Rules of Origin and the Use of NAFTA

Discussant: Gianmarco Cariola

Bank of Italy

16 December 2025

Overview

- The paper studies how Mexican exporters choose between NAFTA and MFN tariffs
- Using transaction-level customs data, the authors:
 - Document a set of novel stylized facts that highlight a trade-off between optimizing the supply chain and complying with Rules of Origin
 - ▶ Highlight the key role of firm size, inverted U-shape relationship with preference utilization
- Structural model of global sourcing (building on Antràs et al. 2017):
 - fixed costs of FTA utilization
 - RoOs act as a constraint on sourcing: using NAFTA requires a minimum share of NAFTA inputs
- Counterfactuals show that stricter RoOs reduce regional trade because of lower preference utilization

Discussion

- Unique micro-data: transaction-level export data featuring preference utilization
- ▶ Novel stylized facts: especially the inverted U-shape in FTA utilization
- ▶ Elegant theoretical framework: incorporates preference utilization in a global sourcing model
- ➤ A brief detour on the economic rationale for RoOs, followed by some comments

Comment #1: Why Do We Need RoOs?

- Free trade is globally efficient, but regional integration is often preferred (policy makers care about national welfare)
 - Rules of Origin are a friction that is introduced to prevent trade deflection (non-members exploiting preferential tariffs)
 - ► The implicit idea is that an increase in indirect imports would decrease welfare at the national level (difficult to appreciate in a partial equilibrium model)
- According to your counterfactuals, increasing RoO strictness entails substantial costs through lower NAFTA utilization
- But the rationale for RoO is not efficiency (otherwise countries would choose free trade), it's increasing regional content
 - which is the opposite of efficiency in any standard trade model
- Practical suggestion: stress more your results on regional content; would also be interesting to see what happens without RoOs ($\lambda = 0$)

Comment #2: Firm Heterogeneity and Model Calibration

- The fixed cost of using NAFTA $\hat{\zeta}_s$ is chosen so that the **simulated share of firms using NAFTA** in sector s matches the empirical one
- Suppose Sector A and Sector B face the same fixed cost of using NAFTA (ζ), but Sector A is mostly made of medium-large firms while Sector B mostly of small firms
- We know that small firms have a lower propensity to use NAFTA
- $ightharpoonup \hat{\zeta}_B$ will be larger than $\hat{\zeta}_A$
- ▶ In other words, the estimated ζ_s absorbs both true fixed costs and sectoral size composition
- How does this affect the counterfactuals?

Other Comments

- **Elasticity of substitution.** The model calibration sets $\rho = 1.05$. How sensitive are counterfactuals to this parameter?
 - Stronger complementarity would likely amplify the cost of RoOs
- ▶ Partial vs. general equilibrium. Does the partial-equilibrium structure understate or overstate the effects of stricter RoOs?
 - For example, the effect on Mexican exporters could be attenuated by wage adjustment
- Similarly, what if markups were endogenous? How much of the additional cost following λ increase would be absorbed by markups vs passed through to U.S. buyers?
 - Of course these points cannot be easily included in the model, but a qualitative discussion would be useful
- Ad-valorem tariff data. The data cleaning drops HS codes without ad-valorem MFN tariffs. However, ad-valorem equivalents should be available through the WTO IDB, making it possible to retain more product lines.

Takeaways

- A very interesting and well-executed paper! I learned a great deal from reading it
- Some refinements could make it stronger
- ➤ A valuable contribution to the preference-utilization literature. The combination of unique data, novel facts, and a structural sourcing model advances our understanding of how RoOs shape regional trade