"First mover advantage" or "second mover advantage": corporate profit margin and Outward Foreign Direct Investment——Test based on micro data of Chinese listed companies

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Abstract: With the gradual deepening of reform and opening up, more Chinese enterprises "go out" of foreign direct investment, corporate profit rate has increased steadily, but few people focuses on the causal relationship between the two in-depth discussion. Based on the micro data of OFDI of listed companies, this paper matches the profit rate of enterprises, and tests the interaction between OFDI and profit rate of enterprises through dynamic simultaneous equations model. The results show that the profit rate of listed companies significantly affects the OFDI of enterprises. One of the influence mechanisms is tax effect. At the same time, the current OFDI of enterprises has a significant negative impact on the profit rate, lagging one has a positive correlation between OFDI and profit rate, and its influencing mechanism changes from "experience acquisition stage" to "profit acquisition stage". Further subdivision test shows that both the OFDI mode adopted by enterprises in mergers and acquisitions and private enterprises will affect the choice of profit rate acting on OFDI behavior, while whether the host country is a developed country has no significant effect on the effect of profit rate on OFDI behavior.

1. Introduction

In 2018, President Xi jinping proposed at the first Shanghai expo that "China will unswervingly pursue a win-win strategy of opening up and implement a high level of trade and investment liberalization and facilitation policy." What China has proposed to the world is not only ideas, but also practical actions in various aspects. In recent years, the scale of investment in China has gradually increased and the distribution of investment locations is wider, investment industries are more diversified and investment subjects are increasingly diversified. OFDI plays an important role in the decision-making of micro enterprises in China, and listed companies pay great attention to financial indicators such as profit rate in financial statements, so it is particularly important to explore the relationship between them.

Existing literatures mainly focus on the impact of OFDI on productivity of enterprises, and there are few literatures on the impact of profit rate of enterprises, and even fewer literatures on the relationship between profit rate and OFDI. Existing literatures mainly exist the following three disadvantages: Firstly, the existing literature data sources are laking, most of the analysis based on macro data, macroscopic aggregation data has multiple measurement error and missing variable problem, and another part of the analysis is made by a particular database, such as industrial enterprise database (Yang Pingli, 2017), all difficult to comprehensive enterprise of foreign direct investment on its profit margins; Secondly, the main body of OFDI is all listed companies, and listed companies and the majority of investors focus on the profit rate of enterprises first, rather than the productivity of enterprises. The existing literature mainly focuses on the impact of OFDI on the productivity of enterprises (Jiang guanhong, 2014). Finally, the existing literature are admitted directly on the foreign direct investment of listed companies has influence to the enterprise profit margin, the enterprise is to "go out" to promote further growth of profit margins, but according to the alzheimer's (1967) proposed "superiority" and the foreign direct investment Johanson, Vahlne (1977199) put forward the "researcher", only large enterprises in developed countries will choose foreign direct investment,, China as the world's second largest economy and developing countries,

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is different from the developed countries and other developing countries (Zhang & Daly, 2011), so whether Chinese enterprises have the profit advantage first to overcome the international operating cost and then choose to "go global" is the main problem to be solved in this paper.

The content of this paper is as follows: the second part is a literature review, sorting out the influence of determinants at the level of relevant enterprises on OFDI, and relevant literature on the interaction between OFDI and enterprise productivity. The third part is the model building and data selection, the use of Chinese listed companies from 2008 to 2018 of foreign direct investment and margin data, and building the panel dynamic simultaneous equations model. The fourth part is the empirical part of this article, inspection margins and causal relationship between foreign direct investment and influence mechanism, and according to the foreign direct investment subsidiary way of investment, property rights, investment in developed countries or not subdivide inspection; The fifth part is the conclusion and suggestion.

2. Literature Review

2.1 Determinants of OFDI

Traditional studies on the influencing factors of OFDI mainly focus on large enterprises in developed countries. Hammer (1960) found that the reason why the overseas subsidiaries of American multinationals can compete with local enterprises and continue to operate is the monopoly advantage. Buckley and Casson (1976) based on the new market theory and incomplete market assumption of American scholar Coase, put forward that the establishment of internal market by transnational corporations in developed countries (excluding Japan) can reduce market friction cost and maximize profit through internalized management. Based on the product life cycle theory proposed by Vernon, an American scholar, kojima (1977) carried out comparative profit and comparative cost analysis between industries, and found that the same product was in different life cycles in different countries and cross-invested internationally, and reached the viewpoint of marginal industry expansion.

Traditional influencing factors of OFDI are not completely applicable to Chinese enterprises. In recent years, literature on influencing factors of OFDI in China mainly focuses on non-traditional factors. Enterprise nature is a unique feature of Chinese enterprises. GeShunqi and Luo Wei (2013) found that the probability of state-owned enterprises obtaining OFDI was significantly higher than that of private enterprises and foreign-funded enterprises. Whether the host country system can be obtained is also an influential factor for enterprises to actively conduct OFDI, and whether the host country has policy support. ZongFangyu et al. (2012) found based on the data of listed companies that bilateral trade agreements can promote the signing of OFDI agreements. The degree of democracy of the host country -- Chen Zhaoyuan (2016) found that the degree of democracy of the host country will affect the location choice of China's OFDI. Lv Ping (2018) trade union organization in the host country has a significant impact on the OFDI of Chinese listed companies. Among them, the host country union density on the influence of foreign direct investment of Chinese listed companies overall assumes the "inverted U", but the impact on the state-owned and non-state-owned companies were negatively correlated with "inverted U", is our country private enterprise financing constraints is one of the most important factors affecting the foreign direct investment, Wang Birui, Tan Yan deeply, such as (2016) found that financing constraints to the private enterprise of foreign direct investment has inhibitory effect not only, also for the follow-up OFDI has a negative impact.

With the deepening of OFDI in developing countries and countries in transition, there are many studies on the influencing factors of OFDI in China. Pan Chunyang et al. (2017) found that Chinese enterprises' OFDI would improve the institutional level of "One Belt And One Road" countries in a short term. According to the stock and flow data of OFDI of 90 economies of Chinese enterprises from 2003 to 2006, Cheng et al., based on the gravity model, obtained that the geographical distance with the host country and the market capacity of the country are the main factors affecting OFDI. Jiang Guanhong and Jiang Dianchun used the Markov distance matching method to study

761 industrial enterprises from 2004 to 2006.

2.2 The impact of OFDI on enterprise productivity

Enterprise productivity usually includes total factor productivity, employment scale, product innovation and profit margin. Profit margin is a direct and simple indicator to measure enterprise performance, but at present, there are few studies on the impact of OFDI on profit margin, most of which focus on the impact on enterprise productivity.

Total factor productivity, Potterie and Lichtenberg (2001) for the first time the OFDI as overflow channel is introduced into the C - H model to verify the OFDI reverse technology overflow effect, they analyzed data from 1971-1990, the main examine the 13 countries such as the United States and Japan's foreign direct investment, foreign direct investment and export in three different ways of international r&d spillovers, the results found that OFDI not only enhances the enterprise technology innovation ability, also increases the total factor productivity of enterprises. According to different opinions of Driffield et al. (2008), the author analyzeed the data of British enterprises from 1978 to 1994, and found that OFDI plays a positive role in improving the productivity of British enterprises. It is concluded that both technology-acquiring OFDI and efficient-seeking OFDI have positive effects on the productivity improvement of domestic enterprises. Yuan dong and li linjie (2015), based on the data of China's manufacturing enterprises, examined that the productivity of enterprises can indeed benefit from OFDI, and the year after OFDI is significantly higher than that of non-OFDI enterprises. Zouyujuan and Chen ligao (2008) used 1986-2006 data to empirically analyze whether the growth rate of OFDI would affect total factor productivity. The results showed that there was a direct proportional relationship between OFDI and total factor productivity.

In terms of employment scale, American scholars kravis and Lipsey (1988), whose main contribution is to discuss whether "industrial hollowing out" will occur in home countries when transnational enterprises invest in low-income countries, thus reducing domestic employment opportunities. Brainard and Riker (1997) studied the effect of the international transfer of production of American multinational companies on the employment in their home countries and found that the employment of companies in the host country had a substitution effect on the employment in the home country, especially in low-income countries, but the investment based on different technology levels promoted the employment growth in the home country. Blomstrom and Lipsey et al. (1997) compared the OFDI of American multinational enterprises with the transnational operation of Swedish enterprises and found that American enterprises mostly invested in labor-intensive industries in developing countries, which largely replaced the employment of the parent company. Li lei et al. (2016) studied the impact of international investment of Chinese enterprises on domestic employment by using the data of Chinese enterprises from 2000 to 2013. He believed that OFDI of Chinese enterprises promoted the employment growth in China. According to Jiang Guanhong (2016), the international investment of China's multinational companies is in the end beneficial to China Further analysis is made on whether employment is a "creation effect" or a "transfer effect". According to the data of industrial enterprises from 2005 to 2007 and the data matching and DID research, it is found that, on the whole, OFDI promotes employment in the home country and promotes employment in high-income countries, but has no obvious influence in low - and middle-income countries. Li Hongbing et al. (2017) studied whether OFDI would cause employment polarization in China by using enterprise data from 34 industries in China, and found that generally, OFDI promoted employment in the home country. However, in high-tech fields and low-technology industries, there was a phenomenon of "high at both ends and low in the middle" employment polarization.

In terms of product innovation, Pardhan (2009) took the Indian automobile industry as the object of study, and used the annual data of the automobile industry at the enterprise level to study and found that both OFDI in developed countries and developing countries had significant adverse technology spillover effects on domestic enterprises. Li Yong (2010) used the database of Chinese listed companies and the sample enterprise database of the ministry of commerce of China to investigate the impact of Chinese enterprises' OFDI on their output and the proportion of

technicians. Mao Qilin and XuJiayun (2014) studied the influence of OFDI on enterprises' innovation ability by using the data of Chinese industrial enterprises from 2004 to 2009, and found that there was a significant causal relationship between OFDI and OFDI, and the influence of OFDI on enterprises' innovation ability gradually increased.

2.3 The impact of productivity on OFDI

Many studies have proved that the productivity of enterprises is heterogeneous, and enterprises are ranked according to the level of productivity. The early relevant studies are mainly concentrated in developed countries in Europe and America. Meltiz (2003) theoretically proved that the most efficient enterprises would not only serve the domestic market but also export to the international market, and only the enterprises with low productivity would only serve the domestic market. Helpman et al.(204) further developed exports into OFDI. Data from American enterprises confirmed that enterprises with high productivity choose OFDI, enterprises with medium productivity choose export, and enterprises with low productivity only operate in their own markets. Yeaple(2009) studied the outbound investment behavior of enterprises by using the data of American multinational enterprises. His main findings are: first, the most productive companies invest more in the destination country and sell more in the destination country; Second, the characteristics of the destination country, such as the level of development, distance and cultural factors, have a significant impact on the investment of American enterprises. Eaton et al. (2004) tested the data of French enterprises and found that enterprises with more foreign investment destination countries have higher productivity. This shows that the increase in the cost of outbound investment requires enterprises to have higher productivity. Head and Ries(2003) conducted an empirical study using data of Japanese enterprises, and they still found that enterprises investing abroad had the highest productivity, followed by enterprises exporting, and those producing only at home had the lowest productivity. However, they also found that differences in income levels in host countries had a significant impact on the productivity of Japanese enterprises investing abroad. For example, enterprises investing in high-income countries are more productive, while those investing in low-income countries are less productive. Tomiura(2007) also made use of Japanese enterprise data and found that there was a direct relationship between enterprise productivity and its way of internationalization. We can see that the OFDI of enterprises in developed countries are all enterprises with high productivity in their own countries.

With the rise of developing countries, do these enterprises conform to the FDI model of developed countries in Europe and America? Dam Jan et al. (2007) conducted an empirical test with the data of Slovenian enterprises. And their conclusion is the same as the traditional theory, Consistent expectations. They argue that firms' productivity declines as they invest abroad, export and serve only their own markets. AwancLee(2008) studied the data of Taiwan enterprises and found that no matter they invested in the United States or the Chinese mainland, Taiwan enterprises presented a conclusion consistent with the expectation of traditional theories. However, there are very few literatures about the relationship between Chinese enterprises' productivity and OFDI. Some scholars have investigated some enterprises in small areas, and most of them are concentrated in regions where China's private enterprises are developed. Tian Wei and Yu Senjie (2012) mainly studied the enterprise data of Zhejiang province, and Wang Fangfang and Zhao Yongliang (2012) mainly studied the enterprise data of Guangdong province, and found that they were basically consistent with the expected model of developed countries in Europe and America. But some scholars put forward China's traditional enterprise violates the European and American developed country foreign direct investment mode, Zeng Jianyun, bang and FuAnPing (2008) to build the two countries double oligarch cornet model explains the developing countries have no technical advantage enterprises to exchange foreign direct investment is a kind of threat strategy, as long as no technical advantage of enterprise R&D activities to ensure overseas business with a positive net income, or even overseas losses and increase under the conditions of the overall profit, no technical advantage enterprises can choose foreign direct investment. Moon and Roehl (2011) put forward the non-equilibrium theory to explain that enterprises in developing countries conduct FDI through

competitive disadvantages, with the purpose of improving the overall competitiveness of enterprises with strategic assets.

2.4 Innovation of this paper

In view of the shortcomings of the existing literature presented in the introduction, this paper tries to make contributions in the following three aspects.

Firstly, limitations of macro data. From the annual reports of more than 3,000 listed companies in China from 2008 to 2017, this paper extracted relevant data of nearly 1,200 multinationals with OFDI behaviors, and explored the relationship between OFDI and profit margin of listed companies from a micro perspective.

Secondly, focus on productivity. Among all forms of productivity, investors of listed companies care most about the profit rate, which is also an important factor affecting whether an enterprise can continue to operate overseas. Therefore, this paper selects the profit rate (ROE) in the annual reports of all OFDI companies from the guotai 'an database to match the OFDI.

Thirdly, the single impact of OFDI on productivity is only explored. This paper explores the relationship between OFDI and profit rate by constructing panel simultaneous equation model. On the one hand, it can make up for the lack of literatures exploring the influence of profit rate on the choice of OFDI and build a model exploring the two-way influence mechanism: on the other hand, simultaneous equations model can better exclude the accurate disturbance of endogenous problems on the research results.

3. Sample, research design, and descriptive statistics

The simultaneous equation model describes that the causal relationship between economic variables is two-way, that is, an economic variable determines other economic variables, which in turn is determined by other economic variables.Therefore, the simultaneous equation model can more fully and truly reflect the operation process of the economic system.

Due to the interdependence and mutual causal relationship between foreign direct investment and profit margin (ROE), the construction of panel simultaneous equationsis:

$$\begin{cases} \ln\mathrm{OFDI}_{i,t} = \alpha_0 + \alpha_1 \ln\mathrm{ROE}_{i,t} + \alpha_2 \ln\mathrm{ROE}_{i,t-1} + \alpha_3 \mathrm{LPI} + \alpha_4 \ln\mathrm{OPEN} + \alpha_5 \ln\mathrm{GDP} + \varepsilon_{i,t} \\ \ln\mathrm{ROE}_{i,t} = \beta_0 + \beta_1 \ln\mathrm{OFDI}_{i,t} + \beta_2 \ln\mathrm{OFDI}_{i,t-1} + \beta_3 \ln\mathrm{LPI} + \alpha_4 \ln\mathrm{OPEN} + \alpha_5 \ln\mathrm{GDP} + \varepsilon_{i,t} \end{cases}$$

OFDI is the amount of foreign direct investment of Chinese listed companies. The data comes from the annual report of Chinese listed companies in 2008-2017; ROE refers to the return on equity of listed companies in China, calculated as the proportion of net profit after tax to the amount of equity investment. In order to assess the company's profitability indicators, the data comes from the CSMAR.Tax refers to the taxable income of the enterprise, which should be measured by the tax burden of the enterprise, and is derived from the CSAMAR. LPI refers to the logistics performance index, which refers to a series of data indicators based on the performance survey of multinational freight forwarders and express carriers. Generally, the larger the value, the less likely it is to make foreign direct investment. The data comes from the World Bank, which refers to the trade openness of a multinational company, and its value is the ratio of the import and export value to the host country GDP. GDP refers to the GDP of Chinese listed companies' foreign direct investment destinations.Cap refers to the registered capital of a subsidiary or grand company of a Chinese listed company's foreign direct investment, which is used to measure the size of the company. Generally, the larger the value, the greater the profit margin of the company.$\varepsilon_{i,t}$controls various fixed effects of listed companies, including industry fixed effects, regions effect and time effect.

Table 1Variable descriptive statistics

variable	Variable description	Sample size	Mean	Minimum value	Maximum
ln$OFDIi,t$	Current foreign direct investment of domestic listed companiesamount	3246	15.818	-2.813	24.332
ln$ROEi,t$	Current equity return rate of domestic listed companies	3246	2.077	-2.274	4.126
ln$OFDIi,t-1$	The lag of the domestic listed company is directly external to the outsideinvestment amount	3246	15.700	-2.813	24.320
ln$ROEi,t-1$	Lagging the first-phase equity income of domestic listed companiesrate	3246	2.113	-4.605	4.290
$lnTAXi,t-1$	The lag tax of the domestic listed company	3246	18.908	1.076	27.743
TRA	Logistics performance index, value range [0, 5]	3246	3.747	1.76	4.45
$lnOPEN$	The openness of trade of multinational corporations(Export amount / host country GDP)	3246	0.194	-1.655	1.488
$lnGDP$	Chinese listed company's foreign direct investment destinationGDP	3246	27.333	20.482	30.523
$lnCAP$	The registered capital of a foreign direct investment subsidiary or sun company of a listed company in China	3246	15.192	-2.030	24.105

4. The Empirical Part

4.1 Empirical study on the mutual influence of profit rate and foreign direct investment

Both the order and rank conditions of the two equations are true, and according to the Sargan test, there is no over-identification problem.For the panel data simultaneous equation model, the traditional two-stage least squares estimator (2SLS) or three-stage least squares estimator (3SLS) isn’t valid.We used the error component two-stage least squares method (FC2SLS) proposed by Baltagi (1981b) to estimate the panel data simultaneous equation model.Two-stage least squares estimator (W2SLS) and two-stage least squares estimator between groups (B2SLS) weighting can get the EC2SLS estimator.Finally, the following regression results are obtained:

Equation (1) in Table 2 shows that the foreign direct investment of the enterprise (OFDI) is negatively correlated with the profit rate of the enterprise in the current period, but the impact is not significant, and it is positively correlated with the profit rate of the enterprise.This shows that the current profit rate of the enterprise cannot affect the decision-making of the enterprise. Only the profit rate of the enterprise last year is the target, which can affect the current decision of the enterprise--foreign direct investment. The higher the profit rate last year, the more foreign direct investment companies will be made this year. Therefore, enterprises actually have a certain strength and will choose to "go out.

Equation (2) shows that the profit rate of the enterprise is negatively correlated with the foreign direct investment (OFDI) of the current period, and positively correlated with the foreign direct investment with a lag of one period.This indicates that in the initial stage of foreign investment,

enterprises are in the “experience acquisition stage”. The new environment may be very different from the economic situation of the home country. For companies are not familiar with the local political system, local people's consumption preferences, tax policies, etc. they have to pay high fixed costs, at the same time the economies of scale and scope have not yet played a role.Therefore, enterprises will face the burden of new entrants in the initial stage of investment.In addition, foreign direct investment (OFDI) enterprises will face many external factors such as exchange rate risk and political risk, which will have a negative impact on the profit rate of the company.When companies gradually establish themselves in the local area, through learning effects or “learning by doing”, companies gradually start to make profits.With the accumulation of experience in foreign direct investment (OFDI), the integration effect of global resources began to appear, and enterprises entered the “profit extraction stage”, and the profit rate of enterprises gradually increased.

Table 2 Mutual impact of profit margin and foreign direct investment

	(1)	(2)
VARIABLES	ln$OFDIi,t$	lnROE
ln$ROEi,t$	-4.413***	
	(0.898)	
ln$ROEi,t-1$	1.136***	
	(0.254)	
TRA	-1.236**	
	(0.544)	
lnOPEN	-0.907	-5.144
	(0.613)	(3.906)
lnGDP	-0.238	3.083
	(0.366)	(2.307)
ln$OFDIi,t$		-24.233**
		(11.607)
ln$OFDIi,t-1$		7.849**
		(3.716)
lnCAP		5.913**
		(2.817)
Observations	3,246	3,246
Number of id	803	803
R-squared	15.878	12.125

4.2 Whether the nature of property rights, investment methods, investment in developed countries have an impact on enterprises “going out”

The second part is based on the subdivision test of the enterprise, and the model is constructed as follows:

$$\ln\mathrm{OFDI}_{i,\ t} = \alpha_0 + \alpha_1 \ln \mathrm{ROE}_{i,t} + \alpha_2 \ln \mathrm{ROE}_{i,t-1} + \alpha_3 \mathrm{ROEWAY} + \alpha_6 \ln \mathrm{OPEN} + \alpha_7 \ln \mathrm{GDP} + \alpha_8 \mathrm{LPI} + \varepsilon_{i,t} \quad (1)$$

$$\ln\mathrm{OFDI}_{i,\ t} = \alpha_0 + \alpha_1 \ln \mathrm{ROE}_{i,t} + \alpha_2 \ln \mathrm{ROE}_{i,t-1} + \alpha_3 \mathrm{ROEWAY} + \alpha_4 \mathrm{ROEPRO} + \alpha_6 \ln \mathrm{OPEN} + \alpha_7 \ln \mathrm{GDP} + \alpha_8 \mathrm{LPI} + \varepsilon_{i,t} \quad (2)$$

$$\ln\mathrm{OFDI}_{i,\ t} = \alpha_0 + \alpha_1 \ln \mathrm{ROE}_{i,t} + \alpha_2 \ln \mathrm{ROE}_{i,t-1} + \alpha_3 \mathrm{ROEWAY} + \alpha_4 \mathrm{ROEPRO} + \alpha_5 \mathrm{ROECOUNTRY} + \alpha_6 \ln \mathrm{OPEN} + \alpha_7 \ln \mathrm{GDP} + \alpha_8 \mathrm{LPI} + \varepsilon_{i,t} \quad (3)$$

In the equation, WAY refers to the way the enterprise obtains (0=merger, 1=establishment), PRO refers to the nature of the property of the enterprise (0=private enterprise, 1=state-owned enterprise), and COUNTRY refers to whether the destination of the enterprise's foreign investment enterprise is developed. Country (0=developing country, 1=developed country).

Table 3The nature of property rights, investment methods, whether investment in developed countries affects the company OFDI

	(1)	(2)	(3)
VARIABLES	$\ln OFDI_{i,t}$	$\ln OFDI_{i,t}$	$\ln OFDI_{i,t}$
ROEWAY Investment method	0.02544***	0.0289***	0.0319***
	(0.00916)	(0.00922)	(0.0102)
ROEPRO Nature of property		-0.0278***	-0.0268***
		(0.00869)	(0.00881)
ROECOUNTRY Investment in developed countries or not			-0.00888
			(0.0133)
$\ln ROE_{i,t}$	-0.2483**	-0.189*	-0.164
	(0.107)	(0.108)	(0.114)
$\ln ROE_{i,t-1}$	0.309***	0.314***	0.318***
	(0.102)	(0.102)	(0.102)
lnOPEN	0.580***	0.559***	0.550***
	(0.138)	(0.138)	(0.139)
LPI Logistics Performance Index	-0.521***	-0.493**	-0.417*
	(0.197)	(0.197)	(0.228)
lnGDP	0.205**	0.185**	0.177*
	(0.0892)	(0.0893)	(0.0902)
Constant	11.69***	12.09***	12.02***
	(1.884)	(1.885)	(1.888)
Observations	3,442	3,442	3,442
R-squared	0.015	0.018	0.018

Equation (1) only tests the way how the enterprise obtains. It can be seen that the acquisition method of the enterprise has a significant positive impact on the foreign direct investment of the enterprise, and the coefficient is stable between 0.025-0.03, which shows that the way of mergers and acquisitions (M&A) accounts for a large proportion of the way companies acquire, and has a greater impact on foreign direct investment(OFDI).The way of corporate mergers and acquisitions is now being usedwidely, which also reflects the two main purposes of foreign direct investment: resource acquisition and technology acquisition. This is in line with John Harry Dunning’s initial premise of foreign direct investment. ".In recent years, more enterprises have gradually turned to high-tech industries, and began to try to improve their technological capabilities through overseas mergers and acquisitions. After the technology acquisition, the acquirers have obtained control of the target. Re-integration of the technical resources of the target according to the enterprise development strategy is the most thorough form of technology transfer.

Equation (2) adds a test of the nature of the property rights of the enterprise, which is

significantly negatively correlated with the foreign direct investment of the enterprise, and the coefficient is stable at around -0.03.Since 2015, China's private enterprises' foreign direct investment flows accounted for 65.3% of China's foreign direct investment flows. Although the stocks are not comparable to state-owned enterprises, they indicate that private enterprises have begun to occupy the backbone of foreign direct investment, unlike state-owned enterprises. Foreign direct investment of private enterprises is more inclined to acquire technology, brands and markets.

Equation (3) used an explanatory variable that is added to the developed country of the investment country. The influence of this variable on the foreign direct investment of the enterprise is not significant. In the process of continuously adding explanatory variables, the negative correlation of the current profit rate to the foreign direct investment of enterprises gradually decreases, while the profit rate of the first one is always positively related to the foreign direct investment of enterprises. As shown in the first part of the empirical results, the profit rate of the current enterprise cannot affect the current investment decision of the enterprise. Only the profit rate of the first phase has an impact on the scale of the foreign direct investment of the enterprises. If the profit rate of the previous enterprise is higher, the scale of the foreign direct investment of the enterprise in the current period will be larger, and the enterprise will have a competitive advantage in foreign direct investment.

4.3 The impact mechanism of profit rate on foreign direct investment of enterprises——tax effect

The establishment of sound tax credits, tax incentives and strengthening international tariff cooperation have a positive impact on China's foreign direct investment.In order to study whether the impact mechanism of profit rate on corporate foreign direct investment affects tax policy, the following two equations are constructed to test:

$$\ln OFDI_{i,t} = \omega_0 + \omega_1 \ln TAX_{i,t-1} + \omega_2 \ln ROE_{i,t-1} + \omega_3 \ln ROE_{i,t-1} * \ln TAX_{i,t-1} + \omega_4 LPI + \omega_5 \ln OPEN + \omega_6 \ln GDP + \varepsilon_{i,t}$$

Table 4The Mediating Effect of Taxation on Profit Margin Affecting Foreign Direct Investment

	$\ln OFDI_{i,t}$
$\ln TAX_{i,t-1}$	0.005* (1.68)
$\ln ROE_{i,t-1}$	0.998*** (0.0268)
$\ln ROE_{i,t-1} * \ln TAX_{i,t-1}$	0.208** (0.0543)
TRA	-1.356** (0.655)
lnOPEN	-0.899* (0.589)
lnGDP	-0.187 (0.388)
Constant	1.788
Observations	3412
R^2	0.033

Table 4 shows that the direct impact of the company's lagging profit margin on the current foreign direct investment is 0.998, the indirect impact of the profit rate through the tax effect is 0.208, and the total impact is about 1.206, reflecting that the higher the corporate profit rate, the more the enterprise. There is a motivation to choose “going out”, 20% of which is due to

taxation.Due to the high rate of return on the mainland, enterprises need to bear a heavier tax burden, which is also the main factor for the location selection of most foreign direct investment enterprises, especially the “tax haven” – Hong Kong, Cayman Islands, UK It belongs to the Virgin Islands and so on.

The above results show that the tax negative effect is a mediator variable that affects foreign direct investment. It should be noted that although this paper confirms that “the higher the profit rate of the enterprise → the higher the taxable income → the more foreign direct investment of the enterprise”, the profit rate of the enterprise is still positive for foreign direct investment after controlling the tax effect. Impact, thus indicating that the tax effect is not the only mechanism by which profit margins affect OFDI.

5. Main conclusions and policy recommendations

5.1 Main conclusions

(1) Foreign-invested enterprises are often enterprises with good profit margins in the early stage. Enterprises have the strength to choose to “go global”; and when enterprises “go out”, the profit margin of enterprises will fall due to “foreign burden” in the short term. When companies overcome a large amount of fixed costs, they will increase their profit margins in the long run.

(2) The way of foreign investment by enterprises and the nature of property rights of enterprises will have an impact on the foreign direct investment of enterprises. The direct foreign investment of enterprises in mergers and private enterprises has a greater impact on the company's profit margin, but whether the destination of investment is the impact of developed countries on enterprises is not significant. Moreover, the current profit rate of the enterprise has almost no impact on the OFDI, and the profit rate of the first phase will determine the size of the enterprise OFDI. The greater the profit margin of the enterprise lags in the first phase, the larger the scale of the company's subsequent investment in OFDI.

(3) After the company has made foreign direct investment, the overall profit rate of the enterprise will decrease in a short period of time, and the impact will be significant. In the long run, the profit rate of the enterprise will increase, but the impact is not significant.

5.2 Policy recommendations

(1)Enterprises with better profit margins should make a good psychological expectation that the profit rate will drop significantly this year when they are investing in foreign direct investment. They should be fully prepared, including preliminary market research, analysis of their own scientific and technological level, financial strength and management. Ability, etc., should formulate a reasonable foreign direct investment strategy according to the nature of the property rights of the enterprise, the country of investment and the way of investment, pay attention to prevent various risks, and avoid the situation that the profit rate declines because of blind foreign investment due to strategic formulation errors. When an enterprise makes an initial investment abroad, it should formulate a specific strategic plan to adapt to the environment of the host country as soon as possible and reduce the burden of “unfamiliar people”. Enterprises should also be aware that if the foreign direct investment has just occurred in the year when the profit rate declines, it is normal, not to quit the market, but to upgrade the technology and improve itself. However, if the long-term profit rate of the company shows a downward trend, then the company should find reasons for itself or withdraw from foreign direct investment.

(2) Before preparing to enter foreign direct investment, enterprises should fully evaluate the profit rate in the same industry. If enterprises with higher profit margins in the same industry should choose to “go global” –foreign direct investment, enterprises’ foreign direct investment gains higher profit margins in a long term, thus promoting the further growth of enterprises.

(3)At the same time, the Chinese government should actively help and guide enterprises to formulate correct and appropriate foreign direct investment strategies, formulate different forms of foreign direct investment according to enterprises with different property rights, increase the

guidance of enterprises on the choice of countries of destination, and help enterprises to be reasonable. Avoid risks and try to avoid foreign direct investment by enterprises or regions with high political risks. The Chinese government can also introduce a number of preferential policies, such as low-cost financing and lending services, overseas investment risk protection systems, etc., mainly to increase the enthusiasm of enterprises for foreign direct investment.

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