

Expatriate Managers and Firm Performance

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Motivation

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- ▶ Some firms produce vastly more output per worker than others (Syverson, 2011).
 - ▶ technology
 - ▶ organization

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 - ▶ technology
 - ▶ organization
- ▶ Two interventions know to improve firm performance:
 1. foreign investment
 2. management training

Foreign owned firms perform better than domestic firms

- ▶ US: Doms and Jensen (1998)
- ▶ UK: Griffith (1999)
- ▶ Hungary, Romania, Russia, Ukraine: Brown, Earle, Telegdy (2006)
- ▶ Indonesia: Arnold and Javorcik (2009)

Management improves firm performance

- ▶ Good management practices increase productivity (Bloom and Van Reenen 2010; Bloom et al. 2012; Bloom et al. 2014) and market access (Bloom et al. 2016).
- ▶ CEOs behaving like “leaders” gradually improve firm performance. (Bandiera, Hansen, Prat and Sadun 2018)
- ▶ Large increase in the level and inequality of CEO pay. (Murphy and Zábojník 2004; Gabaix and Landier 2008; Tervio 2008; Frydman and Saks 2010)

Manager identity matters

- ▶ Managers have persistent effects across firms on investment policy, R&D, advertising, return on assets. (Bertrand and Schoar 2003)
- ▶ Sudden CEO death worsens firm performance. (Bennedsen, Pérez-González and Wolfenzon 2007)
- ▶ Managers having past export experience increase likelihood of exporting. (Mion and Opromolla 2014; Mion, Opromolla and Sforza 2016:

This paper

- ▶ Foreign owners improve firm performance by improving management.
- ▶ Compile new, unique data on which firm is run by expat manager: Hungary, 1992–2016.
- ▶ Research design:
 - ▶ differences-in-differences comparing expat-managed firms to domestic managed firms before and after takeover
 - ▶ controlling for domestic change in management

Contributions

1. Linked firm-CEO data for the universe of corporations.
2. Compare expat CEOs to local CEOs.
3. Research design around CEO switches.

Why care?

- ▶ Different modes of global engagement are highly correlated:
 - ▶ foreign investment/ownership
 - ▶ foreign management
 - ▶ foreign trade
- ▶ Which are most important for gains from globalization?

Three potential benefits

1. Better firm-specific skills and loyalty
2. Better general management skills
3. Reorganization

Data

Data

Hungarian Manager Database

- ▶ coverage: universe of corporations, 1992–2016
- ▶ CEO: highest officer of corporation as specified in corporate law.
 - ▶ information: name, mother's name, address, tenure at firm
- ▶ 1 million firms, 2 million CEOs, 5 million job spells

Balance sheet data

- ▶ coverage: universe of double entry firms, 1992–2016
- ▶ information: sales, exports, employment, equipment etc.

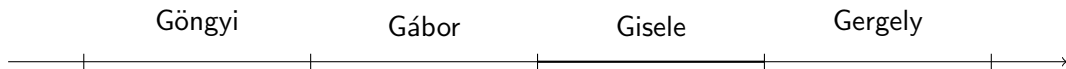
Names

- ▶ We use manager names to infer (i) CEO change, (ii) nationality and (iii) gender (not used today)
- ▶ Foreign manager: firm representative with a non-Hungarian first name
 - ▶ e.g. Eva Bauer v Bauer Éva
 - ▶ but: George Soros v Soros György
- ▶ Allow for misspelling, omitted middle name, missing data (jr, dr)

Sample

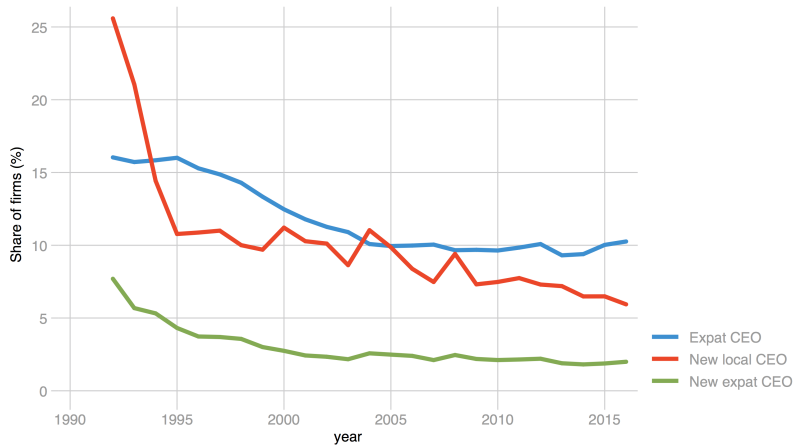
- ▶ Exclude:
 - ▶ employing less than 20 people
 - ▶ financial sector
 - ▶ domestic firms with expat CEO (data?)
 - ▶ firms with more than 15 CEOs
- ▶ Left with 18,000 firms
- ▶ Focus on years around CEO switches.

CEO succession

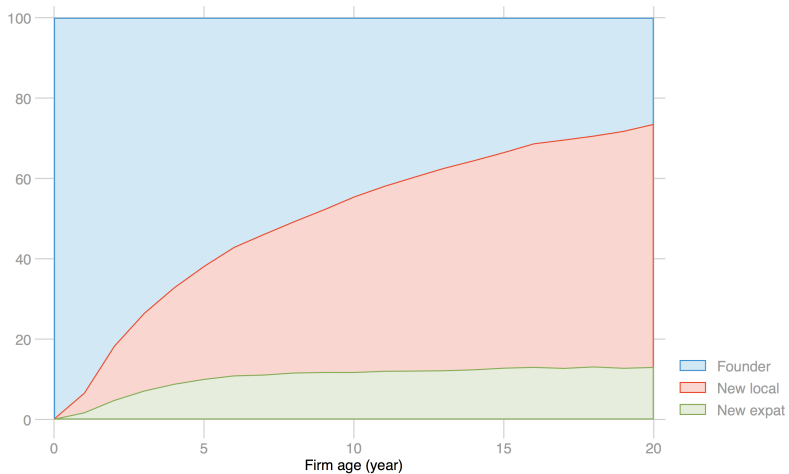


Descriptives

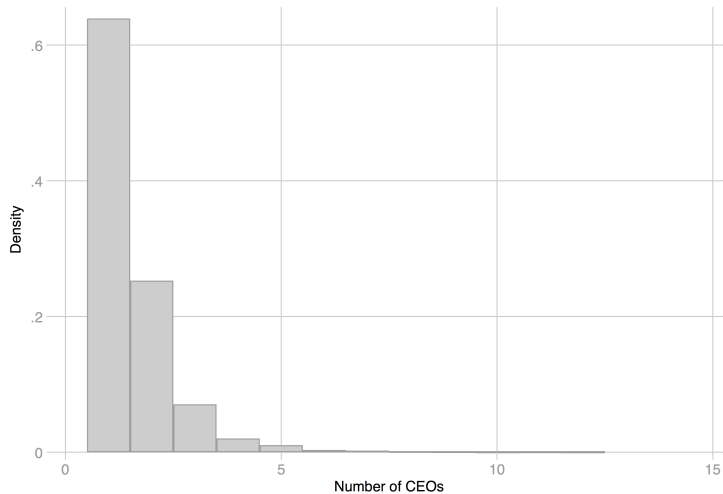
Local and expat managers over time



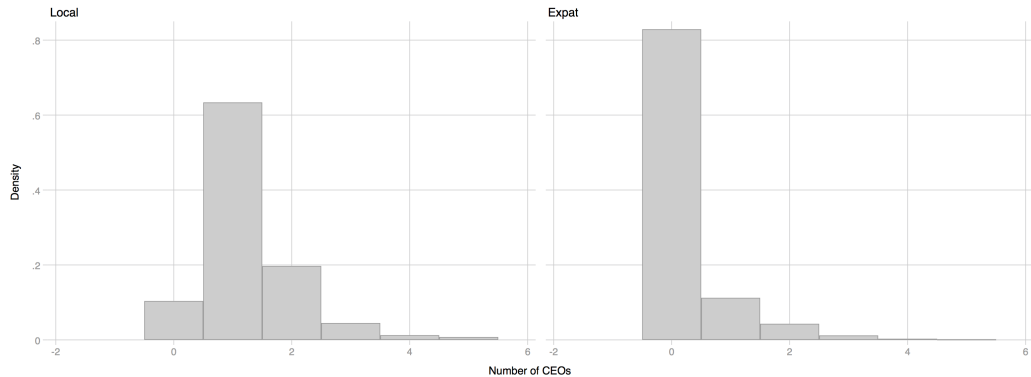
Founder CEOs are slowly replaced



Firms sometimes have multiple CEOs

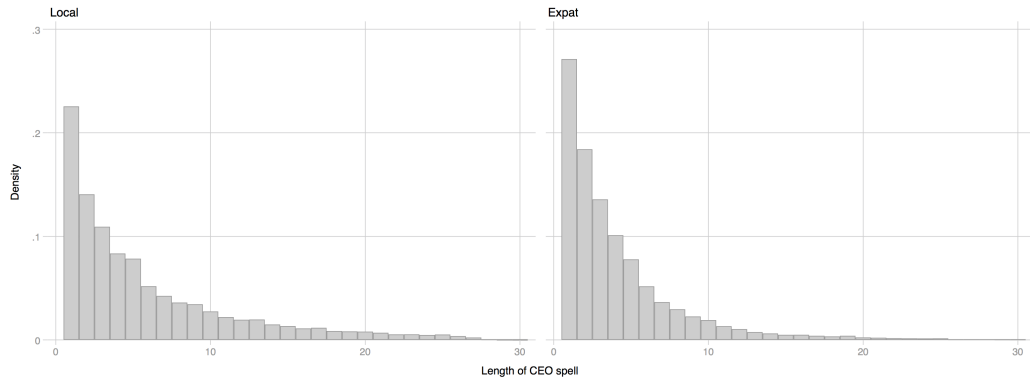


80 percent of firms have no expat CEO



Graphs by manager nationality

Expat CEOs leave somewhat earlier



Graphs by manager nationality

Number of CEO switches

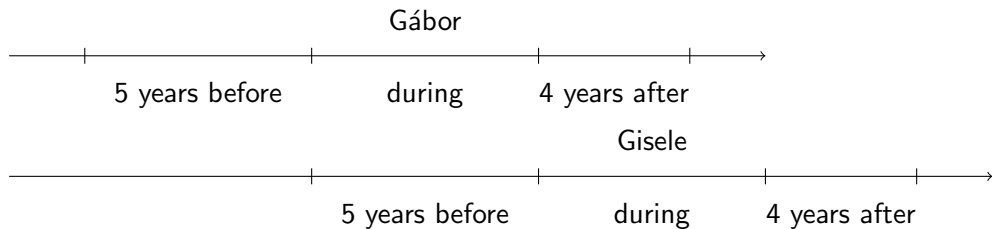
From	To domestic	To expat
domestic	15197	1819
expat	2450	4694

Research design

Research design

- ▶ Take each CEO spell at each firm (e.g., Steve Ballmer, Microsoft, 2000–2014)
- ▶ Exclude founders (e.g., Bill Gates, Microsoft, 1975–1999)
- ▶ For each spell, collect firm-level data for three periods:
 - ▶ before (1975–1999)
 - ▶ during (2000–2014)
 - ▶ after (2015–)
- ▶ Comparing these periods, we estimate the impact of a new CEO and whether it is long lasting.

Manager-level event study



Estimating equation

$T_{im} \subset [1992, 2016]$: tenure of CEO m at firm i

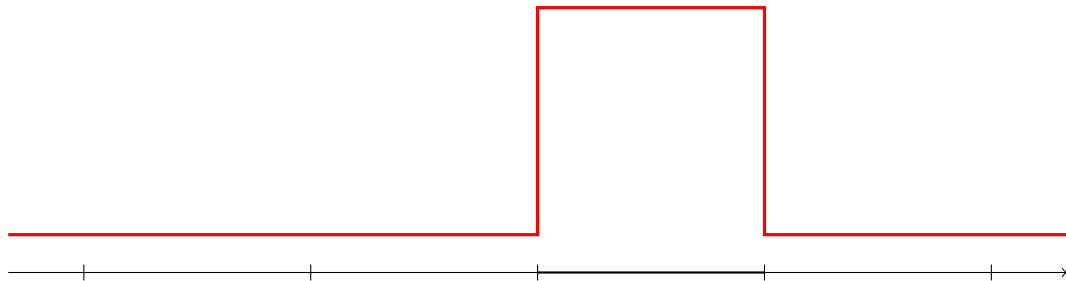
$I()$: indicator function

X_m : expat dummy

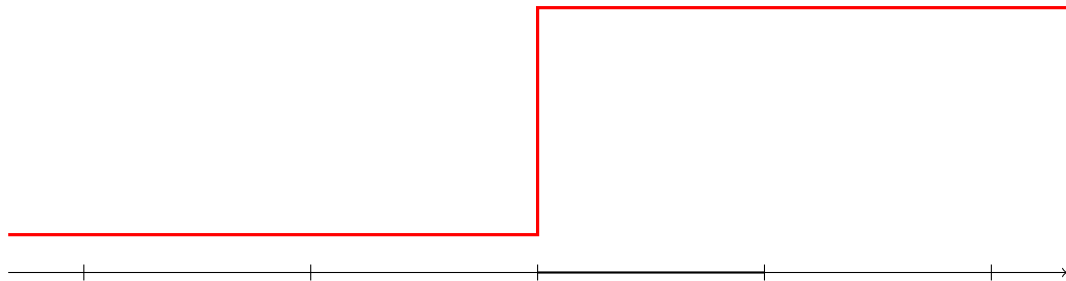
$$\begin{aligned} Y_{imt} = & \beta_1 I(t \in T_{im}) + \beta_2 I(t > T_{im}) \\ & + \gamma_1 X_m I(t \in T_{im}) + \gamma_2 X_m I(t > T_{im}) \\ & + f(\text{age}_{it}) + \mu_{im} + \nu_{st} + \varepsilon_{imt} \end{aligned}$$

Mechanism

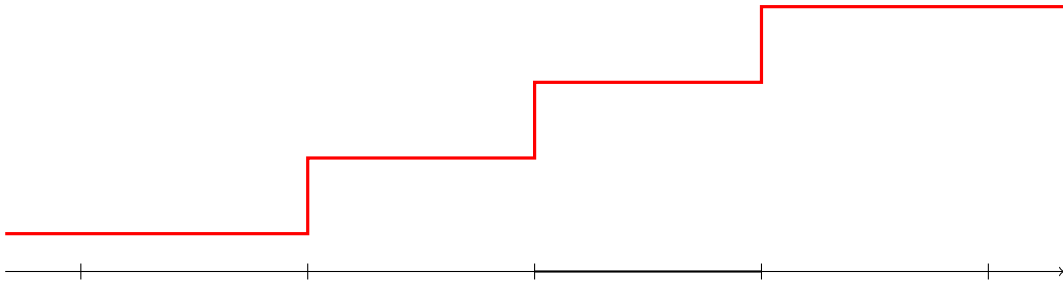
Specific knowledge



Technology transfer



Reorganization



Estimates

Foreign firms are better in every respect (OLS estimates)

	(1) lnL	(2) lnKL	(3) lnQL	(4) exporter
Foreign owner (dummy)	0.397*** (0.021)	0.546*** (0.033)	0.656*** (0.024)	0.336*** (0.008)
Expat manager (dummy)	0.004 (0.024)	0.113*** (0.040)	-0.103*** (0.027)	0.055*** (0.008)
R^2	0.073	0.140	0.206	0.200
Number of observations	311,119	311,119	311,119	311,119

Notes: All specifications control for industry-year fixed effects. Standard errors, clustered by firm, are reported in parantheses. Coefficients significantly different from zero at 1, 5 and 10 percent are marked by ***, ** and *, respectively.

Foreign takeover is associated with higher capital intensity, productivity and exporting (firm FE estimates)

	(1) lnL	(2) lnKL	(3) lnQL	(4) exporter
Foreign owner (dummy)	-0.014 (0.032)	0.136*** (0.043)	0.080*** (0.023)	0.030** (0.012)
Expat manager (dummy)	-0.043*** (0.012)	0.050*** (0.014)	-0.004 (0.009)	0.017*** (0.004)
R^2	0.114	0.177	0.283	0.048
Number of observations	311,119	311,119	311,119	311,119

Notes: All specifications control for industry-year and firm fixed effects. Standard errors, clustered by firm, are reported in parantheses. Coefficients significantly different from zero at 1, 5 and 10 percent are marked by ***, ** and *, respectively.

Foreign takeover is associated with higher productivity (firm FE estimates on acquisition sample only)

	(1) lnL	(2) lnKL	(3) lnQL	(4) exporter
Foreign owner (dummy)	0.023 (0.041)	0.010 (0.054)	0.063** (0.030)	0.018 (0.014)
Expat manager (dummy)	0.038 (0.031)	0.023 (0.033)	0.034* (0.021)	0.035*** (0.009)
R^2	0.106	0.206	0.279	0.052
Number of observations	229,907	229,907	229,907	229,907

Notes: All specifications control for industry-year and firm fixed effects. Standard errors, clustered by firm, are reported in parantheses. Coefficients significantly different from zero at 1, 5 and 10 percent are marked by ***, ** and *, respectively.

Better, more global firms receive expat CEOs

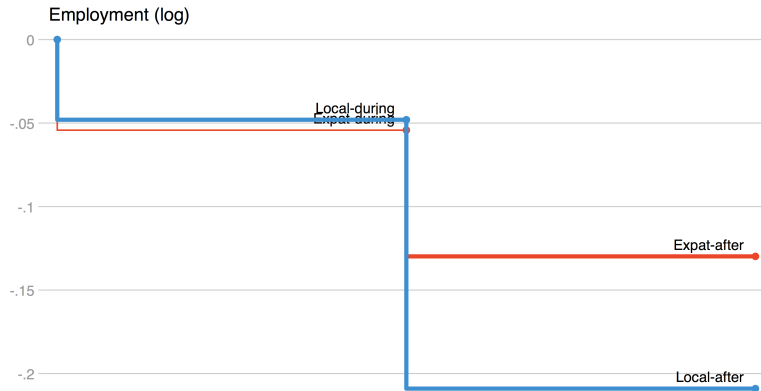
	(1) Selection	(2) Persistence	(3) Local	(4) Expat
Foreign owner (dummy)	0.517*** (0.007)	0.378*** (0.009)	0.380*** (0.009)	
Expat manager (dummy)		0.246*** (0.011)		
Exporting firm (dummy)	0.047*** (0.007)	0.037*** (0.006)	0.039*** (0.006)	0.038** (0.017)
Employment (log)	0.013*** (0.003)	0.011*** (0.002)	0.005** (0.002)	0.020*** (0.005)
Capital per worker (log)	0.006*** (0.002)	0.004** (0.002)	0.003* (0.001)	0.006 (0.004)
Revenue per worker (log)	0.010*** (0.003)	0.008*** (0.002)	0.001 (0.002)	0.019*** (0.006)
R^2	0.407	0.441	0.342	0.042
Number of observations	20,527	20,527	14,360	6,167

Manager-level estimates on acquisitions sample

	(1) lnL	(2) lnKL	(3) lnQL	(4) exporter
Foreign owner (dummy)	0.038 (0.038)	0.018 (0.049)	0.072*** (0.027)	0.022* (0.013)
During manager tenure (dummy)	-0.048*** (0.011)	-0.001 (0.013)	0.036*** (0.008)	-0.007** (0.004)
After manager tenure (dummy)	-0.209*** (0.020)	-0.018 (0.023)	0.065*** (0.014)	-0.025*** (0.006)
During expat manager (dummy)	-0.006 (0.043)	-0.083 (0.052)	0.145*** (0.029)	0.035*** (0.013)
After expat manager (dummy)	0.079 (0.055)	-0.189*** (0.068)	0.210*** (0.038)	0.039** (0.018)
R^2	0.102	0.173	0.232	0.048
Number of observations	354,772	354,772	354,772	354,772

Notes: All specifications control for industry-year, firm age and manager spell fixed effects.

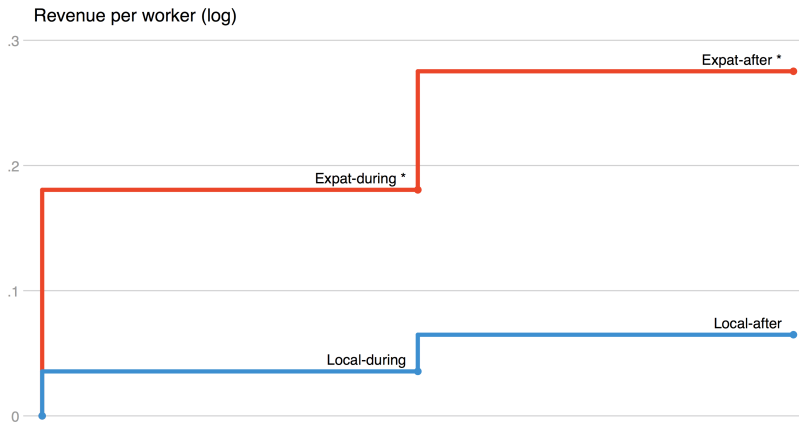
Local and expat managers reduce employment by same amount



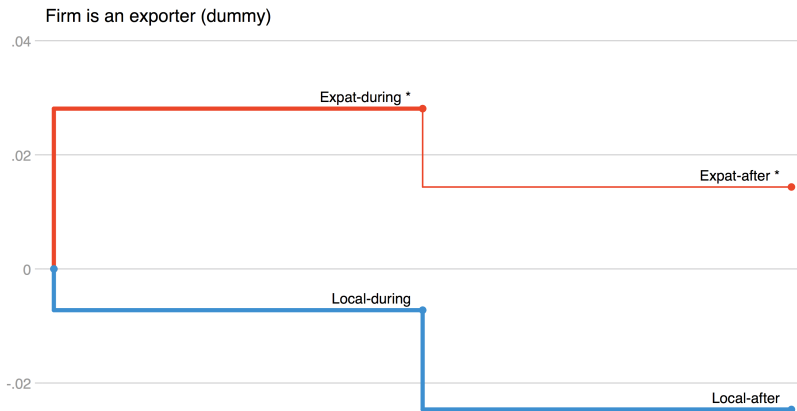
Capital intensity drops after first expat manager leaves



Expatriate managers improve revenue per worker by 15–25 percent

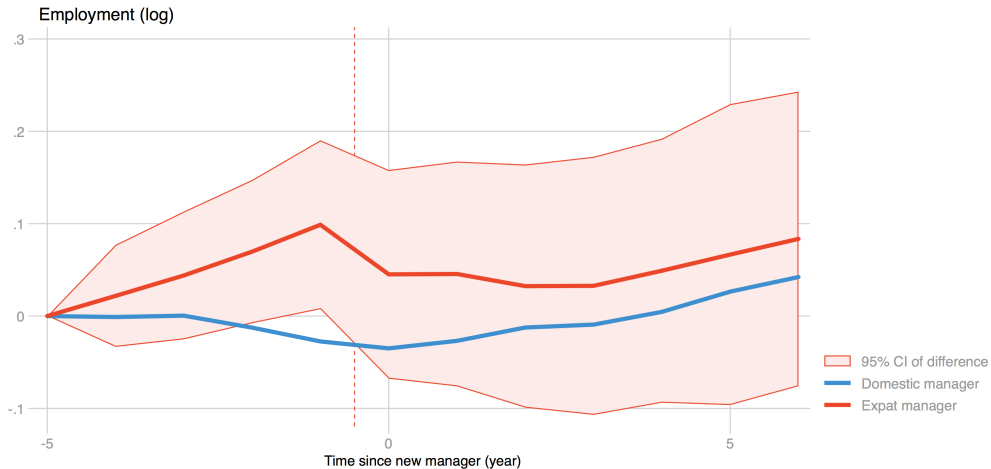


Expat managers increase probability of exporting by 3pp



Event studies

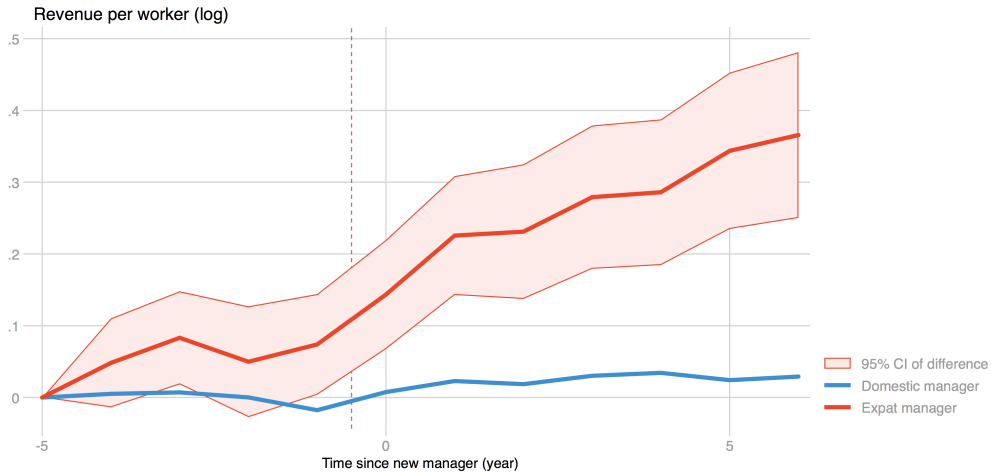
Expatriate managers come to somewhat faster growing firms



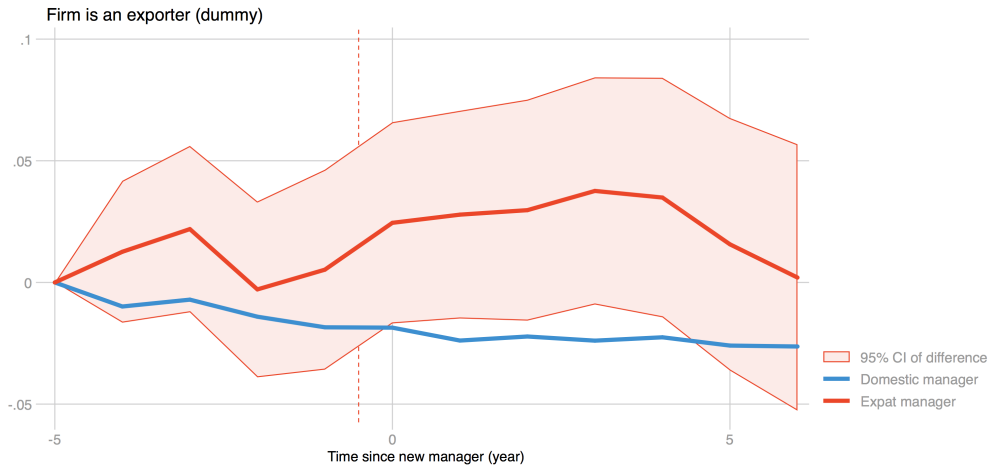
No significant changes in capital per worker



Expat managers have persistent effect on revenue per worker



Expat managers have temporary effect on likelihood of exporting



Estimates from manager switches

Estimating equation

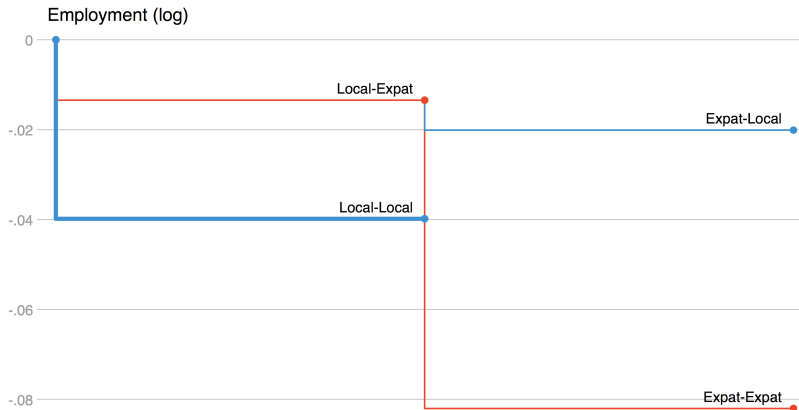
X_m : manager m is expat

X_{m-1} : previous manager is expat

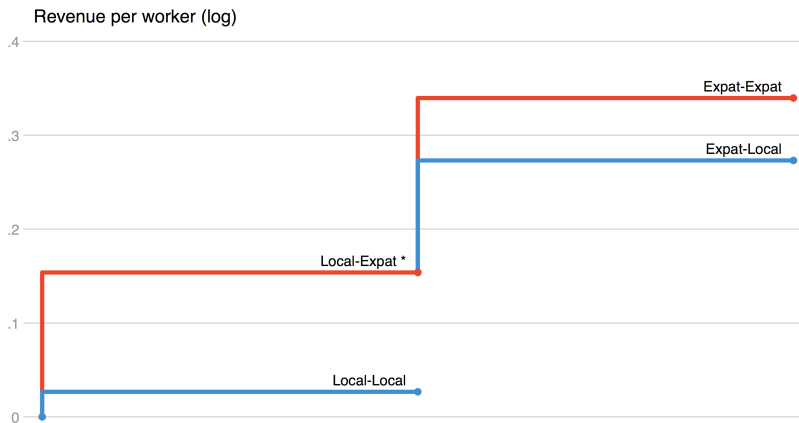
omit $t > T_{im}$ years

$$Y_{imt} = \sum_{j=0,1} \sum_{k=0,1} \beta_{jk} I(X_{m-1} = j) I(X_m = k) I(t \in T_{im}) \\ + f(\text{age}_{it}) + \mu_{im} + \nu_{st} + \varepsilon_{imt}$$

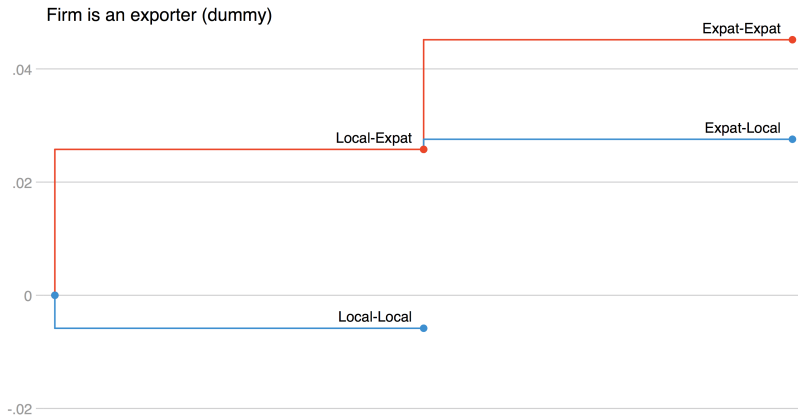
All reorganization results in loss of employment



Productivity effect of expats remains after they leave



Exporting effect of expats remains after they leave



Expats help start exporting, but have limited effect on continuation

	(1) Start	(2) Continue	(3) Domestic	(4) Global
Foreign owner (dummy)	0.037* (0.019)	-0.005 (0.017)	0.020 (0.020)	
During manager tenure (dummy)	0.029*** (0.004)	-0.064*** (0.006)	0.008 (0.005)	-0.013 (0.020)
After manager tenure (dummy)	0.032*** (0.007)	-0.096*** (0.010)	-0.001 (0.009)	-0.031 (0.030)
During expat manager (dummy)	0.116*** (0.025)	0.038** (0.015)	0.116*** (0.036)	0.013 (0.030)
After expat manager (dummy)	0.130*** (0.034)	0.045** (0.021)	0.108*** (0.040)	0.035 (0.034)
R^2	0.044	0.075	0.055	0.027
Number of observations	194,426	160,346	73,705	8,581

Notes: All specifications control for industry-year fixed effects and firm age. Standard errors,

Interpretation

Interpretation

Three alternative explanations

1. Firm-specific skills
 - ▶ heterogeneity with initial firm characteristics
2. General skills
 - ▶ labor productivity improvement has persistent effect
3. Reorganization
 - ▶ effects relative to domestic change in management

Costs

Why does not every firm hire a foreign manager?

1. Wages are higher
2. Search costs are higher
3. Match is less than perfect

Conclusions

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- ▶ Firms with expat managers improve output per worker and enter export markets.
- ▶ Patterns are consistent with a “technology transfer” interpretation.