



## The Impact of Government Assistance to State-owned Enterprises on Foreign Start-ups: Evidence from Yangtze River Delta\*

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Different types of corporate ownership may affect the environment among firms and could influence the decisions of new entities in the region. This study determines the role of state-owned enterprises (SOEs) in hindering new foreign manufacturing firms in the Yangtze River delta (YRD). The negative binomial regression is used for city-sector level data and the following points summarize the results: Firstly, the unique privileges that SOEs enjoy alongside governmental support create difficulties for foreign firms trying to establish themselves near existing SOEs. Secondly, although core cities are more attractive to foreign firms than peripheral cities, the role of core-periphery reveals that, in spite of all the regional advantages core cities could offer, whenever the share of SOEs is higher, the core-periphery system will have an adverse impact on new foreign firms. In other words, government preference for SOEs can suppress the attraction of foreign start-ups. However, after 2008, the governmental authorities finally succeeded in implementing

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their promising policy of fair treatment and competition in only the core cities.

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## I. Introduction

The decision to invest in a new firm is based on analyzing various political, economic, and social factors, the weight of each depends on the foreign investor's motivation (Sârbu and Gavrea, 2014). Myles Shaver and Flyer (2000) argued that agglomeration externalities influence firms' location decisions. In agglomerations, different types of firms' ownership can generate favorable or unfavorable environments for other firms, and eventually it will affect the decisions of new entities and their entry rates into the region. He and Wang (2012) found that in transitional economies like China, firms' ownership is critical in the creation of industrial clusters. Another study has investigated the links between, ownership, the emergence of new businesses, and firms' size (Rosenthal and Strange, 2003), and indicated that industrial structure has an impact on the benefits of agglomeration within a given industry. On the one hand, He and Wang (2012) argued that SOEs may be the least eager to benefit from agglomeration economies. Likewise, Fu and Hong (2011) revealed that urbanization and localization economies did not help SOEs in a study applied to a sample of manufacturing firms, since they enjoy government subsidies, institutional advantages, and other policy advantages that have made them survive. In general, SOEs are more likely to be influential than to be affected by agglomeration externalities. On the other hand, foreign enterprises are the most reliant on agglomeration benefits in China, given they face business uncertainty and significant information asymmetry (He, 2002, 2006). Vakhitov and Bollinger (2010) also studied the effect of ownership on agglomerations and found that foreign-owned firms benefit more from agglomerations than any other type of ownership.

SOEs can be important to agglomerations, even if they do not have the inducement to get involved in firms' clusters. They might form the cornerstone for agglomerations; the government can depend on them with massive industrial projects and infrastructure that the market cannot do alone. SOEs' existence can increase the chances for new businesses and encourage them regionally (Gabe, 2003, 2009; Alcácer, 2004; Artz et

al., 2016). On the contrary, and given that SOEs have more privileges and comparatively higher creditworthiness than other types of ownership, they have greater market access than foreign-owned firms due to their connection with the government. SOEs' relationships with legislators may secure their state funding and give them access to legislation and laws that can serve their goals. These priorities might be discouraging for other new foreign firms willing to start businesses in regions with many SOEs. Foreign investors will probably consider problems created by competition, inadequate market information, and governmental support for their competitors.

Since 2004, the Yangtze River Delta (YRD) has replaced the Pearl River Delta as the top national regional FDI recipient to take the lead as the top regional FDI destination in the country. Additionally, we have observed a decline in the number of new foreign firms in the region, particularly in the major cities of YRD. Therefore, we focused on this economic region and shed light on how new foreign firms react to the presence of Chinese SOEs. We are assuming that new foreign firms tend to be distant from regions with the presence of many SOEs. We also extended the investigation to check the effect of the regional division of the delta cities according to the system of core cities 'in which the economic activity is strongly concentrated' and the peripheral cities 'adjacent to core cities, as an opposed term' to investigate whether the core-periphery system can affect the relationship.

This study included all the manufacturing sectors and applied the negative binomial regression using city-sector level data extracted from the Chinese Industrial Enterprises database. Empirically, it is found that although core cities still have more attraction to foreign firms than the peripheral cities of YRD, the dominance of the market by SOEs and the government's support make it difficult for new foreign firms to establish near them. This was stated by studying the effect of SOEs on new foreign entities and the role of the core-periphery system in this relationship. It was revealed that despite all the advantages of core parts, whenever the share of SOEs is higher, the core-periphery system will have an adverse impact on new foreign firms, as governmental and political influence can suppress the attraction of new foreign firms. The rest of this study is organized as follows: the second section reviews prior literature explaining the above theories. Section III presents the data source and the corresponding methodology. Section IV discusses the results, and Section V provides the research conclusion.

## II. Literature Review and Hypothesis Formation

This study presents the impact of state-owned enterprises' presence and policies that affect the birth of new foreign firms. Then it discusses the core-periphery theory and how firms are affected by the attraction forces from different parts of YRD. Hypotheses are formed after the discussions.

### *1. The Effect of State-owned Enterprises' Presence*

The fast development of SOEs has had a number of negative implications for China's economy, primarily through impeding fair competition between SOEs and other enterprises of different ownership. Branstetter and Feenstra (2002) examined FDI in China on a provincial level by evaluating the structural parameters of the government's welfare function using 29 provincial data from 1984 to 1995. They find that international companies compete with state-owned industries, and the Chinese government is attempting to hinder international companies' ability to engage in the Chinese market. Indeed, Incentive policies for foreign companies are a significant consideration, particularly in developing nations (Sun et al., 2002; Ali and Guo, 2005). Although government efforts are attributed to largely attracting FDI, local authorities generally support local firms, even with the low efficiency of SOEs' production (Lin et al., 1998; Firth et al., 2006), the Chinese economy was strongly dependent on the public sector (Lin et al., 2020), SOEs generally attempt to target both political and commercial objectives (Dewenter and Malatesta, 2001; Qi and Kotz, 2020) in order to ensure social stability and stimulate growth in the economy. In addition, SOEs have the ability to invest in capital-intensive industries and infrastructural projects that the market cannot achieve on its own since these investments require lump-sum payments, imports of equipment, and long-term commitments (Lin et al., 1998; Lin and Tan, 1999; Geng et al., 2009). SOEs have recently become a source of increasing concern between China and many of its international business relations. The key criticism from the international community is that the Chinese government provides SOEs preferential treatment. The SOEs' dominance results in uneven market competition and political regulation between state and non-state sectors, as well as the SOEs' preferential access to business information and policy changes, which can inhibit other industrial operations and limit equal opportunities. Government procurement policies, according

to (Nolan and Xiaoqiang, 1999), are an essential tool for protecting state enterprises.<sup>1</sup> Moreover, SOEs enjoy state cheap loans and land, and even governmental subsidies (Luo et al., 2010; Harrison et al., 2019), especially in recessions or losses, where SOEs have fewer risks than foreign firms, making them relatively more creditworthy with guaranteed lower interest rates. Indeed, the high protection by local authorities keeps them more secure in the market (Bai et al., 2004). However, SOEs are involved in monopolistic practices and abusive behavior of market power because of the lack of strict public accountability and fair competition. The SOEs have frequently exploited their market position by engaging in monopolistic pricing practices to establish excessive product and service prices. The government enterprises' influence over key resources should not interfere with competitive markets or impede progress. This demonstrates that the dominance of SOEs over critical sectors and their monopolistic activities preclude private and international companies from competing on an equal playing field throughout the Chinese market. SOEs have also developed into a powerful association, which has been further strengthened through institutionalization. So far, the dominant SOEs have been extremely effective in fending off efforts to subject them to new rules and policies (Yu, 2014).

Growing concerns are aroused by the expansion of SOEs outside their defined domains. Recently, government enterprises have aggressively extended their operations beyond their designated fields and competed strongly with foreign companies, from critical and pillar industries to other contestable sectors such as food manufacturing. The fast development and substantial presence of SOEs are evident across a vast number of industrial sectors. The growing pressure on foreign rivals has resulted in a competitive disadvantage. Some foreign firms complain about the unfair competition caused by local protectionist policies. Their concerns about unequal competition and the presence of market access barriers do occasionally happen when local governments protect or benefit local businesses, including SOEs.

China has made a pledge to create a marketing environment for equal competition and ensure non-discriminatory provisions for firms of all types of ownership for the purpose of offering credit, tax incentives, and government regulations and policies. Some of the government's controversial policies have also been explained. For example,

<sup>1</sup> These challenges were evident after China fail to adopt the WTO's Government Procurement Agreement (GPA), which mandates treating domestic and international suppliers equally when it comes to government sales and procurement to cover SOEs, see Schonberg (2021).

foreign firms are now subject to the structural transformation of industry and revitalization programs, along with recognition requirements for innovative indigenous goods to prevent claims of unequal treatment. The government's procurement policy promoting innovative indigenous goods has been scrapped. Nevertheless, the success of local governments in enforcing equal treatment for all firms is mainly dependent on how they implement their policies. Thus, we formed the following hypothesis:

**Hypothesis 1:** We assume that state-owned enterprises still cause tensions for foreign firms. The latter tend to be distant from regions with many SOEs to avoid being affected by unequal treatment of local policies, unfair competition, and market barriers.

## *2. The Role of Core-periphery Regions*

Basically, in the fast-growing market of YRD, FDI firms search for better investment locations to obtain more comparative advantages (Belkhouja et al., 2017; Ramasamy et al., 2012; Jean et al., 2011; Luo et al., 2008; Du et al., 2008; Barry et al., 2003; Krugman, 1991). Outward relocations of manufacturing firms from the core cities, such as Shanghai, to the neighbouring Zhejiang, Anhui and Jiangsu Provinces and other cities have remained prominent since the 1990s (Wu et al., 2018). Moreover, when large-scale competition amongst businesses in core cities contributes to creating upward pressure on land and labour costs, the diffusion of manufacturing investment activities from the centre to the peripheral cities will be primarily driven by resource-based and labour-intensive manufacturing sectors (Wu et al., 2018). Major institutional and economic reforms in the YRD included government incentives for foreign direct investments to drive foreign firms from the coastal cities to the western and inner parts of China (Shi et al., 2014). However, the effect of government incentives on foreign investment flow is still low. Studies show that even when large incentives are available, complying with the subnational geographic distribution of FDI investors is difficult given the underlying framework (Cantwell and Mudambi, 2005; Mudambi, 1998). The core areas of the market have more attractive qualities, especially for some industries like capital-intensive and high-tech manufacturing industries (Wu et al., 2018), and they are difficult to overcome by economic policies aimed at expanding FDI to peripheral cities.

However, the interaction between new foreign firms and SOEs might also be influenced by the core-periphery system. The proportion of state-owned enterprises

reflects the government's influence in a certain region, and therefore it reflects the institutional framework. Because of the competitive advantages and market proximity, core cities are more attractive to new foreign firms. (McDonald et al., 2018; Huang and Wei, 2016; Sun et al., 2002). However, when SOEs are highly concentrated in a region, local governance will be more dominant, and the regional regulations and laws can be carried out in favour of SOEs. Even in core regions, it might have a negative impact on new foreign firms, as government involvement can limit the incentives for foreign investors.

In general, the dominance of SOEs along with the upward pressure on start-ups in core cities may affect the birth of new foreign firms in these regions. On the other hand, foreign entities might cope with the challenges and choose core regions for their location and market advantages. We are not sure what the core-periphery effect might be in the YRD. Since this relationship has not been investigated regarding its effect on SOEs, our next hypothesis is formed as follows:

**Hypothesis 2:** The core cities of YRD have a more influential effect on the relationship between new foreign firms and state-owned enterprises than the peripheral cities do.

### III. Data and Methodology

#### *1. Data Collection and Indicators*

To examine the proposed hypotheses, we used data from the Chinese Industrial Enterprises database collected by the National Bureau of Statistics of China. This data mainly comes from the annual reports submitted by enterprises to the local Bureau of Statistics. The database boasts extremely high-quality research, and it can provide a comprehensive view of the manufacturing sectors in the YRD. However, there is no recent data in this database. Therefore, due to its limited availability and in order to obtain a consistent dataset, we took the firms whose opening years ranged from 1998 to 2013. and similar to (Shi et al., 2020), we applied several procedures to effectively utilize this database. Firstly, we obtained all firm-level data for the study period, then applied multiple procedures to omit repeated registrations throughout the years and unified the SIC code into the 2002 format for the years 1998-2001 and 2011-2013. Subsequently, we used the classification provided by the State Statistical Bureau of China to define ownership for different types of firms. On the basis of this classification,

Table 1. Definition and Measurements of the Variables

<i>Variables</i>	<i>Definition</i>	<i>Taken as</i>	<i>Measurement</i>
<i>F<sub>s</sub></i>	Number of new foreign firms in the YRD	Integer original values	Number of foreign firms at the age of one year registered as Hong Kong, Macao, Taiwan, and other foreign-funded collected in the city <i>i</i> , and year <i>t</i>
<i>SoeEmp</i>	SOE employment per total employment	Log form (second lagged)	The number of employees in the state-owned manufacturing enterprises, divided by the total employees in the city <i>i</i> , and year <i>t</i> .
<i>CoPr</i>	Core-periphery	Values of 0 and 1	A dummy variable that takes a value of '1' for the core cities and a value of '0' for the peripheries.
<i>ExFrFirms</i>	Already existing foreign firms	Log form	The number of existing foreign manufacturing firms registered as Hong Kong, Macao, Taiwan, and other foreign-funded, divided by the total number of manufacturing firms in a city <i>i</i> , and year <i>t</i> .
<i>Wages</i>	Employment wages	Log form (first lagged)	The average wages of employees in the city <i>i</i> , and year <i>t</i> .
<i>SmallFirms</i>	Small firms per total firms	Log form	The number of small manufacturing firms, divided by the total manufacturing firms in the city <i>i</i> , and year <i>t</i> .
<i>MedFirms</i>	Medium-sized firms per total firms	Log form	The number of medium-sized manufacturing firms, divided by the total manufacturing firms in the city <i>i</i> , and year <i>t</i> .
<i>PopDen</i>	The population density of each region	Log form	The number of people per square mile of land area in a city <i>i</i> and a year <i>t</i> .
$\gamma_1$			A city-fixed effect of the panel models

we divided the firms into two categories: state-owned companies (registration codes: 110, 141, 143, and 151); Hong Kong, Macao, Taiwan, and other foreign-funded companies (registration codes: 210, 220, 230, 240, 310, 320, 330, and 340). The sample size reached 526,424 firm-level observations. The state-owned enterprises' percentage was 50.7% (266,723 firms), whereas the foreign firms' share was 49.3% (259,701 firms). Amongst them, HMT-owned firms accounted for 26.4% (139,209 firms), and the other foreign firms' share was 22.9% (120,492 firms). And that was for manufacturing industries whose SIC digit codes are from 1310 to 4210. Finally, we generated a completed and effective sample data set at the city-manufacturing sector



level of the YRD, containing 33 cities in Zhejiang, Jiangsu, and Anhui Provinces in addition to Shanghai Municipality. We coded “Shanghai, Suzhou, Nantong, Nanjing, Hangzhou, Ningbo, and Hefei” cities as the core parts of the YRD, which is in accordance with the classification of the first and second levels of the tiered city system in China. Other cities were coded as “peripheries”. Also, following Guo et al. (2016), we classified the firms according to the number of employees, where small firms have fewer than 50 employees and medium-sized firms have 51 to 200 employees. Table 1 shows the definition and measurement of variables, as well as the control variables included in the analysis.

## 2. Model Specification and Estimation Methods

In general, the correlation coefficients do not indicate any significant problem of multicollinearity amongst the variables (see table 2).

Table 2. Matrix of Correlations

Variables	<i>SoeEmp</i>	<i>CoPr</i>	<i>ExFrFirms</i>	<i>Wages</i>	<i>SmallFirms</i>	<i>MedFirms</i>	<i>PopDen</i>
<i>SoeEmp</i>	1.000						
<i>CoPr</i>	-0.005	1.000					
<i>ExFrFirms</i>	-0.148	0.617	1.000				
<i>Wages</i>	-0.407	0.203	0.233	1.000			
<i>SmallFirms</i>	0.550	-0.050	-0.129	-0.402	1.000		
<i>MedFirms</i>	0.287	-0.055	-0.136	-0.475	0.593	1.000	
<i>PopDen</i>	-0.123	0.225	0.270	0.247	-0.060	-0.043	1.000

We found Poisson regression as the standard method. Given that, our dependent variable is measured as a ‘non-negative integer’, and contains numerous values of zeros. However, the Poisson distribution assumes that the mean is equal to the variance, and in this case, the mean of the dependent variable is 95.79 whereas the standard deviation is 199.15, which concluded that the variance is much greater than the variance. In addition, since the probability of likelihood-ratio test of Alpha is below 0.05, we can safely reject the idea of equality between mean and variance. Therefore, this study followed Guo et al. (2016) by using negative binomial regression, as a

standard method used to model over-dispersed data. In addition, we employed the city-year fixed effect to explain the temporal variation as follows:

$$\begin{aligned} \text{NFF}_{i,t} = & \beta_0 + \beta_1 \text{SoeEmp}_{i,t} + \beta_2 \text{CoPr}_{i,t} + \beta_3 \text{ExFrFirms}_{i,t} \\ & + \beta_4 \text{Wages}_{i,t} + \beta_5 \text{SmallFirms}_{i,t} + \beta_6 \text{MedFirms}_{i,t} \\ & + \beta_7 \text{PopDen}_{i,t} + \beta_8 \gamma_1 + \varepsilon_{i,t} \end{aligned} \quad (1)$$

The second model is added to examine the interaction effect of SOEs with the core-periphery as follows:

$$\begin{aligned} \text{NFF}_{i,t} = & \beta_0 + \beta_1 \text{SoeEmp}_{i,t} + \beta_2 \text{CoPr}_{i,t} + \beta_3 \text{CoPr} * \text{SoeEmp}_{i,t} \\ & + \beta_4 \text{ExFrFirms}_{i,t} + \beta_5 \text{Wages}_{i,t} + \beta_6 \text{SmallFirms}_{i,t} \\ & + \beta_7 \text{MedFirms}_{i,t} + \beta_8 \text{PopDen}_{i,t} + \beta_9 \gamma_1 + \varepsilon_{i,t} \end{aligned} \quad (2)$$

where the  $i, t$  denote city and year. In addition, the variables were aggregated at the city level using data from the Chinese Industrial Enterprises database.

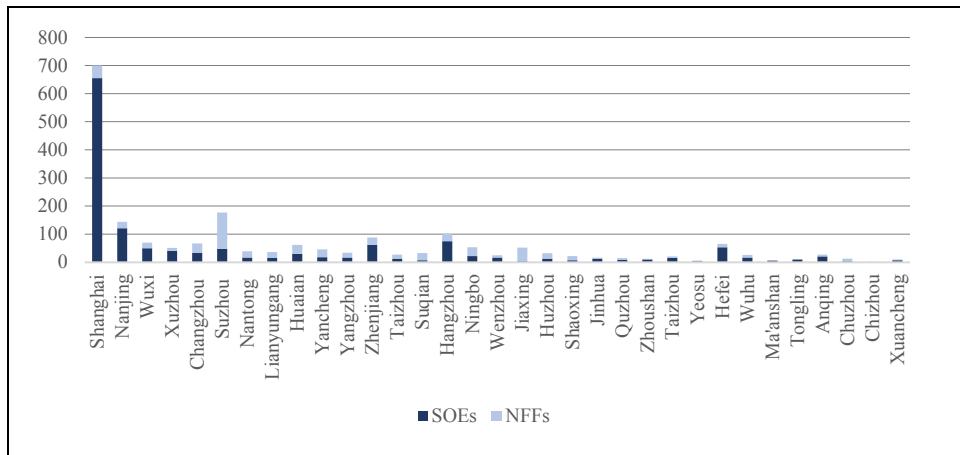
#### IV. Results and Discussion

The following map presents how foreign firms are distributed in the delta region; it shows how they were expanding from core cities to the other parts. In 2003, right after China acceded to the world trade organization (WTO), Shanghai and Suzhou cities were the most concentrated with new foreign firms; after that, foreign investors targeted cities in the north and south of the core cities (Figure 1).

In order to view the effect of SOEs' presence on the new foreign-owned firms, Figures 2 and 3 show the number of SOEs in two different periods, followed by the number of new foreign firms for the next three years. Some cities comparatively reveal a reverse pattern from the foreign firms toward SOEs. However, the effect is not apparent in most of the other cities. The two figures do not explain how this effect works and do not account for the core-periphery classification of cities. Therefore, this study used the negative binomial regression model to examine the proposed hypotheses.



Figure 3. SOEs Presence in YRD Cities in the Year 2010 and the New Foreign Firms in the Years 2011 to 2013



### 1. The Negative Binomial Regression Model

To explore the effect of SOEs' concentration on new foreign firms, we used the proportion of employees in SOEs amongst all the manufacturing firms' employees in a city  $i$ , and a year  $t$ . Since SOEs have social goals that precede profitability goals, and because some of these enterprises may be monopolistic and give biased profits and sales, or they might be subsidized by the state, thus, the percentage of employees' concentration in SOEs will reflect the spatial concentration impact of SOEs in a better way. The statistical results of model 1 in Table 3 show that SOEs in the manufacturing industry have a repulsive force to let foreign manufacturing firms establish themselves nearby them, and that is at a 0.01 significance level. Accordingly, the first hypothesis is supported. This result comes in line with the study of Branstetter and Feenstra (2002). However, they mentioned that the effect of SOEs was declining. It seems the effect still exists during the study period. In other words, despite all trade policy moves towards greater liberalization, and the promising policies of creating fair competition, the SOEs' dominance in the Chinese market and government support are still causing concern for the new foreign firms, and this effect is seen clearly by taking two years lagged; that is, the presence of SOEs' effect is more obvious after two years.

Table 3. The Negative Binomial Regression Results

Variables	Model 1		Model 2	
<i>SoeEmp</i>	-0.0849***	(0.0311)	-0.0797**	(0.0321)
<i>CoPr</i>	0.460***	(0.130)	0.173	(0.196)
<i>CoPr*SoeEmp</i>	-	-	-0.140**	(0.0701)
<i>ExFrFirms</i>	1.513***	(0.0929)	1.494***	(0.097)
<i>Wages</i>	-0.502***	(0.0941)	-0.520***	(0.108)
<i>SmallFirms</i>	0.815***	(0.0769)	0.849***	(0.0794)
<i>MedFirms</i>	3.562***	(0.319)	3.453***	(0.333)
<i>PopDen</i>	0.528***	(0.105)	0.564***	(0.11)
Constant	16.67***	(0.896)	16.86***	(1.018)
Observations	462		429	

Notes: Dependent variable is the New Foreign Firms 'NFFs'. Estimated Coefficient are reported, standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

The dummy variable has a significant positive value, indicating that foreign firms are still preferring core cities to peripheral cities; the core parts still have the dominating significance to foreign firms in advantages, such as knowledge spillovers, intermediate goods transportation, labour pooling, proximity to ports and markets, and technological and infrastructure improvements. At the same time, peripheral cities suffer from a lack of attraction. However, core parts face relatively more challenges, as represented by market competitiveness, high wages, and local policies and controls. In addition, we used the model coefficients of core-periphery, state-owned enterprises, and the interaction term of core-periphery and SOEs to investigate the influence of core-periphery indicator with SOEs. The (lagged) interaction variable at time  $t - 3$  was used in order to provide a better accuracy of the effect in the core cities. Statistically, as shown in the results of model 2 in Table 3, the dummy variable reveals an insignificant value, indicating that foreign firms' preference for core cities is unimportant after taking into account the interaction with *SoeEmp*. Additionally, the resulting coefficients revealed that for peripheral cities, the coefficient of *SoeEmp* is  $\beta_1$ , which is -0.079, and for core cities, it is  $(\beta_1 + \beta_3)$ , which is -0.219, suggesting that the negative effect of *SoeEmp* is enhanced in the core cities, i.e., the core-periphery indicator does enhance the relationship between SOEs and new foreign firms. Overall, despite all of the advantages of core parts, whenever the share of SOEs is higher, the core-periphery indicator would have an adverse impact on new foreign firms, as government

preference for SOEs can suppress the attraction of foreign start-ups in core regions. Thus, the second hypothesis is also supported.

## 2. Robustness Checks

Firstly, one might be concerned that our results reflect the influence of different manufacturing sectors. That is, it might be that the foreign firms are favouring the presence of SOEs in some manufacturing sectors, and the total effect is neglecting the positive effect of SOEs on these sectors. For this, we measure the variables according to each manufacturing sector, then we run the tests on each of the eight two-digit SIC code manufacturing sectors, as shown in Table 4, the effect of SOEs is negative among all sectors. Although the coefficients of *SoeEmp* and the interaction term were statistically insignificant in a few sectors, nonetheless, these results reflect the same direction of the relationship in Table 3, with relatively similar standard errors, providing no evidence that our results are biased by the unobserved changes in manufacturing sectors.

Secondly, since different periods can lead to different consequences, and in order to check how the YRD region is moving towards liberalization, it was necessary to run a time-dependent robustness test; we divided the period according to two events that could mainly affect FDI inflow into the YRD region, namely, China's accession to the world trade organization in late 2001 and the global financial crisis in 2008. As shown in Table 5, the results support our initial hypothesis in the three periods and are consistent with those that we reported in Table 3. Although, until 2009, the influence of core cities was relatively larger than that of peripheral cities. It is worth noting that the influence of state-owned enterprises is declining over time, indicating that the dominance of SOEs has been shrinking, which corresponds to the historical trend of liberalization and comes in line with the results in Table 3 in the study of Branstetter and Feenstra (2002). Also, it is noticed that after 2008, the effects of SOEs in the core cities have started to turn positive. It means that the core cities of YRD are succeeding in implementing equal competition and fair treatment between foreign firms and SOEs.

The other coefficients are consistent with the coefficients in Table 3, except for the wages. Where after China's accession to the World Trade Organization and the large inflow of foreign direct investment, it was necessary for the exporting companies to produce good-quality products. Thus, skilled workers were required in foreign

Table 4. Robustness Test for the Manufacturing Sectors' Effect

	Food and Beverage		Textile		Furniture		Plastic and Chemicals		Basic Metal		Equipment		Electronics Machinery		Other Manufacturing	
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
<i>SoeEmp</i>	-0.0531 (0.0402)	-0.0530 (0.0425)	-0.214*** (0.0367)	-0.207*** (0.0363)	-0.111*** (0.0347)	-0.094*** (0.0360)	-0.161*** (0.0315)	-0.164*** (0.0328)	-0.090*** (0.0334)	-0.0881** (0.0352)	-0.0558* (0.0334)	-0.0476 (0.0344)	-0.152*** (0.0446)	-0.123*** (0.0464)	-0.160** (0.0636)	-0.101 (0.0732)
<i>CoPr</i>	1.113*** (0.140)	1.054*** (0.203)	0.830*** (0.159)	0.830*** (0.247)	1.147*** (0.158)	0.752*** (0.261)	0.770*** (0.143)	0.741*** (0.203)	0.723*** (0.164)	0.467** (0.221)	0.633*** (0.142)	0.306 (0.201)	1.522*** (0.178)	1.178*** (0.263)	1.322*** (0.216)	0.795** (0.371)
<i>CoPr*SoeEmp</i>	-0.0435 (0.0711)	-0.0435 (0.0711)	-0.198** (0.0810)	-0.198** (0.0810)	-0.175** (0.0830)	-0.175** (0.0830)	-0.00665 (0.0727)	-0.00665 (0.0727)	-0.126* (0.0716)	-0.126* (0.0716)	-0.153** (0.0682)	-0.153** (0.0682)	-0.153** (0.0900)	-0.153** (0.0900)	-0.184 (0.118)	-0.184 (0.118)
<i>ExFrFirms</i>	0.525*** (0.0830)	0.481*** (0.0855)	0.771*** (0.148)	0.817*** (0.152)	0.726*** (0.0842)	0.692*** (0.0870)	0.953*** (0.0937)	0.945*** (0.0972)	0.909*** (0.108)	0.879*** (0.111)	1.264*** (0.0886)	1.266*** (0.0904)	1.326*** (0.132)	1.312*** (0.136)	0.0312 (0.164)	0.0578 (0.175)
<i>Wages</i>	-0.838*** (0.114)	-0.951*** (0.126)	-1.360*** (0.129)	-1.489*** (0.144)	-0.746*** (0.137)	-0.858*** (0.156)	-0.495*** (0.108)	-0.502*** (0.127)	-0.649*** (0.121)	-0.651*** (0.140)	-0.351*** (0.105)	-0.340*** (0.114)	-0.742*** (0.149)	-0.887*** (0.163)	-0.616*** (0.180)	-0.584*** (0.211)
<i>SmallFirms</i>	0.744*** (0.0930)	0.706*** (0.0965)	1.251*** (0.103)	1.349*** (0.104)	0.775*** (0.0822)	0.831*** (0.0874)	1.302*** (0.0881)	1.289*** (0.0929)	1.022*** (0.0939)	1.071*** (0.0995)	0.713*** (0.0763)	0.763*** (0.0804)	0.494*** (0.115)	0.497*** (0.118)	0.863*** (0.137)	0.891*** (0.148)
<i>MedFirms</i>	0.874*** (0.253)	0.776*** (0.261)	2.138*** (0.331)	1.779*** (0.346)	1.427*** (0.311)	1.302*** (0.326)	2.969*** (0.347)	2.702*** (0.347)	2.156*** (0.419)	2.225*** (0.454)	3.699*** (0.302)	3.764*** (0.316)	1.251*** (0.236)	1.275*** (0.244)	1.753*** (0.263)	2.023*** (0.306)
<i>PopDen</i>	0.561*** (0.0922)	0.594*** (0.0962)	0.986*** (0.161)	0.967*** (0.160)	0.578*** (0.132)	0.625*** (0.137)	0.840*** (0.110)	0.862*** (0.117)	0.613*** (0.135)	0.630*** (0.141)	0.606*** (0.108)	0.637*** (0.111)	0.732*** (0.191)	0.692*** (0.192)	0.463** (0.182)	0.558*** (0.199)
Constant	12.38*** (1.105)	13.34*** (1.237)	22.86*** (1.360)	24.16*** (1.495)	13.16*** (1.349)	14.35*** (1.522)	14.05*** (1.054)	13.89*** (1.222)	14.21*** (1.224)	14.30*** (1.386)	13.63*** (1.054)	13.71*** (1.131)	15.01*** (1.518)	15.01*** (1.653)	9.583*** (1.905)	9.850*** (2.178)
Observations	462	429	462	429	462	429	462	429	462	429	462	429	462	429	462	429

Notes: Dependent variable is the New Foreign Firms 'NFFs'. Standard errors in parentheses. \*\*\*, p<0.01, \*\*, p<0.05, \* p<0.1.

Table 5. Robustness Test for Different Periods

	1998-2002		2003-2008		2009-2013	
	1	2	1	2	1	2
<i>SoeEmp</i>	-0.355** (0.176)	-0.251 (0.243)	-0.117*** (0.0422)	-0.109** (0.0423)	-0.0333 (0.0386)	-0.0371 (0.0381)
<i>CoPr</i>	0.291 (0.262)	-0.622 (0.754)	0.208 (0.168)	-0.191 (0.251)	0.629*** (0.187)	0.916*** (0.235)
<i>CoPr*SoeEmp</i>		-0.549 (0.492)		-0.190** (0.0951)		0.146** (0.0688)
<i>ExFrFirms</i>	1.446*** (0.224)	1.644*** (0.280)	1.515*** (0.131)	1.499*** (0.130)	1.402*** (0.121)	1.426*** (0.120)
<i>Wages</i>	0.777 (0.494)	0.569 (0.644)	0.679*** (0.170)	0.652*** (0.169)	-2.247*** (0.405)	-2.315*** (0.400)
<i>SmallFirms</i>	0.349 (0.317)	0.718* (0.384)	0.530* (0.300)	0.523* (0.300)	0.457*** (0.0821)	0.399*** (0.0860)
<i>MedFirms</i>	2.626** (1.132)	3.412** (1.608)	4.429*** (0.962)	4.174*** (0.971)	1.735*** (0.331)	1.716*** (0.326)
<i>PopDen</i>	0.674*** (0.229)	0.773*** (0.289)	0.311** (0.139)	0.351** (0.139)	0.565*** (0.126)	0.559*** (0.124)
Constant	3.226 (5.396)	7.060 (7.003)	4.976** (2.259)	5.105** (2.251)	32.19*** (4.249)	32.80*** (4.191)
Observations	99	66	198	198	165	165

Notes: Dependent variable is the New Foreign Firms 'NFs'. Standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.



companies. For example, Hong Kong companies in the manufacturing sector were willing to pay higher wages to good-quality employees. Assuming that, higher levels of wages are more likely to result in a higher quality workforce (Sun et al., 2002). This may explain why the resulting Wages coefficients are positive in the first two periods. Anyway, labor wages were low in China. likely, Branstetter and Feenstra (2002) indicated in their model that foreign investment is attracted to China not only for the low wages.

## V. Conclusion

Foreign investors may be greatly influenced when deciding where to position their firms, especially with regard to market competition and comparative advantages. In general, some firms may prefer to reap the benefits of agglomeration, whereas others may avoid them due to market uncertainties or a discouraging environment that gives preferences to firms of different ownership. This study has tried to shed light on a possible inhibitor that can affect the birth of new foreign firms. We have studied the effect of SOEs' presence on the new foreign firms in addition to the core-periphery impact on this relationship.

Although the governments' policies are attributed to largely attracting foreign investments, local authorities are more likely to support local government businesses. As a result, tensions still exist between foreign start-ups and SOEs, especially in peripheral cities. And that for reasons of preferential treatment, uneven competition, and accessibility to business information and policy changes. Moreover, the higher creditworthiness of SOEs, along with guaranteed lower interest rates, enable them to obtain more benefits from cheaper loans and land.

The local governments in the YRD region have not yet succeeded in enforcing equal treatment in peripheral cities, despite the government's efforts to create an environment with equal competition and non-discriminatory provisions for different ownership firms. This is probably because of SOEs' expansion outside their designated domains, their monopolistic practices, and the abusive behavior of market power that inhibits fair competition. In addition, through SOEs' institutionalization, they have developed into a powerful group, and the dominant SOEs are managing to resist complying with new policies and reforms. The regional government's involvement can overcome the advantages of peripheral cities and limit the incentives for foreign investors. Fortunately, in core cities, government and local policies are succeeding in their attempts to achieve

fair treatment for foreign entities, where the SOEs' presence has started to show a positive effect on new foreign firms. We recommend further studies with updated data to check to what extent the Chinese economic regions are being liberalized.

Overall, we think that building a fair environment with equal opportunities in the Chinese market is very important to maintaining a sustainable inflow of new foreign firms. Our results may provide insights for policymakers to improve their strategies for attracting foreign investors into the YRD region. Local authorities are recommended to be unbiased toward SOEs and, likewise, to be more cooperative with foreign investors. Implementing effective practices is essential to ensure equitable treatment among firms. This study may also assist planners in preparing for better infrastructure and relevant policies.

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