An Analysis of the Influence of Financing Constraints on Yunnan Enterprises Going Global

YONGHUA YANG and LINHUA WANG

ABSTRACT

Based on the existing literature, this paper analyzes the mechanism of financing constraints affect going global and puts forward corresponding theoretical hypotheses. By using the panel data of Yunnan Industrial Enterprises from 2005 to 2014, this paper uses the export as a measure of going global and constructs a measurement model based on the total amount of enterprise profit, interest expense and control variable as explanatory variables, and conducts an empirical test. The research shows that the larger the financial constraints, the fewer exports; compared with the endogenous financing constraints, export-oriented enterprises are more constrained by exogenous financing.

KEYWORDS

Financing constraints, going global, OFDI, export.

INTRODUCTION

In 2016, the net outflow of outward foreign direct investment (OFDI) in Yunnan Province was 735 million U.S. dollars, up 25.81% over the same period of last year and achieved record four consecutive years of rapid growth with a record high in scale. For the first time in 10 years, the net outflow of OFDI surpassed the net inflow of FDI in China. The exports amount of Yunnan increased from 2.642 billion U.S. dollars in 2005 to 15.959 billion U.S. dollars in 2013 and reached a historic high of 18.82 billion U.S. dollars in 2014. Since then, it dropped to 16.626 billion U.S. dollars in 2015 and 15.82 billion U.S. dollars in 2016.

As Chinese companies become, including Yunnan's companies, increasingly involved in "going global," financing constraints have become an important factor in influencing "going global." Due to the relatively slow development of Chinese financial system, many enterprises face strong constraints on bank financing the 2014 Global Doing Business Report released by the World Bank also shows that China ranked 73th in the world in the convenience of obtain bank credit. Moreover, in the process of going global, enterprises need to pay more transaction costs and information search costs than they do in local operations, thus requiring substantial financial support. Due to the limited cash stock in the enterprise itself, in order to "go global", enterprises need financing to obtain exogenous financial support.

Yonghua Yang, yhyang2003@163.com, School of Economics and Management, Yunnan Normal University, Kunming 650500, China
Corresponding author: Linhua Wang, 1121862789@qq.com, School of Economics and Management, Yunnan Normal University, Kunming 650500, China
Financing constraints and OFDI of enterprises

Fazzari etc (1988) defined financing constraints: In the case of incomplete market, the investment cannot reach the optimal level because the external financing cost is too high namely, the degree of difficulty of obtaining fund. Myers According to heterogeneous trade theory Melitz (2003) suggested that in the process of going global, in order to obtain market information on overseas exports and overseas investment, consumers' preferences in the market and the establishment of their own production and sales channels, enterprise need to be paid A lot of sunk costs. Buch et al. (2014) established a model of FDI decision-making for heterogeneous firms, which included financing constraints, and used the data of German firms to empirically test the Influencing factors of OFDI decisions. Guo Lihong (2009) studied the relationship between financing constraints and investment-cash flow sensitivity by using the dynamic panel data of Shanghai and Shenzhen listed companies. Research shows that compared with private enterprises, state-owned enterprises are more likely to receive financial support and are less affected by financing constraints. Li Lei et al. (2015) consider the stronger the financing ability are, the more likely it is to outward direct FDI and the more likely it is to invest more than once and to invest in several countries. Lv Yue et al. (2015) studied the impact of financing constraints on the internationalization of enterprises. The results show that enterprises with stronger financing ability can export and the enterprises with the most financing ability can make OFDI Yan Bing et al. (2016) examined the impact of firm productivity, financing constraints and other factors on enterprises' overseas investment decisions by using enterprise-level data on manufacturing production and OFDI in Jiangsu Province.

Financing constraints and corporate exports

Hoshi (1991) believes that the enterprise which owns the host bank can alleviate the problem of information asymmetry and reduce the cost of obtaining exogenous funds. But the independent enterprise without host bank faced higher external financing costs and they were constrained by external financing in the credit markets. The research of Beck (2002) showed, the development of financial market can help companies reduce the cost of searching for exogenous funds, which made it easier for companies to get financial support and help businesses overcome sunk costs in the process of entering the export market. Greenaway, Guariglia and Kneller (2005) conducted an empirical study on the scale of UK firms' export and the level of corporate financing constraints. The results showed that British companies can more easily obtain the support of foreign funds to overcome the sunk costs in the export process under the conditions of low levels of exogenous financing constraints. Therefore, the ease of the extent of exogenous financing constraints is good for enterprises export trade. Based on the literature of corporate financing constraints, Manova (2008) further empirically tests reached the conclusion that firms can obtain exogenous financing through the external financial sector to cover the sunk cost in the export process. The development and improvement of external financial markets can improve the conditions for financing constraints of enterprises and make it easier for enterprises to obtain the support of
external funds. Yang Jiayu (2012) constructed the variables that represent corporate finance constraints index, which mainly include endogenous financing, commercial credit and corporate credit characteristics. He used Heckman's selection model to explain the impact of firm financing on the probability and magnitude of firm exports. Improvements in financing constraints made it easier for businesses to obtain financial support to promote they participate in export trade. And the easement of financing constraints had a more significant effect on the export of enterprises which mainly relied on exogenous financing. Xu Rong and Zhao Yong (2015) added financing constraint variables based on the heterogeneity theory model of enterprises and used the data of Chinese industrial enterprises to make an empirical analysis on the impact of financing constraints for enterprises' participation in export. Research showed that the companies with more mortgage assets can easier access exogenous financing. Enterprises with financial support can overcome the fixed costs of exports and make it easier for enterprises to enter foreign markets.

THEORETICAL ANALYSIS ON FINANCING CONSTRAINTS INFLUENCING ENTERPRISES TO GO GLOBAL

The approach of corporate financing

Enterprises can be divided into two kinds of internal financing and external financing according to different financing channels. The internal financing of enterprises is mainly the capital owned by the enterprises themselves and the return of profits obtained in the process of production and operation, which is converted into retained earnings of the enterprises for fund accumulation. The external financing of enterprises is mainly through direct financing and indirect financing. The direct financing of enterprises mainly includes the methods of listing and raising funds, ie IPO and rights issue, also known as equity financing of enterprises. The indirect financing of enterprises is mainly financing from banks and non-financial institutions, which is also called debt financing.

The fixed cost that enterprises need to overcome to go global

The enterprise's going global process, including the export of goods and foreign investment, will face many obstacles and foresee a large amount of sunk costs. First of all, before entering a foreign market, companies need to understand the situation in the market that goods are produced, sold and consumer preferences. This process requires the collection of information, so businesses need to pay a fixed amount of information costs. Second, companies need to constantly improve the quality and productivity of their products to make their production and sales more competitive in foreign markets. Finally, when companies invest in foreign markets, they need to locate their sites, build factories and buy fixed production equipment, resulting in large fixed costs. Enterprises participate in the international market will face a longer production cycle of investment, due to social and financial differences in the environment, making the company in the foreign market will face greater risks. Therefore, enterprises take part in going global requires substantial financial support to overcome the heavy sunk costs incurred in exporting and investing in foreign markets.
The theoretical hypothesis about financing constraints affect the going global

The firm productivity is a constraint factor on firms' participation in exports and that maximizing profit in the process of commodity exporting is a function of productivity. Similarly, differences in corporate financing constraints can also lead to heterogeneity in the enterprise, resulting in different heterogeneity firms have different possibilities and sizes in taking part in export and investment. There is a threshold of similar financing constraints for similar productivity, and enterprises are more willing to export and invest in commodities when the financing constraint is greater than the threshold. Using the theory model of heterogeneity of enterprises, in analyzing the process of enterprises participating in OFDI, compared with the export of enterprises, the OFDI activities of enterprises do not need to carry out the production of goods in China, but invest directly in the foreign markets to build factories and purchase the raw materials and the labor force employed to produce the goods. The investment process needs to pay a fixed cost. Enterprises in the process of commodity exports and foreign investment need to pay a lot of sunk costs. Financing support which is used to overcome costs, mainly rely on internal financing and external financing in two ways.

Hypothesis 1: Financing constraints will affect the business going global. The financing constraints of enterprises are larger, the possibility and scale of OFDI and export are smaller; the financing constraints of enterprises are smaller, the possibility and scale of OFDI and export are larger.

At this stage, Chinese financial market has problems such as asymmetric information and imperfect development, which lead to complicated loan procedures in the process of enterprises lend to financial institutions. And enterprises have higher lending rates, higher requirements for corporate loans, corporate loans are not enough, and the repayment period is short.

Hypothesis 2: In the process of going global, the external financing constraints of enterprises are more serious.

AN EMPIRICAL STUDY OF YUNNAN ENTERPRISES' FINANCING CONSTRAINTS ON GOING GLOBAL

Build a measurement model

In order to test the impact of financing constraints on the export of Yunnan enterprises, this paper builds the model based on the above theoretical analysis as follows:

\[
\ln EX_i = \alpha_0 + \alpha_1 \ln PROBIT_i + \alpha_2 \ln IE_i + \epsilon_i. \quad (1)
\]

Interpreted variable EX is the export of enterprises. Explanatory variables include total profit PROBIT, which measures endogenous financing constraints, interest payment IE which is the index of exogenous financing pages.

The empirical results of the model

The total export volume of Yunnan's enterprises as an explained variable indicates that the enterprises go global. The explanatory variables mainly refer to
Table 1. Yunnan enterprise financing constraints affect the export of empirical results.

<table>
<thead>
<tr>
<th>Model</th>
<th>OLS regression</th>
<th>Fixed effect model</th>
<th>Random effects model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explanatory variables</td>
<td>Export</td>
<td>Export</td>
<td>Export</td>
</tr>
<tr>
<td>Endogenous financing</td>
<td>0.992***</td>
<td>0.549***</td>
<td>0.992***</td>
</tr>
<tr>
<td>Exogenous financing</td>
<td>0.068***</td>
<td>0.468**</td>
<td>0.068**</td>
</tr>
<tr>
<td>Control variables</td>
<td>0.736*</td>
<td>0.794*</td>
<td>0.736**</td>
</tr>
<tr>
<td>Constants</td>
<td>1.178</td>
<td>7.884***</td>
<td>1.178**</td>
</tr>
<tr>
<td>Goodness of fit</td>
<td>0.997</td>
<td>0.758</td>
<td></td>
</tr>
</tbody>
</table>

the endogenous financing represented by the total profit, and the scale of the liabilities represented by the external financing. In addition, the firm's asset size is chosen as the control variable of the empirical model. To avoid pseudo-regression caused by the non-stationary original sequence, firstly take a logarithmic treatment of variables. Then we verify the robustness of the results separately and perform general least-squares regression separately. And, we consider the regression of fixed effects models for intercepts and the random effects regression considering time trend terms. By Hausman test, the results show that the empirical results obtained by using the fixed effect model are more effective. As shown in the following table.

Note: Values in parentheses are t-statistic, *** means that the empirical results of the model are significant at the 1% level, ** means that the empirical results of the model are significant at the 5% level, and * indicates that the empirical results of the model are significant at the 10% level.

Analysis of regression results

As shown in Table 1, the OLS regression and the stochastic effect model have the same results, indicating that the larger the total profit of the enterprise and the larger the scale of the enterprise's exports. On the contrary, it shows that the endogenous financing constraints have a strong restraint effect on exports. In addition, the exogenous financing constraints which measured by the corporate liabilities also affect the export scale of enterprises, but the impact is less than the impact of endogenous financing of enterprises. Further, according to the fixed effect model empirical results show that: The coefficient of Yunnan enterprises endogenous financing impact for going "out" is 0.549. The influence coefficient of exogenous financial support of Yunnan enterprises on the going global of enterprises is 0.468. This shows that every time a company receives one unit of external financial support, the export volume of going global increases by 0.468 units. Thus, the use of endogenous funds by enterprises to promote going global is better than the use of exogenous funds.

CONCLUSION AND COUNTERMEASURES SUGGESTIONS

From the perspective of the enterprise itself

The empirical results show that there is a positive correlation between the scale of export and investment in going global and the profits and retained earnings created by the enterprises themselves. Therefore, in alleviating the financing constraints of exporting enterprises, it is most important to enhance the internal
deadline of the enterprise from the perspective of the enterprise itself. Enterprises need to constantly strengthen their profitability, access to sufficient funds to ease the enterprise's internal financing constraints. With the improvement of enterprise value, it will enhance the expectation of external investors to the development prospect of the Company, reduce the information asymmetry between enterprises and investors, and reduce the difficulty and cost for enterprises to raise funds through commercial credit. The results also show that the expansion of business scale and the improvement of operational efficiency will also promote the export and investment scale of enterprises. The establishment of a sound enterprise management and operation mechanism of an enterprise makes the management and decision-making mechanism more efficient and reduces unnecessary costs and expenses in the course of production and operation.

From the perspective of the government

The government needs to take measures to improve the financing environment of enterprises in the financial market and provide enterprises with various channels to financing. Many enterprises can only finance through bank loans, and the resources for enterprises to carry out credit are limited. When enterprises face difficulties in financing through the formal channels of the banks, they often turn to private financing. Since the development of private financing has just started, the lack of supervision has caused enterprises to face high costs and face high risks in the process of private financing. The government needs to constantly optimize the corporate financing environment and increase corporate financing channels, continuously improve the financial markets and improve the efficiency and supervision of the financial markets. As a result, enterprises have more ways and channels to raise funds to ease the constraints and costs incurred by enterprises and improve the enthusiasm of enterprises to go global.

ACKNOWLEDGMENTS

This research is supported by the project of Philosophy and Social Science Research of Yunnan Province (No. JD2015YB23) and Department of Science and Technology of Yunnan Province under grant number 2016FB118.

Corresponding author: Linhua Wang, 1121862789@qq.com, School of Economics and Management, Yunnan Normal University, Kunming 650500, China

REFERENCES