Rules of Origin and Global Supply Networks

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Motivation: NAFTA Automotive Rules of Origin



- "The auto sector is so important to the three countries that symbolically we knew the success of NAFTA would be judged by what each country got in autos. And in autos, we knew it would be judged by the rule itself" (Roberts 2000, 189).
- Political cleavages emerged between large MNCs (GM, Ford, Chrysler vs. Honda, Toyota, and Nissan)
- Against emerging consensus in political economy literature
 - 1) Large MNCs should support trade liberalization
 - 2) Political cleavages should exist between large and small firms
- What explains these political cleavages?

Motivation



- Structure of global supply networks
- Argument: Regional firms strategically use restrictive rules and exploit differences in global supply networks to gain a competitive advantage relative to rival firms within the PTA region.
- Introduce a new dataset on firm-position taking on the design of rules of origin for US trade agreements
- Results: Firms with supply networks located within member countries are more likely to prefer restrictive RoO
 - 1) Effect is larger for industries that require specialized inputs
 - 2) Effect is larger when rival firms have supply networks located outside PTA region

Variation in Global Supply Networks



- Existing literature focuses on differences between global and domestic firms within industries
 - Limited emphasis on differences between global supply networks
- Anecdotal Evidence: Automotive industry
- De Gorteri (2018): Supply chains differ depending on destination of the export
 - Vertical and horizontal differentiation
- Differences in global sourcing decisions are important when countries increasingly rely on preferential liberalization
 - Variation in the adjustments costs to comply with a restrictive rule

Theory



Rules of origin restrict sourcing options of firms

 Adjustment costs to comply with a restrictive rule depend on existing supply networks

- Consider two ideal firm types: global & regional
 - Global Firm: Supply networks primarily located outside PTA region
 - Regional Firm: Supply networks located in partner countries

Theory: Global Firms



• Costs to comply with a strict rule are substantial for global firms due to search frictions for new suppliers

Especially for products that require specialized inputs

Global firms have a strong preference for permissive rules of origin

Theory: Regional Firms



 Regional firms can easily satisfy a restrictive rule with minimal adjustment costs

• Should have strong preferences for restrictive rules of origin

• Defensive Logic: prevent "screwdriver" plants

 Offensive Logic: to gain a competitive advantage relative to rival firms and capture market share in the PTA region

Hypotheses



• **Hypothesis 1:** Regional firms are more likely to favor restrictive rules of origin.

 Hypothesis 2: Regional firms in differentiated industries are more likely to favor restrictive rules of origin.

Hypothesis 3: Regional firms are more likely to favor restrictive rules
of origin when rivals rely on supply networks located outside the PTA
region.

NAFTA Automotive Rules of Origin



• GM, Ford, and Chrysler: integrated within NA region

Honda and Toyota: some regional presence - but relied on Asian suppliers

 NAFTA provided Big 3 with cheap labor source in Mexico and allowed them to fully integrate supply chain within the region

 Restrictive rule imposed high costs for Japanese firms because of structure of supply networks

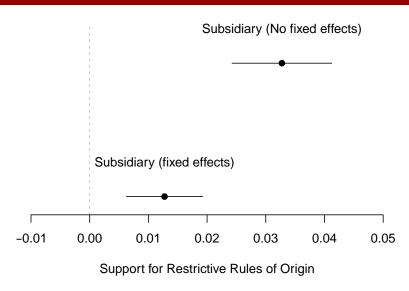
Research Design



- All publicly traded manufacturing and agricultural firms between 1999 and 2012 across (Orbis & Compustat)
- 9 US trade agreements
- Unit of Analysis: Firm-Agreement
- N \approx 35,200
- Dependent Variable: support for restrictive rules of origin
 - 1 if firm stated support for restrictive rules of origin, 0 otherwise
 - Congressional hearings & reports, USITC hearings & reports, Media outlets
 - 962 instances where firms expressed position on the design of rules of origin
- Regional Supply Network: 1 if firm has subsidiary in partner country, 0 otherwise
- Controls: Rauch product differentiation, firm-size, revenue, industry-level exports, agreement fixed effects, NAICS2 fixed effects
- Linear probability model, robust standard errors clustered at NAICS6

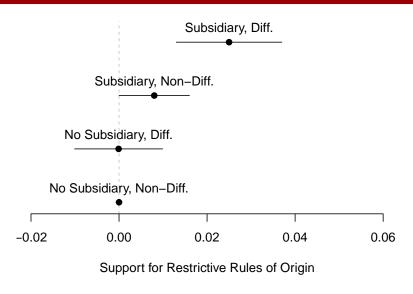
Hypothesis 1





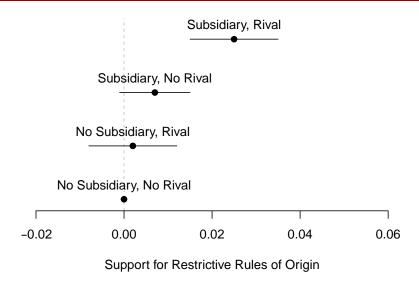
Hypothesis 2





Hypothesis 3





Implications



 MNCs use rules of origin as a strategic tool to capture market share against rival firms

ullet Support for preferential liberalization eq support for "free trade"