.73
2003	4,099	61.95	10,025.81	34.50
2004	5,526	34.81	12,548.31	25.16
2005	8,025	45.22	17,317.81	38.01

Source: Small Business Credit Guarantee Corporation.

Figure 1 Percentage of Guarantee Amount by Financial Institutions (as of May 2006)



Source: Small Business Credit Guarantee Corporation.

Overall, a substantial increase in guarantees by SBCG reflects greater benefits to SMEs as they have additional working capital or funds for business expansion. However, a rise in the guarantee commitment may impose some losses on SBCG due to the failure of some SMEs to service their debt obligations to financial institutions. The possible risk of losses comes in the form of expenses on subrogation payments, subrogation provisions, and provision for defaults. In order to minimize risks from providing guarantees to SMEs, several measures have been implemented. The launch of the risk participation scheme is one important measure used by SBCG to reduce its risk exposure. Given the risk-sharing nature of this guarantee scheme, the risk participation scheme imposes on financial institutions the risk of sharing loss with the guarantee corporation if SMEs fail to make repayments. To avoid such loss, the financial institutions must pay more attention to the selection of the SMEs applying for a guarantee. This should therefore benefit SBCG.

3. SBCG CONTRIBUTION TO THE THAI ECONOMY

In order to examine whether credit guarantees make any contribution to the economy, this section analyzes the impacts of credit guarantees by investigating how such a system affects employment opportunities and the financial costs of a firm. We obtained related data from the credit files of SBCG and also from a survey of 41 SMEs.

3.1 Employment Opportunities

Based on the statistics from the Office of SMEs Promotion, SMEs create about 60 percent of the total jobs in Thailand. To analyze whether credit guarantees can assist in the creation of job opportunities, this section studies employment elasticity that serves as a useful way to examine how the change in employment is associated with a differential change in economic output. The study assumes that loans from guarantees are used to produce outputs, which in turn affect employment in the economy. Following Dhawan (2004), we analyze the elasticity of employment with respect to output by estimating the following simple equation using pooled cross-section data during the period 2002-2005.

$$\ln(\text{Employment}_{it}) = \beta_0 + \beta_1 \ln(\text{Output}_{it}) + \varepsilon_{it} \qquad (1)$$

where i and t denote firm and year respectively. *Employment* represents the number of employees in a firm. Revenue from sales, net profits, or loan amount is used as a proxy for economic output; ε is disturbance.

Table 4 shows only the elasticity of employment with respect to each variable that is used as a proxy for output at time t or at t-1. Using the output data at time t from the sample of surveyed SMEs, 2,594 persons were employed in 2005. If a firm uses funds obtained under the guarantee service by SBCG to generate 10 percent growth in net profit or revenue from sales, such growth may generate employment of about 76 to 104 persons. Assuming that the elasticity of employment remains

stable, if total employment from the database of SBCG is used, 10 percent growth in net profit or revenue from sales may create additional jobs for about 2,974 to 4,024 persons. Owing to the limitations on data availability, it is not possible to make inference that additional funds under the SBCG guarantee directly help increase employment opportunities, although the overall result suggests a positive relationship between employment and total loan amount.

Table 4 Elasticity of Employment with Respect to Output

	Elasticity of Employment	
Independent Variable	**at *t-1***	**at *t***
Revenue from Sales	0.3480***	0.3985***
Net Profit	0.2988***	0.2945***
Loan Amount	0.4599***	0.5600***

Note: *** Denotes significance at the 1 percent level.

Source: Authors' calculation.

3.2 Financial Cost of SMEs

The literature (e.g., Stiglitz and Weiss 1981; Freedman 2004) suggests that information asymmetry generates moral hazard and adverse selection problems, which make a financial institution reluctant to lend to a firm that is small or young, and does not have reliable financial records. However, through close and continued interaction and relationship with the financial institution, the firm can provide a lender with sufficient information about its operations, prospects and performance. As a result, a good and long track record through continual interaction with the institution may assure the institution about the firm's debt-servicing capacity and, consequently, make it easier for the firm to obtain financial support. Diamond (1984, 1991) suggests that a financial institution plays an important role in monitoring private information of a borrower. Acquiring a borrowing firm's credit record and monitoring its management behavior, the institution can learn from the information to anticipate the firm's future actions and to decide whether to cut off lending, to extend a loan, or to condition the loan's covenants.

Filling this gap with a credit guarantee by a reliable intermediary such as a state-owned guarantee corporation may similarly ensure financial institutions about the future cash flow of the firm. Therefore, this should reduce its expected cost of lending and increase its willingness to provide funds. This section examines whether a credit guarantee lowers the interest rate charged by a financial institution. Using pooled cross-section data during the period 2000-2005, we estimate an ordinary least squares regression in the following form:

$$\begin{aligned}\text{Ln}(\text{Interest rate}_{it}) = {} & \beta_0 + \beta_1 \text{SICGC}_{it} + \beta_2 \text{Ln}(\text{Loan Amount}_{it}) \\ & + \beta_3 \text{Ln}(\text{MOR}_{it}) + \beta_4 \text{Private}_{it} + u_{it} \qquad (2)\end{aligned}$$

where *i* and *t* denote loan and time respectively. *Interest rate* is the rate charged on the firm's loan *i*. *SICGC* is a dummy variable that takes the value of 1, if the portion of the total loan *i* is guaranteed by SBCG, and 0 otherwise. In the regression, we control for loan- and firm-specific characteristics as well as for the underlying cost of debt. The loan amount is the total loan size obtained from a financial institution at time *t*. To control for changes in the underlying cost of debt, we use the minimum overdraft rate (MOR), which is determined by the financial institution at time *t*. *Private* is a dummy variable with the value 1, if the financial institution is privately owned, and 0 otherwise. The sample of 94 loan transactions and other credit-related data has been obtained from the survey of SMEs and the credit files collected by SBCG. The regression result is presented as follows:

$$\begin{aligned}\text{Ln}(\text{Interest rate}_{it}) = {} & 1.823 - 0.081\text{SICGC}_{it} - 0.047\,\text{Ln}(\text{Loan Amount}_{it}) \\ & (3.84)\quad (-1.7)\qquad\quad (-2.96) \\ & + 0.437\,\text{Ln}(\text{MOR}_{it}) - 0.023\,\text{Private}_{it} \qquad \text{Adj}R^2 = 0.155 \\ & (2.24)\qquad\quad (-0.46)\qquad\quad n = 94\end{aligned}$$

The result suggests that loans guaranteed by SBCG may have a lower interest rate charged by financial institution compared with those loans without the SBCG guarantee service. More specifically, the interest rate charged is on average lowered by about 1 percent. The reason for the lower cost of guaranteed debt is that SBCG enters into contract with financial institutions to encourage them to extend credits to SMEs, and also ensures repayments to the financial institutions when the SMEs become delinquent. However, when the guarantee fee of 1.75 percent is taken into account, the total financial cost is higher for the guaranteed loan.

Two other factors, including loan size and the movement of the underlying cost of debt, are also important determinants of the interest rate charged by a financial institution. There is a positive relationship between the market rate and the loan rate, indicating that an increase in the market rate such as MOR raises the loan rate. Moreover, when the loan size is large, the interest rate charged is lower because the per unit cost of the loan becomes lower.

4. DISCUSSION AND CONCLUSION

It is clear from the study that the Small Business Credit Guarantee Corporation has played a vital role in

facilitating additional credit to SMEs, especially in the post-crisis period. By offering credit guarantees, SBCG helps SMEs that do not have sufficient collateral for the desired credit. In effect, SMEs could increase investment, expand business, and generate more employment opportunities. This study has also evaluated the potential impacts of credit guarantees on employment opportunities and the financial cost of SMEs. The analysis shows that additional credit for SMEs may indirectly have a positive impact on employment. Furthermore, it is estimated that the interest rate, exclusive of guarantee fee, on guaranteed loans of SMEs is lowered by about 1 percent, compared with interest rates on loans that are not guaranteed by SBCG. When the loan guarantee fee is taken into account, the total financial charge on a guaranteed loan becomes higher. Regardless of the risk level of SMEs, the guarantee fee is charged at 1.75 percent, which is considered as a fixed cost for SMEs. Nevertheless, each SME is exposed to different risk factors. It is worth studying the possibility of adopting a flexible, risk-based guarantee fee for different types of SMEs.

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