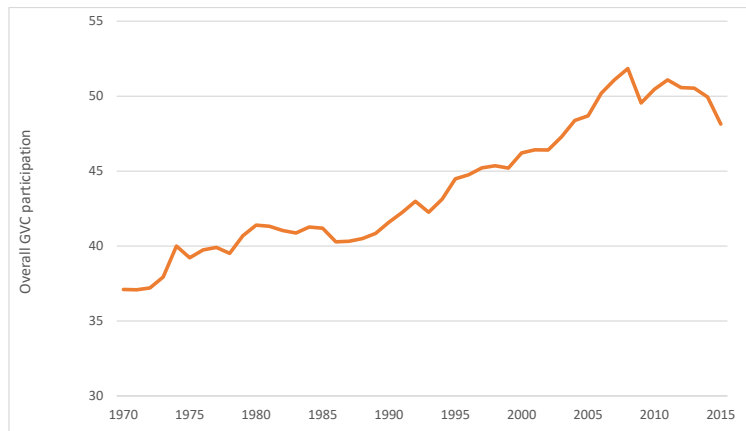


Multinational firms and the impact of trade disputes on investment decisions

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Rising global value chain participation



Source: World Development Report 2020 (p. 10). GVC participation corresponds to the share of world exports that flow through at least two borders.

Motivation

↑ MNC involvement in trade

- ▶ MNCs benefit from trade liberalization (e.g. Baccini, Pinto Weymouth 2017)
- ▶ More MNC and GVC activity associated with fewer trade barriers (e.g. Jensen, Quinn & Weymouth 2015; Baccini, Dür & Elisg 2018, Blanchard, Bown & Johnson 2017; Zeng, Sebold & Lu 2020, Anderer, Dür & Lechner 2020)

Disputes and FDI

- ▶ Investment disputes affect investment decisions (e.g. Allee and Peinhardt 2011; Blake and Moschieri 2017; Jung, Owen, & Shim 2021; Wellhausen 2015)
- ▶ GVCs and trade dispute initiation (e.g. Yildirm et al 2018; Kim and Spilker 2019)

How do trade disputes influence greenfield FDI into respondents?

- ▶ Resolved disputes → lower trade costs
- ▶ Opportunity for MNCs to enter
- ▶ Effect of dispute on FDI depends on GVC activity
- ▶ Analysis of impact of WTO disputes on greenfield FDI at country-industry level, from 2003-2015

Literature: Trade, FDI, & GVCs

- ▶ Conventional wisdom: Vertical FDI complements trade, horizontal FDI substitutes
- ▶ Rise of value chains: ↑ import to export; crossing multiple borders (Antras 2020)
- ▶ MNCs engage in FDI, intrafirm trade, arms length trade
- ▶ Impact disputes on trade flows (Chaudoin et al 2016, Peritz 2020)

Trade disputes affect market access

- ▶ Disputes resolved in favor of complainant (e.g. Guzman and Simmons 2005)
- ▶ Removal of barriers hurts domestic producers (Kucik and Pelc 2016)
- ▶ Makes imports cheaper
- ▶ MNCs see opportunity to enter industry

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H1: Disputes lead to an increase in FDI in affected industry of respondent

Moderating effect of GVCs

- ▶ In GVCs, production activity crosses borders
 - ▶ Backward linkage: FVA intermediate imports, DVA imports back home
 - ▶ Forward linkage: DVA to intermediate exports
- ▶ Reduction in trade barriers has larger effect in industries utilize more imported inputs aka *backward linkages*

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H2: Dispute will lead to more FDI in respondent industries with greater backward linkages

Research design & data

DV

- ▶ # greenfield FDI projects into country j in sector k at time t
- ▶ Source: 203,407 projects from top 98% of home countries in *fDi Markets*
- ▶ 21 goods producing industries (2- or 3 digit NAICS 2017)

Sample: 61 home and 41 host countries, 21 industries; 2003-2015

IV: WTO dispute

- ▶ Monadic: = 1 if dispute is resolved in host j (respondent) in sector k in last five years
- ▶ Source: Kucik and Pelc 2016, 2020 update

Independent variables

GVC position: Ratio Forward/Backward linkages in jkt

- ▶ Backward: domestic and foreign value added in intermediate imports
- ▶ Forward: value added by intermediate exports
- ▶ Source: UIBE Global Value Chain index
- ▶ Logged to account for skewness

Model Specification

$$FDI_{jkt} = \beta_0 + \beta_1 WTOdispute_{jk,t-1} + \beta_2 Position_{jk,t-1} \\ + \beta_3 WTO_{jk,t-1} * Position_{jk,t-1} + \beta \mathbf{X} + \alpha_j + \gamma_t + u_{jkt}.$$

Estimation

- ▶ Poisson pseudo-maximum likelihood regression (PPML) estimation with host α_j and year FE (γ_t)
- ▶ Controls (\mathbf{X}): host GDPPC, growth, population

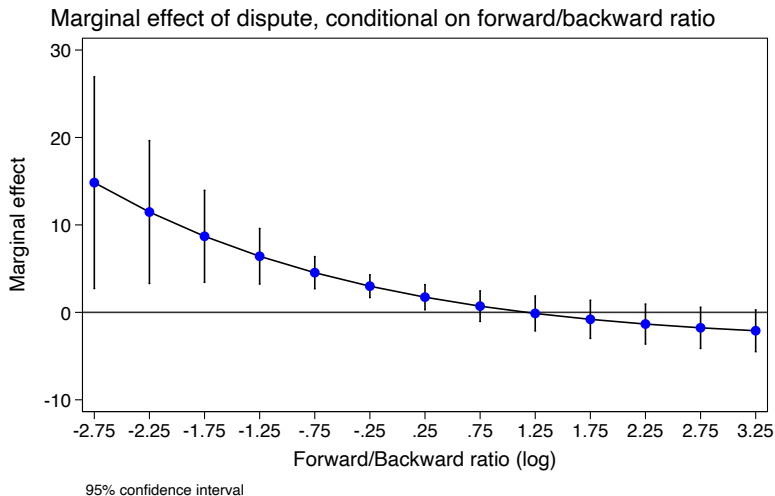
Results

	1	2
Dispute ended	0.412*** (0.089)	0.356*** (0.093)
Forward/backward ratio (log)	-0.087* (0.050)	-0.060 (0.051)
Dispute × Ratio		-0.305** (0.120)
GDPpc (log)	-1.034*** (0.144)	-1.027*** (0.143)
Population (log)	3.647*** (0.819)	3.883*** (0.813)
GDP growth	0.034*** (0.006)	0.033*** (0.006)
Constant	-55.536*** (15.413)	-59.967*** (15.326)
Observations	11357	11357
N_clust	874	874
Log likelihood	-54924.92	-54732.40
BIC	109905.86	109530.16

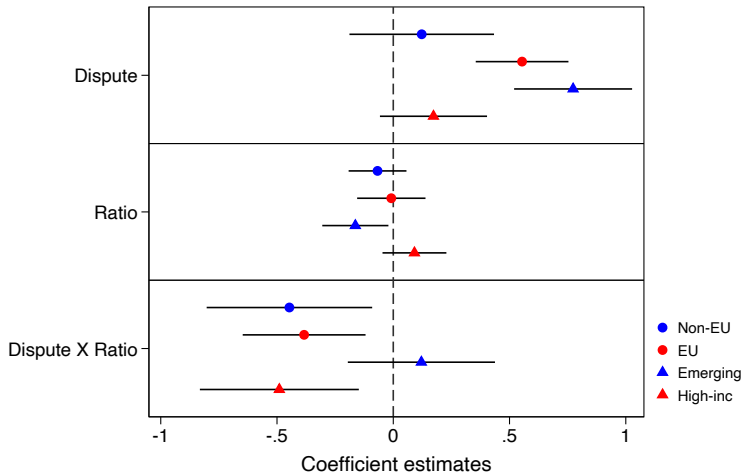
Cluster robust SEs. Country and year FE included

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

Conditional effect



Results by subgroup



Note: 95% confidence intervals. Controls not shown.

Discussion and next steps

- ▶ Expand data to include more host countries
- ▶ Consider different aspects of disputes (e.g. initiation, ongoing)
- ▶ Analysis of all trade disputes in Latin America
- ▶ Explore dyadic dynamics (complainant, third parties, non-participants)

Additional slides

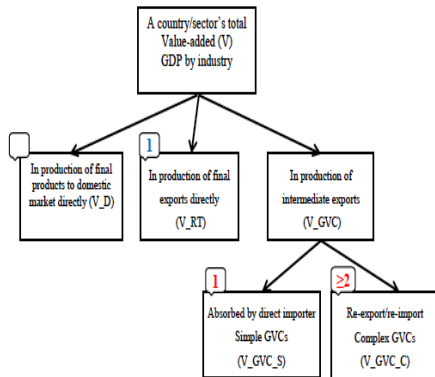
Countries

Host: Australia, Austria, Belgium, Brazil, Bulgaria, Canada, China, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, India, Indonesia, Ireland, Italy, Japan, Latvia, Lithuania, Luxembourg, Mexico, Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovak Republic, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkey, United Kingdom, US

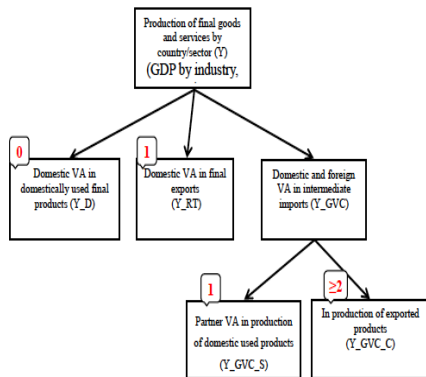
Home: Argentina, Australia, Austria, Azerbaijan, Bahrain, Belgium, Brazil, Canada, Chile, China, Cyprus, Czech Republic, Denmark, Egypt, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, India, Indonesia, Iran, Ireland, Israel, Italy, Japan, Kuwait, Lebanon, Lithuania, Luxembourg, Malaysia, Mauritius, Mexico, Morocco, Netherlands, New Zealand, Nigeria, Norway, Philippines, Poland, Portugal, Qatar, Russia, Saudi Arabia, Singapore, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Thailand, Turkey, Ukraine, UAE, UK, US, Venezuela, Vietnam

Decompositioning GDP and final goods production

(a) Forward linkage: Which types of GDP production are GVC activities?



(b) Backward linkage: Which part of final goods production belong to GVCs?

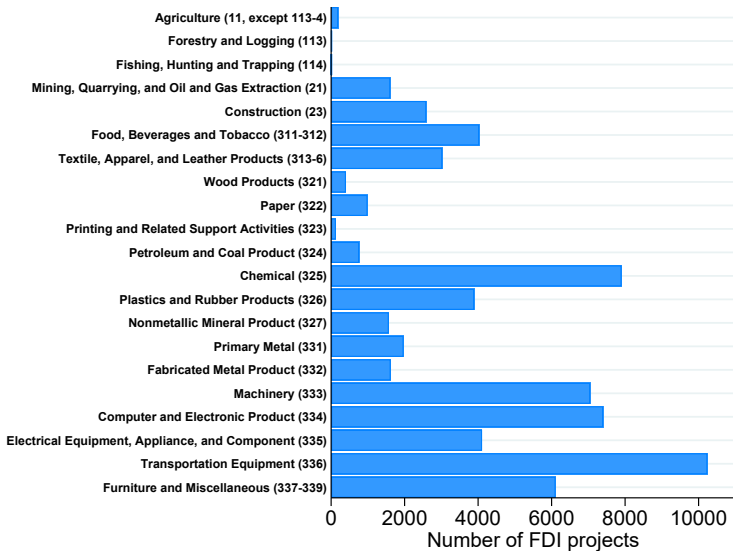


Source: UIBE

21 Sectors (NAICS), 2003-2015

Agriculture (11, except 113-4), Forestry and Logging (113), Fishing, Hunting and Trapping (114), Mining, Quarrying, and Oil and Gas Extraction(21), Construction (23), Food, Beverages and Tobacco (311-2), Textile, Apparel, and Leather Products (313-6), Wood Products (321), Paper (322), Printing and Related Support Activities (323), Petroleum and Coal Product (324), Chemical (325), Plastics and Rubber Products (326), Nonmetallic Mineral Product (327), Primary Metal (331), Fabricated Metal Product (332), Machinery (333), Computer and Electronic Product (334), Electrical Equipment, Appliance, and Component (335), Transportation Equipment (336), Furniture and Miscellaneous (337-9).

21 Sectors (NAICS), 2003-2015



GVC participation Indexes, Country-Sector Level, 2000-2014

