The Small and Medium-sized Enterprises Financing: A Perspective of the Private Bank

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Abstract. The small and medium-sized enterprises provide much economic dynamism for macroeconomic development in China. However, many small and medium-sized enterprises have to face financing difficulties due to external factors and internal factors, such as the willingness of financial institutions to lend and the low credit of small and medium-sized enterprises. The establishment of private banks plays a very important role in alleviating the financing difficulties of small and medium-sized enterprises and eliminating financial suppression. This paper takes the listed small and medium-sized enterprises as samples to study the impact of the development of private banks on the small and medium-sized enterprises financing. The conclusions show that the development of private banks can alleviate the financing difficulties of small and medium-sized enterprises.

1 Introduction

With the development of China's economic system reform, small and medium-sized enterprises are playing a more and more important role. On the one hand, small and medium-sized enterprises are an important force in promoting China's economic development. On the other hand, the sound development of small and medium-sized enterprises helps improve people's livelihood and create a large number of job opportunities. However, small and medium-sized enterprises are facing many financing difficulties. In China, the financing methods of small and medium-sized enterprises are mainly internal financing and it is difficult to effectively use external financing methods. A small number of small and medium-sized enterprises can finance enough capital through issuing stocks or bonds. To be specific, the causes of financing difficulties for small and medium-sized enterprises can be classified as follows. Firstly, small and medium-sized enterprises usually adopt internal financing to gain capital, rather than external financing. Secondly, small and medium-sized enterprises are likely to encounter many difficulties in external financing, resulting in a higher financing cost. Thirdly, the internal supervision and innovation capacity of small and medium-sized enterprises are still not strong in the ordinary course of business. Based on the above reasons, private capital gradually enters the domestic financial market, and with the government's support for private capital to buy shares in commercial banks and other financial institutions. Private banks also face an important stage of development in financial supply-side reform.

In 2014, five pilot private banks were successively put into the preparation. On May 27, 2015, Zhejiang Online Commercial Bank was officially approved to open its business. It indicated that all the first batches of private banks in China began to operate. The five private banks were Tianjin Jincheng Bank, Shenzhen WeBank, Shanghai Huarui Bank, Wenzhou Commercial Bank, and Zhejiang Online Commercial Bank. The main purpose of the establishment of private banks was to break the monopoly of state-owned commercial banks and inject more private capital to achieve diversified financial institutions. By the end of 2017, according to the annual report of the former China Banking Regulatory Commission, private capital accounted for 43%, 55%, 87%, and 32% of the shareholding structure of national joint-stock commercial banks, urban commercial banks, rural cooperative financial institutions, and trust companies, respectively.

Compared with other traditional commercial banks, private banks have obvious advantages in operation mode and property right structure. On the one hand, it is reflected in the autonomy of private banks. Private banks are composed of a large number of private capital, which has a wide range of sources and a high degree of autonomy in their operation mode. The operation and management rights of private banks are almost free from the influence and interference of other institutions to some extent. On the other hand, the advantage of private banks is reflected in the private ownership. Due to the massive injection of private capital, the property right structure of private banks is dominated by a non-public ownership economy. As an important part of the financial markets, private banks show the special operation form and property right structure. Although small and medium-sized enterprises have been playing an important role in the process of economic

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development in China, they have to face various kinds of financing dilemmas, restricting the development of small and medium-sized enterprises in China. The emergence of private banks helps alleviate the problem of difficult financing for small and medium-sized enterprises, and promote the diversified development of financial institutions.

2 Related works

2.1 Small and medium-sized enterprises financing

Many studies have linked the financing problems of small and medium-sized enterprises with commercial banks. Parts of studies have shown that the main factor of whether commercial banks provide loans to small and medium-sized enterprises lies in the public information obtained by commercial banks [1]. When commercial banks have access to more public information, they are more likely to provide financial support to small and medium-sized enterprises. As economic entities in the market are facing increasing pressure of competition, information asymmetry has become an obstacle to enterprise financing [2]. Especially for small and medium-sized enterprises, their short-term financing needs are increasingly difficult to be met. Although the financing difficulties of small and medium-sized enterprises can be partly attributed to information asymmetry, commercial banks also need to actively engage in financial innovation activities to improve the financing services of small and medium-sized enterprises. Besides, some small and medium-sized enterprises don't efficiently engage in operation and management, and don't form a good bank-enterprise relationship with commercial banks. These two factors directly affect the financing effects of small and medium-sized enterprises [3].

2.2 Development of private banks

Many private banks have comparative advantages over traditional banks in obtaining information about small and medium enterprises. Thus, the necessity of developing private banks is also reflected in the fact that private banks have irreplaceable comparative advantages compared with traditional large-scale banks. For example, the internal management mode and governance mode of private banks are discussed from the perspective of corporate governance theory. It is found that it is very necessary to develop private banks [4]. Besides, many empirical studies have analyzed the development performance of private banks and made comparisons between private banks and traditional large-scale banks. The results show that mergers and acquisitions among banks can increase the market share of banks and expand the operating capital of banks [5]. When the bank enlarges its scale through mergers and acquisitions, it probably leads to the forced termination of some original credit relationships with small and medium-sized enterprises. After the completion of mergers and acquisitions, the new credit modes of banks are not suitable for small and medium-sized enterprises

with the previous cooperative relationship. Therefore, private banks have obvious advantages in this case [6]. Private banks can provide loan business specifically for small and medium-sized enterprises and cooperate with them.

2.3 Small and medium-sized enterprises financing from private banks

The scale of commercial banks is also an important factor affecting their profitability. Some studies have shown that banks with small scale and high leverage have stronger profitability, and short-term loans can better improve the profitability of banks [7]. Moreover, the changes in the external environment can directly affect the capital supply of banks to enterprises, and inhibit the financing ability of enterprises [8]. However, the excessive financing of banks can affect the macro-control of governments. Excessive bank credit funds, to a certain extent, influence the effects of macro-control for governments, and further increase the operational risks for banks. In addition, the governments need to coordinate the relationship between small and medium-sized enterprises and external financing institutions to improve the financing efficiency of small and medium-sized enterprises [9].

3 research methods

This paper selects the data from 2014 to 2017 of Chinese companies listed on the Small and Medium-sized Board and the Growth Enterprise Board in Shanghai and Shenzhen stock exchanges. In order to ensure the validity of the data, the sample selection in this paper is carried out as follows. Firstly, samples are selected from the Small and Medium-sized Board and the Growth Enterprise Board, regardless of the companies issuing B shares and H shares. Secondly, listed companies marked with ST and ST* are removed to avoid the influence of data in an abnormal state on the reliability of the research conclusion. Thirdly, financial companies are excluded, considering their special property likely affected the comparison among the data. Finally, 366 small and medium-sized enterprises are selected as the research samples.

3.1 Explained variable

The explained variable shows the change in cash holdings of small and medium-sized enterprises, written as ΔCash . We didn't choose the loans applied by small and medium-sized enterprises from private banks to measure whether the external financing difficulties of enterprises, due to the availability of sample data. In addition, the enterprise tends to reserve part of the current cash flow in order to ensure its own capital needs in the face of financing constraints.

3.2 Explanatory variables

The explanatory variables selected in this paper mainly include cash flow of the enterprise (CF), development level of private banks (PB), growth of the enterprise

(Grow), size of the enterprise (Size), and operation risk of the enterprise (Risk). The above explanatory variables need to be explained as follows.

3.2.1 Cash flow of the enterprise (CF)

The cash flow of the enterprise is described by the ratio of cash flow to total assets.

3.2.2 Development level of private banks (PB)

The indicators indicating the development level of private banks are the provision coverage ratio (x_1) and the short-term asset liquidity ratio (x_2), which can be concluded as follows.

$$PB = a_i + b_1 \cdot x_1 + b_2 \cdot x_2 + u_i \quad (1)$$

In expression (1), a_i is a constant term and u_i is a residual term.

3.2.3 Product-term of CF and PB

As the development of private banks has a certain influence on the financing of small and medium-sized enterprises, this paper associates the cash flow of enterprises with the development level of private banks to discuss the financing problem of small and medium-sized enterprises. When the coefficient of the product term is negative and significant, it shows that the development of private banks can relieve the external financing constraints of small and medium-sized enterprises.

3.2.4 Growth of the enterprise (Grow)

The growth of the enterprise is shown as the growth rate of enterprise sales.

3.2.5 Size of the enterprise (Size)

The size of the enterprise can be calculated by the growth rate of total assets for an enterprise.

3.2.6 Operation risk of the enterprise (Risk)

The asset-liability ratio of the enterprise is used to measure the operational risk of the enterprise.

3.3 Model

In this paper, the panel data model is used for the analysis of small and medium-sized enterprises financing. The general form of the panel data model is written as follows.

$$y_{it} = a_i + b_i \cdot x_{it} + u_{it} \quad (2)$$

$$y_i = \begin{bmatrix} y_{i1} \\ y_{i2} \\ \dots \\ y_{iT} \end{bmatrix} \quad (3)$$

$$x_i = \begin{bmatrix} x_{1i1} & x_{2i1} & \dots & x_{ki1} \\ x_{1i2} & x_{2i2} & \dots & x_{ki2} \\ \dots & \dots & \dots & \dots \\ x_{1iT} & x_{2iT} & \dots & x_{kiT} \end{bmatrix} = \begin{bmatrix} x_{i1} \\ x_{i2} \\ \dots \\ x_{iT} \end{bmatrix} \quad (4)$$

$$u_i = \begin{bmatrix} u_{i1} \\ u_{i2} \\ \dots \\ u_{iT} \end{bmatrix} \quad (5)$$

In expression (2), $i = 1, \dots, N$ and $t = 1, \dots, T$. Besides, y_i , x_i and u_i can be shown as expressions (3), (4), and (5). In order to study the impact of private banks on SME financing, the following model is set up.

$$\Delta \text{Cash}_{ij} = \alpha_0 + \alpha_1 \text{CF}_{ij} + \alpha_2 \text{PB}_{ij} * \text{CF}_{ij} + \alpha_3 \text{Grow}_{ij} + \alpha_4 \text{Size}_{ij} + \alpha_5 \text{Risk}_{ij} + \mu_i \quad (6)$$

Based on expression (1), expression (6) is rewritten as expression (7).

$$\Delta \text{Cash}_{ij} = \alpha_0 + \alpha_1 \text{CF}_{ij} + b_1^* \cdot p_1 + b_2^* \cdot p_2 + \alpha_3 \text{Grow}_{ij} + \alpha_4 \text{Size}_{ij} + \alpha_5 \text{Risk}_{ij} + \mu_i \quad (7)$$

$$p_1 = x_1 \cdot \text{CF}_{ij} \quad (8)$$

$$p_2 = x_2 \cdot \text{CF}_{ij} \quad (9)$$

In expression (7), α_0 is a constant term and μ_i is a residual term.

4 empirical analysis

4.1 Descriptive statistical analysis

Descriptive statistical analysis is conducted on the selected sample data, and the results are summarized as follows.

In table I, the explained variable ΔCash reflects changes in cash and cash equivalents held by small and medium enterprises. The mean and standard deviation of ΔCash are 0.034 and 0.163, respectively. It shows a very big change for ΔCash . A similar conclusion can be seen from the minimum and maximum of ΔCash . Generally speaking, the cash and cash equivalent holdings of small and medium-sized enterprises in China have obvious characteristics of polarization.

Table I. The descriptive statistical analysis

Var.	Mean	Std.	Min.	Max.	Kurt.	Skew.
ΔCash	0.034	0.163	-0.345	2.634	72.471	6.233
CF	0.071	0.198	-3.224	4.453	296.390	6.780
x_1	349.348	101.299	132.440	697.580	1.986	1.529
x_2	47.400	8.656	31.450	79.210	0.491	0.000
Grow	0.243	1.077	-0.840	23.998	336.270	16.775
Size	0.277	0.883	-0.821	20.162	252.729	13.251
Risk	0.392	0.193	0.034	2.394	9.243	1.219

For explanatory variables, CF, x_1 , x_2 , Grow, Size, and Risk are discussed as follows. Firstly, the minimum and maximum of CF are -3.224 and 4.453, respectively. It means that a significant difference in cash flow among different small and medium-sized enterprises provides greater financing space for the development of small and medium-sized enterprises. The two explanatory variables, Grow and Size, have similar features, such as a positive

mean value, less than standard deviation, and a large gap between the minimum and maximum values. Therefore, some conclusions can be concluded as follows. The explanatory variable, Grow, indicates small and medium-sized enterprises have good growth opportunities in China. However, there are still great differences in the inherent development strength and development opportunities among different enterprises. The part of small and medium-sized enterprises is in a relatively stable development stage, while the other part of small and medium-sized enterprises is in a relatively rapid development stage. In addition, the explanatory variable, Size, manifesting the growth rate of total assets of small and medium-sized enterprises is positive, but the growth rate of total assets is still a large gap for different enterprises. The mean of Risk equals 0.392, indicating a large average value of the asset-liability ratio for sample enterprises. And it is larger than the standard deviation of 0.193. This shows that the development of small and medium-sized enterprises has a certain degree of inevitable risk in reality. But, the risks faced by small and medium-sized enterprises are relatively stable on the whole. And few small and medium-sized enterprises are faced with serious operational risks. In a word, small and medium-sized enterprises listed on China's Small and Medium-sized Board and Growth Enterprise Board have developed well in recent years. Both provision coverage ratio (x_1) and short-term asset liquidity ratio (x_2) show the level of development of private banks. The minimum and maximum of x_1 are 132.440% and 697.580%, in turn. The provision coverage rate refers to the utilization ratio of the reserves for bad debts that may occur in actual bank loans. Generally, the provision coverage rate is not less than 100%. Therefore, it can be seen that private banks have maintained sufficient provision coverage. But the maximum provision coverage rate of private banks is too high, indicating the existence of excessive provisions for parts of private banks. Besides, the mean of x_2 is large, reflecting private banks having strong asset liquidity ability.

4.2 Panel data analysis

Before selecting the regression model, the Hausman test is used for determining which model should be used. A hypothesis H_0 is raised in the Hausman test.

H_0 : a random-effect model should be established.

Table II. The Hausman test

Correlated Random Effects- Hausman Test			
Pool: Untitled			
Test cross-section random effects			
Test Summary	Chi- Sq. Statistic	Chi-Sq. d. f.	Prob.
Cross-section random	28.390	6	0.000

The test results are shown in table II. It can be seen that Prob. (=0.0000) is significantly less than 0.05. The original hypothesis H_0 should be rejected. In this paper, a fixed-effect model is built.

Table III. The results of the fixed-effects model

Dependent Variable: Cash				
Method: Pooled Least Squares				
Sample: 2014 2017				
Var.	Coeff.	Std. Error	t-Statistic	Prob.
C	0.037	0.017	2.207	0.028
CF	12.362	2.380	5.195	0.000
P ₁	-1.302	0.367	-3.551	0.000
P ₂	-20.118	3.704	-5.432	0.000
Grow	0.042	0.006	6.978	0.000
Risk	0.099	0.041	2.393	0.017
Size	-0.130	0.007	-17.688	0.000

Table III is the analysis results of the fixed-effect model. The coefficient of CF is positive, indicating that China's small and medium-sized enterprises have financing difficulties and hold part of cash flow to cope with future investment needs. And both the coefficient of p_1 and the coefficient of p_2 are negative. It shows that the development of private banks in China can improve the external financing difficulties of small and medium-sized enterprises. Besides, the coefficient of CF much larger than the coefficient of p_1 or p_2 . This indicates that the development of private banks has a greater impact on the financing of small and medium-sized enterprises. In other words, private banks, to a certain extent, can provide great help to alleviate the financing difficulties of small and medium-sized enterprises.

For control variables in the model, the coefficient of Grow is greater than zero. It means that a positive correlation exists between the future development and investment opportunities and the current holdings of cash and cash equivalents for small and medium-sized enterprises. Besides, the coefficient of Risk is greater than zero. It indicates that a positive correlation exists between the future risk faced by small and medium-sized enterprises and the current holdings of cash and cash equivalents. Finally, the coefficient of Size is less than zero, reflecting a negative correlation between the size of small and medium-sized enterprises and the current holdings of cash and cash equivalents.

5 Conclusions

The financing predicament of small and medium-sized enterprises is a common phenomenon in the modern social economy. This paper discusses the improvement of small and medium-sized enterprises financing from the perspective of private banks and draws the following conclusions. Firstly, the development of small and medium-sized enterprises in China is generally good, but the financing problem is still restricting the development of small and medium-sized enterprises. Secondly, based on the theory in the combination of data of private banks, the conclusion shows private banks have a good development prospect. At present, private banks are in the initial stage of development, but it is an inevitable trend for private banks to achieve sound development in the future. Thirdly, the empirical analysis shows that the good development of private banks helps alleviate the financing difficulties of small and medium-sized enterprises.

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