



Institute of Economic Growth



RIS

Research and Information System
for Developing Countries

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Location of plants of foreign companies in India



Bishwanath Goldar

Institute of Economic Growth

Delhi – 110 007



Research on inter-regional distribution of FDI in India

- Two studies available: Studies undertaken by Aggarwal and Morris
- Aggarwal identifies labour market rigidity, availability of infrastructure and regional development as factors determining FDI flows
- Morris argues that regions with metropolitan cities are able to attract FDI - the advantage in 'headquartering' the country operations of MNCs
 - In general, FDI tends to concentrate in the largest and best cities



Objective of the study

- To study the pattern of location of plants of foreign companies and identify the factors that influence the plant location decisions of foreign firms.



Hypotheses

- The decision regarding plant location of foreign companies is influenced by investment climate in the region, which includes labour regulations, business friendly administration, and infrastructure availability
- The presence of a metropolitan city in a state attracts FDI to the metropolitan city, and to other cities of the state



Data

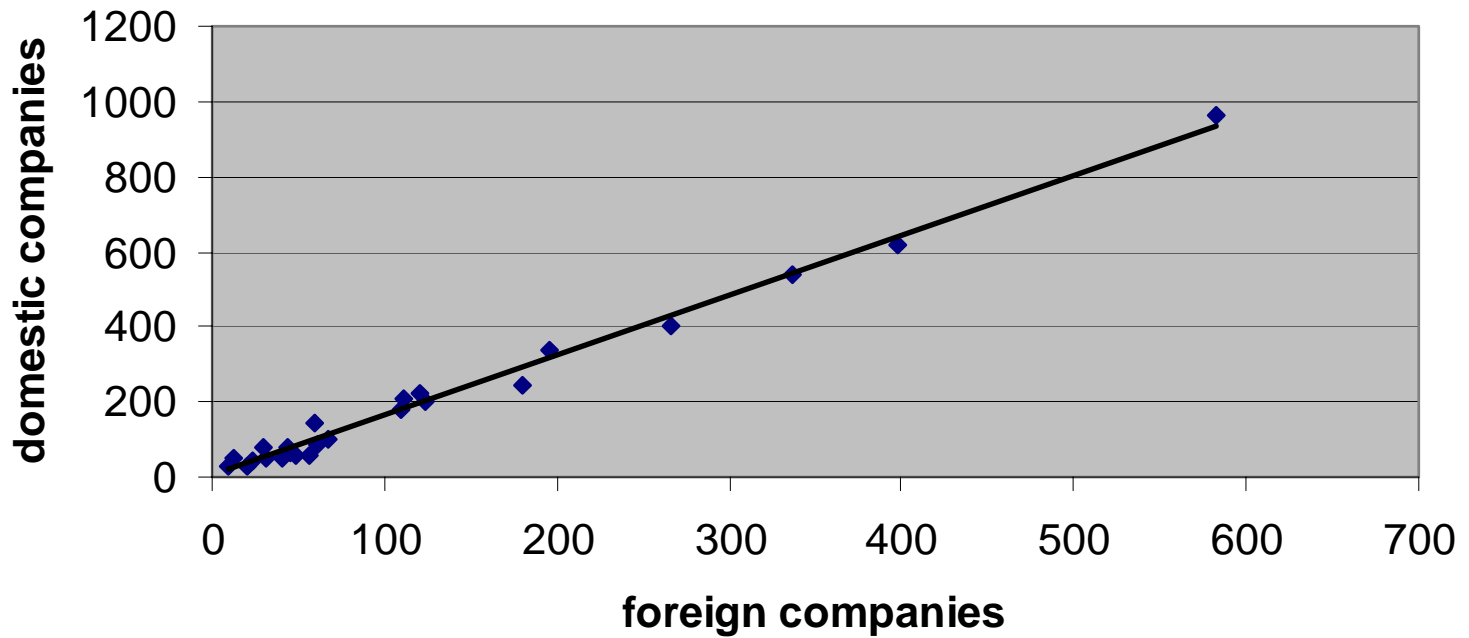
- The basic data source is Capitaline
- Data on plant location are used for about 8000 plants, of which about 40% are foreign plants (25%+ foreign equity)
- Other sources are: Census 2001 and a CII-World Bank study on investment climate



First finding

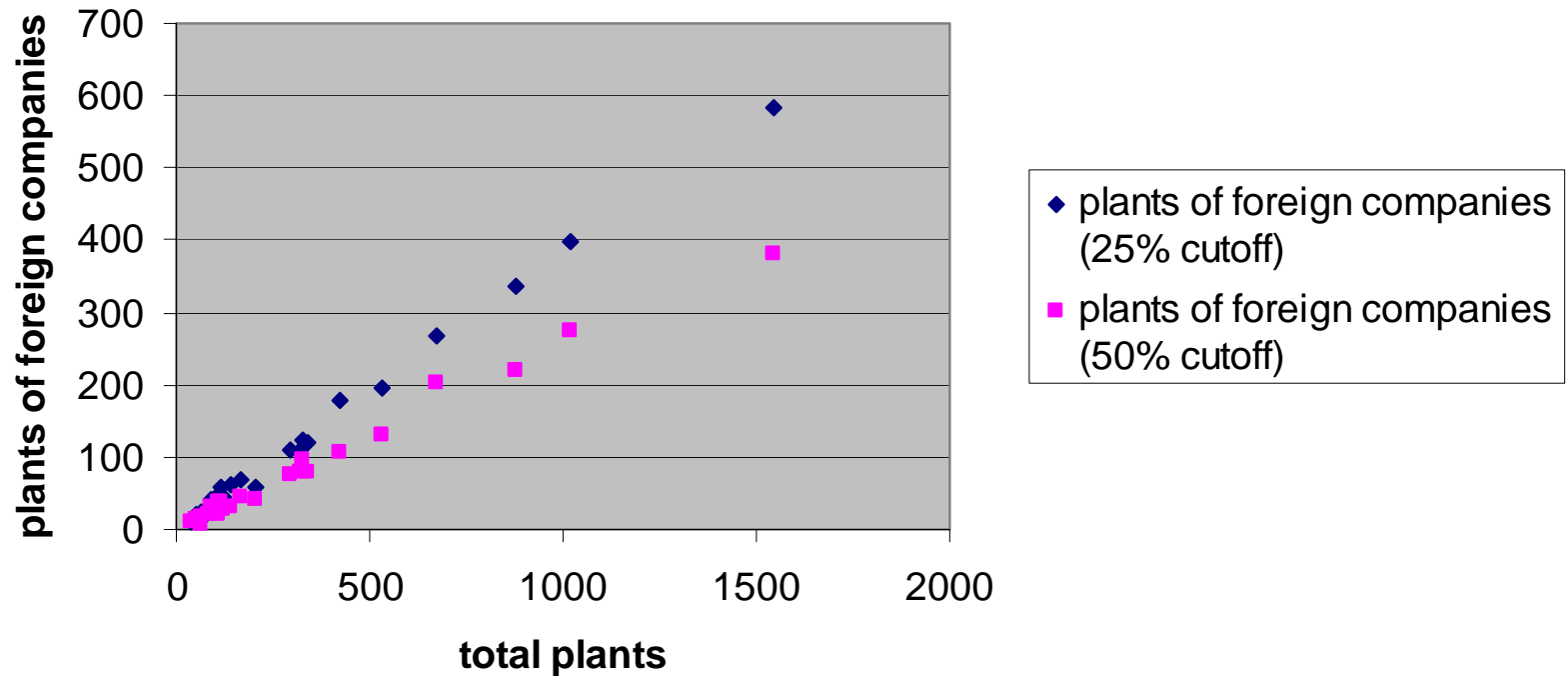
- The inter-state and inter-city distribution of plants of foreign firms is almost identical to that of domestic firms.
- Implication: The factors influencing the location of plant of foreign companies are by and large the same as that of domestic companies.

Graph 1: plants of foreign and domestic companies across states



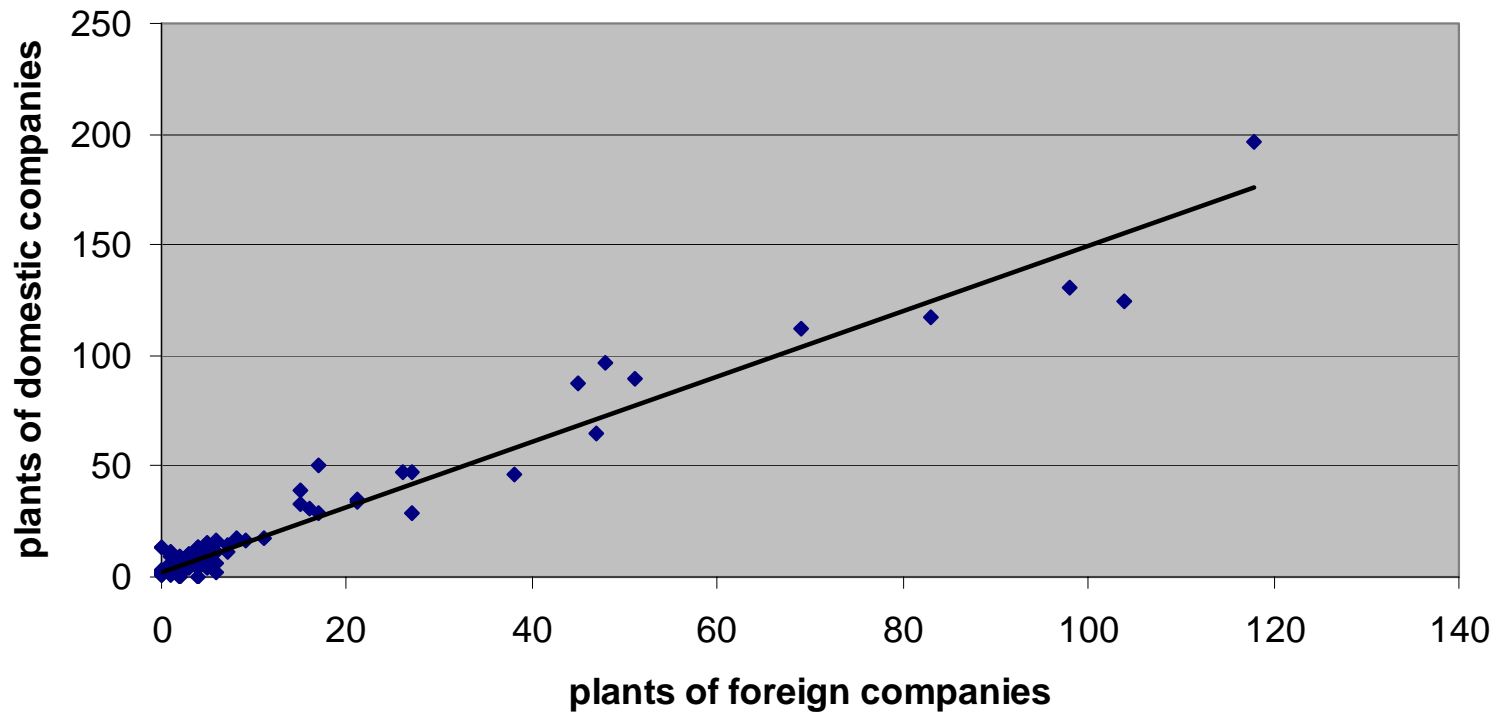
$r=0.99$

Graph 2: Total plants and plants of foreign companies across states



r is 0.99 in both cases

Graph 4: plants of foreign and domestic companies in different cities



$r=0.98$; data for top 100 cities




Second finding

- The number of plants of foreign companies in a city is positively related to:
 - Size of the city
 - Civic amenities in the city
 - Size of the largest city in the state
 - Investment climate in the state
- This is the finding of multiple regression analysis using cross section data for 100 largest cities in 17 states.




Model specification

- $$F_{ij} = a_0 + b_1 \ln(\text{POP}_{ij}) + b_2 \ln(\text{POP_BC}_j) + b_3 \text{IC}_j + b_4 \text{TAP}_{ij} + b_5 \text{C_DRAIN}_{ij} + b_6 \text{EDU}_j + b_7 \text{WAGE}_j + u$$



Explanatory variables	Regressions				
	(1)	(2)	(3)	(4)	(5)
Population of the city	15.5*** (7.4)	17.7*** (10.5)	15.8*** (7.7)	17.3*** (10.2)	15.3*** (7.8)
Population of the largest city in the state	2.86 (0.9)			5.0** (2.0)	7.2*** (3.1)
Best Investment climate (dummy)	13.3 (1.4)	14.4** (2.3)	18.3*** (2.6)		
Good Investment climate (dummy)	2.7 (0.6)	7.7** (2.1)	4.4 (1.0)		
Educational attainment of industrial workers	0.26 (0.8)	0.17 (0.7)	0.27 (0.9)	0.37* (1.74)	



Wage rate	-26.8 (-1.1)		-27.7 (-1.1)		-1.58 (-0.1)
Proportion of city population having access to tap water	0.007 (0.1)		0.019 (0.2)		
Proportion of city population having access to closed drains	0.14 (1.6)		0.13 (1.5)		0.18** (2.2)
Adjusted R ²	0.59	0.59	0.59	0.59	0.59
No. of observations	98	98	98	98	98



Conclusion

- States would be able to attract more FDI by (1) improving investment climate through deregulation and betterment of infrastructure facilities, and (2) by making the cities in the state a better place to live in.
- The Jawaharlal Nehru Urban Renewal Mission would help in attracting more foreign direct investment to the cities being covered.