Foreign Owners and Managers Help Firms Enter Foreign Markets

Koren Miklós
CEU, KRTK and CEPR
Orbán Krisztina
Monash and NBER
Telegdy Álmos
Corvinus and MNB

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

Motivation

Motivation

1. What are the firm-level barriers to trade? Given the large estimated benefits of exporting and importing, fixed costs must be large.
2. Two sets of evidence suggest large role for personal connections.
   - Immigrant networks are key determinants of *regional* trade patterns (Rauch 1999...)
   - Face-to-face links facilitate formation of buyer-supplier links (Bernard, Moxnes and Saito 2019, Cai and Szeidl 2018...)

This paper

- Compile new data on which firm is run by which manager: Hungary, 1980–2018.
  - owner address (country)
  - manager address (country)
  - manager ethnicity
- Provide firm-market-level evidence on how trade patterns change after foreign acquisition and change of management.
- Results:
  - Country, language and ethnicity of manager strongly predict starting to export/import.
  - Magnitudes defy "easy" explanations.
  - Evidence consistent with a "professional network" effect.

Outline

1. Data
2. Facts
3. Speculations

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.

Customs statistics

- coverage: universe of direct exports and imports, 1992–2003
- information: product code, partner country, firm id, value

Names

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

Shape of data

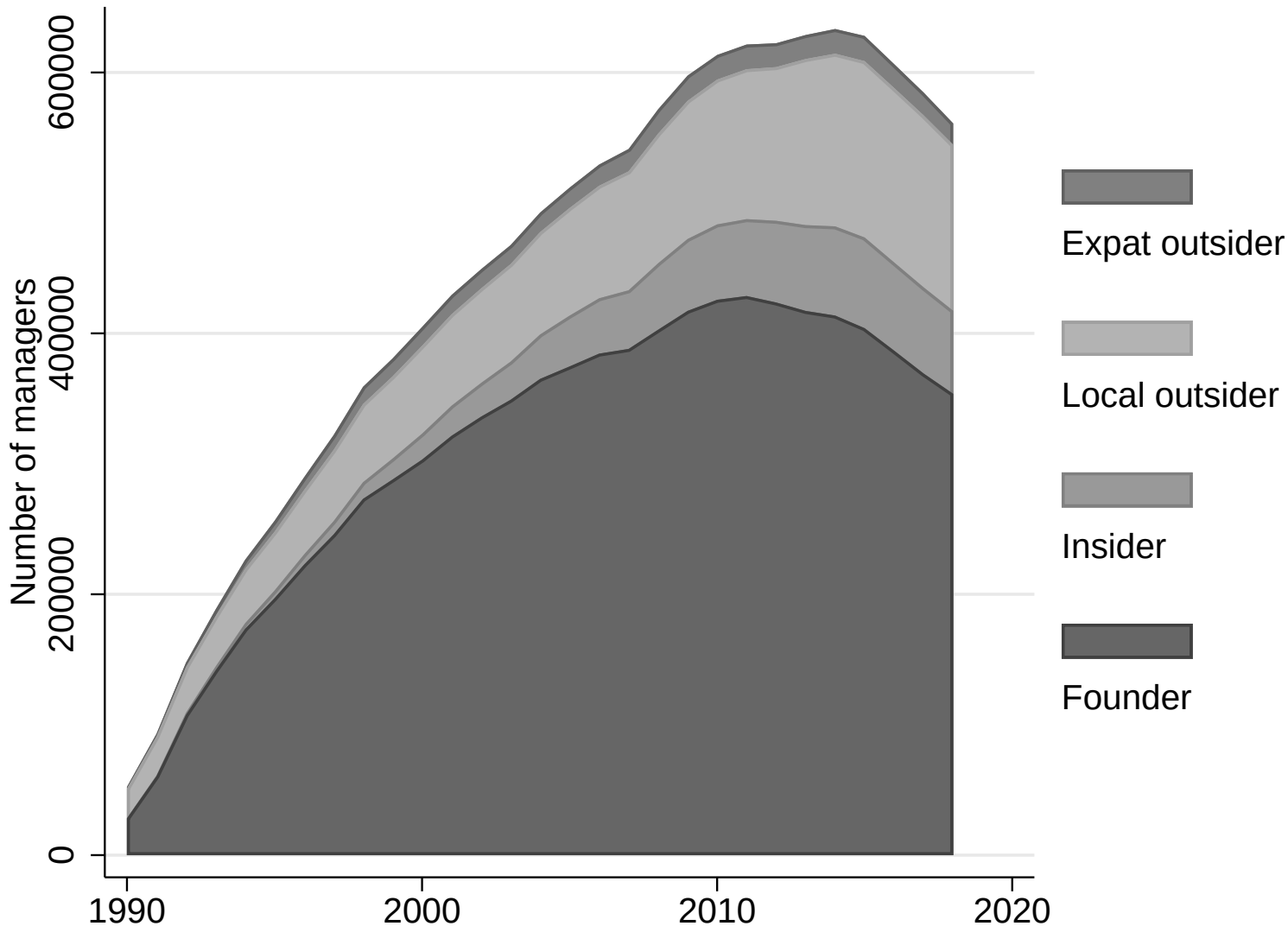
```
firm,manager,country,from,to
123456,Szilágyi Erika,HU,1992-01-01,1996-12-31
123456,Pálffy György,HU,1997-01-01,1999-12-31
123456,Greta Schröder,DE,2000-01-01,2003-03-31
```

Data cleaning

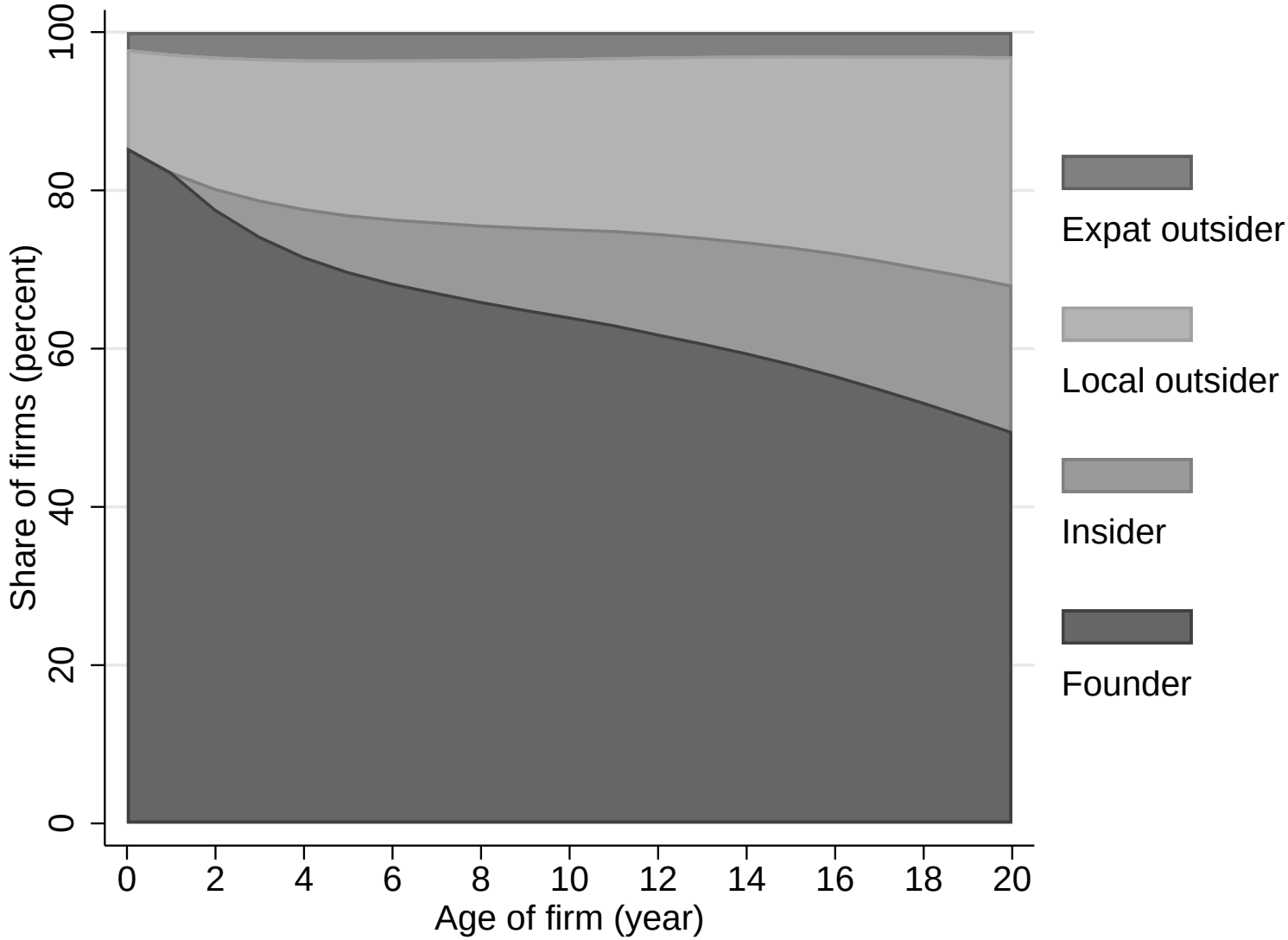
1. Convert names to numerical IDs
2. Infer Hungarian ethnicity from name
3. Classify everyone else as foreign
4. Clean up time interval and position description
5. Create annual panel for June 21
6. In progress: Infer ethnicity (other than Hungarian) from name

Descriptives

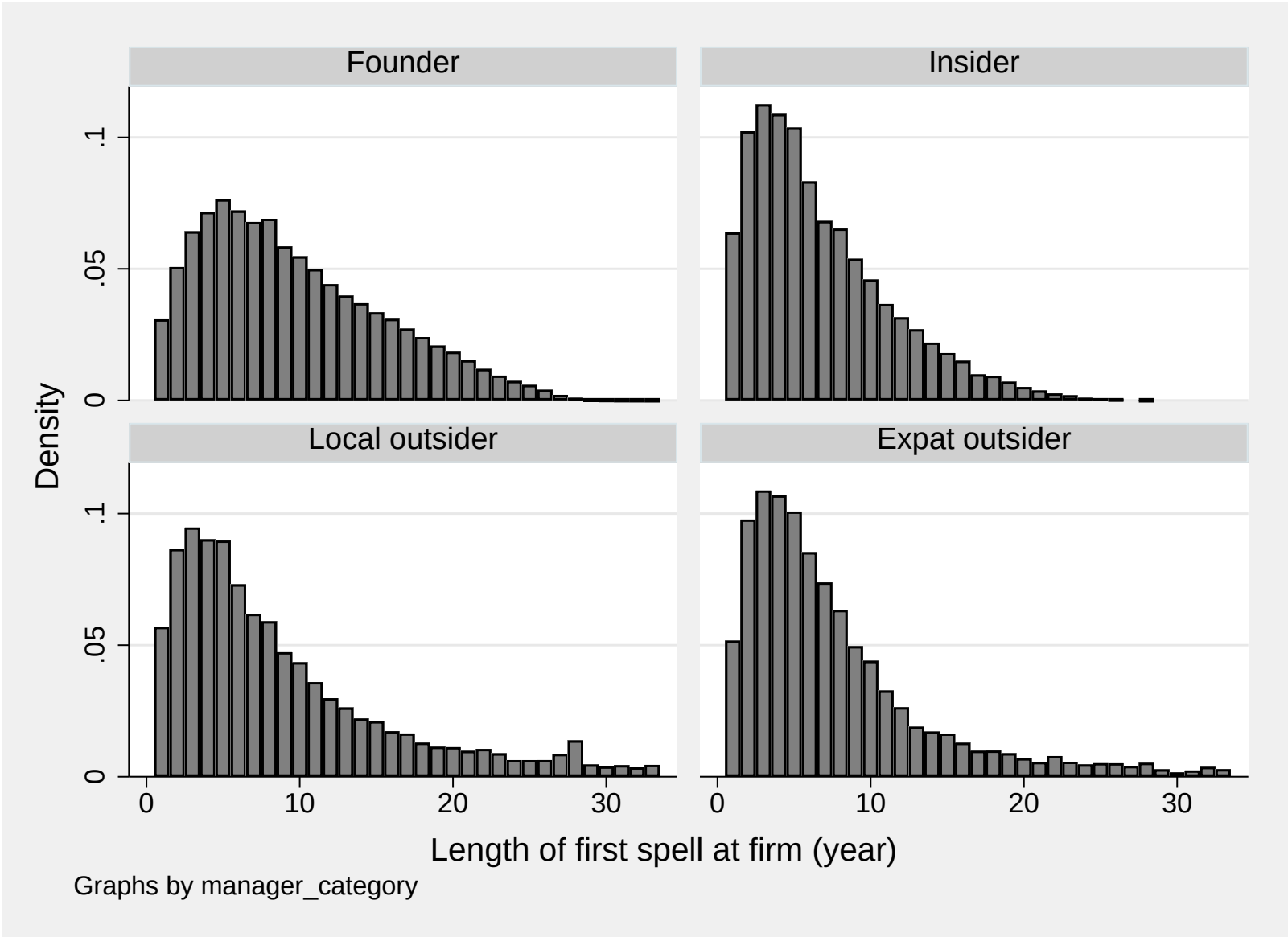
The number of CEOs increased sharply until 2010



The share of firms managed by founders gradually decreases with age



Founders stay longest at the firm



Sample

Exclude:

employing less than 20 people

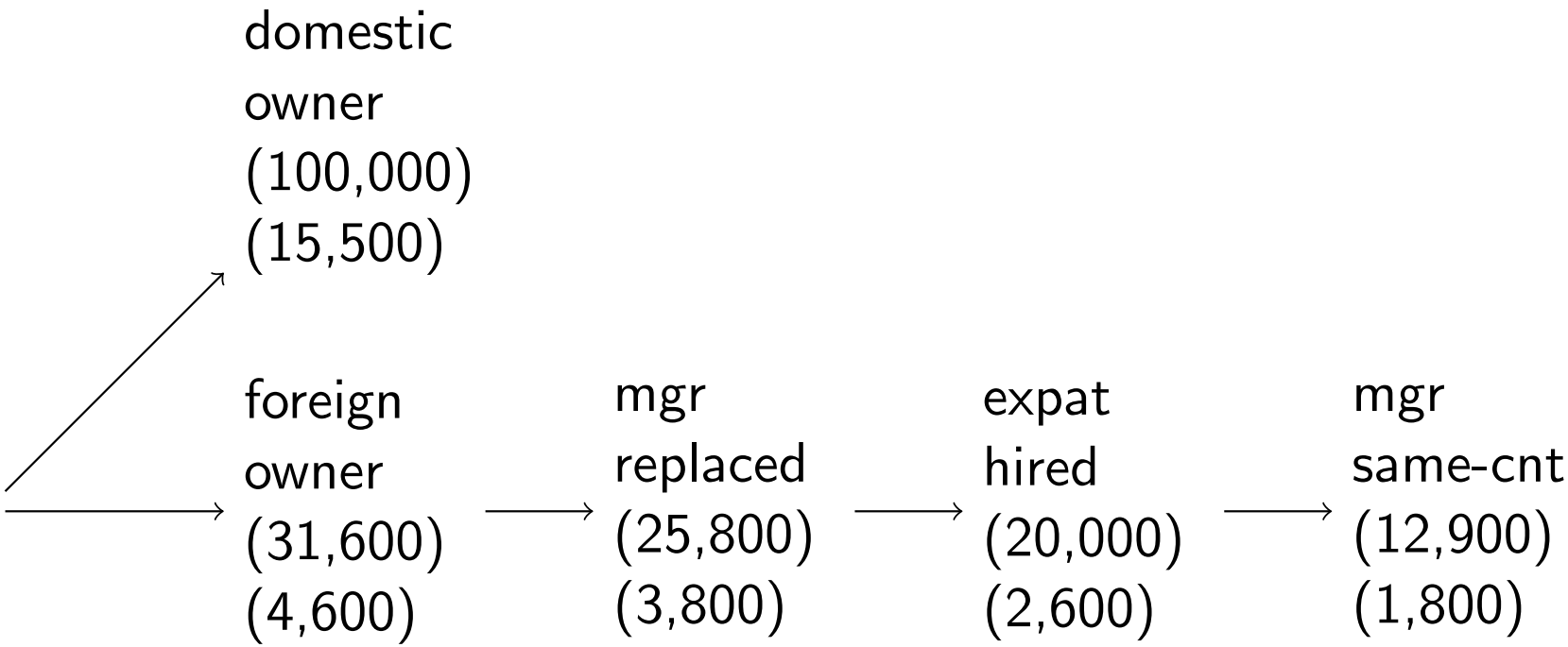
financial sector

domestic firms with expat CEO

firms with more than 15 CEOs

Left with 20,000 firms

Degree of foreign involvement



Firm-country dyadic design

Market entry hazard regressions

For each firm-year, take 24 major partner countries. What is the hazard of starting to export/import to/from that country?

$$\Pr(X_{ict} = 1 | X_{ict-1} = 0) = \alpha_{ic} + \mu_{ct} + \nu_{it}$$
$$+ \beta_o \text{OWNER}_{ict} + \beta_m \text{MANAGER}_{ict} + u_{ict}$$

firm-country FE: suitability of firm to market

country-time FE: business conditions in market

firm-year FE: reorganization, any firm-wide change

Partner countries

Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, France, Finland, Germany, Greece, Israel, Italy, Netherlands, Poland, Romania, Russia, Slovakia, Slovenia, Spain, Sweden, Switzerland, UK, Ukraine, US

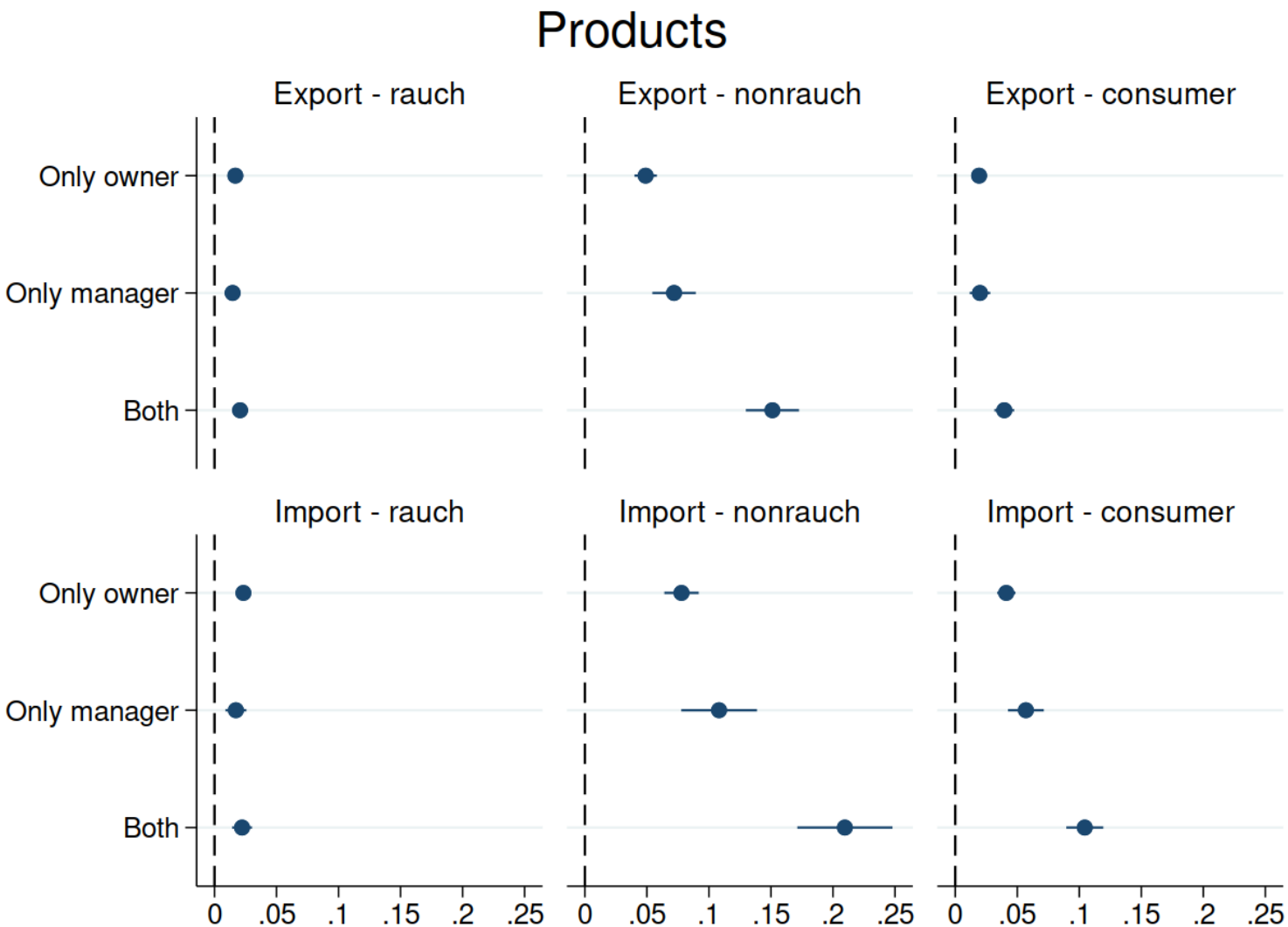
Firms start trading with the country of their owner/manager

VARIABLES	(1) export	(2) import	(3) export	(4) import
Only owner			0.048***	0.071***
			(0.005)	(0.007)
Only manager			0.074***	0.096***
			(0.009)	(0.015)
Both			0.155***	0.216***
			(0.012)	(0.021)
Owner	0.063***	0.082***		
	(0.005)	(0.007)		
Manager	0.107***	0.136***		
	(0.008)	(0.013)		
Observations	2,948,035	2,863,535	2,948,035	2,863,535
Mean outcome	0.00728	0.0104	0.00728	0.0104

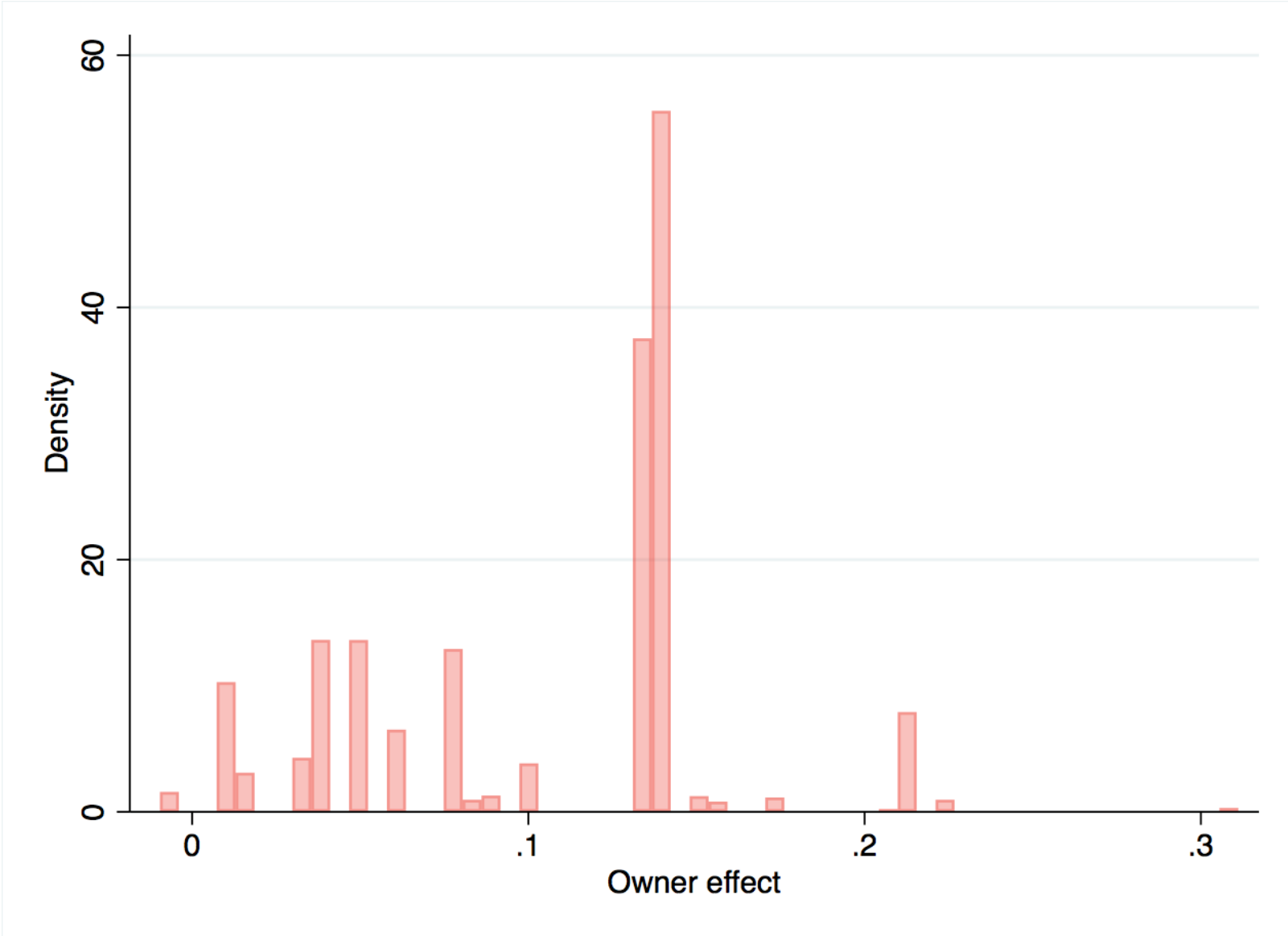
Large and permanent effects on exports

Large and persistent effects on imports

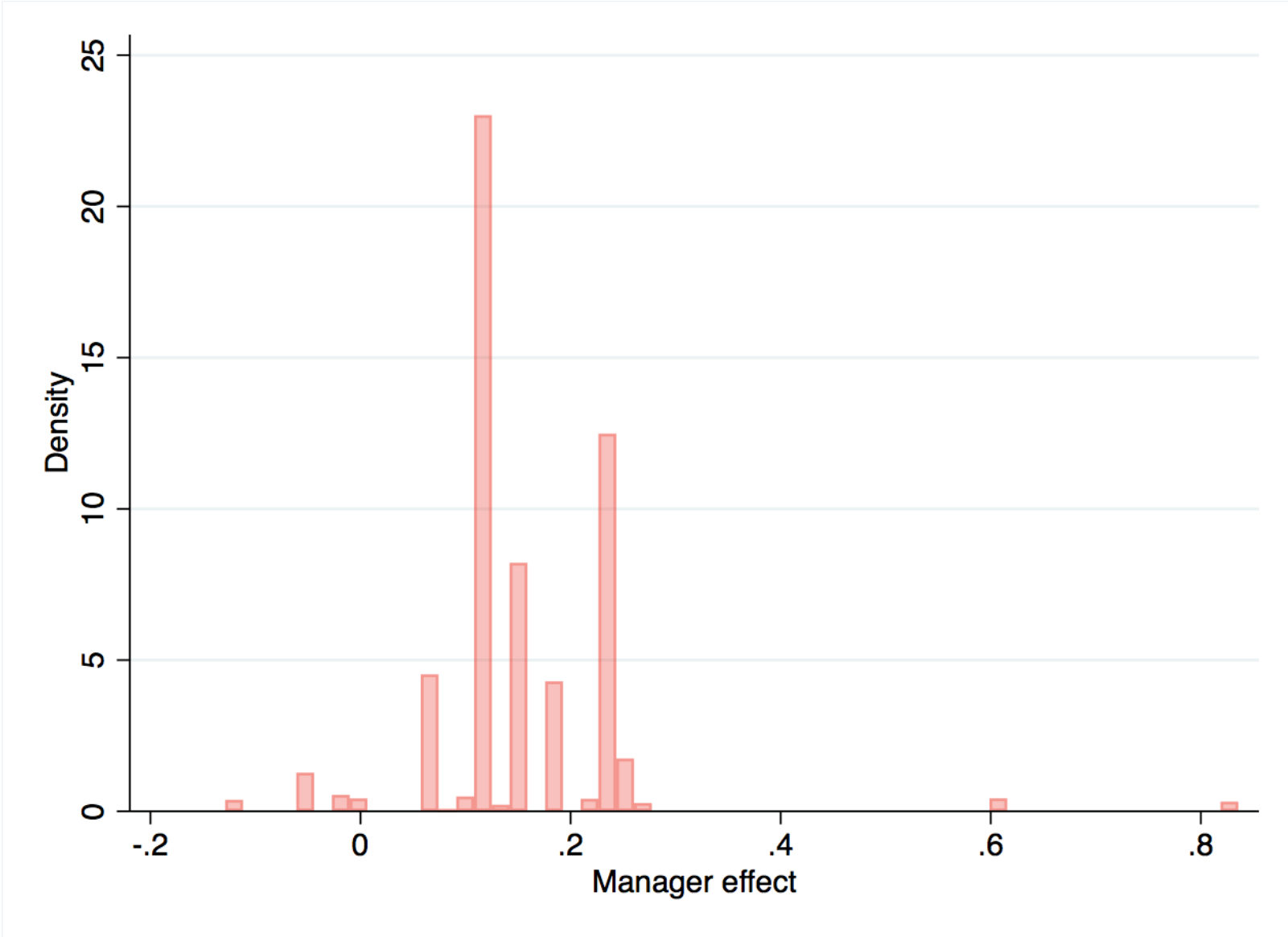
Results robust across product categories



...and countries



...and countries



Effects persist after owner/manager leaves

VARIABLES	(1) First CEO	(2) First CEO	(3) Exit	(4) Exit
Owner	0.057***	0.080***	0.066***	0.083***
	(0.006)	(0.009)	(0.005)	(0.008)
Owner left			-0.019***	-0.006
			(0.007)	(0.011)
Manager	0.153***	0.154***	0.111***	0.141***
	(0.014)	(0.021)	(0.009)	(0.014)
Manager left			-0.020*	-0.021
			(0.011)	(0.016)
Observations	2,702,338	2,645,379	2,948,035	2,863,535
Mean outcome	0.00611	0.00882	0.00728	0.0104

Effects are large

Fixed costs

Relative to fixed-cost estimates in Halpern, Koren and Szeidl (2015), effects are equivalent to \$12-14,000 drop in fixed costs *per year*.

Scenario	Import hazard	Fixed cost
Average firm	0.010	\$15,000
Only owner	0.081	\$2,300
Only manager	0.106	\$1,700
Both	0.226	\$600

Trade experience premia

Mion, Opromolla and Sforza (2016) estimate a 0.01–0.04 increase in hazard after manager with relevant export experience joins. Bisztray, Koren and Szeidl (2018) estimiate 0.002–0.005 peer effects in importing.

Two stories

Vertical integration

Foreign owner takes over firm to export/import within own supply chain.

Professional network

Managers help connect different firms within their professional network.

Two stories

- They are not exclusive.
- There is (indirect) evidence for both.
  - Common: more trade with countries expected to be in supply chain / professional network.
  - Distinct: ethnicity matters in addition to address.

Firms start trading with the *gravity partners* of their owner/manager

VARIABLES	(1) export	(2) import
Owner (same country)	0.064***	0.084***
	(0.005)	(0.007)
(neighbor country)	0.009***	0.020***
	(0.002)	(0.002)
(common languange)	0.003*	0.014***
	(0.002)	(0.003)
Manager (same country)	0.109***	0.139***
	(0.008)	(0.013)
(neighbor country)	0.015***	0.025***
	(0.002)	(0.003)
(common languange)	0.002	0.014***
	(0.003)	(0.003)
Observations	2,948,035	2,863,535
Mean outcome	0.00728	0.0104

Inferring ethnicity from name

Address	Name	Partner	`count`	`lang`	`ethn`
DE	Klaudia Wolf	DE	1	1	1
DE	Klaudia Wolf	AT	0	1	1
DE	Klaudia Wolf	IT	0	0	0
DE	Enrico Mazzanti	DE	1	1	0
DE	Enrico Mazzanti	AT	0	1	0
DE	Enrico Mazzanti	IT	0	0	1
IT	Fioretta Luchesi	DE	0	0	0
IT	Fioretta Luchesi	AT	0	0	0
IT	Fioretta Luchesi	IT	1	1	1

Assumption

Conditional on address, ethnicity only correlated with professional network.

Ethnicity of manager matters *in addition* to her country

VARIABLES	(1) export	(2) l_consumer	(3) l_capital	(4) l_material
Owner (country)	0.033***	0.034***	0.041***	0.027***
	(0.008)	(0.006)	(0.008)	(0.008)
(language)	0.006*	0.003	0.007***	0.014***
	(0.003)	(0.002)	(0.002)	(0.003)
Manager (country)	0.064***	0.051***	0.072***	0.043*
	(0.020)	(0.013)	(0.023)	(0.023)
(language)	-0.000	0.005	0.014**	0.011*
	(0.008)	(0.004)	(0.006)	(0.006)
(ethnicity)	0.017*	0.009	0.034***	0.037***
	(0.009)	(0.006)	(0.011)	(0.012)
Observations	2,445,846	2,520,785	2,500,873	2,445,120
Mean outcome	0.00538	0.00207	0.00307	0.00550

Placebo design

Some owner-manager county pairs arrive more frequently together. E.g., DE-AT, US-DE, US-GB.

Placebo for manager network

Do these countries receive more trade *even in absence of manager*?

Placebo for vertical integration

Do managers matter when firm is *privately owned*?

Owner has an effect in *typical manager countries*, but actual managers matter more

VARIABLES	(1) export	(2) import	(3) export	(4) import
Owner (country)	0.053***	0.076***	0.043***	0.074***
	(0.006)	(0.008)	(0.010)	(0.015)
(language)	-0.005*	0.010***	0.003	0.002
	(0.002)	(0.003)	(0.004)	(0.005)
(placebo)	0.032***	0.050***	0.016**	0.028***
	(0.004)	(0.006)	(0.007)	(0.009)
Manager (country)	0.065***	0.077***	0.071***	0.067***
	(0.011)	(0.017)	(0.018)	(0.025)
(language)	0.004	0.035***	0.007	0.042***
	(0.004)	(0.007)	(0.006)	(0.010)
Observations	2,676,920	2,617,084	2,486,357	2,441,656
Mean outcome	0.00618	0.00874	0.00525	0.00752

Discussion

Why managers matter

Three broader implications:

1. Trade within "supply chains" larger than previously thought.
2. Entry into new trade markets is inelastic.
3. Experience with existing partners leads to preferential attachment.

Business network trade

- Contrary to evidence from US, investment in Hungary leads to large increases in trade with home region.

Inelastic market entry

- If professional networks are hard to build, extensive margin of trade is less responsive.
- Competitiveness leads to higher manager wages, not more entry.
- Complementarity of trade and migration policies.

Preferential attachment

- It may be easier to trade with friends of friends.
- We (will) highlight a mechanism for why that is.

Conclusions

Conclusions

- We find firm-level evidence that the nationality and ethnicity of owners and managers matters for the direction of trade.
- Whatever the specific mechanism, we need to model markets and individuals jointly.

Next steps

- Collect data on parent firms.
- Explore personal network of managers.
- Match similar data for Germany.

Appendix

Estimating equations

Bernard-Jensen

Sample: domestic firms and acquisitions

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

Selection

Sample: $\text{CONTROL}_{i}^{k-1} = 1$, years before acquisition

$$\text{CONTROL}_{i}^{k} = \mu_{st} + \gamma X_{it} + u_{ist}$$

Diff-in-diff

Sample: domestic firms and acquisitions

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

Foreign firms are better in most respects

VARIABLES	(1) lnL	(2) lnQL	(3) TFP_cd	(4) exporter	(5) RperK
foreign	0.477***	0.465***	0.012	0.188***	0.019***
	(0.049)	(0.039)	(0.008)	(0.016)	(0.004)
foreign_hire	0.172**	0.190***	0.008	0.084***	0.007
	(0.070)	(0.062)	(0.012)	(0.020)	(0.006)
has_expat	-0.110	-0.019	-0.002	0.048**	-0.003
	(0.074)	(0.063)	(0.012)	(0.020)	(0.007)
Constant	3.649***	9.234***	0.003***	0.292***	0.024***
	(0.006)	(0.006)	(0.001)	(0.002)	(0.000)
Observations	264,071	264,071	262,881	264,071	262,911
R-squared	0.148	0.433	0.012	0.235	0.085

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Positive selection on exports, negative on TFP

VARIABLES	(1) ever_foreign	(2) ever_foreign_hire	(3) ever_expat
lnL	0.005***	0.003	-0.019
	(0.001)	(0.010)	(0.012)
exporter	0.020***	0.070**	0.066*
	(0.003)	(0.030)	(0.036)
TFP_cd	-0.003**	-0.040**	0.011
	(0.001)	(0.018)	(0.027)
RperK	0.026***	0.174*	-0.223**
	(0.008)	(0.095)	(0.093)
Constant	0.010***	0.607***	0.513***
	(0.004)	(0.043)	(0.052)
Observations	250,450	8,919	5,769
R-squared	0.108	0.128	0.236

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Hiring an expat is associated with increased productivity and exporting

VARIABLES	(1) lnL	(2) lnQL	(3) TFP_cd	(4) exporter	(5) RperK
foreign	0.135***	0.065**	0.029**	0.040***	0.015***
	(0.036)	(0.026)	(0.013)	(0.012)	(0.004)
foreign_hire	-0.085	0.150***	0.021	0.011	0.005
	(0.053)	(0.039)	(0.019)	(0.016)	(0.005)
has_expat	0.054	0.103**	0.009	0.031*	-0.003
	(0.055)	(0.043)	(0.020)	(0.018)	(0.006)
Constant	3.668***	9.256***	0.001**	0.302***	0.024***
	(0.002)	(0.001)	(0.001)	(0.000)	(0.000)
Observations	262,417	262,417	262,093	262,417	261,164
R-squared	0.647	0.820	0.088	0.638	0.484

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Expats help start exporting, but have no effect on continuation

VARIABLES	(1) Start	(2) Continue
foreign	0.032**	0.015
	(0.013)	(0.012)
foreign_hire	-0.010	0.032**
	(0.015)	(0.013)
has_expat	0.059**	-0.008
	(0.024)	(0.011)
Constant	0.062***	0.870***
	(0.000)	(0.001)
Observations	159,353	71,100
R-squared	0.284	0.345

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Causality runs both ways

VARIABLES	(1) Downer	(2) Dmanager	(3) Dexport	(4) Dimport
Lmanager	0.088***		0.101***	0.136***
	(0.007)		(0.008)	(0.013)
Lexport	0.002***	0.002***		0.038***
	(0.000)	(0.000)		(0.002)
Limport	0.002***	0.002***	0.027***	
	(0.000)	(0.000)	(0.001)	
Lowner		0.042***	0.057***	0.080***
		(0.003)	(0.005)	(0.007)
Observations	3,106,322	3,113,609	2,948,058	2,863,556
R-squared	0.312	0.301	0.376	0.379
Firm-year FE	YES	YES	YES	YES
Country-year FE	YES	YES	YES	YES
Firm-country FE	YES	YES	YES	YES
Mean	0.000426	0.000265	0.00728	0.0104