Foreign Firms and Foreign Managers

Miklós Koren   Álmos Telegdy

NOITS 2021. Thanks: ERC Knowledgeflows, Krisztián Fekete, Dávid Koller, Olivér Kiss, Szilárd Perédi, Bálint Szilágyi, András Vereckei, Rita Zágoni, Gergő Závecz

Motivation

Motivation

Why and how do firms produce abroad?

1. What are the boundaries of (global) firms?
2. Foreign owned firms perform better than domestic firms
3. Managers matter

What are the boundaries of (global) firms?

arm's length $\longrightarrow$ relational $\longrightarrow$ acquisition $\longrightarrow$ management

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)

Managers matter

- 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)
- 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) and importing (Bisztray, Koren and Szeidl 2018).

This paper

- Compile new data on which firm is run by which manager: Hungary, 1980–2018.
- Measure different degrees of foreign control:
  1. acquisition
  2. replace CEO
  3. hire expat CEO
- Results:
  - Exporters and low-productivity firms become more tightly controlled.
  - Firms with high immaterial capital receive local managers.
  - Foreign controlled firms become more productive and more likely to export.

Data

Data

Hungarian Manager Database

- coverage: universe of corporations, 1980–2018
- 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, 1980–2018
- information: sales, exports, employment, equipment, immaterials etc.

Names

- We use manager names to infer
  1. CEO change
  2. nationality
  3. 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
  - greenfield FDI
  - firms with more than 15 CEOs
- Left with 24,500 firms

Descriptives

The number of CEOs increased sharply until 2010

input/ceo-panel/fig/manager-type-by-year/fig.pdf

The share of firms managed by founders gradually decreases with age

input/ceo-panel/fig/manager-type-by-age/fig.pdf

Founders stay longest at the firm

input/ceo-panel/fig/tenure-by-type-weighted/fig.pdf

Degree of control

domestic		acquired		mgr re-placed		expat hired
(243,388)	⟶	(20,781)	⟶	(15,784)	⟶	(9,184)
(22,761)		(1,770)		(1,235)		(654)

Variables

- **foreign**: firm has majority foreign owner
- **foreign_hire**: firm has a manager hired by foreign owner
- **has_expat**: firm has an expat manager
- **CONTROL**^{k}: one of the three $(k = 1, 2, 3)$
- **lnL**: log employment
- **lnQL**: log output per worker
- **TFP_cd**: TFP (simple Cobb–Douglas)
- **exporter**: firm has positive exports
- **RperK**: share of immaterial assets in total [0,1]

Estimation

Differences in differences

$$Y_{it} = \alpha_i + \nu_t + \beta \mathsf{CONTROL}_{it} + u_{it}$$

Old diff-in-diff

Estimate (*) by two-way fixed effects.

New diff-in-diff

Compute group-specific treatment effects and aggregate. (Callaway and Sant'Anna 2020)

Problem with TWFE

Callaway - Sant'Anna solution

G_i: time of treatment of unit i (may be ∞)

$C_{gt} = \{i : G_i > \max(g,t)\}$: control group is not yet treated

$$\gamma_{gt} := \sum_{i:G_i=g} (Y_{it} - Y_{ig}) - \sum_{i \in C_{gt}} (Y_{it} - Y_{ig})$$

Aggregate γ_{gt} with "suitable" weights

Multiple treatments

We have three treatments: acquisition only, domestic hire, expat hire.

How to do Callaway-Sant'Anna in this case?

Make sure treatments don't "leak" into controls.

Our solution

G_i^k: time of treatment k of unit i (may be ∞)

$C_{gt} = \{i : \min_k G_i^k > \max(g,t)\}$: control group is not yet treated with **any** of the treatments

$$\gamma_{gt}^k := \sum_{i:G_i=g} (Y_{it} - Y_{ig}) - \sum_{i \in C_{gt}} (Y_{it} - Y_{ig})$$

Each treatment has the **same** control group.

Estimating equations

Bernard-Jensen

Sample: domestic firms and acquisitions

$$Y_{ist}\mu_{st} + \sum_{k=1}^{3} \beta_k \mathsf{CONTROL}_{it}^{k} + u_{ist}$$

Selection

Sample: $\mathsf{CONTROL}_i^{k-1}1$, years before acquisition

$$\mathsf{CONTROL}_i^{k}\mu_{st} + \gamma X_{it} + u_{ist}$$

Diff-in-diff

Sample: domestic firms and acquisitions

$$Y_{ist}\alpha_i + \mu_{st} + \sum_{k=1}^{3} \beta_k \mathsf{CONTROL}_{it}^{k} + u_{ist}$$

Callaway-Sant'Anna estimates

Foreign firms are better in most respects

cross$_{s}ection$

Positive selection on exports, negative on TFP

selection

Hiring an expat is associated with increased productivity and exporting

diffindiff

Expats help start exporting, but have no effect on continuation

exporter

Conclusions

Conclusions

- What are the causes and consequences of foreign acquisitions?
- We ask when managers are also replaced.
- Using data on the universe of foreign acquisitions in Hungary, 1980-2018, we estimate that exporters and low-productivity firms become more tightly controlled.
- Foreign controlled firms become more productive and more likely to export.
- These facts help inform theories about the boundaries of global firms and about the role of managers in firm performance.

Next steps

- Collect data on parent firms.
- Build an incomplete-contract model.