

The effect of foreign-owned large plant closures on nearby firms

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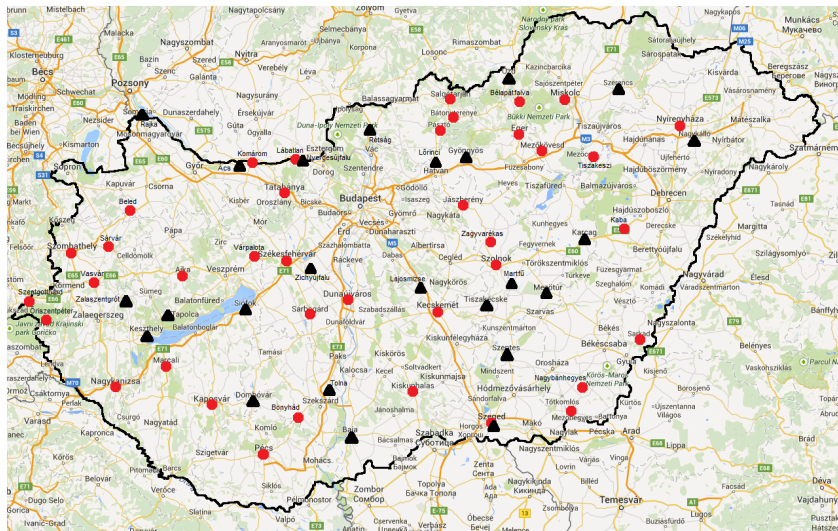
The research question

- What is the effect of a foreign-owned large plant closure on firms located nearby? An empirical analysis using Hungarian data.
- Motivation:
 - Exits are important to capture the total FDI effect,
 - as foreign capital is more footloose (Alvarez and Görg, 2009);
 - and attracting and keeping FDI are separate policy decisions.
 - We know much less about the effect of FDI exits.
 - I can show some evidence on the local diffusion of idiosyncratic shocks.
 - Carvalho et al. (2014), Barrot-Sauvagnat (2015).
 - The effect is ambiguous, might be offset by new entrants.
- Contribution:
 - Besides labor market effects I look at various aspects of firm performance, in a Central-Eastern European setting.
 - Labor market effects: Gathmann et al. (2015), Jofre-Monseny et al. (2015), Foote et al. (2015).
 - Subsequent exits: Resende et al. (2013).
 - I provide some evidence on the channels of the effect.

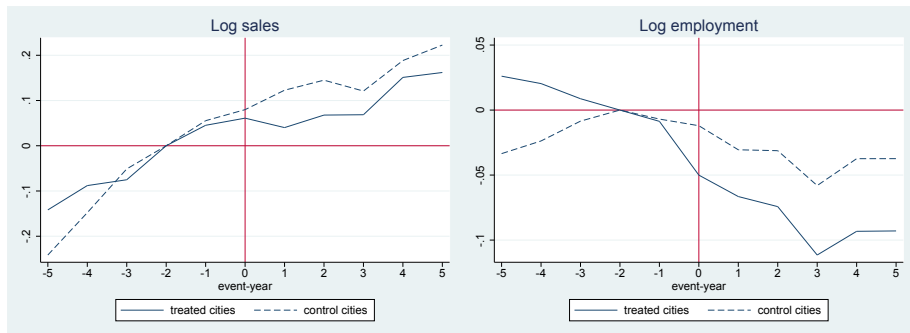
Identification

- I collect 41 foreign-owned large plant closures in Hungary, using press announcements from the period 1995-2009. [▶ closures](#)
- The main challenge to identification:
 - worsening local conditions induce the worse performance of local firms.
- I assign a control city to each closure using propensity-score matching, with
 - a large foreign-owned firm in the same industry which does not close,
 - and similar pre-closure characteristics:
 - population, unemployment rate, share of supplier and buyer industry, total sales, average sales growth, region. [▶ details](#) [▶ comparison](#)
- Using difference-in-differences I compare outcomes of firms
 - in treated & control locations (+10 km), before & after the closure.
- The identifying assumption: exits are exogenous to local conditions.
 - Foreign firms have global motivations to exit.
 - The announced reason for the exits is never city-specific.
 - Matched controls account for industry- or country-specific trends and remaining location-specific factors.

Treated and control locations



The evolution of total sales and employment

[▶ figure wo](#)[▶ figure small](#)

Estimation

- I use Hungarian administrative data:
 - city-level data (2000-2013)
 - and a panel data base of Hungarian firms (1992-2011), [▶ descriptives](#)
 - including balance sheet, ownership, industry, age and location.
- Building on Greenstone et al. (2010) I estimate the effect using:

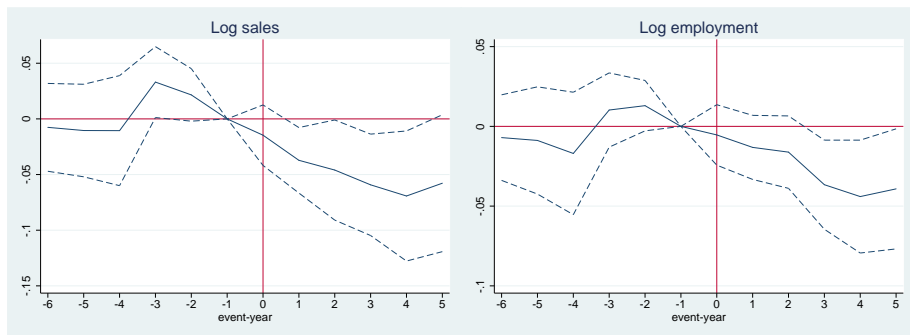
$$Y_{it} = \beta_0 + \beta_1 Treated_{ic} + \beta_2 Before7_{ct} + \beta_3 After1_3_{ct} + \beta_4 After4_5_{ct} + \beta_5 After6_{ct} + \beta_6 Treated_{ic} Before7_{ct} + \beta_7 Treated_{ic} After1_3_{ct} + \beta_8 Treated_{ic} After4_5_{ct} + \beta_9 Treated_{ic} After6_{ct} + \alpha_i + \alpha_{ct} + \alpha_t + u_{ict},$$

- with
 - firm i , case c , calendar year t ,
 - an indicator of the location with a closing plant $Treated$,
 - time period indicators
 - more than 7 years before the closure $Before7$
 - and x - y years after the closure $Afterx_y$, [▶ cases](#)
 - standard errors are clustered by city.

Main findings

- On average there is a negative effect on local firms: [▶ table](#) [▶ unempl](#)
 - sales decreased by 6 pp, and employment decreased by 3 pp,
 - the yearly average growth rate is 0.5 pp lower for sales and 0.9 pp lower for employment,
 - there is no significant effect on productivity, wage or exit probability.[▶ robustness](#)
- Firms are hurt more
 - with lower initial productivity or in majority domestic ownership, [▶ table](#)
 - if the plant is more embedded to the local economy, [▶ length](#) [▶ share](#)
 - in smaller cities or in regions with a higher unemployment rate. [▶ table](#)

The difference between firms in treated and control locations around the closure

[▶ separate](#)

Channels of the effect

- Local firms lose their business partner.
 - Firms in the supplier industry are hurt somewhat more.
 - Suppliers: closing plant's industry buys $\geq 5\%$ of its inputs from that 2-digit industry.
 - Not true for firms in the buyer industry.
 - Plants produced mainly for export, sold little locally.
- People lose their jobs.
 - Local labor supply increases, especially for firms employing similar people.
 - Firms in the same industry as the closing plant could benefit.
 - Local purchasing power of the unemployed is lower, decreasing the local demand for goods and services.
 - Firms in local services are hurt more.

The effect by industry groups

VARIABLES	(1) log sales	(2) log empl	(3) log labor productivity	(4) log per capita wage	(5) log TFP	(6) exit
Treated x After(1-3)	-0.054** (0.027)	-0.019 (0.015)	-0.003 (0.012)	-0.006 (0.007)	-0.006 (0.009)	0.000 (0.003)
Treated x After(1-3) x LocalServices	-0.038 (0.027)	-0.044** (0.021)	-0.016 (0.022)	-0.001 (0.011)	-0.002 (0.015)	0.002 (0.006)
Treated x After(1-3) x Competitor	0.162 (0.119)	0.180** (0.086)	-0.076 (0.065)	-0.018 (0.035)	-0.015 (0.040)	-0.033** (0.015)
Treated x After(1-3) x Supplier	-0.045 (0.045)	-0.068* (0.041)	0.012 (0.028)	0.003 (0.018)	-0.015 (0.012)	-0.002 (0.006)
Treated x After(1-3) x Buyer	0.052 (0.066)	0.041 (0.041)	-0.015 (0.034)	0.007 (0.016)	0.025 (0.019)	0.010 (0.008)
Treated, time period and industry group dummies, also in interactions	YES	YES	YES	YES	YES	YES
Firm FE, case FE, calendar year FE	YES	YES	YES	YES	YES	NO
Industry FE, firm-year characteristics	NO	NO	NO	NO	NO	YES
Number of observations	359,826	353,768	326,784	330,158	353,607	332,702
Number of unique firms	26,434	26,512	25,914	26,142	26,527	

Sample: firms within 10 km agglomeration, with median employment ≥ 5 , excluding firms of treated and control plants. Treated is an indicator of firms located near the closing plant. Indicators included for time periods more than 6 years before, 1-3, 4-5 and more than 5 years after the closure. The baseline time period is $[t-6, t]$, where the plant closes in t . Fixed effects for firm (or 2-digit industry instead in column (6), case and calendar year are also included. Firm-year-level characteristics include log employment, age, log capital/labor ratio, log TFP and yearly exporter status. The unit of observation is firm-year-case. Standard errors in parentheses are clustered by city in column (1)-(4) and by firm in column (6). I show bootstrap standard errors in column (5). *** $p < 0.01$ ** $p < 0.05$ * $p < 0.1$.

Aggregate effect on employment

- There is large heterogeneity in the total employment effect.
 - No significant effect on the extensive margin, I add up only intensive-margin effect.
- In the average case the aggregate effect 3 years after the closure is about zero, but
 - the estimates are noisy,
 - in 27 cases the estimated total employment effect for the local incumbent firms negative,
 - 22 of these are in small cities ($< 40,000$),
 - in additional 11 cases the estimated total employment effect for the local firms is positive, but lower than the initial layoffs from the plant.

Summary

- There is a significantly negative effect on the sales and employment of local firms,
 - even five years after the closure,
 - but there is no significant effect on productivity or exit probability.
- The effect is heterogeneous by
 - the characteristics of the local firm,
 - if it operates in related industries or depends on local demand,
 - the embeddedness of the closing plant,
 - and the local economic conditions.

The closures in my sample

- Requirements:
 - Closing plant is in majority foreign ownership,
 - has at least 150 employees before the closure,
 - doesn't reopen in the next 3 years.
- Closures:
 - in 14 different 2-digit industries (11 in food, 9 in clothing, 8 in the shoe industry, others in electronics, machinery etc.),
 - in all years of the period 1998-2009 (many in 2003 and 2009),
 - from all but one county in Hungary,
 - with a size of 150-3700 (50% below 250),
 - median employs 5% of all employees within 10 km),
 - mostly acquisitions, less greenfield.

[▶ list](#)[▶ cases](#)[▶ back](#)

Comparing treated and matched controls before the closures

Pre-closure characteristics	Average for treated	Average for controls	P-value of H0: treated=control
Propensity score	0.31 (0.04)	0.13 (0.02)	0.00
Log working-age population in city	9.44 (0.22)	8.99 (0.15)	0.04
Log working-age population in 30 km	11.80 (0.06)	11.85 (0.05)	0.50
Unemployment rate in city	0.065 (0.006)	0.067 (0.004)	0.82
Unemployment rate in 30 km	0.068 (0.005)	0.067 (0.004)	0.77
2-year change in city unemployment rate (pp)	0.0026 (0.0018)	0.0010 (0.0023)	0.45
2-year change in 30 km unemployment rate (pp)	0.0013 (0.0017)	0.0015 (0.0016)	0.93
Buyer-industry share in 30 km	0.090 (0.010)	0.089 (0.008)	0.99
Supplier-industry share in 30 km	0.122 (0.013)	0.127 (0.010)	0.67
Log total sales in 30 km	19.27 (0.012)	19.38 (0.010)	0.46
Average sales growth in 30 km	0.130 (0.007)	0.128 (0.007)	0.75

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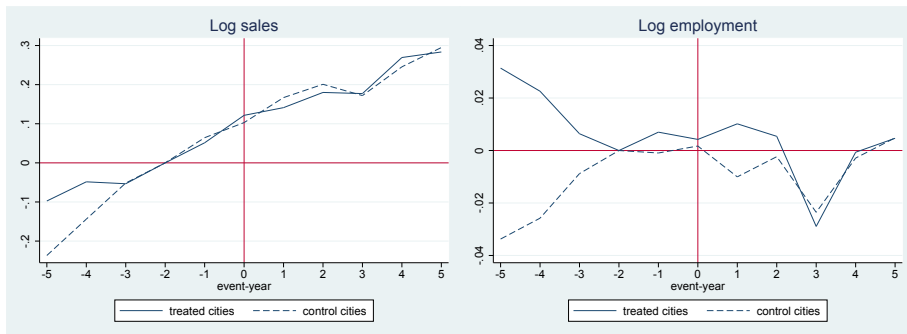
Propensity score matching

$$y_{ct} = \Phi(\beta_0 + \beta_1 I_{Pop_{ct-1}} + \beta_2 I_{PopA_{ct-1}} + \beta_3 Unemp_{ct-1} + \beta_4 UnempA_{ct-1} + \beta_5 dUnemp_{ct-1} + \beta_6 dUnempA_{ct-1} + \beta_7 Supp_{ct-1} + \beta_8 Buy_{ct-1} + \beta_9 Sales_{ct-1} + \beta_{10} dSales_{ct-1} + \beta_{11} I_{ct} + \beta_{12} D_t + \beta_{13} R_c + \epsilon_{ct})$$

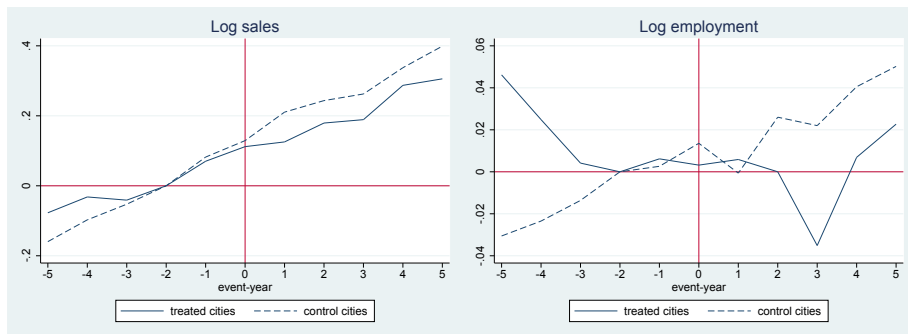
- $y_{ct}=1$ if a plant closes in city c in year t
- Pop the number of inhabitants aged 18-59
- $Unemp$ the unemployment rate in the city
- $dUnemp$ the 2-year change in the unemployment rate (pp)
- $PopA$, $UnempA$, $dUnempA$ the same measures in the 30 km agglomeration
- $Supp$ and Buy the share if supplier and buyer industry in the 30 km agglomeration
 - based on the Hungarian input-output table (2005), giving $\geq 5\%$ of the inputs or uses $\geq 5\%$ of the outputs
- $Sales$ log of total sales within the 30 km agglomeration
- $dSales$ average growth rate of firm-level sales within the 30 km agglomeration
- I_{ct} industry, D_t year, R_c region indicators, ϵ error term.

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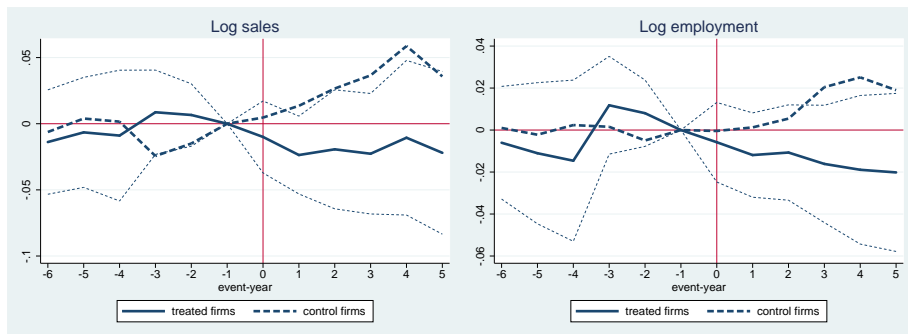
The evolution of total sales and employment, without the closing plant

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The evolution of total sales and employment, without the closing plant, in small cities

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Average log sales and employment of firms in treated and control locations around the closure



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The list of plant closures

industry	treated			employees	control			closure date	
	city	city size	plant		city	city size	plant		
NACE 1.1 - 15: Manufacture of food products and beverages									
	Nagykanizsa	33910	Dreher	289	Keszthely	13414	Helikorn	182	1999 Dec
	Sárvár	10106	Magyar Cukor (Agrana)	350	Siófok	14709	Sió Eckes	148	1999 Q1
	Jászberény	16972	Corona	180	Keszthely	13150	Helikorn	187	2003 Jan
	Zagyvarékas	2204	Hajdú-Bét	800	Szerencs	6318	Szerencsi Cukorgyár (Béghin-Say SA)	263	2002
	Pásztó	6043	Sole	110	Karcag	13209	Cargill	193	2004 Q1
	Pécs	93118	MiZo	238	Baja	22682	Bácska Agráripari Rt	118	2005 Oct
	Kaba	3924	Eastern Sugar	200	Szeged	100312	SOLE-MiZo	1380	2006 Q4
	Nagybánhegyes	860	Friesland	183	Zichyújfalu	617	Provimi	182	2007 Sept
	Szolnok	46539	Mátra Cukor (Nordzucker)	150	Baja	22662	Csabai Tartósipari Rt (Globus)	175	2007 Nov
	Mezőhegyes	3901	Eastern Sugar	224	Siófok	14709	Sió Eckes	143	1997 Dec
	Sárad	6418	Eastern Sugar	239	Lajosmizse	6750	Olivia	160	1998 March
NACE 1.1 - 16: Manufacture of tobacco products									
	*Debrecen	128575	Reemtsma	380					2004 Apr
	*Eger	34996	Philip Morris	334					2005 May
NACE 1.1 - 17: Manufacture of textiles									
	Szombathely	52105	Savatex	200	Dombóvár	12874	Pasha	735	2001
	Dunaújváros	32382	Berwin	240	Dombóvár	12480	Pasha	344	2005 Dec
	Kaposvár	40932	Coats	195	Tolna	7345	Tolnatext	247	2007 Nov
NACE 1.1 - 18: Manufacture of wearing apparel; dressing and dyeing of fur									
	*Zalaegerszeg	38733	ZA-KO	1200					2002 Dec
	Bátonyterenye	9090	Hammer	160	Zalaszentgrót	4706	SH Rekord	219	2003 July
	Mezőkövesd	10423	Ruháipari Szövetkezet	252	Zalaszentgrót	4706	SH Rekord	219	2003
	Ajka	20450	Shoe Makers	175	Zalaszentgrót	4706	SH Rekord	219	2003 Okt
	Vasvár	2842	Styl	160	Rajka	1704	Calida	298	2003 Q4
	Marcali	7738	Mustang	371	Nagykálló	6430	Olimpias	379	2007 March
	Kiskunhalas	18228	Levi Strauss	549	Zalaszentgrót	4515	SH Rekord	212	2009 June
	Nyíregyháza	74946	Berwin	395	Zalaszentgrót	4515	SH Rekord	212	2009 Jan
	Várpalota	13537	Berwin	162	Zalaszentgrót	4586	SH Rekord	212	2008 Sep

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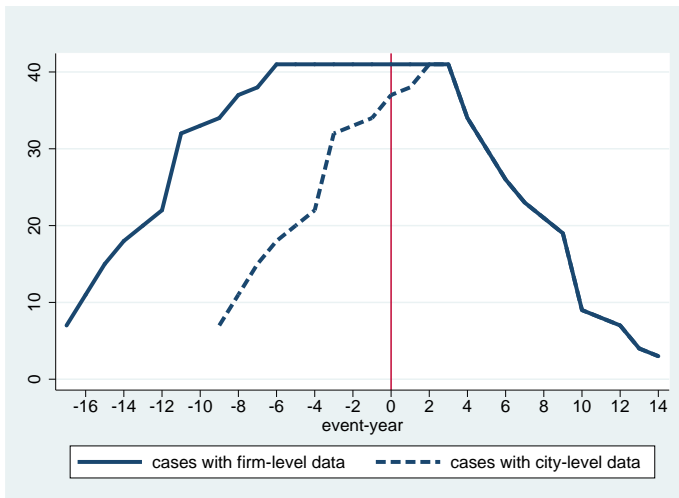
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The list of plant closures - cont.

industry	treated			control				closure date
	city	city size	plant	employees	city	city size	plant	employees
NACE 1.1 - 19: Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear								
Bonyhád	9029	Salamander	640	Martfű	4555	Lorenz	706	2003 Oct
*Szeged	100743	Mary 2000	220					2003 Q3
Tiszakeszi	1648	Mary 2000	242	Martfű	4555	Lorenz	706	2003 Aug
Beled	1806	Marc	200	Martfű	4555	Lorenz	706	2003 Q3
*Körmend	7875	Marc	250					2003 Oct
Óriszentpéter	793	Marc	200	Martfű	4516	Lorenz	638	2006 Jan
**Szombathely	50520	Marc	1010					2004 Q4
Vasvár	2811	Richter	180	Martfű	4418	Lorenz	654	2008 March
NACE 1.1 - 21: Manufacture of pulp, paper and paper products								
Lábatlan	3232	Piszke Papír (Zeritis)	263	Ács	4250	Hartmann	496	2008 Dec
Szolnok	46078	Mondi	265	Ács	4290	Hartmann	488	2008 June
NACE 1.1 - 25: Manufacture of rubber and plastic products								
Komárom	12118	Perlos	1100	Szeged	100977	ContiTech	436	2009 July
NACE 1.1 - 26: Manufacture of other non-metallic mineral products								
Bélapátfalva	2086	PannonCem	200	Nyergesújfalu	4926	Eternit	182	2000 Sept
Salgótarján	23568	R-Glass	268	Tapolca	10569	Rockwool	183	2009 Nov
NACE 1.1 - 27: Manufacture of basic metals								
Miskolc	103155	DAM 2004	878	Ózd	22375	ÓAM	470	2009 March
NACE 1.1 - 29: Manufacture of machinery and equipment n.e.c.								
Szentgotthárd	5551	GFP Mezőgépgyár	150	Mezőtúr	11428	RAFI	212	2003 Sept
NACE 1.1 - 30: Manufacture of office machinery and computers								
**Székesfehérvár	65420	IBM Data Storage Systems	3700					2003 Q1
NACE 1.1 - 31: Manufacture of electrical machinery and apparatus n.e.c.								
Szeged	102218	Kábelgyár (Siemens)	245	Szentes	18877	Legrand	595	1998 Q3
Szombathely	50520	Phillips	800	Gyöngyös	20175	Magnetec	230	2004 Sept
Eger	34396	Leoni	627	Gyöngyös	19286	Magnetec	260	2008 Aug
NACE 1.1 - 32: Manufacture of radio, television and communication equipment and apparatus								
Sárbogárd	8012	Mannesmann	845	Tiszkácske	6940	Hechinger	310	2000 Oct
Tatabánya	43682	Artesyn	370	Tiszkácske	6943	Hechinger	193	2005 Q4
Kecskemét	68006	DDDK (Bosch)	500	Lőrinci	3499	Bumjin	448	2009 July
*Szombathely	48189	Laird	700					2009 Q2
NACE 1.1 - 34: Manufacture of motor vehicles, trailers and semi-trailers								
Székesfehérvár	65420	Ikarusbus	187	Rétság	1985	Enbl	250	2003 Aug

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The number of cases by event-year



Descriptive statistics

Variable	Mean	Standard deviation	Number of observations
sales (1000HUF)	450,915	4,325,328	796,655
employment (capita)	35	266	782,759
per capita yearly wage (1000 HUF)	552	549	714,197
value added per capita (1000 HUF)	2,502	11,402	733,660
total factor productivity	11,587	263,081	719,239
export sales (1000 HUF)	119,340	1,868,755	686,861
exit dummy	0.10	0.30	797,551
age (years)	8.9	7.4	797,551
capital to labor ratio	6,111	297,261	757,124

Descriptive statistics are based on the largest sample of firms used in the analysis: all firms within the 30 km agglomeration of treated and control cities, when I assign multiple controls to each case. As in the analysis, I exclude the firms of the closing plants and the foreign-owned large firms in the control cities. I also exclude firms with sales in the highest 0.5 percentile. I only include firms with a median employment of at least five. Age is winsorized from above at 65.

Descriptive statistics

Average number of firms per case within 10km agglomeration

	All	Local services	Competitors	Buyers	Suppliers
Treated locations	602	111	10	35	84
Control locations	361	71	11	42	54

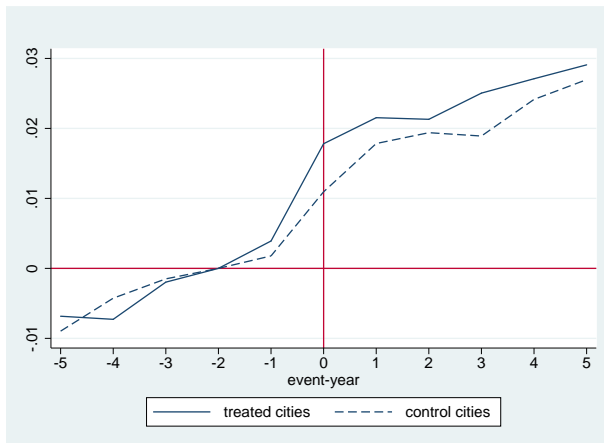
I include firms used in the analysis, i.e. with median employment of 5 or more, omitting outliers with very large sales, firms with a closing plant and foreign-owned large firms in the control settlements. I use the baseline version where I match a single control to each case.

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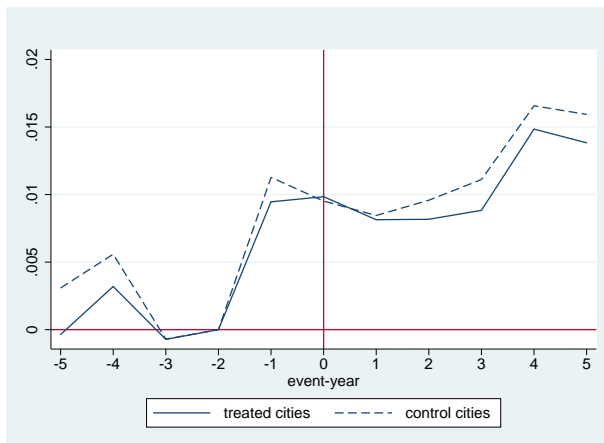
Baseline regression results

VARIABLES	(1) log sales	(2) log empl	(3) log labor productivity	(4) log per capita wage	(5) log TFP	(6) exit
Treated	0.008 (0.009)	0.000 (0.007)	0.005 (0.005)	-0.004 (0.003)	-0.003 (0.004)	-0.002 (0.002)
Treated x After(1-3)	-0.061*** (0.020)	-0.030** (0.012)	-0.010 (0.010)	-0.007 (0.006)	-0.005 (0.008)	0.003 (0.002)
Treated x After(4-5)	-0.077** (0.030)	-0.049** (0.019)	-0.013 (0.014)	-0.010 (0.011)	0.001 (0.010)	0.002 (0.003)
Time period dummies	YES	YES	YES	YES	YES	YES
Treated x Far-away period dummies	YES	YES	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES	YES	NO
Case FE	YES	YES	YES	YES	YES	YES
Calendar year FE	YES	YES	YES	YES	YES	YES
Industry FE	NO	NO	NO	NO	NO	YES
Firm-year-level characteristics	NO	NO	NO	NO	NO	YES
Number of observations	359,826	353,768	326,784	330,158	353,607	332,702
Number of unique firms	26,434	26,512	25,914	26,142	26,527	

Unemployment rate around the closures

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Moving out rate around the closures

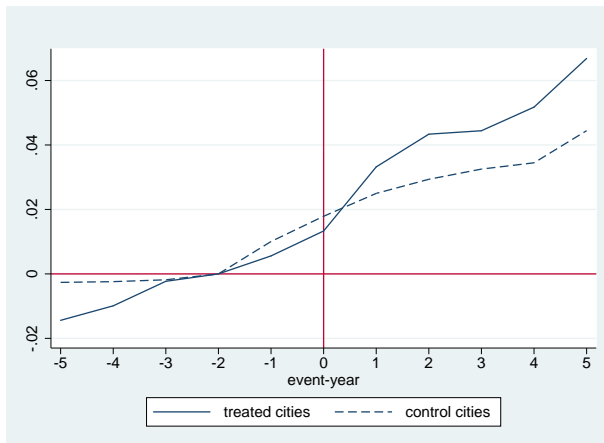


Robustness checks

- No significant difference by the industry of the closing plant.
- Results are robust when
 - controlling for pre-trend differences,
 - excluding cases from EU accession (2003-2004) and crisis years (2008-2009),
 - excluding cases in which the closing plant was in debt,
 - assigning multiple controls for a single closure event, weighting by the similarity of the control.
- The effect is spatially concentrated: not there in the 10-20 km agglomeration.

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The ratio of self-employed around the closures



Regression results by productivity group

VARIABLES	(1) log sales	(2) log empl	(3) log labor productivity	(4) log per capita wage	(5) log TFP	(6) exit
Treated x After(1-3) x LowTFP	-0.107** (0.043)	-0.041 (0.030)	-0.020 (0.021)	0.008 (0.011)	-0.017 (0.013)	-0.002 (0.004)
Treated x After(1-3) x MediumTFP	-0.026 (0.025)	-0.014 (0.019)	0.017 (0.014)	-0.011 (0.007)	0.012* (0.007)	-0.000 (0.004)
Treated x After(1-3) x HighTFP	-0.037 (0.032)	-0.004 (0.023)	-0.018 (0.015)	0.006 (0.011)	0.001 (0.009)	-0.005 (0.004)
TFP group dummies in interactions	YES	YES	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES	YES	NO
Case FE	YES	YES	YES	YES	YES	YES
Calendar year FE	YES	YES	YES	YES	YES	YES
Industry FE	NO	NO	NO	NO	NO	YES
Firm-year-level characteristics	NO	NO	NO	NO	NO	YES
Number of observations	359,826	353,768	326,784	330,158	353,607	332,702
Number of unique firms	26,434	26,512	25,914	26,142	26,527	

Regression results by the closing plant's length of operation

Length of operation: VARIABLES	(1) total	(2) total	(3) as foreign	(4) as foreign	(5) total	(6) total	(7) as foreign	(8) as foreign
	log sales				log employment			
Treated x After(1-3)	-0.029 (0.028)	0.014 (0.043)	-0.025 (0.023)	0.021 (0.039)	-0.028 (0.024)	-0.033 (0.034)	-0.016 (0.019)	-0.020 (0.031)
Treated x After(4-5)	-0.037 (0.036)	-0.012 (0.060)	-0.057* (0.031)	-0.015 (0.049)	-0.016 (0.033)	-0.005 (0.055)	-0.031 (0.026)	-0.024 (0.046)
Treated x After(1-3) x More than 10 years	-0.051 (0.034)		-0.075** (0.030)		-0.004 (0.029)		-0.030 (0.024)	
Treated x After(4-5) x More than 10 years	-0.062 (0.047)		-0.045 (0.050)		-0.056 (0.039)		-0.050 (0.036)	
Treated x After(1-3) x Length		-0.007* (0.004)		-0.009** (0.004)		0.000 (0.003)		-0.001 (0.003)
Treated x After(4-5) x Length		-0.006 (0.005)		-0.007 (0.006)		-0.004 (0.004)		-0.003 (0.004)
Treated, time period and case group dummies, also in interactions	YES	YES	YES	YES	YES	YES	YES	YES
Firm FE, case FE, calendar year FE	YES	YES	YES	YES	YES	YES	YES	YES
Observations	359,826	359,826	359,826	359,826	353,768	353,768	353,768	353,768
Number of unique firms	26,434	26,434	26,434	26,434	26,512	26,512	26,512	26,512

Regression results by the closing plant's relative local share

Dep. var.:	(1)	(2)	(3)	(4)	(5)	(6)
	Log sales			Log employment		
Case group:	baseline	plant share> median	plant share> 15% of 10km employment	baseline	plant share> median	plant share> 15% of 10km employment
Treated x After(1-3)	-0.061*** (0.020)	-0.041 (0.025)	-0.054*** (0.019)	-0.030** (0.012)	-0.015 (0.018)	-0.033*** (0.012)
Treated x After(4-5)	-0.077** (0.030)	-0.033 (0.034)	-0.058** (0.027)	-0.049** (0.019)	-0.022 (0.025)	-0.046** (0.020)
Treated x After(1-3) x Group		-0.040 (0.038)	-0.052 (0.076)		-0.024 (0.030)	0.034 (0.060)
Treated x After(4-5) x Group		-0.070 (0.055)	-0.102 (0.072)		-0.026 (0.038)	0.004 (0.068)
Treated, time period and case group dummies, also in interactions	YES	YES	YES	YES	YES	YES
Firm FE, case FE, calendar year FE	YES	YES	YES	YES	YES	YES
Observations	359,826	359,826	359,826	353,768	353,768	353,768
Number of unique firms	26,434	26,434	26,434	26,512	26,512	26,512

Regression results by location type

VARIABLES	(1) log sales	(2) log empl	(3) log labor productivity	(4) log per capita wage	(5) log TFP	(6) exit
Treated x After(1-3)	-0.026 (0.026)	-0.016 (0.018)	0.008 (0.015)	-0.006 (0.010)	0.016* (0.009)	0.001 (0.003)
Treated x After(4-5)	-0.040 (0.039)	-0.007 (0.027)	-0.009 (0.024)	-0.019 (0.016)	0.018 (0.012)	0.002 (0.004)
Treated x After(1-3) x HighUnemp	-0.060* (0.032)	-0.020 (0.022)	-0.034** (0.016)	-0.003 (0.011)	-0.038*** (0.010)	0.004 (0.004)
Treated x After(4-5) x HighUnemp	-0.079 (0.049)	-0.094*** (0.035)	-0.002 (0.027)	0.022 (0.017)	-0.033** (0.015)	0.001 (0.006)
Number of observations	359,826	353,768	326,784	330,158	353,607	332,702
Number of unique firms	26,434	26,512	25,914	26,142	26,527	
Treated x After(1-3)	-0.047* (0.027)	-0.001 (0.019)	-0.013 (0.014)	-0.008 (0.008)	-0.006 (0.008)	-0.000 (0.004)
Treated x After(4-5)	-0.042 (0.041)	-0.006 (0.035)	-0.027 (0.017)	-0.015 (0.012)	0.003 (0.012)	0.002 (0.005)
Treated x After(1-3) x SmallCity	-0.008 (0.035)	-0.055* (0.028)	0.013 (0.020)	0.001 (0.011)	0.002 (0.011)	0.002 (0.005)
Treated x After(4-5) x SmallCity	-0.017 (0.051)	-0.085* (0.045)	0.043 (0.030)	0.004 (0.020)	0.000 (0.020)	-0.004 (0.007)
Number of observations	359,826	353,768	326,784	330,158	353,607	332,702
Number of unique firms	26,434	26,512	25,914	26,142	26,527	

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