
The Effects at Home of Relocation Abroad

Evidence from Matched French Firms

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Background

- The public debate on globalisation in Europe, particularly in France, is increasingly focused on adverse effects of relocation of production
 - New initiatives regarding a EU Globalisation Adjustment Fund
 - Delocalisation No. 1 reason to reject EU Constitution (Eurobarometer)
- Despite recent evidence suggesting employment loss due to relocation is fairly limited (Aubert and Sillard, 2005, for France; Brown and Spletzer, 2005, for US)

Contribution

What are the effects at home when a domestic firm becomes a multinational by establishing a production affiliate abroad?

- Focus on decision of French manufacturing firms to become multinational during the period 1988-1998.
- Focus on causal effect of becoming a multinational using techniques from the evaluation literature
- Focus on a set of firm-specific outcomes at home including employment, skill-intensity, and productivity
- Distinguish between FDI in high & low income countries
- Address question why firms become multinationals

Related literature

- Relocation within existing multinationals
 - Braconier and Ekholm (2000), Hanson, Slaughter and Mataloni (2005), Budd, Konings and Slaughter (2005)
- The causal effects of foreign acquisitions on plant productivity and wages, o.a.
 - Arnold and Smarzynska (2005), Girma, Kneller and Pisu (2003), Girma and Görg (2005)
- The causal effects of FDI at home, only:
 - Barba Navaretti and Castellani (2004 for Italy), Barba Navaretti *et al.* (2006 for France and Italy), Debeare *et al.* (2006 for Korea)

Background

- **Market-seeking or horizontal FDI**
 - Driven by proximity-concentration trade-off
 - Exports and FDI are substitutes
 - Replication of identical activities across locations

- **Factor-seeking or vertical FDI**
 - Driven by persistent differences in factors prices across countries
 - Trade and FDI are complements

Hypotheses

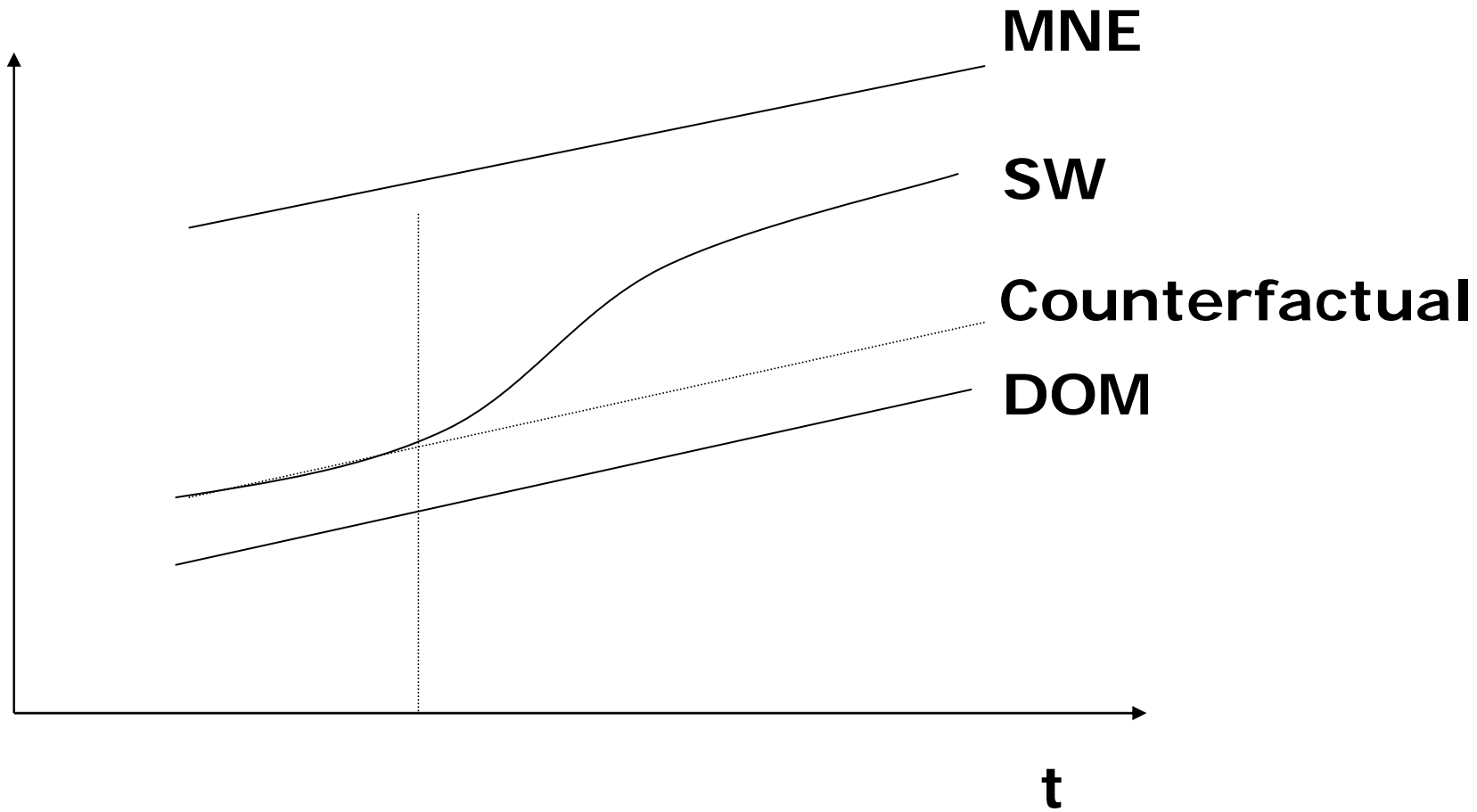
Table 1: The Effects of Relocation

	High-income locations	Low-income locations
Employment	-	-
Skill-intensity	0	+
Exports	-	+
Productivity	+	0

Methodology (1)

- Evaluate causal effect of establishing an affiliate abroad ('treatment effect') on a range of observable outcomes at home (employment, skill-intensity, productivity)
- Problem of 'missing' data
 - Propensity score matching
 - Difference-in differences (DID) estimator
- Allow for different effects according to location of investment , j

Methodology (2)



Data

- *Enquete Annuelle des Entreprises (EAE)*
 - Almost complete universe of French firms for 1984-2002
 - Participation legal requirement
 - Covers all sectors
- *Enquete DREE*
 - Provides information on French affiliates abroad
 - Classify whether firms are national or multinational
 - Determine when firms become multinationals ('switchers')
 - Distinguish between switchers that invest in high OECD countries and rest of world

Table 3: Switching Firms in Manufacturing

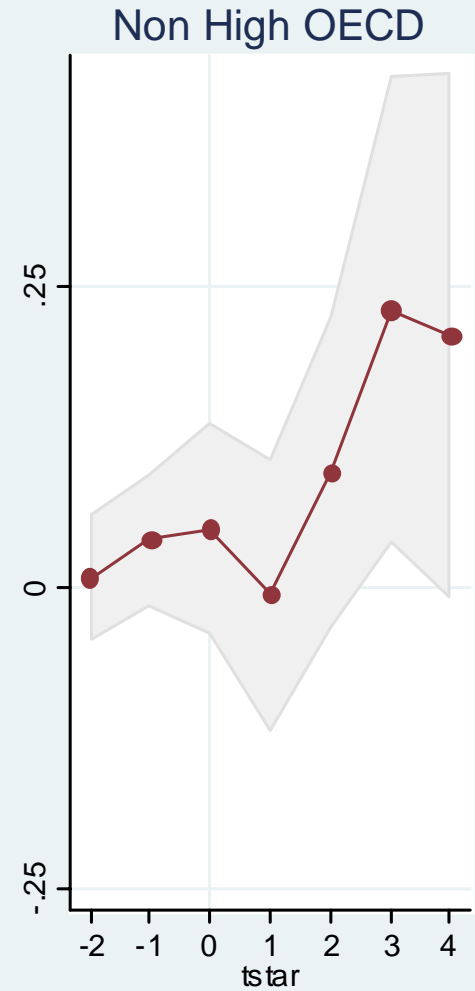
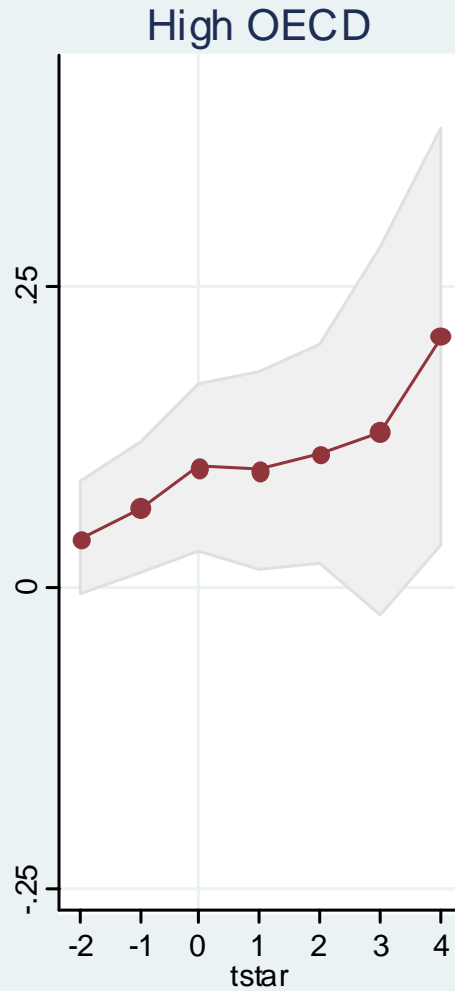
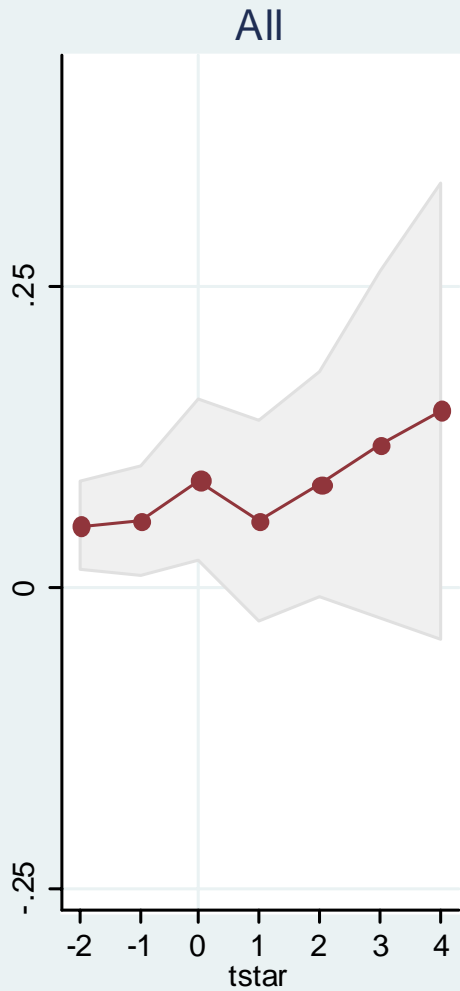
year	N	DOM	SW _{TOT}	SW _{RICH}	SW _{POOR}	MNE
1988	13,964	13,826	8	6	2	130
1989	13,754	13,589	27	19	8	138
1990	13,750	13,566	17	15	2	167
1991	14,116	13,908	20	12	8	188
1992	14,282	14,052	21	14	7	209
1993	14,318	14,057	25	17	8	236
1994	14,495	14,196	31	22	9	268
1995	14,541	14,199	37	22	15	305
1996	14,266	13,895	32	18	14	339
1997	14,345	13,949	32	24	8	364
1998	14,051	13,628	30	17	13	393
Total			280	186	94	

Table 4: Propensity to switch

	TOT t=1	TOT t=2	TOT t=3	RICH t=3	POOR t=3
Δ Profits $_{t^*-t}$	0.710 (0.251) ***	0.165 (0.266)	0.606 (0.322) *	1.912 (2.344)	-0.486 (0.502)
Δ ln Value added $_{t^*-t}$	-3.662 (1.333) ***	0.782 (1.612)	1.062 (1.854)	0.726 (0.384)	0.246 (0.502)
ln Value added squared $_{t^*-t}$	-0.011 (0.006) *	-0.016 (0.007) **	-0.056 (0.016) ***	-0.060 (0.019) ***	-0.047 (0.027) *
ln Exports $_{t^*-t}$	0.097 (0.022) ***	0.086 (0.020) ***	0.082 (0.020) ***	0.088 (0.028) ***	0.072 (0.029) **
TFP $_{t^*-t}$	0.337 (0.189) *	0.404 (0.187) **	1.302 (0.379) ***	1.536 (0.446) ***	0.869 (0.635)
ln Average Wage $_{t^*-t}$	-0.243 (0.274)	-0.137 (0.292)	0.865 (0.343) **	1.207 (0.405) ***	0.250 (0.581)
ln Turnover $_{t^*-t}$	0.698 (0.160) ***	0.777 (0.149) ***	0.919 (0.185) ***	0.781 (0.237) ***	1.132 (0.277) ***
ln No. of plants $_{t^*-t}$	0.198 (0.084) **	0.159 (0.090) *	0.263 (0.091) ***	0.285 (0.111) ***	0.224 (0.147)
ln Intangible Assets $_{t^*-t}$	0.081 (0.016) ***	0.056 (0.016) ***	0.036 (0.015) **	0.056 (0.019) ***	0.001 (0.024)
ln Corporate Taxes $_{t^*-t}$	0.038 (0.016) **	0.058 (0.017) ***	0.068 (0.018) ***	0.076 (0.023) ***	0.056 (0.029) **
Observations	142837	143416	144173	99210	46848
Pseudo R-squared	0.19	0.18	0.19	0.19	0.16

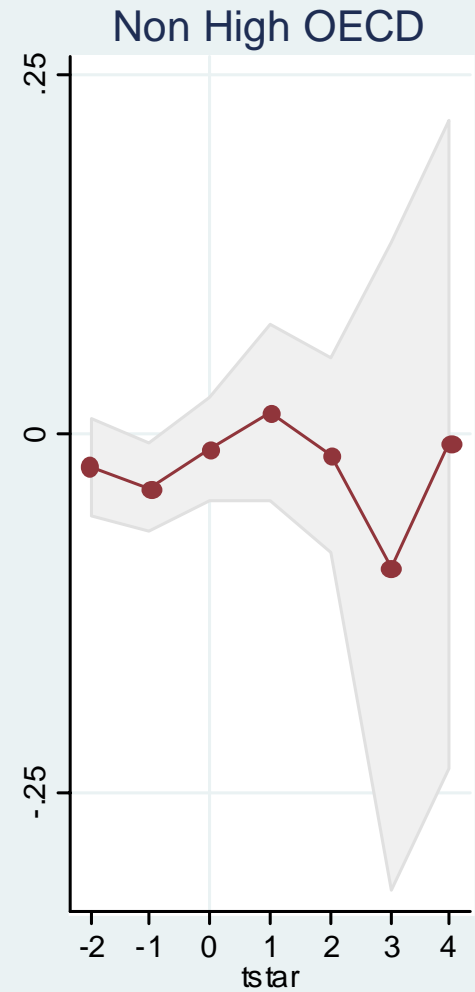
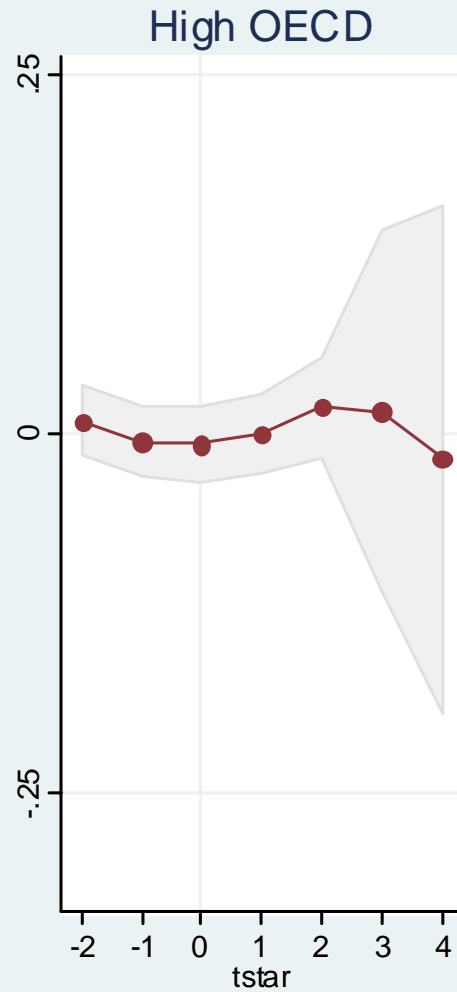
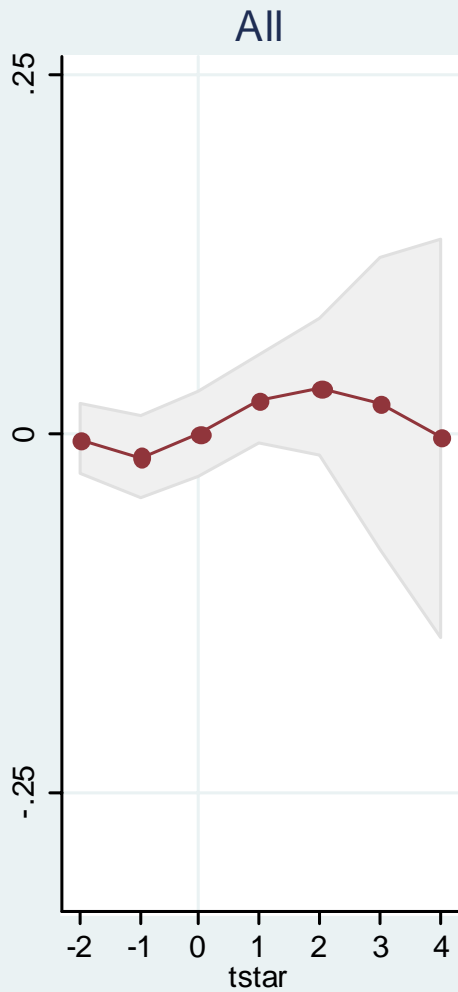
Results (1)

Employment, 1988-1998



Results (2)

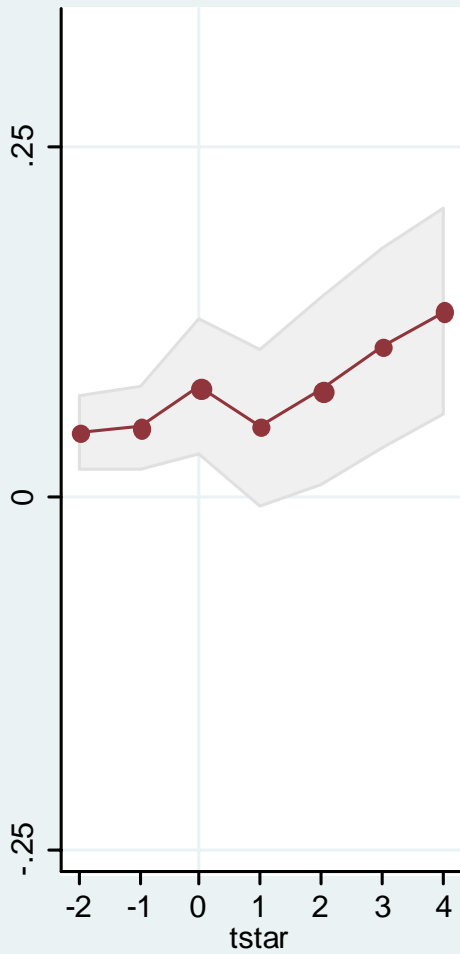
Wages, 1988-1998



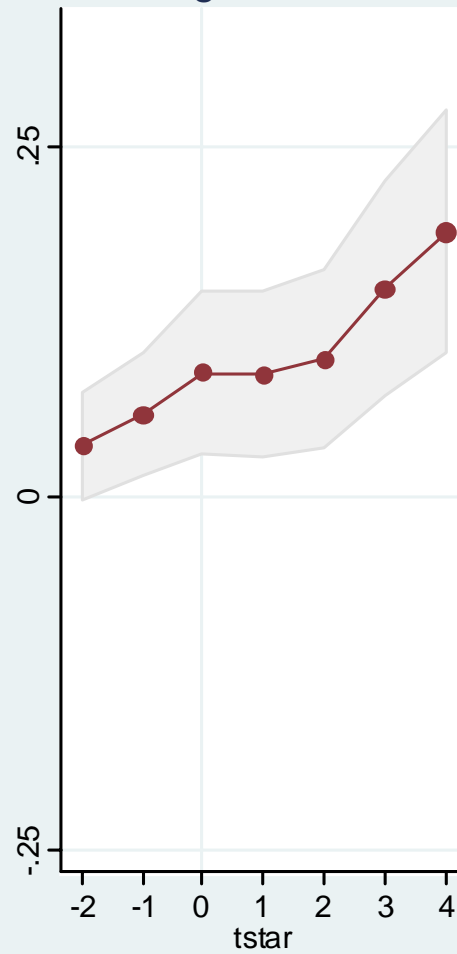
Results (3)

TFP (index), 1988-1998

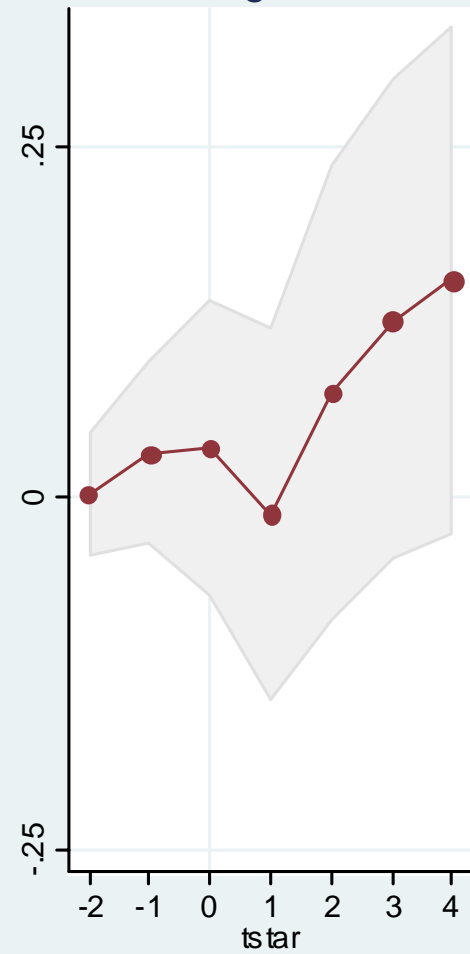
All



High OECD



Non High OECD



Concluding Remarks

- **Determinants**

- Generally, critical mass and experience in foreign markets are important factors in explaining the probability to become a multinational.
- ‘Horizontal’ FDI is related to product differentiation and economies of scale, whereas such factors appear irrelevant for ‘vertical’ FDI.
- ‘Vertical’ FDI appears unskilled-intensive relative to ‘horizontal’ FDI

- **Relocation and Jobs**

- Relocation only represents a small fraction of FDI, and its effects are likely to be temporary.
- The fear of relocation abroad does in general not seem to be justified.

Future Research

Services

- Services account for appr. 75% of the economy
- Policy debate has increasingly moved towards services
- Is there anything 'special' about services?