Reassessing the impact of the Single Market and its ability to help build strategic autonomy

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The EU is the most successful integration effort, but (how) can the Single Market address the new challenges?

- Microeconomic decisions design international production networks

- Externalities of these decisions due to granularity

- When the environment is changing (natural disasters, pandemic, weaponization of trade, ...):
  - Firms to reconsider optimal microeconomic decisions
  - Public intervention correcting externalities can help improving resiliency of the economy (Grossman, Helpman, Lhuillier, NBER’21)

- Is there scope for leveraging the completion of the SEM to pursue strategic autonomy?
We combine estimated and simulated trade models and show that losses from severing ties with “riskier” partners can be offset by deeper integration within the SEM.

- Assess the benefits of EU membership based on new, disaggregated data and using theory consistent econometric methods

- Simulate with a New Quantitative Trade Model (NQTM):
  - Switching-off the EU (negative of the GE gains of EU integration)
  - Decoupling from Russia and China (↔ a 55% tariff increase, Russia and China retaliate)
We contribute on data, estimation methods, and design of the counterfactuals

- Modelling has trade-off between sector disaggregation, country and time coverage, and presence of IO relationships


- Additional data on macroeconomic variables, EU membership, euro adoption, RTAs, sanctions

- *Simulation* version of the data combined with domestic production with same dimension
Motivation, Objectives, and Contributions

▶ New Quantitative Trade Model (NQTM):
  ▶ Allows for theory-consistent estimation and simulation analysis.
  ▶ Gravity equation featuring domestic flows, at industry, country and year level
  ▶ Bilateral trade costs decomposed in effects of: EU, other policies, globalization, time invariant bilateral determinants
  ▶ Estimation of the EU impact on each of the 170 industries
  ▶ Model perfectly fits the data, which authorizes simulation of counterfactuals
Related literature

- **Theory consistent gravity models of trade:** (Costinot & Rodriguez-Clare, HB’14, Yotov, Piermartini et al., WTO’16)

- **United States of Europe:** Head & Mayer (WWA’00, JEP’21); Santamaria, Ventura & Yesilbayraktar (JIE’23)

- **Energy crisis:** Bachman, Baqae et al., ECONtribute (PB’22)

- **Sanctions:** Mahlstein, McDaniel, Schropp & Tsigas (TWE’22)

- **Decoupling:** Eppinger, Felbermayr, Krebs & Kukharsky (CESifo WP’21); Felbermayr, Gans, Mahlkow & Sandkamp, (Kiel PB’21)

- **Friendshoring:** Javorcik, Kitzmueller, Schweiger & Yildirim (mimeo’23)
Main Findings: the EU effect

- The Single Market has benefited the EU Member states tremendously.
- On average EU has lead to a 63% increase in Member’s trade (↔ a tariff reduction of 11%).
- This is much more than other RTAs.
- But gains have been very heterogeneous across broad sectors and detailed industries: trade volume +400% in agriculture, 40% in mining and energy, 35% in manufacturing, ... but zero, on average, in services.
Main Findings: the cost of decoupling

- Severing ties with ‘riskier’ partners is costly.

- The costs are heterogeneous across sectors and the Member states, but they are only a fraction of the gains from the Single Market.

- Removing persistent trade frictions within the EU can offset the losses from severing ties with “riskier” partners.

- Compensation would request a further integration equal on average to half of the reduction in trade costs achieved so far (≈ a 6% tariff decrease) for the two most adversely affected Member states (Latvia, Estonia)
Decoupling from Russia and China

**Russia**

-2 -1.5 -1 -0.5 0

Real GDP Effects

**China**

-1.2 -1.0 -0.8 -0.6 -0.4 -0.2

Real GDP Effects

**Both**

-2.5 -2 -1.5 -1 -0.5 0

Real GDP Effects

EU Countries: Ranked by Impact
Define the *Single Market Potential* (SMP) as the largest decrease in bilateral trade costs by the SEM:

- For each industry, *conditional on size, comparative advantage, and other determinants of trade*
- The potential for further integration, for any Member state, is the catch up with this SMP in each industry

Replacing estimated EU effects for Latvia and Estonia by SMP would overcompensate the costs of decoupling.

On can even visualize industries in which completion of SMP is expected.
Compensating decoupling with the untapped SMP

Gravity Estimate

Sector ID: Ranked by Estimate

SM Estimate

SMP

EST

LVA
Industry-level untapped SMP for Estonia
Roadmap

- Identify other EU effects, e.g., country-specific EU effects, different country-groups, (directional) pair-specific effects
- Simulate counterfactuals targeting specific sectors and/or a larger set of riskier partners
- Systematize the SMP approach and dive into its determinants
- Rely on heterogeneous trade elasticity estimates