


Article

Outward FDI and Entrepreneurship: The Case of China

Li Shen ^{1,*} , Peter Koveos ^{2,*}, Xiaodong Zhu ¹, Fei Wen ¹ and Jiaxian Liao ¹

¹ Business School, University of Shanghai for Science and Technology, Shanghai 200093, China; zhuxd@usst.edu.cn (X.Z.); WenFeiusst@163.com (F.W.); liaojiaxianusst@163.com (J.L.)

² Whitman School of Management, Syracuse University, Syracuse, NY 13244, USA

* Correspondence: shenli@usst.edu.cn (L.S.); peter@syr.edu (P.K.)

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Abstract: Outward foreign direct investment (OFDI) from developing countries, like China, has been growing significantly so far. However, there is surprisingly little research on the effects of OFDI on the home county's entrepreneurship. In this paper, we initially examine the characteristics of China's OFDI during the country's economic reform and opening up. We subsequently test for the hypothesis that Chinese OFDI, along with the Chinese entrepreneurial institutional environment and inward FDI, impacted entrepreneurial activities from the year of 2004 to 2015. We find that OFDI has an inverted "U" effect on entrepreneurial activities, and that the impacts of inward FDI as well as the foreign trade are different in the coastal and non-coastal cities. We conclude by discussing the implications of our findings for researchers and policymakers as well as the limitations of our data.

Keywords: outward foreign direct investment (OFDI); entrepreneurship; China; transitional economy

1. Introduction

As the Chinese strategy for international expansion is developing, China's outward foreign direct investment (OFDI) increased dramatically with Chinese enterprises' growth. In 2004, China became the world's largest recipient of FDI [1]. However, China's outward direct investment was 158.29 billion USD, and went down by 19.3% in 2017. It registered negative growth for the first time since China publicly released its annual statistics from 2003, although it was still the second highest in its history, accounting for more than 10% of the global total OFDI. China's outward investment continues to play an important role in global FDI market, ranking the third behind US and Japan in the volume of investment flows. Spurred by China's large quantity of foreign exchange reserves, it seemed to be a fortuitous time for Chinese enterprises to engage in overseas investment. To be sure, China is still a developing country, with its OFDI stock still relatively low [2]. Although much research has examined the motivation for China's OFDI, the influence and benefits of Chinese OFDI during the economic transition are still not clearly determined, and are main goal of our study.

According to the general theory of FDI, built largely on the experience of investors of industrialized countries [3], firms engaging in OFDI should possess monopolistic advantages [4]; alternatively, they should enjoy firm-specific or ownership-specific advantages [5]. Dunning [6–8] used an eclectic paradigm to explain the importance of ownership during FDI, that known as the Ownership-Location-International Model (OLI), to the motivations of FDI by foreign-market-seeking FDI, efficiency-seeking FDI, and resource-seeking FDI. Lall [9] reports that India's technological advantage has served as the motivation behind its OFDI. All of these traditional theories emphasize that firms should take advantage of their distinctive competitiveness in knowledge assets or material assets so they can profit by investing in less-developed countries. Unlike the traditional strategic asset-exploitation FDI model, emerging market economies can acquire knowledge and

technology in conjunction with the reverse spillover effect of their OFDI in advanced countries [10–12]. Since knowledge and technology along with economic development contribute to innovation, and since innovation implies entrepreneurial activity [13], we believe China's OFDI also has an influence on Chinese entrepreneurship.

A large number of research studies concerning China's outward FDI were motivated by its growth and the government policy. Most of the literature is concerned with the motivations and determination of OFDI [3,14–17] and the effects of OFDI on exports, technology, industry structure, and productivity of the country [18–20]. Certain studies have examined FDI's effect on the host country's entrepreneurship [21–23]. There is little evidence, however, regarding OFDI's potential economic consequences, such as its effect on the home country's entrepreneurship [24]. Entrepreneurship is considered one of the most efficient and robust economic driving forces for economic transformation and development, especially in countries reforming or reconstructing their systems, fostering wealth creation and innovation [13,25]. Still, a macroeconomic study of the overall impact of outward FDI on the home country's entrepreneurial activities in a transitional period has not been conducted yet. Studies on aspects of OFDI from transition economies within the international business literature are incomplete without consideration of its impact on home countries' entrepreneurship, which has been shown to play a critical role in fostering economic growth, technology transfer, new market development, and enterprise restructuring [23].

Our study extends the international business literature by first examining the relationship between OFDI and total entrepreneurial activities in the home country and focuses on answering two research questions within the context of the Chinese economy:

- (1) What are influences and benefits of the Chinese OFDI with respect to the domestic entrepreneurship in China with the special characteristics of Chinese OFDI growth during the transition?
- (2) How do the other related important factors, such as the institutional environment, inward foreign investment, unemployment, and international trade, affect the enterprise entrepreneurship?

To answer these questions, we initially provide the background and characteristics of Chinese OFDI and the institutional environment of Chinese OFDI developed during the transition. Subsequently, we build a conceptual model, present the hypotheses to be tested, and elaborate on the impact of outward FDI and inward FDI on enterprises' entrepreneurial activity. In the ensuing section, we report on our methodology and results; we use official data of 30 Chinese regions from 2004 to 2015 to test the stated hypotheses. We find that Chinese OFDI indeed distinctively and differently influences domestic entrepreneurship with the developing Chinese economy, especially before the year of 2008 in the coastal areas. In Section 4, we present a discussion and implications. Finally, we comment on limitations of our work and potential for future research.

2. Theoretical Background and Related Literature

2.1. The Background and Characteristics of China's OFDI

China launched its economic reform program in 1978, and began the transformation from planned economy to a politically, centrally-controlled market economy, often referred to as a socialist market economy. During this transition, economic system reform has assumed priority over political reform. Chinese OFDI, as well as the Chinese entrepreneurial environment, was extremely influenced by the trial-and-error economic approach to general economic reform. Under the government's reform guidance and relevant policies, Chinese OFDI developed with varying pace over the last 40 years, featuring alternate strategic motivations at different stages. Meanwhile, Chinese entrepreneurial institutions began forming gradually, in a manner compatible with economic and societal changes. This revolution not only encouraged Chinese enterprises to undergo entrepreneurial transformation and conduct overseas expansion in the global market, but also changed popular opinion about entrepreneurs in China.

Chinese OFDI, like other aspects of China's economic reform, has its own characteristics. One of the striking characteristics is that Chinese companies, without obvious ownership advantages, increasingly invest in developed countries to enhance their business strength. For example, Chinese OFDI in the European Union reached 10.2 billion USD in 2017, a 2.7% increase from the previous year. Secondly, rather than simply establishing wholly owned subsidiaries abroad, Chinese firms are more likely to adopt mergers and acquisitions (M&As) as a strategically important entry mode. Indeed, Chinese cross-border mergers and acquisitions (M&As) in developed countries increased greatly with high-profile attempts, accounting for 21.1% of China's total OFDI, and reached 119.6 billion USD in 2017.

Thirdly, Chinese outward investment activities are often directed by the Chinese government, especially for "strategic and heavyweight" industries. China is a transitional economy [26]. During the transition, the Chinese government has been making efforts to limit market intervention. However, as a new emerging market, China also faces fierce global competition, thus providing a justification for the government to protect or assist OFDI activities of Chinese firms.

The fourth characteristic of Chinese OFDI is the number of private enterprises engaging in OFDI; it increased rapidly, although state-owned enterprises (SOEs) have traditionally dominated Chinese OFDI. The number of state-owned enterprises (SOEs) only accounted for 5.6% of all companies in 2017. As the key OFDI project players, SOEs can get more financial support, including credit funds from the government and discounted bank loans. Through international expansion, Chinese firms gain access to technology and acquire and develop new knowledge, new capabilities, and new resources. They build business relationships with foreign stakeholders and open new subsidiaries as start-ups, but also face heightened political and operational risks. Chinese companies, without a sufficient competitive advantage compared to companies from developed countries, can be found pursuing strategic asset-seeking and market-seeking strategies in developed countries and resource-seeking strategies in less-developed countries. (<http://www.mofcom.gov.cn/article/tongjiziliao/dgzz/201809/20180902791492.shtml>).

2.2. Outward Foreign Direct Investment (OFDI) and Entrepreneurship

Economists have long been interested in spillover effects. Spillovers can be generated from inside a country's economic system or from outside the system. Govindarajan and Trimble [27] point to the importance of "reverse innovation," or, as the subtitle of their book indicates: Create Far from Home, Win Everywhere [27]. In our paper, the spillover is produced by China's OFDI.

Much literature has addressed the reverse productivity spillover effect of OFDI through technology sourcing [12,28,29]. Companies invest abroad not only to exploit advantages they already possess, but also to acquire new technological knowledge [28]. The most important explanation for OFDI from developing countries is offered by the strategic asset-seeking motive [30] to create such assets as technology, intellectual property, and strategic infrastructure [31]. Technological innovation and knowledge spillover flow back to the home country, often providing business opportunities for entrepreneurial firms and innovators and becoming a major source of entrepreneurship [32]

During the early stages of economic reform, Chinese OFDI has been directed by the government in order to benefit from outside knowledge and experiment in international operations. More recently, Chinese OFDI is encouraged by the government to access advanced technology and immobile strategic assets (brands and other capabilities) that are not available in China through green entry and acquisition [3,33]. Chinese firms establish overseas subsidiaries or overseas R&D facilities to acquire new technology, knowledge, management skills, and so forth. Acquired knowledge spillovers can be transferred back to the parent company, thus increasing developing countries' domestic productivity [24,34,35] and innovation. Meanwhile, productivity growth can increase consumption and encourage opportunity-driven entrepreneurship. More importantly, multinationals from developing countries have a greater propensity to establish linkages with local firms [36], enabling them to more deeply integrate into the host economies and learn more about entrepreneurial culture and management

techniques. When multinationals transfer these intangible assets across national boundaries to increase their own capability, they also help to enhance the knowledge of entrepreneurship in the home country. In addition, local entrepreneurs have the opportunity to collaborate with international companies and thus improve their own capabilities. This results in an increase in local entrepreneurial drive and promotes enterprise development [37].

Horizontal OFDI is motivated by the desire to obtain market access or to avoid trade frictions. The Chinese government has been encouraging Chinese export-trade-related OFDI in services since the 1990s. Horizontal OFDI reduces home exports if the products from home and foreign country are substitutes in production. Accordingly, horizontal OFDI would reduce export-related startups. However, Herzer [24] point out that the majority of OFDI from developing countries is in services, therefore not exerting much influence on goods exports from the home country. On the contrary, horizontal OFDI can boost firms' production of intermediate goods and services in home countries and encourage domestic firms' entry. The entrepreneurship sector indirectly benefits, as local firms become supply-chain players or service providers for large multinational companies (MNCs) [13]. In addition, the Chinese FDI policy of "bringing in" subjects home markets to competitive pressures from foreign FDI and imports. Horizontal OFDI can relieve domestic market competition and expand beyond limited opportunities of the home market. Domestic start-ups can operate more easily now that some firms have moved out of the home market.

Vertical or efficiency-seeking OFDI is motivated by lower costs in the host country. Firms relocate their production process internationally to achieve the lowest cost. In the short run, shifting production from home to host countries for efficiency-seeking will reduce production and economic activity in the parent's domestic market [24,38,39]. However, MNCs become more efficient and competitive in the new production chain. In the long run, the loss of production from relocation will be compensated for as companies take advantage of different factor endowments. Moreover, unlike companies from developed countries that may be seeking worldwide efficiency through OFDI, Chinese enterprises have little incentive to seek production efficiency abroad as long as China can generate an abundant supply of relatively low-cost labor, land, and other inputs [3]. Thus, the adverse influence of vertical OFDI on home-country entrepreneurial activity has its limits.

Hypothesis 1 (H1). *Outward foreign direct investment (OFDI) has a positive effect on entrepreneurial activity.*

2.3. Institutional Environment and Entrepreneurship

As scholars have long argued, the interaction between business and government is a complex, dynamic, and interdependent process in which the government creates the rules by which business abides and shapes relevant policies [40–42]. It is indeed difficult to ascertain, without further research, whether the Chinese government influences China's OFDI and other economic activities too much. However, entrepreneurial activities at home and overseas both need to be encouraged. However, it is obvious that other countries, at times, misconstrue the Chinese government's role in OFDI and entrepreneurship. Two common misunderstandings account for that: First, if a Chinese overseas investor has previously held a government position, their current business investment is seen as being the Chinese government's investment; second, investment by Chinese firms abroad is seen as tantamount to that of the Chinese government. This can be illustrated by the failure of Chinese foreign investment in Iceland, that Chinese Zhongkun investment group failed to acquire the 300sq km Grimsstadir a Fjollum region in early of 2010. Entrepreneurship's institutional environment includes both normative institutions and regulatory institutions [43,44]. The regulatory framework consists of laws, regulations, and government policies that promote certain behaviors and restrict others; the normative framework reflects the degree to which a country's residents admire and respect entrepreneurs and entrepreneurial activity [45]. Regulatory policies can influence business investment and entry choices, since countries with higher levels of regulation make it more difficult for

entrepreneurs to exploit opportunities [46]. In China, although there is still excessive administrative red tape and an insufficient information network, the government has also taken measures to encourage private company growth, including decentralization of authority, creating incentives and laws for entrepreneurial activities, easing capital controls, and helping to reduce political and investment risk [41]. With the deepening of economic reform and opening-up, the Chinese government is using regulatory policies to assist entrepreneurs at the regional level and to foster industrial clusters, technology transfer, and high-tech start-ups. The role of the Chinese government in the transition may be more effective as a policymaker and infrastructure provider, rather than as a direct participant in the domestic and global business landscapes.

Hypothesis 2 (H2). *The favorable Chinese institutional environment positively affects entrepreneurial activity.*

2.4. Inward FDI and Entrepreneurship

One of the most important and most researched questions in international business is how FDI affects the economies of host countries [29]. There are three main effects of inward foreign direct investment on a host country noted in the literature: Demand-side effect, competition effect, and knowledge spillover effect, with the results being mixed [3]. The entry of foreign MNCs increases the demand for local intermediate goods in the host economy, and serves as an incentive for local supply firms to enter into the local market. Foreign MNCs with higher technology and management skills help to cultivate management talent, enhancing the country's human resource stock, thereby providing a long-term benefit to entrepreneurs and a positive impact on local entrepreneurial activity. On the contrary, the market power of foreign MNCs will also force inefficient domestic firms to exit the market [21]; the competition effect here exerts negative influence on domestic entrepreneurial activity. Which of the effects (demand pull or competition/supply push) prevails depends on a variety of factors, such as the MNCs' particular entry model and the economic situation of the host country [47]. The literature on foreign direct investment (FDI) and technology transfer shows that FDI benefits the host country through the inflows of new technology to affiliates of MNCs, thus creating a potential for technology spillovers to the host country's local firms [48,49]. The results of empirical studies on FDI spillover effect in China are still mixed [3,50,51]. Since China is an emerging market, urgently demanding technology and knowledge for its economic development, the knowledge spilled over and the technology transferred from foreign MNCs through FDI will influence its own brand of technology and innovation, and subsequently help to promote local entrepreneurial activity. We therefore propose that inward FDI positively affects Chinese entrepreneurial activity.

Hypothesis 3 (H3). *Inward foreign direct investment (FDI) has a positive effect on entrepreneurial activity.*

2.5. International Trade and Entrepreneurship

Since the reform and opening up, especially after China's accession to the World Trade Organization (WTO), China has been encouraging domestic enterprises to establish trade relations with enterprises of other countries to promote trade reciprocity, and the amount of trade increased year by year. With the further development of economic globalization, the Chinese government encourages domestic enterprises to "go out" and increase their participation in the world economy. Trade is good for domestic welfare [52]. Furthermore, the growth of trade is conducive to the accumulation of domestic capital, broadening the sources of financing for enterprises to start up, and reducing the cost of financing for enterprises, so as to reduce the risks of enterprises and promote the development of domestic entrepreneurship [53,54].

Hypothesis 4 (H4). *The amount of trade has a positive effect on entrepreneurial activity in China.*

2.6. Unemployment and Entrepreneurship

The relationship between unemployment and entrepreneurship in the literature can be best described as ambiguous [55]. Unemployment reduces the opportunity cost of entrepreneurial activity. However, if a country experiences high unemployment, the poor economy will negatively impact entrepreneurial opportunities. People start businesses for different reasons. When the pursuit of entrepreneurial opportunities is motivated by the lack of better work options, entrepreneurship is necessity-led. In a slack labor market, with few opportunities for paid employment, unemployed workers may seek alternative entrepreneurial opportunities. High unemployment, working as a “push” factor, will force individuals to explore entrepreneurial opportunities [56]. Since the Chinese economy is comparatively stable, a low level of unemployment should have a positive effect on entrepreneurship.

Hypothesis 5 (H5). *Unemployment has a positive effect on entrepreneurial activity.*

2.7. Theory Development and Conceptual Framework

OFDI may affect various aspects of the economy, including international entrepreneurship. In our study, we examine the significance of OFDI’s impact on domestic entrepreneurial activity. The background analysis of the Chinese institutional environment, including the background and characteristics of China’s OFDI and all the proposed relationships through which OFDI will influence entrepreneurial activities, is summarized in Figure 1, which depicts the conceptual model. Amoros [57] stated emphatically that government and institutional quality are elements that should be present in the theoretical model that purports to explain entrepreneurship. So, we will consider government policy, the institutional environment, and unemployment as controlling variables to test their relationships with entrepreneurial activities. More importantly, we propose that OFDI will strongly influence the home country’s entrepreneurial activities through the direct effect of reverse knowledge or technology spillover and by the mediated effect of economic growth.

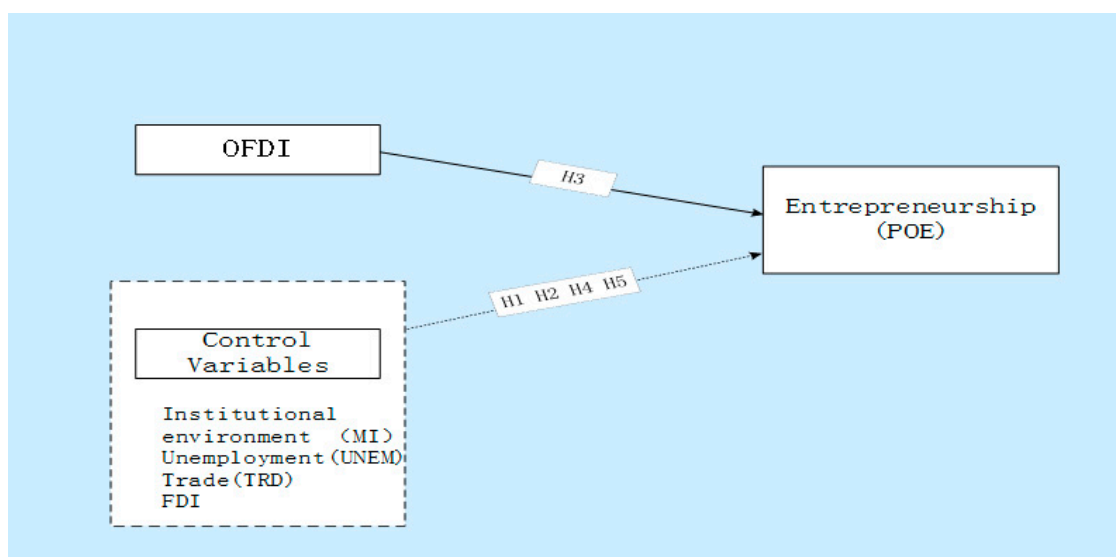


Figure 1. The conceptual model.

3. Data and Methodology

3.1. The Model

Our discussion suggests the following general log-linear model:

$$SE_{it} = f(OFDI_{it}, X_{it}) \quad (1)$$

The data are transformed into natural logarithms to eliminate the influence of heteroscedasticity and to reduce the effect of data fluctuations. Here, SE represents entrepreneurship as measured by the number of privately owned enterprises, and *OFDI* presents Chinese outward foreign direct investment; *X* is the vector of control variables; *i* represents China's provinces; *t* represents the time of the data.

3.2. Data and Variables

The data for this study are provincial statistics collected from the Chinese National Bureau of Statistics (Chinese Statistics Year Books, 2004–2015). The dependent variable of entrepreneurship is measured by the number of privately owned enterprises (POEs). The definition of entrepreneurship is certainly a complex one. In the Chinese context, some researchers define entrepreneurship as new business measured in terms of new private companies, while others consider this definition as narrow and lacking consideration of entrepreneurial willingness [58]. Zhang and Li [59] focused on private companies to analyze corporate entrepreneurial activities. Moreover, the Chinese government always encourages local entrepreneurship by simply measuring the number of private enterprises, as described in a paper about young people's entrepreneurship, using the number of privately registered enterprises [60]. We describe entrepreneurship here as entrepreneurial activity revealed by means of entrepreneurs' behavior in starting a new business and being willing to run it in pursuit of the entrepreneurial spirit. Private enterprises refer to profit-making economic organizations established by natural persons or controlled by natural persons on the basis of wage labor, in accordance with No. 9 Article of Regulations on the classification of enterprise registration types issued by the National Bureau of Statistics and the State Administration for Industry and Commerce (National (1998) No. 200 on 28th August, 1998). In China, the concept of private enterprise and entrepreneurship are closely aligned, so the number of private enterprises was used to represent entrepreneurship. In addition, we use the OFDI stock as the independent variable. China's OFDI changed very slowly before 2003; therefore, we use data from 2004 to 2015 to test our hypothesis.

We also use selected control variables. We use the marketization index (MI) for China's provinces (2004–2015), published by the National Economic Research Institute (NERI) [61] as a control variable to indicate the institutional environment in China. One important component of this index is government–market relations, shaped by the institutional environment towards private enterprise development during transition. In addition, inward foreign investment (FDI), unemployment (UNEM), and international trade (TRD) were included as control variables because they potentially help Chinese enterprises to develop international business skills, positively impact entrepreneurial activity, and contribute to economic growth and development.

The resulting model is:

$$POE_{it} = \beta_0 + \beta_1 OFDI_{it} + \beta_2 TRD_{it} + \beta_3 FDI_{it} + \beta_4 UNEM_{it} + \beta_5 MI_{it} + \delta. \quad (2)$$

In this equation, *i* represents provinces and *t* represents years. In order to eliminate the influence of heteroscedasticity and improve the accuracy of the model, the logarithmic treatment is adopted for the key variables, such as POE, OFDI, FDI, and TRD. Meanwhile, considering the effect of GDP on entrepreneurial activity, we use the $\ln OFDI/\ln GDP$, $\ln FDI/\ln GDP$, and $\ln TRD/\ln GDP$.

3.3. Data Analysis and Results

Table 1 shows the descriptive statistics of the samples. Panel A is the distribution of variables. Panel B divides the samples into two sub-samples of non-coastal provinces and coastal provinces. The *t*-test shows that, except for the unemployment rate, all the other variables have significant differences at the 1% level.

Table 1. Descriptive statistics.

Panel A				
Variable	Mean	Min	Max	Std. Dev.
POE	7.9709	3.7842	10.7516	1.4270
OFDI	0.53736	−0.5663	1.0445	0.2676
MI	1.7918	0.9282	2.3906	0.2975
FDI	0.7362	0.1308	0.9715	0.1733
TRD	1.0843	0.8041	1.4072	0.1334
UNEM	1.2600	0.1823	1.8718	0.2267
Panel B				
Variable	Non-Coastal Provinces	Coastal Provinces	t-Test	
POE	7.5499	8.6981	−7.9728 ***	
OFDI	0.4752	0.6448	−6.0808 ***	
MI	1.6696	2.0029	−12.1598 ***	
FDI	0.6745	0.8428	−10.0336 ***	
TRD	1.0206	1.1943	−15.2815 ***	
UNEM	1.2740	1.2357	1.5484	

Note: * represents significance at the 10% level; ** represents significance at the 5% level; *** represents significance at the 1% level.

Table 2 presents correlations for all variables included in the model. As a result, entrepreneurship (POE) has a strong positive correlation with OFDI ($r = 0.422$, $p < 0.05$), FDI ($r = 0.541$, $p < 0.05$), TRD ($r = 0.306$, $p < 0.05$), and MI ($r = 0.688$, $p < 0.05$), but is not correlated with unemployment rate ($r = 0.036$, $p > 0.1$). To check for multicollinearity, variance inflation factors (VIF) for all regression models are computed. In accordance with Deng et al. [62], we conclude that we do not have a multicollinearity issue, since the VIF for all variables is below 5.

Table 2. Correlation coefficient.

Variables	Means	S.D.	POE	OFDI	FDI	TRD	UNEM	MI
POE	7.971	1.427	1					
OFDI	0.537	0.268	0.422 **	1				
FDI	0.736	0.173	0.541 **	0.359 **	1			
TRD	1.084	0.133	0.306 **	0.423 **	0.518 **	1		
UNEM	1.256	0.226	0.036	−0.417 **	−0.109 *	−0.385 **	1	
MI	1.791	0.298	0.688 **	−0.434 **	0.696 **	0.688 **	0.197 **	1

Note: * represents significant at the 10% level; ** represents significant at the 5% level; *** represents significant at the 1% level.

The model is estimated using fixed-effect and random-effect Ordinary Least Squares (OLS) regressions. In order to reduce the influence of non-independence on parameter estimation, the random effect model was used to estimate the effects of the independent variables [63].

In Table 3, we first test H1–H5 using provincial data from 2004–2008 and the number of privately owned enterprises (POEs) as the dependent variable. Table 3 presents the results. Model 1 is the baseline model with control variables; the market index shows a strong positive effect on the number of privately owned enterprises ($p < 0.01$) and the unemployment rate has a positive effect on the privately owned enterprises number, but it is not significant. In Model 2, OFDI is inserted, and shows a strong positive effect on the number of privately owned enterprises ($p < 0.01$). When the control variables of foreign direct investment (FDI) and total foreign trade (TRD) are inserted one by one into Model 3 and Model 4, along with OFDI, OFDI still shows strong positive effect on the number of privately owned enterprises ($p < 0.01$ and $p < 0.01$, respectively). FDI is not significant in Model 3, but shows great relation with the number of privately owned enterprises in Model 4 ($p < 0.05$). Total foreign trade

shows a negative, statistically significant effect on the number of privately owned enterprises ($p < 0.01$). In Model 4, all variables are included; institutional environment is highly significant, providing support for H1; FDI is significant in some parts, which partly supports H2. OFDI is significant and has the expected positive sign, lending support to H3. Trade is negatively correlated with the number of privately owned enterprises, which does not support H4. Unemployment (UNEM) shows a partially significant effect on the number of privately owned enterprises (POE) ($p < 0.05$), providing partial support for H5. The outbreak of the financial crisis in 2008 had a great impact on the global entrepreneurship pattern. In order to verify the economic cycle effect, this paper collected relevant data of provinces from 2009 to 2015 for in-depth comparative analysis.

Table 3. Random effect of OLS for all provinces (2004–2008).

	(1)	(2)	(3)	(4)
	POE	POE	POE	POE
UNEM	0.097 (0.379)	0.145 ** (0.371)	0.144 ** (0.370)	0.059 (0.350)
MI	0.793 ** (0.273)	0.636 ** (0.329)	0.573 ** (0.394)	0.743 ** (0.386)
OFDI		0.264 ** (0.346)	0.266 ** (0.345)	0.348 ** (0.320)
FDI			0.094 (0.472)	0.138 * (0.430)
TRD				−0.394 ** (0.651)
_cons	−0.469 (0.793)	0.048 (0.767)	0.131 (0.767)	3.167 ** (0.868)
<i>N</i>	150	150	150	150
<i>R</i>	0.601	0.639	0.644	0.712
<i>A-R</i>	0.595	0.632	0.635	0.702

Note 1: * significant at 5%, ** significant at 1%, *** significant at 0.1%; standard errors in parentheses. Note 2: Because Tibet lacks sufficient data and contributes little to the Chinese economy, we dropped it and used the other 30 Chinese provinces' data. The five autonomous minority ethnic regions and three municipalities directly under the control of the central government are considered as provinces and were therefore included.

Table 4 shows the regression results of related variables between 2009 and 2015, which are significantly different from Table 3. Among them, OFDI shows a negative correlation with domestic entrepreneurship from 2009 to 2015, and the impact of FDI on domestic entrepreneurship is not significant.

In order to ensure the stability of the test results and further test the differences in the effects of foreign investment in the regions, the data collected in this paper were divided into coastal areas and non-coastal areas for testing according to Brun et al. [64]. In Table 5, we show the test results for coastal and non-coastal provinces in two economic periods, namely 2004–2008 and 2009–2015. In Model 1, between 2004 and 2008, OFDI had a significant positive impact on entrepreneurial activities in both coastal and non-coastal areas ($p < 0.01$, $p < 0.01$, respectively). In Model 2, we also check for robustness of the effect of OFDI on the number of privately owned enterprises by inserting data from 2009 to 2015. The results are similar to those obtained nationwide between 2009 and 2015. OFDI in both coastal and non-coastal areas does not have significant effect on the number of privately owned enterprises. Meanwhile, the impact of FDI on the number of privately owned enterprises is not significant in the coastal provinces, but has a positive effect on non-coastal provinces ($p < 0.01$). The trade variable is not significant in either coastal provinces or non-coastal provinces.

Table 4. Random effect of OLS for all provinces (2009–2015).

	(1)	(2)	(3)	(4)
	POE	POE	POE	POE
UNEM	0.327 ** (0.292)	0.300 ** (0.308)	0.301 ** (0.312)	0.262 ** (0.335)
MI	0.741 ** (0.220)	0.795 ** (0.266)	0.810 ** (0.377)	0.863 ** (0.396)
OFDI		−0.101 (0.501)	−0.102 (0.502)	−0.063 (0.527)
FDI			−0.019 (0.654)	0.003 (0.658)
TRD				−0.145 (0.894)
_cons	−0.352 (0.584)	−0.038 (0.611)	−0.045 (0.613)	1.264 (0.924)
<i>N</i>	210	210	210	210
<i>R</i>	0.551	0.557	0.557	0.565
<i>A-R</i>	0.547	0.551	0.549	0.554

Note: * significant at 5%, ** significant at 1%, *** significant at 0.1%; standard errors in parentheses.

Table 5. Random-effect OLS for coastal provinces and non-coastal provinces in China.

INE	(1) 2004–2008		(2) 2009–2015	
	Coastal Provinces	Non-Coastal Provinces	Coastal Provinces	Non-Coastal Provinces
UNEM	0.058 (0.795)	0.113 (0.394)	0.232 * (0.997)	0.281 ** (0.270)
MI	0.536 ** (1.116)	0.665 ** (0.394)	0.818 ** (1.306)	0.499 ** (0.331)
OFDI	0.610 ** (1.231)	0.297 ** (0.493)	−0.249 (2.350)	0.041 (0.542)
FDI	0.081 (2.327)	0.288 ** (0.495)	0.077 (2.701)	0.405 ** (0.668)
TRD	−0.376 (2.619)	0.326 ** (1.353)	−0.194 (3.941)	−0.063 (1.127)
_cons	2.358 (1.891)	2.642 * (1.221)	−1.421 (2.297)	1.947 * (0.860)
<i>N</i>	55	95	77	133
<i>R</i>	0.666	0.690	0.469	0.711
<i>A-R</i>	0.632	0.673	0.432	0.700

Note: * significant at 5%, ** significant at 1%, *** significant at 0.1%; standard errors in parentheses.

4. Discussion and Implications

Regression analysis shows that OFDI does not have a simple positive influence on domestic entrepreneurial activities, which indicates obvious economic cycle volatility; the impact of inward foreign direct investment on domestic entrepreneurial activities also shows regional differences, and international trade does not have a significant impact on domestic entrepreneurial activities per our hypothesis.

First of all, the regression results support our hypothesis; outward foreign direct investment has a positive promotion effect on domestic entrepreneurial activity in the growing status of the economic cycle, but, when the economic boom began to decline after the outbreak of the financial crisis in 2008, the pull function of outward foreign direct investment on domestic entrepreneurial activity during the 2009–2015 period is not significant. To ensure the robustness of our conclusions, we tested the data by province. The result is consistent with the previous conclusion. In particular, from 2004 to 2008,

outward foreign direct investment in coastal areas played a significant role in promoting the coastal areas' entrepreneurial activity. However, during the domestic economic recovery period following the global financial crisis, the pull function of outward foreign direct investment on entrepreneurship became less obvious, while the changes in the coastal cities and non-coastal cities were obvious. We believe that this may also be related to the utility cycle of OFDI, which has an inverted "U" effect on domestic entrepreneurial activities. At present, the utility of OFDI declines and is ready to enter the declining stage.

Second, we found that the effect of FDI on domestic entrepreneurial activity is not consistent with our expectations. According to the results, foreign direct investment has no obvious impact on entrepreneurship in coastal cities. On the contrary, foreign direct investment has a significant positive impact in non-coastal cities. Further research suggests that this may be related to interregional financial abundance. In coastal cities, the economic and financial development is more favorable for entrepreneurship in terms of the wide choice of capital sources, such as bank loans, private funds, and local governments' support. In contrast, there is a relative lack of entrepreneurial capital sources in non-coastal areas. Local enterprises there also make full use of foreign direct investment as a source of capital investment, which is also strongly encouraged by non-coastal local governments. Thus, this may result in regional differences in the stimulation effect of FDI on entrepreneurial activities.

Third, the institutional environment, which is generally considered to be an important factor during China's transition, consistently shows a strong effect on entrepreneurial activities of private businesses. It also suggests that entrepreneurs in developing countries, such as China, should possess the ability to overcome obstacles by understanding government policy. Moreover, economic liberalization and marketization have led to business environments that encourage innovative entrepreneurship [65]. Chinese policymakers are currently trying to undertake economic reform to make the socialist market more market-oriented and influence Chinese OFDI through regulations and guidelines. Therefore, during this transitional period, government intervention and guidance are tolerated and may even play a constructive role. Spencer [45] gives another explanation: Regulatory institutions have a negative association with entrepreneurial activities, that is, when regulatory institutions are strong, individuals appear to be pushed away from entrepreneurship. This may be explained by the different types of regulatory and economic frameworks in different countries. Since policymakers aim at fostering domestic entrepreneurship, it is very important for them to undertake pro-active measures [66], including support for education, training, and entrepreneurial ventures, especially for technology and innovation entrepreneurship. Since 1978, a number of pro-active policy measures have been introduced to support private sector development in China, but more effective government policies are still needed to reduce non-productive entrepreneurial activities to avoid rent-seeking and to develop the capacity of local entrepreneurs to absorb knowledge and technology from their international partners. Furthermore, a positive institutional environment that includes policy stabilization, effectiveness, and consistency of regulations and laws enables individuals to anticipate less uncertainty regarding their entrepreneurial activities.

Fourth, the impact of total international trade on domestic entrepreneurial activities is also different from what we expected. In general, the impact of trade on entrepreneurial activities in coastal areas and non-coastal areas is not significant. Specifically, trade provided a temporary stimulus for entrepreneurship in non-coastal areas from 2004 to 2008, which was not significant after the outbreak of the financial crisis. We think it has to do with domestic policy in recent years. With the deepening of economists' research on national economy, the government began to attach importance to the role of domestic consumption in driving the economy and began to advocate for national consumption. Trade not only increases national income, but also promotes national consumption. According to previous studies, there is a certain substitution effect between national consumption and national investment. As a kind of national investment, the promotion effect of trade on entrepreneurship is replaced by national consumption, so the promotion effect of trade on entrepreneurship is not significant.

Fifth, the unemployment rate has played a significant role in promoting domestic entrepreneurship. According to our regression test, from 2009 to 2015, at the national level, the unemployment rate had a positive impact on the development of domestic entrepreneurial activities. Since 2004, China has relaxed the regulations on private enterprises' participation in foreign investment, expanded the business scope of enterprises, and provided more options for enterprises to explore the market. In recent years, with the better institutional entrepreneurial environment and people's understanding of entrepreneurial activities, as well as the improvement of respect for entrepreneurs, entrepreneurship has gradually become one of the main choices for people to find jobs, especially for the unemployed, and the increase of the unemployment rate will promote entrepreneurial activities in China.

5. Contributions

Our study contributes to the theory of foreign investment: First, our study extends the international business research by innovatively examining the relationship between OFDI and entrepreneurship in the home country. Encouraged by the Chinese government's policy of "widespread entrepreneurship", with the business start-ups by the general public, entrepreneurship has already become a new driving force for the country's economic development. In this context, it has significant meaning to study the influence of the foreign investment on entrepreneurship. In addition, our study verifies the positive effect of institutional environment on enterprise entrepreneurship, thus providing an empirical basis and reference for the government to improve the business environment. Finally, our paper confirms that the increase of unemployment rate will lead to the promotion of entrepreneurial activities if people can better understand and recognize the opportunities of entrepreneurial activities. All the implications of our findings can help further related research and policymaking in the future.

6. Limitations and Future Research

In this paper, we provided a framework for the analysis of entrepreneurial activities through examination of the effects of Chinese OFDI during the transition. This study is limited by the lack of sufficient data, since research on Chinese entrepreneurship is at its nascent stage, and entrepreneurial activities may include more aspects than what we examined in the paper [67]. There is a need for more data to be collected in the future to explore the effects of OFDI on Chinese necessity-driven and opportunity-driven entrepreneurial activities. In addition, because the level of economic development can function as a "pull" factor on entrepreneurial activity and increase a country's international involvement in the form of OFDI, FDI, and international trade, these will ultimately contribute to further economic growth and development. Finally, to achieve the objectives of this study, we simplified our research methodology by standardizing our data through division by regional GDP in order to reduce the interaction effects. In the future, a more comprehensive model and data may be needed to more adequately address these interactions.

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