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

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The opinions expressed here are not intended to represent those of the Bank of France or the Eurosystem.

# Motivation, Objectives, and Contributions

**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?

# Motivation, Objectives, and Contributions

**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):
  - Swithing-off the EU (negative of the GE gains of EU integration)
  - Decoupling from Russia and China ($\Leftrightarrow$ a 55% tariff increase, Russia and China retaliate)

# Motivation, Objectives, and Contributions

**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
- Two main data sets: International Trade and Production database for Estimation/Simulation: agriculture, mining, manufacturing, services: 200+ countries, 170 industries, 1986-2019 (Borchert, Larch, Shikher & Yotov, Intecon'21)
- 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

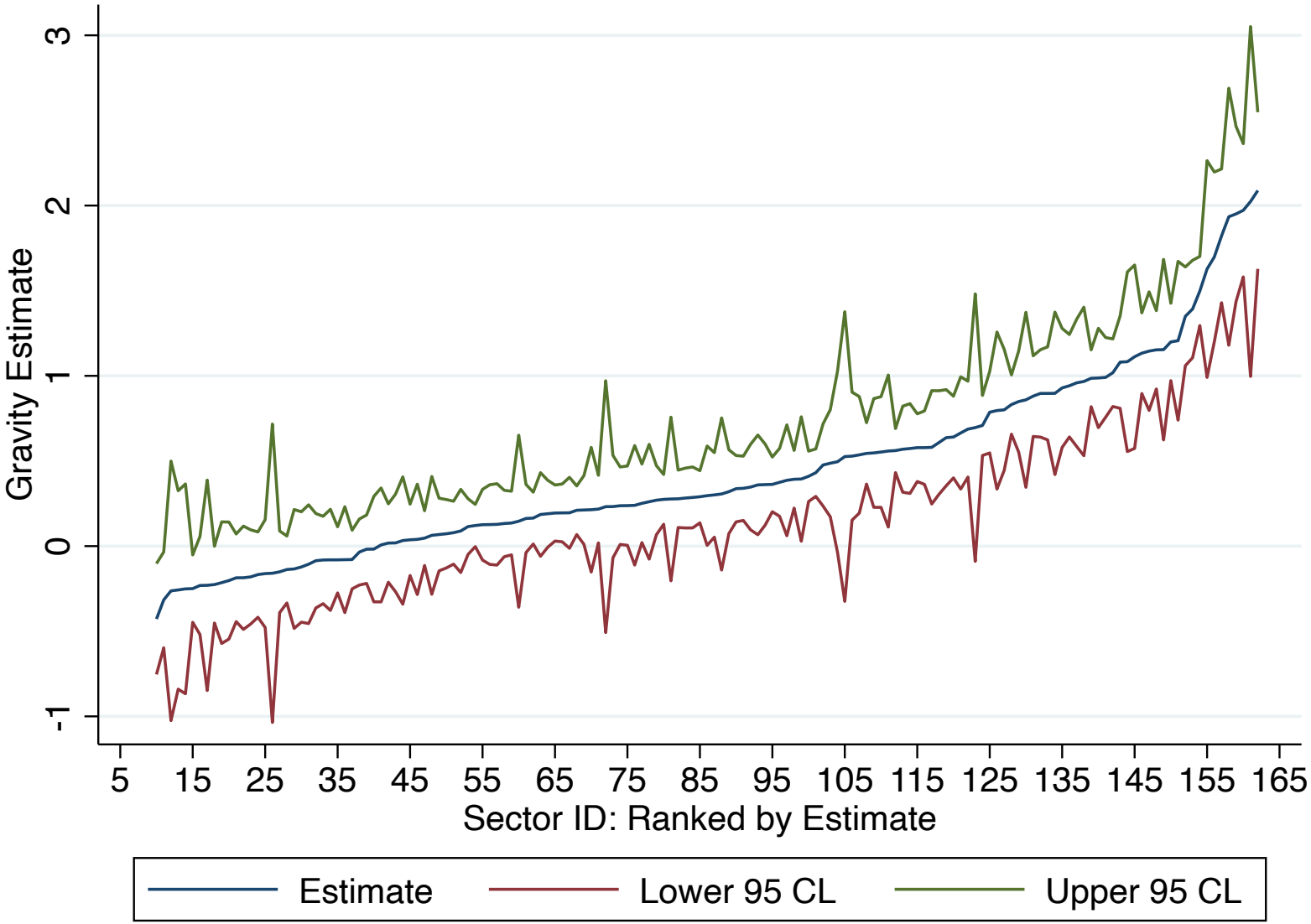
# Related literature

- 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, Baqaee et al., ECONtribute (PB'22)
- Sanctions: Mahlstein, McDaniel, Schropp & Tsigas (TWE'22)
- Decoupling: Eppinger, Felbermayr, Krebs & Kukharskyy (CESifo WP'21); Felbermayr, Gans, Mahlkow & Sandkamp, (Kiel PB'21)
- Friendshoring: Javorcik, Kitzmueller, Schweiger & Yildirim (mimeo'23)

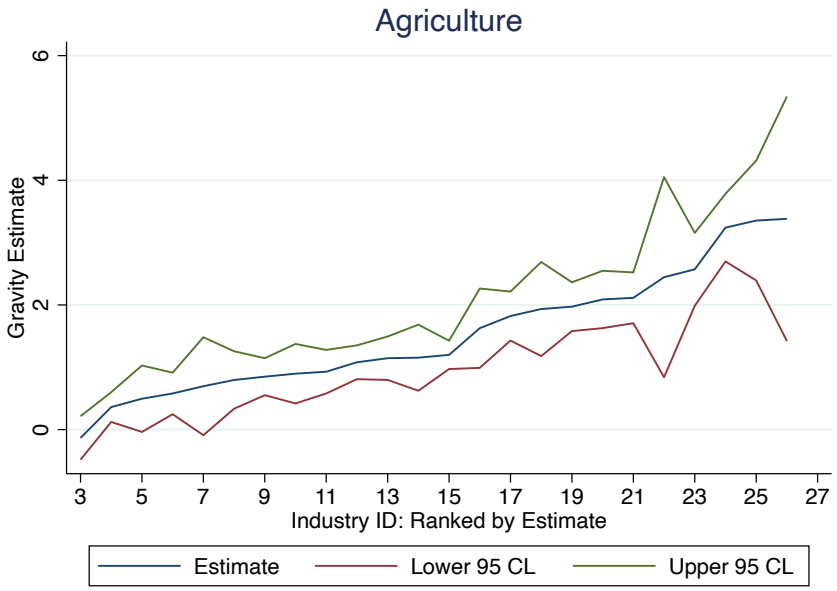
# Main Findings: the EU effect

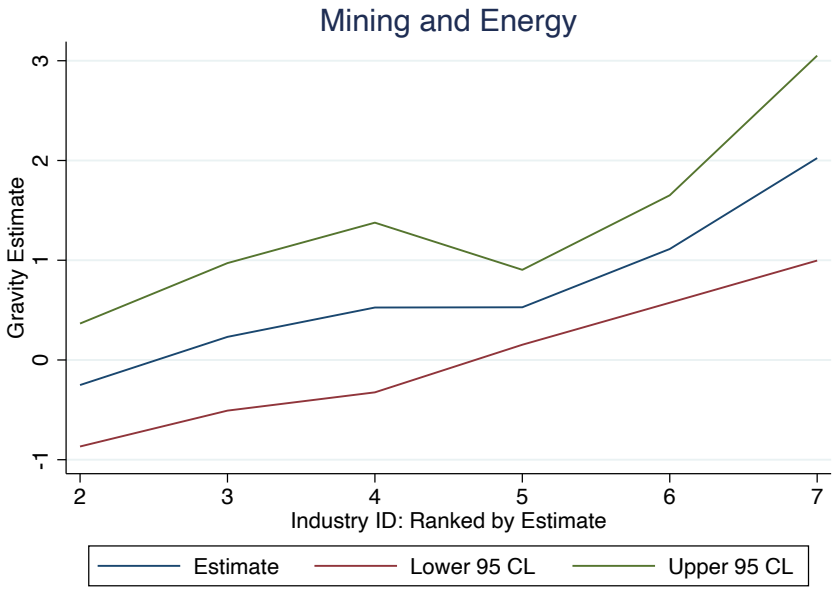
- The Single Market has benefited the EU Member states tremendously
- On average EU has lead to a 63% increase in Member's trade ($\Leftrightarrow$ a tariff reduction of 11%)
- This is much more than other RTAs
- But gains have been very heterogeneous across broad sectors and detailed industries: trade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

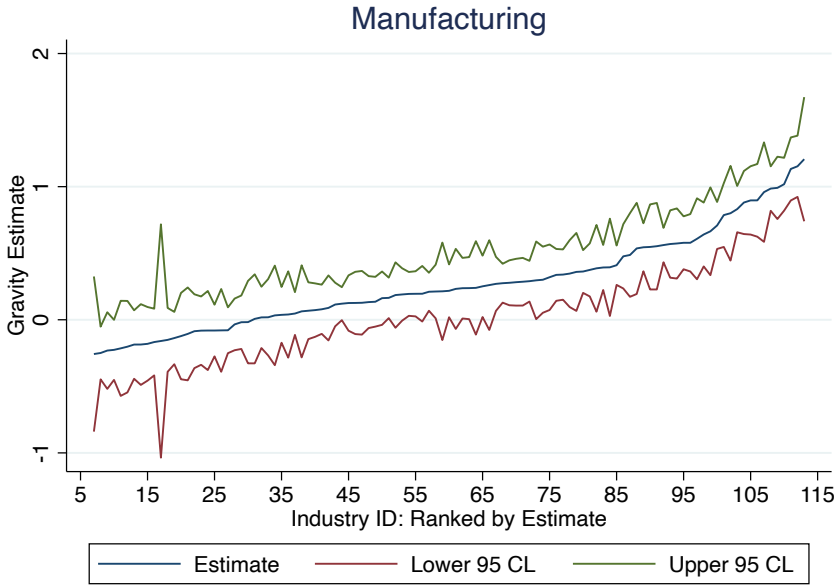
# EU Effects on Trade: Industry Estimates

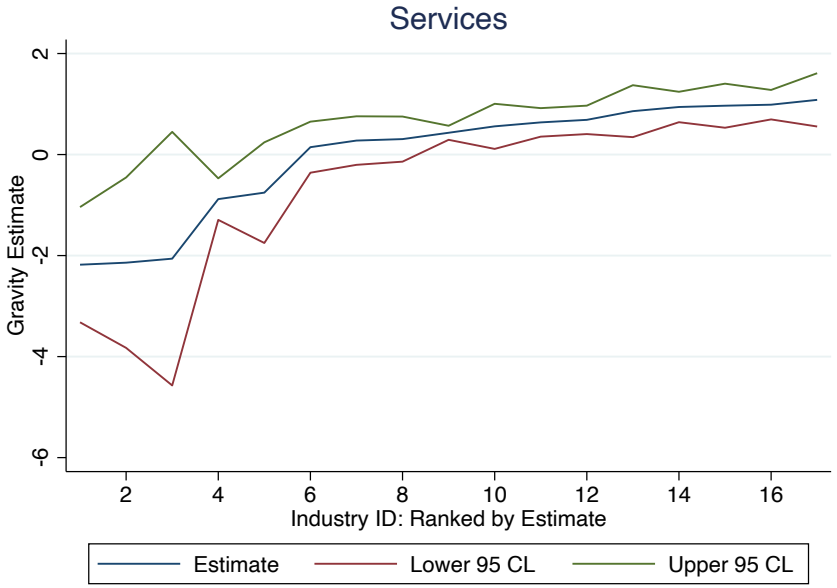


# EU Effects on Trade: Broad Sectors



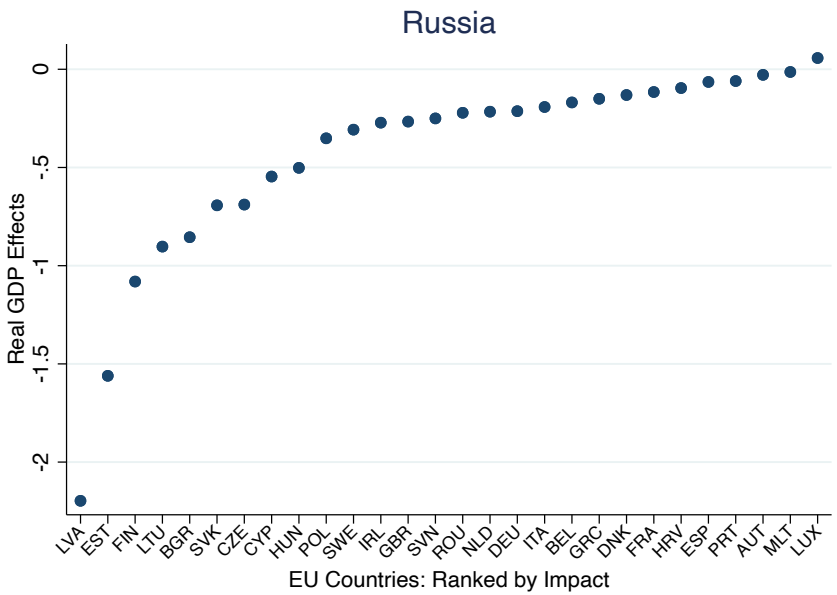



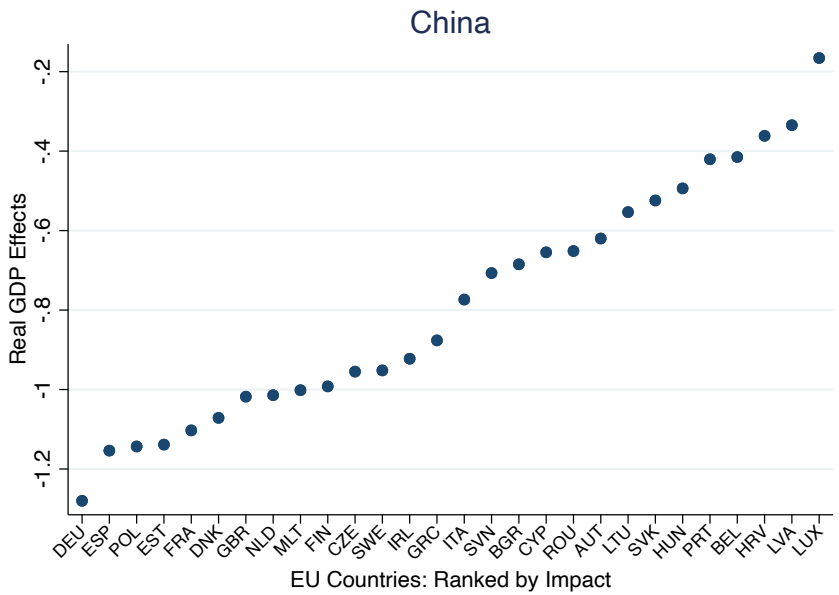



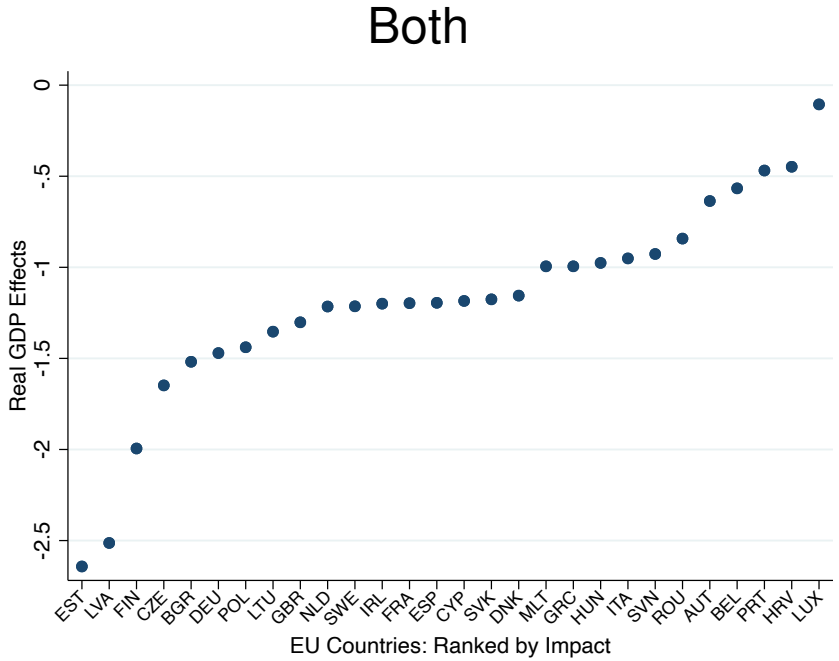
# Main Findings: the cost of decoupling

- 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 ($\Leftrightarrow$ a 6% tariff decrease) for the two most adversely affected Member states (Latvia, Estonia)

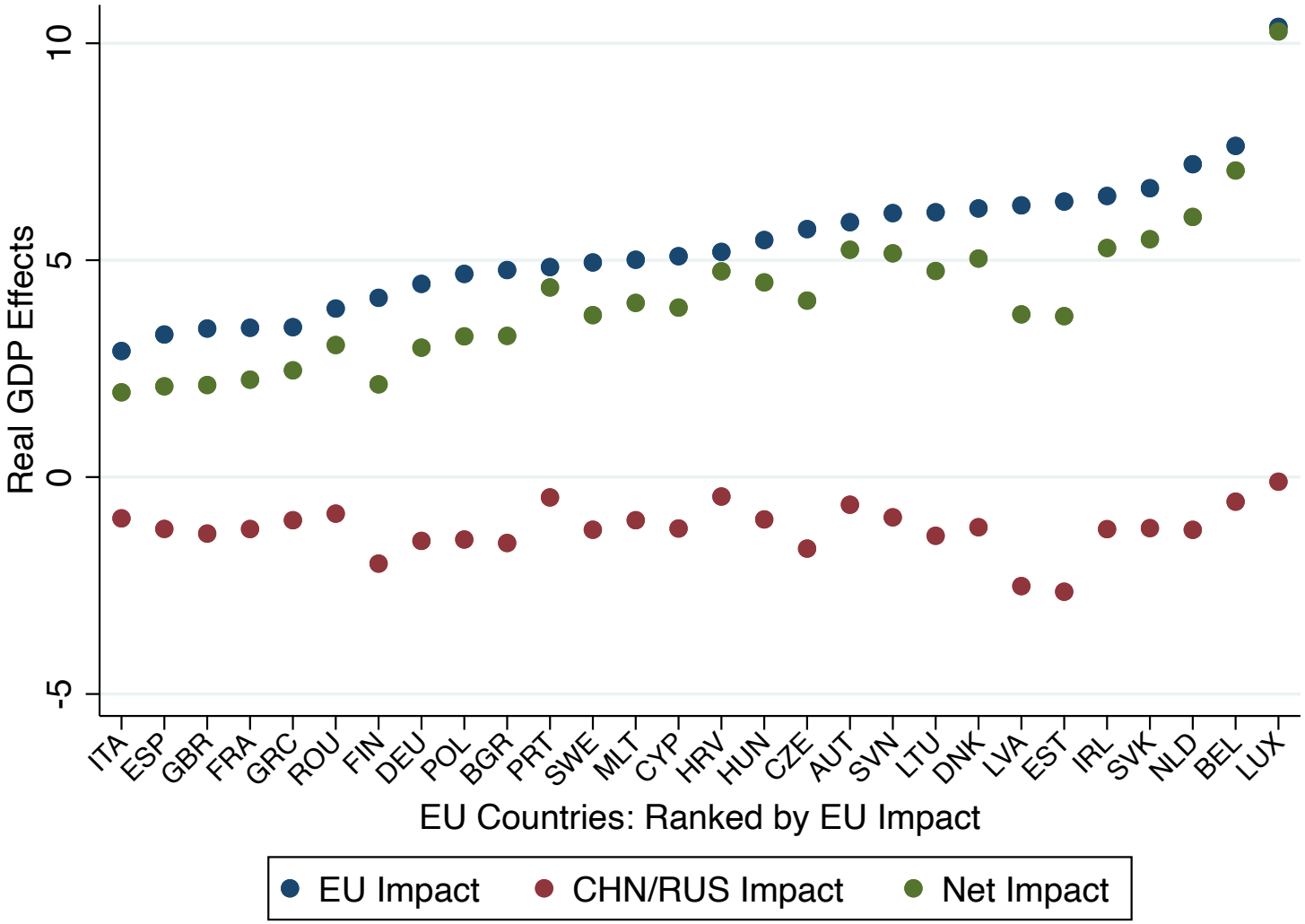
# Decoupling from Russia and China



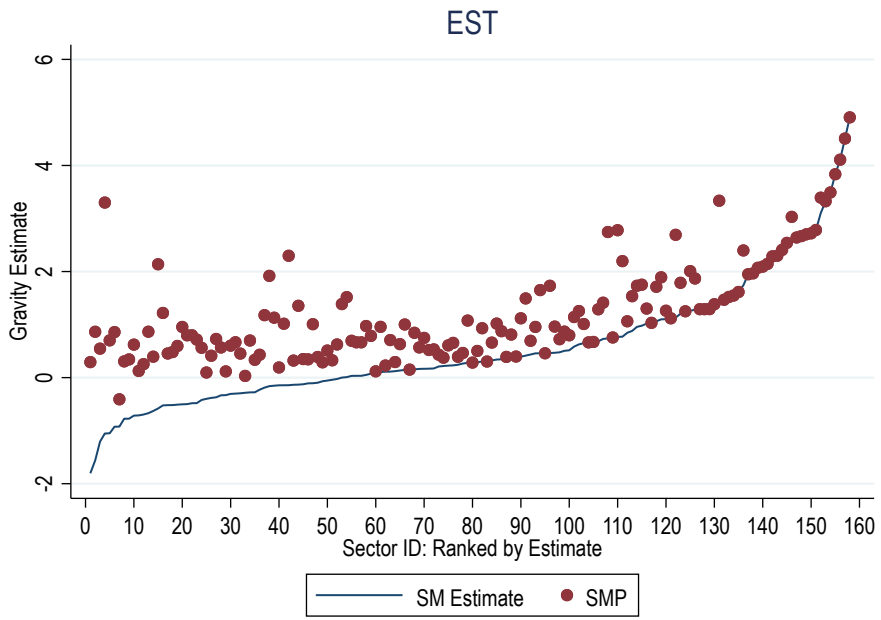
# Impact of SEM vs decoupling: All Sectors

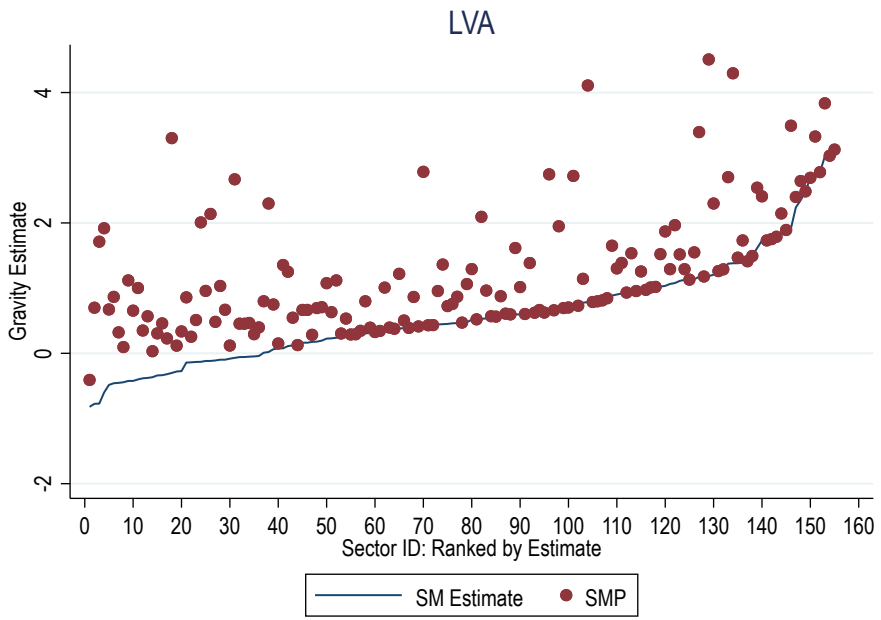


# EU further integration as a compensation policy

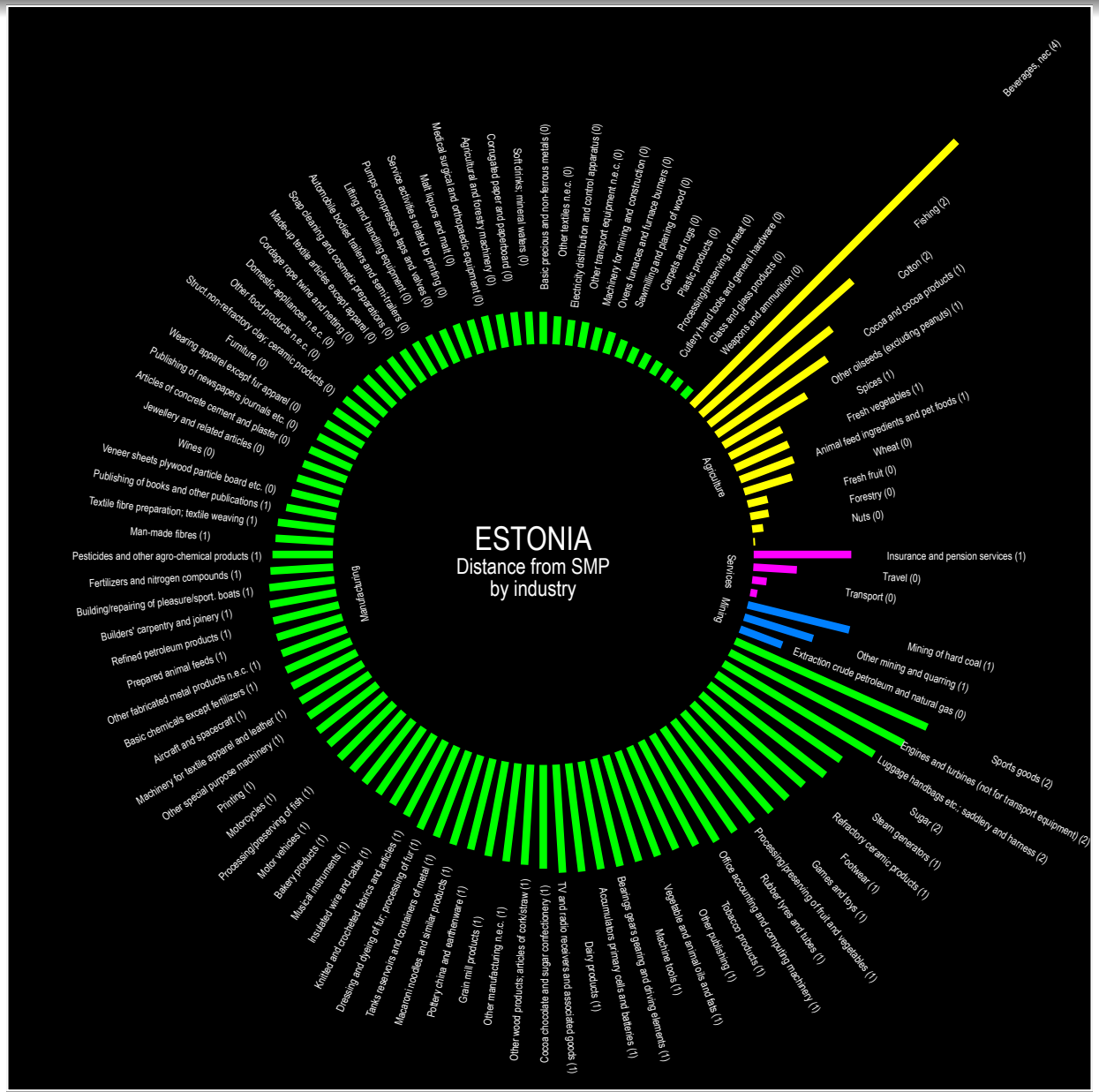
- Define the *Single Market Potential* (SMP) as the largest decrease in bilateral trade costs by the SEM:
  - For each industry, conditional on size, comparative advantage, and other determinants of trade
  - The potential for further integration, for any Member state, is the catch up with this SMP in 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



# 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