

An enquiry into the spatial distribution of foreign firms in China

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• Introduction

This paper aims to provide a comprehensive analysis on **the evolution of spatial distribution of foreign firms** to gain some insights on whether **these policies** may have been effective in reducing **the core-periphery divide** or whether, instead, **the location advantage of coastal regions** has not changed much over the last decade, possibly because of **cumulative agglomeration economies**. We distinguish foreign firms by **the share of foreign capital in total capital** to assess whether higher foreign control may be associated to higher agglomeration in capital regions and coastal regions (to have better access to the foreign markets) or in peripheral regions to gain the benefits and incentives provided by the “Go-West Development Policies”.



- **First**, we examine the overall changes in the location of foreign firms in China over the period 1999-2009. **Then**, we distinguish two time periods, 1998-2001 and 2002-2009 so as to analyze whether foreign firms' agglomeration across regions has changed significantly after the China's entry into the WTO (2001) and the first launch of the Chinese government policies to develop western internal areas .

- Our analysis suggests that foreign-invested enterprises (FIEs) with higher foreign capital shares are more geographically clustered than other enterprises with lower foreign capital share. This group with the highest intensity of foreign involvement in firm capital also experienced the most relevant changes over the decade of our analysis becoming more localized between the core-periphery divide (coastal provinces and the rest of mainland China) and less so at a lower geographical scale. The main reason of our results is that coastal regions host a disproportional (and increasing over time) share of firms with majority control relative to the overall sample of firms.



CONTENTS

- 1) The background literature
- 2) Policy developments in FDI policy and regional development
- 3) Details on data and the method we adopted
- 4) Empirical results



2. Policy developments in FDI policy and regional development

2.1 The evolution of FDI policy in China

- 1 Since the 1978 reform and opening up, China ended the long-term self-isolation foreign policy, started re-integration into the world economy.
- 2 Through years of exploration and practice, China entered the initial development phase (1985-1991) of attracting FDI.
- 3 With more standardized FDI utilization and management and implement of preferential policies, China entered the phase of rapid development (1992-2000) of attracting FDI.
- 4 Since China joined the WTO in the end of 2001, FDI utilization showed steady development state (2001-2006).



2. Policy developments in FDI policy and regional development

2.2 Policy for regional development and regional disparities: a journey through the China's Five Year Plans over the last three decades

- The Seventh Five Year Plans (1986-1990) and the successive Five Year Plan (1991-1995) first adopted a growth pole strategy aims at favoring spatial agglomeration in the coast, in the expectation that the promotion of the coastal region would have activated linkages and multiplier effects that eventually have trickled down in other peripheral regions (central and western provinces) (Perroux theory of “growth poles” behind).
- A first recognition of the need to “pay greater attention to supporting the development of inland areas” is found in the Ninth Five Year Plan (1996-2000).

PART THREE

DATA AND METHODS

(The data in the article comes from Chinese Industrial Enterprises Database (CIED), which was established by the China National Bureau of Statistics.)

Table 1. Evolution of firms by capital ownership (number and share), 1999-2007

year	state-owned		Collective-owned		private		foreign-owned		total
	number	share	number	share	number	share	number	share	
1999	52817	32.86	53507	33.29	27757	17.27	26652	16.58	160733
2000	44665	27.66	49383	30.58	39192	24.27	28240	17.49	161480
2001	36781	21.67	42528	25.06	59208	34.89	31178	18.37	169695
2002	31570	17.55	38237	21.25	75884	42.18	34208	19.02	179899
2003	25157	12.93	32334	16.62	98698	50.74	38318	19.70	194507
2004	27403	9.89	26896	9.70	165864	59.85	56976	20.56	277139
2005	18520	6.86	23875	8.84	171603	63.53	56112	20.77	270110
2006	16209	5.40	20983	6.99	202417	67.43	60585	20.18	300194
2007	11724	3.50	19355	5.78	236823	70.68	67174	20.05	335076

➤ Table 1 summarizes the enterprises number and the share of state-owned, collectively-owned, private, foreign-invested (including Hong Kong, Macao, and Taiwan) enterprises during 1999-2007.



3.Data and method

- The table shows the remarkable modification of the Chinese industrial structure. The share of state-owned and collectively-owned enterprises has declined significantly, dropping from 66% in 1999 to less than 10% in 2007. But the share of private enterprises has increased substantially from less than 20% to more 70%.



3.Data and method

- For a more detailed description of changes in FDI in China, we divided firms according to regions as well as the proportion of foreign capital, which would be: first, according to the administrative division code, the enterprise will go into one prefecture-level city, then according to proportion of foreign capital, it is divided into four intervals: 0 -25%, 25% - 50%, 50% -75% and more than 75%, and we calculate the number of the enterprise in each interval. Thus, we could know the number of foreign-capital enterprises in each region and each interval.

PART FOUR

RESULTS





4. Results

4.1 Some descriptive evidence

- The increasing disparity between coastal and internal regions is one of the key features of Chinese economic development in China. Table 2 displays the evolution of firms by share of foreign ownership.

Table 2 Number of firms by year and share of foreign capital (% of total capital)

year	<25%	25%-50%	50%-75%	>75%	total
1999	26072	17202	10196	5616	59086
2000	37843	416	235	155	38649
2001	6124	9393	12119	8588	36224
2002	4123	7837	4022	18938	34940
2003	51942	19862	14868	10876	97548
2004	25919	9911	7427	5430	48687
2005	25952	9922	7430	5434	48738
2006	25972	9931	7434	5438	48775
2007	26013	9939	7429	5433	48814
2008	24541	9514	7141	5242	46438
2009	25825	9864	7382	5405	48476



4. Results

4.1 Some descriptive evidence

- For the entire sample period, most of the enterprises are in the interval 0-25%. The average proportion of these enterprises is 48.9%, almost half of the total. There are the fewest enterprises in interval 0-75%, the average proportion is 15.6%.
- In our sample period (1999~2009), the development of foreign capital into China can be split into two periods.
- In our sample period (1999~2009), the development of foreign capital into China can be split into two periods.
- In the first period (1999~2003), the FDI fluctuated roughly.
- One reason is that the dataset suffers from data matching problems and measurement errors.



4.Results

4.1 Some descriptive evidence

We also advocate the following possible reasons behind this result:

- 1.Since 2000, the world economy showed weak growth momentum, the world's major stock markets continued to fall. With the end of the fifth wave of global mergers and acquisitions, as well as Enron, WorldCom and other large US and European enterprises' scandal, the investors' confidence suffered a heavy strike, making many multinationals to take a "small but efficient" investment strategy. Therefore, international direct investment in 2002 and 2003, following declining trend of the global cross-border mergers and acquisitions, continued to show decreasing trend.
- 2.It is time that China's entered the WTO, so there may be some fluctuations and unpredictability on China's foreign policy. In order to avoid losses caused by them, foreign investors, to a certain extent, choose the way of diversification.
- 3.In March 2002, the Chinese government announced a new "Guidance for Inward FDI Industries", and abolished the 1997 version. In the new catalog, some of the traditional popular FDI areas, such as mining and quarrying, manufacturing, electricity, gas, transportation and other are classified as restricted or prohibited, which interrupted the growth trend of FDI in these traditional area.



4. Results

4.1 Some descriptive evidence

- Particularly we found that eastern region accounted for over 49.3% of total foreign invested enterprises in 2009 (it was 47.6 in 1999). Instead, the share of total firms decreased in western provinces (from 21.6 in 1999 to 20.2% in 2009) and central provinces (from 31% to 30.5%).



4. Results

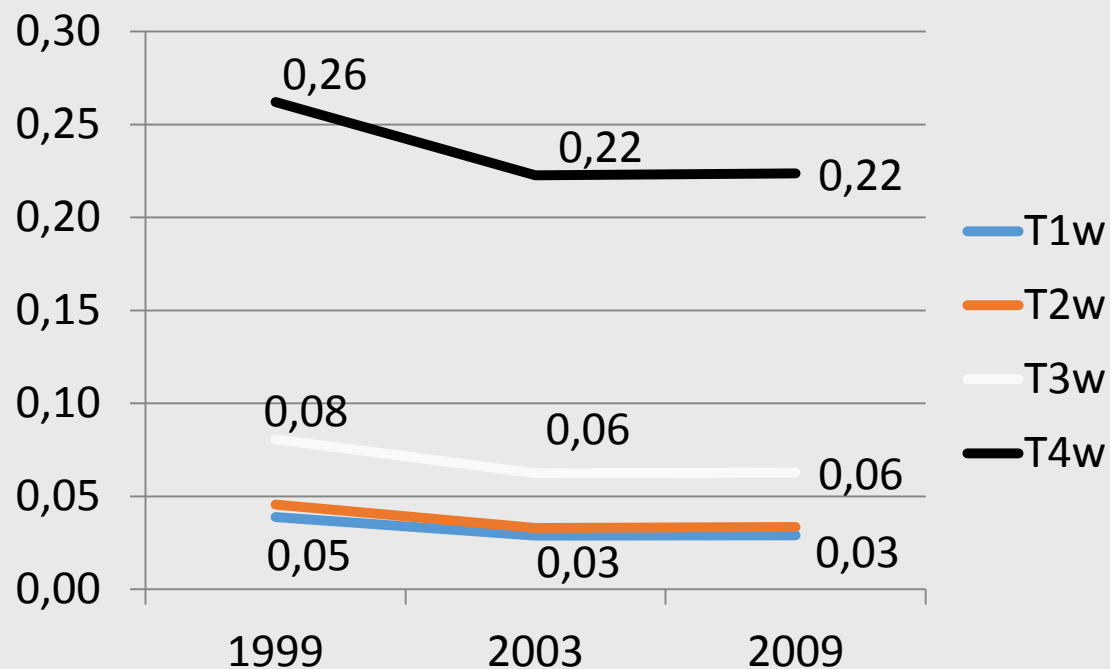
4.2 Localization pattern of foreign invested companies

- The most interesting result is the difference between firms with minority foreign stakes (T_1^b and T_2^b) and those with majority foreign share (T_3^b and T_4^b). The latter experienced an increased agglomeration across the coastal-internal divide, while the former tended to spatially distribute more similar as the aggregate across the two macro-regions (lower panel of Graph 3). All four groups of firms have in common, however, that concentration at shorter distances (within macro-regions, i.e. eastern region, rest of the country) decreased over time (upper panel of Graph 5).

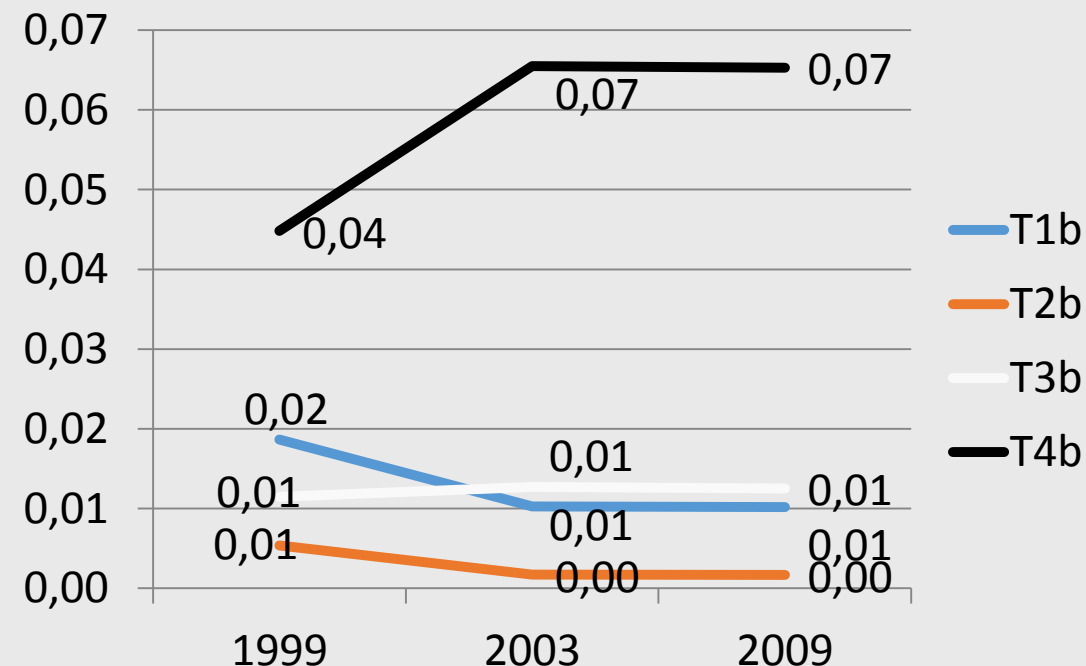


4.Results

4.2 Localization pattern of foreign invested companies



Graph 5-1: within/between decomposition of relative concentration of foreign firms (by 4 sub-groups according to foreign capital share)



Graph 5-2: within/between decomposition of relative concentration of foreign firms (by 4 sub-groups according to foreign capital share)



4.Results

4.2 Localization pattern of foreign invested companies

- To summarize, we found that foreign-owned firms with the uppermost share of foreign capital (>75%) displayed the highest degree of spatial concentration both within and between macro-regions, that is, divergence relative to the overall sample of firms.
- We can suggest some tentative explanations behind our results.

THANKS

