

# Research on the Impact of Financing Constraints and Foreign Direct Investment from the Perspective of Industrial Agglomeration

Ge Xiaowei

Business School, Xiamen Institute of Technology, Xiamen, Fujian, China

**Keywords:** Industrial Agglomeration, Financing Constraints, Scientific Research and Innovation, Foreign Investment, Empirical Analysis

**Abstract:** the Backward Development of the Financial Market System Makes Chinese Enterprises Generally Have Financing Difficulties and Credit Constraints, Which Restrict the Development Process of Enterprises' Foreign Markets. Therefore, Based on the Perspective of Industrial Agglomeration, This Paper Empirically Analyzes the Relationship between Corporate Financing Constraints and Foreign Direct Investment. the Results Show That Financing Constraints Play an Important Role in Enterprises' Foreign Direct Investment; the Heterogeneity of Enterprise Ownership Has Certain Differences on Enterprises' Foreign Direct Investment, among Which, the External Financing Capacity of Private Enterprises is Greater Than That of State-Owned Enterprises, and the Internal Financing Capacity of State-Owned Enterprises is Greater Than That of Private Enterprises; in the Control Variables, Productivity the Larger the Capacity of Scientific Research and the Scale of Foreign Investment, the Stronger the Role of Foreign Direct Investment.

## 1. Introduction

### 1.1 Literature Review

With the continuous acceleration of economic globalization, the pace of “going out” of Chinese enterprises is also accelerating. More enterprises also make use of the influence of “going out” strategy to actively layout overseas markets, so as to make use of foreign resources, technologies and international markets to realize the national development of the enterprise. In this context, the amount of foreign direct investment of enterprises is also increasing. At the same time, industrial agglomeration has become a new way of enterprise development. However, under the influence of financing constraints, enterprises will more or less have an impact on their own foreign investment methods and quotas. In view of this, many scholars have also carried out the corresponding research. Liu Liya and others believe that most of the “going global” Chinese enterprises now face extremely serious financing constraints. Through the micro perspective theory and empirical analysis, the author finds that financing constraints will limit the ability of enterprises to invest abroad. And for the industry enterprises with high dependence on foreign aid financing, such restriction and restriction will be more serious. In order to alleviate this kind of limiting effect, the innovation of enterprises in TFP will play a role (Liu et al, 2015). Yan Bing and Zhang Yu found that private enterprises are more affected by financing constraints than state-owned enterprises. At the same time, corporate financing constraints will change with the change of corporate productivity, that is, the higher the corporate productivity is, the greater the impact of financing constraints on corporate foreign investment decisions. Further research found that the impact of financing constraints on the scale of enterprise investment is not significant (Yan and Zhang, 2016). In addition to capital density, geographical location, human capital and total factor productivity, financing constraints will also affect foreign direct investment, according to Ji Xiangbao. Compared with state-owned enterprises, private enterprises are more affected (Ji, 2016).

### 1.2 Purpose of Research

With the continuous promotion of China's “going out” strategy, the pace of internationalization of enterprises is also accelerating. At present, foreign direct investment is gradually becoming an

important way for enterprises to participate in the international market. For a long time, the foreign investment of Chinese enterprises is dominated by state-owned enterprises. With the continuous development of economy, private enterprises and state-owned enterprises have become the development trend of enterprises' foreign direct investment, especially the overseas investment of private enterprises is more active (Yu and Du, 2016). However, restricted by the backward financial market system, there are generally financing constraints and credit difficulties in major enterprises, especially private enterprises, which seriously restrict the pace of foreign direct investment of these enterprises. Therefore, it is of great practical significance to effectively alleviate the financing constraints of enterprises and help more enterprises realize foreign direct investment.

## **2. An Analysis of the Role of Financing Constraints and Foreign Direct Investment from the Perspective of Industrial Agglomeration**

At first, the impact of financing constraints on enterprises' foreign direct investment was carried out under the background of agency cost and information asymmetry. At this time, the popular theory holds that the cost of enterprises' external financing is higher than that of companies' internal use of their own funds. Therefore, at this time, enterprises think that external financing is restrictive. Compared with external investment decision-making, more enterprises rely on their own funds (Zhang et al, 2019). Even if foreign direct investment is affected by financing constraints, such influence tends to be ineffective. In conclusion, the higher the degree of financing constraint, the higher the sensitivity of cash flow.

Subsequently, based on the perspective of industrial agglomeration, many academic theories further study the influencing factors of enterprises' foreign investment and find that the sensitivity of enterprises to cash flow does not decrease with the reduction of financing constraints. The key reason for this phenomenon is that different enterprises have different standards for financing constraints. This further leads to the different relationship between the degree of financing constraints and the sensitivity to cash flow. From the perspective of industrial agglomeration, financing constraints will not only have an impact on the decision-making of enterprises' foreign investment, but also have an extremely important impact on their cash holdings, technology research and development, product competitiveness, etc. First of all, from the perspective of industrial agglomeration, companies will further improve their sensitivity to cash flow under the influence of financing constraints. Secondly, under the influence of financing constraints, if an enterprise's products lack sufficient competitiveness, it is difficult to compete with its competitors, sooner or later, it will be expelled from the competitive market, thus losing its market share previously occupied. After all, excessive dependence on external financing is also more likely to cause enterprises to be impacted by external enterprises, so they have to choose to increase the product pricing return capital, and lose their original market share over time (Luo, 2017). Finally, the globalization of economy leads to the decline of enterprises' ability to deal with financial crisis from the perspective of industrial agglomeration. Based on financing constraints, in order to ensure the interests of enterprises, most companies will choose to reduce the investment in technology research and development or reduce the number of employees to reduce the capital expenditure of enterprises. Under this condition, enterprises with high degree of financing constraints will grasp the cash flow of enterprises by giving up investment opportunities.

In conclusion, based on the perspective of industrial agglomeration, enterprises with high financing constraints will choose to give up investment opportunities because they cannot raise the required foreign direct investment. Correspondingly, enterprises without financing constraints or with low degree of financing constraints are more likely to have foreign direct investment, and they also have higher confidence in their own technology or products. In addition, from the perspective of industrial agglomeration, financing constraints will not only affect the external investment of enterprises, but also affect the export of enterprise products. However, as two different ways of enterprises' international cooperation, financing constraints have a greater impact on foreign investment.

### 3. Empirical Analysis

#### 3.1 Variable Selection and Descriptive Statistics

Most of the traditional theories analyze the reasons of transnational investment from the macro level such as industry and location, while the new trade theory subdivides the research of FDI and extends it to the micro level of enterprises. In this case, the phenomenon of foreign trade and investment can be studied from the perspective of enterprise heterogeneity. Generally speaking, the factors that affect enterprises' foreign direct investment (*OFDI*) mainly include enterprise financing ability (including internal financing ability *Infin* and external financing ability *Outfin*), enterprise production efficiency (*prod*), scientific research and innovation ability (*ky*), enterprise scale (*gm*), foreign investment ability (*wz*), and make assumptions: these factors have a positive impact on enterprises' foreign direct investment. The connotation of variables, measurement methods and expected assumptions are shown in Table 1.

This paper uses the panel data of FDI of Chinese enterprises in 2008-2018 through the database of Chinese industrial enterprises. The sample data comes from the National Statistical Yearbook, the directory of overseas investment enterprises and other aspects. Among them, there are 962 cases of foreign direct investment and 310 cases of complete disclosure of investment scale and other indicators. At the same time, the trading events in Hong Kong, Macao, Taiwan and Tibet, the trading events with abnormal observation values, and the investment events are all recognized as successful transactions. Through the screening of the above conditions, the required data can be obtained.

Table 1 Variable Connotation And Expected Effect

variable	Symbol	Measurement method	Expect	detection result
Internal financing capacity	<i>Infin</i>	Cash stock / total assets	Positive impact	remarkable
External financing capacity	<i>Outfin</i>	Interest expense / sales revenue	Positive impact	remarkable
Enterprise productivity	<i>prod</i>	Total industrial output value / number of people	Positive impact	remarkable
Scientific research innovation	<i>ky</i>	R & D investment / sales revenue	Positive impact	remarkable
Enterprise scale	<i>gm</i>	Large enterprise = 1, small enterprise = 0	Positive impact	remarkable
Foreign capital capability	<i>wz</i>	Foreign investment / paid in capital	Positive impact	remarkable

#### 3.2 Model Building

As the relationship between financing constraints and FDI is analyzed from the perspective of cluster, the heterogeneity of financing constraints is measured by the financing capacity of enterprises. At the same time, according to the different sources of project capital, it can be divided into internal financing ability and external financing ability. In order to further explore the impact of financing constraints on enterprises' foreign direct investment, we need to consider the factors of foreign direct investment and control them. Therefore, the following model is constructed and regression analysis is carried out.

$$\ln OFDI_i = \alpha_0 + \alpha_1 Infin_i + \alpha_2 Outfin_i + Z_i$$

Among them,  $Z_i$  is the other factors that affect the enterprise's foreign direct investment.

#### 3.3 Empirical Analysis

##### 3.3.1 Statistical Description and Correlation Analysis

According to the types of enterprises, the samples are divided into state-owned enterprises (105) and private enterprises (108), and their variables are statistically analyzed, and the results in Table 2 are obtained.

Table 2 Statistical Description Of Variables

variable	State owned enterprises (105)		Private enterprises (108)	
	mean value	standard deviation	mean value	standard deviation
<i>Infin</i>	5.204	1.620	4.120	2.2614
<i>Outfin</i>	0.201	0.152	0.107	0.015
<i>prod</i>	1.671	1.071	1.058	0.027
<i>ky</i>	0.017	0.047	0.012	0.029
<i>gm</i>	0.874	0.367	0.683	0.257
<i>wz</i>	0.094	0.173	0.013	0.387

According to table 2, the foreign investment volume and average investment scale of state-owned enterprises are much larger than that of private enterprises. In terms of financing, the capacity of state-owned enterprises is higher than that of private enterprises, similar to the investigation of commercial financing of enterprises. Therefore, when private enterprises encounter the external financing channel is not smooth, they need to rely on strong internal financing ability to effectively carry out overseas investment. In addition, state-owned enterprises have more advantages in productivity, scale and proportion of foreign investment.

In order to ensure the independence between variables and make the model more stable, the correlation analysis of variables is needed. Through detailed analysis, we found that the correlation coefficients of variables are less than 0.5, so there is no correlation between variables, so we can do empirical analysis.

### 3.3.2 Empirical Analysis

In this empirical analysis, Eviews version 9.0 was used. First, we introduce the internal and external financing capacity into the framework, and gradually introduce other control variables that affect the enterprise's foreign direct investment, so as to test the stability of the results. In order to verify the stability of the results, white heteroscedasticity test was carried out on the regression results. Furthermore, the state-owned enterprises and private enterprises in the data sample are analyzed by regression analysis. The verification process is as follows.

First, the analysis of financing constraints and foreign direct investment. The internal financing ability and external financing ability are used to express the influence of financing constraints on enterprises' foreign direct investment. The results show that both capabilities have a positive impact on FDI. From the regression coefficient point of view, the external financing capacity of enterprises has a greater impact on the scale of foreign direct investment. After the control variables are added, the effect of internal and external financing capacity on the direct investment is still established.

Second, the analysis of ownership differences and enterprises' foreign direct investment. According to the samples, the data are divided into two groups: private enterprises and state-owned enterprises, and the regression analysis of these data is carried out respectively. Then, the equation is tested by white test. The results show that the difference between the internal financing ability of state-owned enterprises and private enterprises is small, and the external financing ability of private enterprises has a greater effect on foreign direct investment than that of state-owned enterprises. After adding other enterprise level control variables, the difference of promoting effect is still small. From the regression coefficient point of view, the external financing capacity of private enterprises has significantly weakened the role of foreign direct investment, but it will not be higher than the state-owned enterprises. Generally speaking, the external financing ability of private enterprises will play a greater role in foreign direct investment.

### 3.4 Result Analysis and Discussion

The above results show that financing constraints are the important influencing factors of enterprises' foreign direct investment; the heterogeneity of enterprise ownership has great difference on the scale of enterprises' foreign direct investment, and the scale of state-owned enterprises' foreign direct investment is larger; among the control variables, the scale of enterprises' foreign direct investment with larger productivity, scientific research innovation ability and foreign capital

scale is larger, and The internal financing ability of some enterprises is greater than that of private enterprises, while the external financing ability of private enterprises is higher than that of state-owned enterprises.

## References

- [1] Liu L.Y., He Y.L., Wang Z.F., et al.(2015). Will Financing Constraints Affect Chinese Enterprises' FDI? -- Theoretical and Empirical Analysis Based on Micro Perspective, *Journal of Financial Research*, 38 (08), 128-144.
- [2] Yan B., Zhang Y.(2016). Productivity, Financing Constraints and Foreign Direct Investment, *World Economy Study*, 35 (9), 86-96.
- [3] Ji X.B.(2016). Does Corporate Financing Constraints Affect China's Foreign Direct Investment?, *China Economic Studies*, 57 (02),5-17.
- [4] Yu G.H., Du B.(2016). Corporate Financing Constraints and Location Choice of FDI Countries: An Empirical Study Based on Micro Data Ranking Model, *International Economics and Trade Research*, 32 (1), 95-104.
- [5] Zhang A.M., Guo J.S., Wu W.H.(2019). Financing Constraints, Foreign Direct Investment and Enterprise Performance, *Journal of Industrial Technological Economics*, 38 (01), 153-162.
- [6] Luo J.(2017). Financing Constraints, Foreign Direct Investment and Technological Innovation of Private Enterprises, *Journal of Central University of Finance & Economics*, 37 (01), 98-105.