Establishment of China SME financing model - based on analysis of information asymmetry angle

Shiqin Hong, Xiaoyan Gu
School of Business, Jinling Institute of Technology, Nanjing211169, (CHINA)
E-mail: qit0316@126.com, 306372879@qq.com

ABSTRACT

An important force for economic development in the 21st century is SMEs. SMEs in China's national economy occupy a very important position, especially in GDP creation, tax payment and job creation process has made important contributions. GDP directly stimulating economic growth,improving market efficiency,optimize the industrial structure, promoting technological innovation, increase employment opportunities, and promote social stability, increase revenue and promotion of international trade has played a pivotal role. So far, the total number of SMEs has more than 99% of the total number of enterprises, is the mainstay of China's economic development, its survival and development by the government and the community's attention. But the financing channel for SMEs is very narrow, external financing of the bank loan is the main financing channels,which is thriving SME development trend disproportionate. And because of the presence of serious information asymmetry between banks and enterprises, the loan applications are often rejected the bank, so the bank credit channel is not smooth, financing and thus become a key factor restricting the development of SMEs. This article established the SME credit model and SME credit model to illustrate information, credit financing for SMEs in the operation mechanism and propose appropriate solutions.

KEYWORDS

Small and medium enterprises; Asymmetric information; Financing models.

INTRODUCTION

Small and medium enterprises development in today's world economy is in "strong position vulnerable" status. "Strong position" refers to the Small and medium enterprises for economic and social development of countries in the world have a great contribution, in a strategic position on China's economic and social development is also very important. But the financing difficulty faced by SMEs is very large, and its important economic and social status in stark contrast.

In the early stages of enterprise development cycle of the source of finance for SMEs generally inadequate, due to the stock market to be further developed, at present the vast majority of Small and medium enterprises mainly rely on external sources of financing in the bank as the main channel of funding sources. Therefore, although the total number of SMEs has more than 99% of the total number of enterprises, financial resources in its possession was less than 20% of the total; powerful financing needs of SMEs coexistyes, the state-owned commercial banks have a lot of idle funds. Financing of SMEs has become a bottleneck restricting the development of their health factors. Research measures to ease financing difficulties small and medium enterprises can promote the vigorous development, expand employment, stable prices, and thus achieve steady development of the national economy. Asymmetric information theory in the 1970s to produce a good exposition of the problem of financing SMEs. SMEs will compare different ways of financing the cost of financing, and financial institutions in order to avoid adverse selection and moral hazard generated by information asymmetry, and will carefully treat the proposed financing needs of SMEs.

Due to a long period of time, capital requirements will not change those preferences, and explore the results of direct capital market financing is insufficient to meet the needs of the vast majority of bank loans is still the main source of funds small and medium enterprises, then around information asymmetric financing small and medium enterprises to become more reasonable.

SUMMARY OF INFORMATION ASYMMETRY AROUND AT HOME AND ABROAD

Review of Foreign Studies: on sources of financing for SMEs, the foreign scholars believe that the development of small and medium enterprises at different stages of its funds to information asymmetry constrained financial resources small and medium enterprises under different conditions, namely enterprises with financing life cycle. Corporate finance life cycle is already a widely accepted concept, and this corresponds to the concept of corporate life cycle hypothesis 1970s Weston and Brigham proposed the hypothesis will be divided into the creation of enterprise development, growth, maturity and decline of four phases. At different stages of development, SME financing mainly from changes in selected corporate information asymmetry weakened. In the second stage of corporate finance, the commercial banks have played an important role in the U.S. NFIB survey, 63% of the surveyed companies need to rely on bank credit. But studies have made the opposite point of view, are more susceptible because of asymmetric information, the general order is not suitable for small and medium enterprises financing.

TABLE 1 : Private sector employment in the region (unit: million)

Regions	Towns		Villages		National total		
	Employment	Investors	Employ ment	Investors	Employ ment	Total number of enterprises	Investors
National	6070.9	1259.8	3346.7	534.2	9417.6	9417.6	1794.0
Beijing	258.0	64.5	153.9	31.2	411.9	411.9	95.6
Shanghai	314.7	74.7	258.4	57.2	572.5	572.5	131.9
Liaoning	271.6	45.0	99.5	11.4	11.4	371.1	56.4
Shandong	374.1	82.1	273.6	35.0	35.0	647.7	117.1

A Summary of Study: external financing of SMEs in China mainly from banks and other financial intermediaries, and information asymmetry between the bank and is a major cause of SME financing. Domestic researches on the financing of SMEs are more studies are generally causes of SME financing difficulties financing difficulties around and crack path and expanded. Small and medium enterprises with high opacity own information, making the high cost of its financing in the capital markets directly, and thus be excluded from directly outside the capital markets, resulting in the narrow channels of financing[1-2]. Easy small and medium enterprises encounter lower transparency makes it to the bank credit rationing when submitting loan applications, and some scholars have pointed out that our country's credit rationing as dual creditrationing, and that the excessive inertial confinement traditional planned economy system and government intervention is leading to the main factor in the plight of small business financing.

In China, as of the end of September 2010 the total number of Small and medium enterprises reached 10.231 million, more than 99% of the total number of enterprises, the output value and profits, respectively, accounting for 60% and 50%, while also providing nearly 80 percent of urban jobs, the maintenance of social played an important role in the stability and promote stable and rapid economic development. The first national economic census, the added value of the tertiary industry accounted for 93 percent of GDP increase in the value of the national GDP, which, SMEs accounted for the major part of the value creation.

STATUS AND CHARACTERISTICS OF SMALL AND MEDIUM ENTERPRISES FINANCING

Financing is the process of corporate behavior and fundraising. Financing from its own production and operation of enterprises and the use of funds departure status quo, according to the needs of enterprise strategic business development, through a certain way and channels to the enterprise investors, equity, creditors preparations for the necessary funds to ensure the needs of the daily production and management of economic behavior. Enterprises to adopt a different way of financing the formation of different financing structures.

TABLE 2 : Operating life and the structure of funding sources for SMEs in 2010

Operating life	Internal financing	Bank loans	Non-financial institutions	Other channels
<3 years	92.4	2.7	2.2	2.7
3-5 years	92.1	6.5	0.0	4.4
6-10 years	89.0	6.3	1.5	3.2
>10years	83.1	5.7	9.9	1.3
Total	90.5	4.0	2.6	2.9

With the above general data and local data, we can roughly outline what the status of Chinese SME financing: credit is extremely uneven distribution of resources, continue to reduce the proportion of SME loans[3-4].
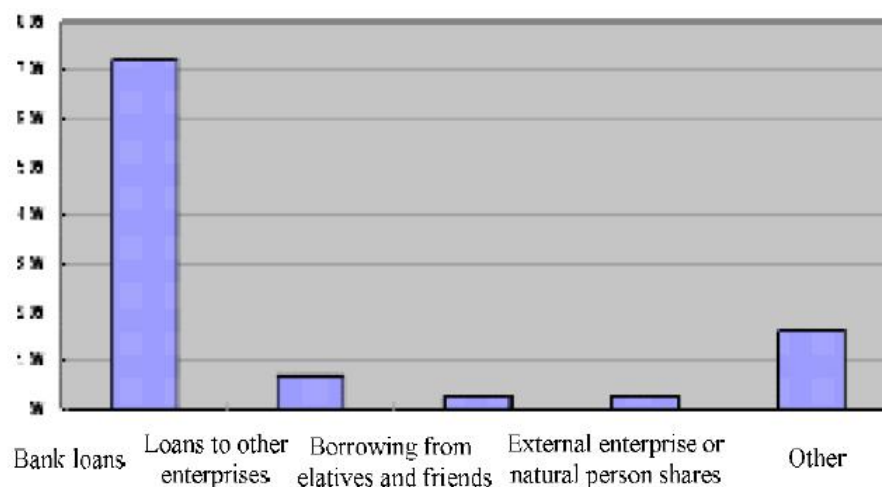

Figure 1 : 2010 the proportion of external financing channels for SMEs

SME loans accounted for from 2002 to the 24.79% down to 21.79% at the end of 2004, June 2005 and dropped to 21.09%, but the concentration of bank credit has continued to rise over the same period, allocation of credit resources heavily skewed towards large and very large enterprises the main way of mortgages and secured loans have become the SME lending, but there is the difficult problem of mortgage. Asset size is deciding whether to get decisive factor in bank borrowings and long-term debt funds.

INFORMATION ASYMMETRY AND SME CREDIT

According to classical economic theory, in the credit markets demand, rising interest rates; oversupply and falling interest rates. If supply and demand is equal, supply and demand can determine the equilibrium interest rate. Financing needs of SMEs for credit rationing is relatively common. Although there are many small and medium enterprises to accept higher levels of market interest rates to obtain loans, the banks will not fully meet the credit requirements of SMEs. To illustrate the impact of asymmetric information between banks and bank credit, credit banks and SMEs to build next game model of asymmetric information.

Assume that the bank has two behaviors: identification and no identification, small and medium enterprises, there are two types of risk: low risk and high risk. r represents a low risk small and medium enterprises market share, 1-r indicates a high risk of small and medium enterprises market share. R represents interest income of banks. H represents the average

rate of the entire SME loan bad debt $H = rH + (1-r)\overline{H}$, H represents the average loan default rates low risk SMEs. And

$\bar{H}$ is the average loan default rate of high-risk SMEs $H < \bar{H}$. R_L is the return on investment Small and medium enterprises to obtain loans after a low-risk, R_H is the rate of return on investment in high-risk small and medium enterprises obtain loans after $R_L < R_H$. C represents the transaction costs for banks in order to identification types of risk for loans to SMEs and spent. Bank loan proceeds obtained after low-risk Small and medium enterprises are for R_L, while earnings after high-risk Small and medium enterprises to obtain loans for the R_H, did not get the loan proceeds to 0.

Risk identification and bank loans to SMEs

In the above game model, which satisfies the following conditions banks will automatically identification the type of business in order to reduce the risk of asymmetric information.

$$\left(R - C - H \right) + (1 - r)(-C) > 0 \tag{1}$$

$$\left(R - C - H \right) + (1 - r)(-C) > R - H \tag{2}$$

Meaning the two type of economics is that (1) the bank represented the type of enterprise risk identification, income higher costs, bank loans. If (1) is not met, the face of small and medium enterprises, the bank's net income less than 0, the bank will give up loans. (2) Is a bank-risk types of companies to identify good earnings to not identify the benefits. If (2) is not met, the bank is not necessary for SMEs risk types were identified. According to (1)、(2), we have:

$$\bar{H} - H > \frac{1}{r(1-r)} c \tag{3}$$

$\frac{c}{r(1-r)}$ Inequality to the right bank of the small and medium enterprises represent transaction costs arising from risk identification; $\bar{H} - H$ represents the difference between the left high-risk business loan bad debt rate and low-risk business loan bad debt rate is the fundamental driving force banks to SMEs risk identification[5-6]. When the high-risk and low-risk enterprise business bad debt rate difference is large, the bank would have the power for enterprise risk types identified. If high-risk and low-risk business loans business bad debt rate is not very different, income derived from the identification of the bank is very limited, the bank would not have to identify the risks of the enterprise types.

Banks abandon risk identification and loans to SMEs

Game model above, the following conditions are satisfied, the banks will not enterprise risk identification, but also for SME loans.

$$r\left(R - C - H \right) + (1 - r)(-C) < 0 \tag{4}$$

$$r\left(R - C - H \right) + (1 - r)(-C) < R - H \tag{5}$$

$$R - H > 0 \tag{6}$$

(4) Expressed the bank's profit after risk identification is less than 0. (5) Represented the bank does not identify the type of business risk than the risk of identification. (6) Represented the bank's income is greater than the default rate. (4)、(5)、(6) three type of transaction cost economics is the meaning of the SME Bank to identify the type of risk is too high, the risk of identification of the bank unfavorable, but still lending to SMEs. The reason is not to risk identification, risk identification banks less cost, but also assumed the average bad debt rate of SMEs, but the bank is still profitable($R > H$).

Risk identification and bank loans to SMEs abandoned

The banks to SMEs risk types are identified, whether loans to SMEs, depending on benefits and costs of banks, namely equation (1) is satisfied. By (1) Finisher deformity:

$$R - H \geq \frac{1}{r} c \tag{7}$$

The left side of inequality (7), said the average interest rate of bad debts deducted from the bank's low risk of SMEs, which means that the bank's net income. The right of the inequality (7) represents the differential transaction costs due to low-risk SMEs. The reason is that if a business is engaged in the identification of risk enterprises, banks will not lend, the banks would be no benefits, and costs are still C, is SMEs to identify low-risk bear the cost of high-risk SMEs. So the cost of bank is $\underset{r}{c}$. The inequality (7) plus the overall deformation while C was:

$$R - H \geq \frac{1 - r}{r} c$$

(8)

Inequality (8) the establishment of enterprise risk depends on the type of identification of transaction costs C, and a low proportion of high-risk SMEs.

DIRECT CAUSE AND MITIGATION OF CREDIT RATIONING SME FINANCING PROPOSALS

Bank loan supply level is proportional to its expected average earnings, however, the average expected earnings generated by the loan and the demand side of the risk factor capital investment projects inversely proportional relationship. Therefore, the bank will generate positive and negative to raise lending rates effects: on the one hand, the interest rate increase will increase the bank's earnings. On the other hand, higher interest rates will squeeze high quality projects out of the market, making compliance with the loan conditions, low quality projects or enterprises increased occurrence of adverse selection phenomenon.
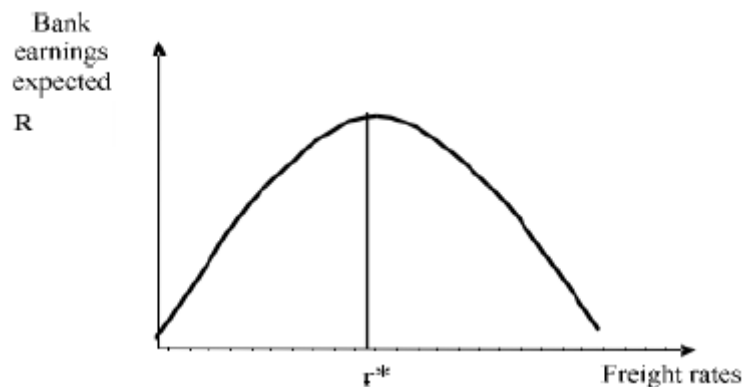

Figure 2 : Correlation between lending rates and bank earnings

Generally, the amount of bank loans to provide the level of income generated by its expected positive correlation between a certain extent, the level of bank lending rates also affect the demand for loans for SMEs. Figure 3 we can get through banks generate credit rationing behavior underlying reasons[7-8]. Walrasian equilibrium interest rate is r, but the actual market equilibrium interest rate, the bank will implement the money supply, but this time the market equilibrium interest rate is less than the Walrasian equilibrium interest rate, the bank's loan supply can only meet some of the applications of loan demand. High interest rates mean that banks will face a high risk of default, so the banks will not easily raise interest rates.
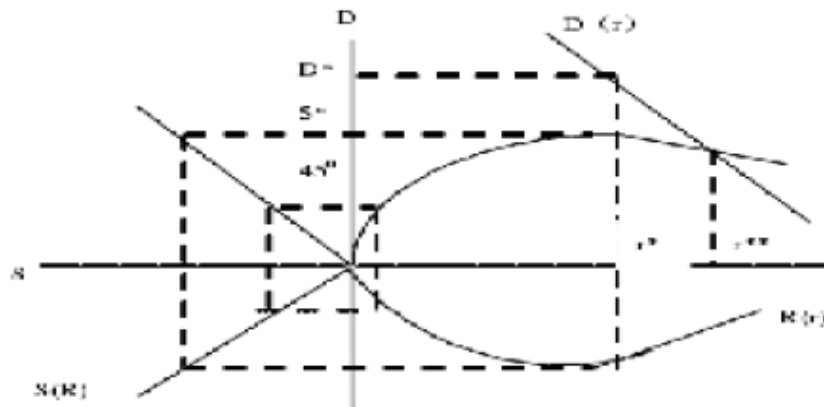

Figure 3 : Market equilibrium credit rationing

By previously known, the moment of SME financing or in the bank as the main source of funding. As two different economic agents on the market, the existence of information asymmetry is inevitable, therefore, from this point of view, to ease the financing difficulties of SMEs; the first thought is how to weaken the degree of information asymmetry between banks and enterprises. Because of asymmetric information banks cannot get corporate financial information or to obtain real cost is too high and lazy development of such loans, it can be SME information collection and the integrity of credit rating by the department has the authority and credibility as SMEs apply for a bank loan documents. The current credit facility or a large number of small and medium enterprises to raise funds more important way to improve the financing capacity of SME credit loans in the next period of time to alleviate the plight of its financing has a very important role.

CONCLUSION

In this paper, information asymmetry characteristics of SMEs as the axis, by drawing on the forefront of modern economics theory of asymmetric information theory point of view, the development of financial theory, the use of induction and compare linked norms and empirical combination of static and dynamic comparison research methods, which aims to deduce important conclusions and helpful suggestions, provide valuable theoretical and policy recommendations for financial institutions to coordinate the development of SMEs and benign China. The importance and difficulty of SME financing status determines its financing large troubled governments and economists of a problem, leading to the current information asymmetry is generated by direct financing difficulties of SMEs reasons, combined with the causes and contemporary mitigation strategies can be found in reality. But in the long run, does not regulate the governance structure and extensive management methods higher Chinese securities market access standards and SMEs they, a serious impediment to direct capital market financing for SMEs to enter the channel, making the financing problems of SMEs more severe. Therefore, to solve the problem of SME financing remains to be continued attention and support of the community.

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