

Discussion on Trade-Induced Mortality

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Broad perspective

- ▶ Globalization changes economies.
- ▶ Capital and production move easily between countries.
- ▶ Costs reduction is often the main driver.
- ▶ To maintain production: a comparative advantage in (1) costs, or (2) skills of workforce is required.
- ▶ This changes the welfare state.
- ▶ High-skilled workers become increasingly mobile, complicating the life of policy makers.
- ▶ If taxes are too high or facilities too poor, high-skilled workers leave (leaving the government debt behind).
- ▶ Low-skilled workers will suffer in terms of earnings, job security, social insurance, etc. (race to the bottom)

This paper

- ▶ My story provides a prediction based on theory (a hypothesis?).
- ▶ To understand the costs and benefits of globalization, empirical evidence is needed.
- ▶ Macroeconomists often start from stylized facts (trends and correlations) to build a model and make causal statements.
- ▶ This paper uses the microeconomic toolbox to provide convincing evidence on the consequences of increased trade.
- ▶ DiD-models and survivor analysis are used to estimate effect of sector-specific trade with China on mortality.
- ▶ Consequences of trade for individuals outcomes:
 - ▶ Increased job loss reduces income and causes stress (increased mortality).
 - ▶ Less manufacturing reduces workplace accidents (reduced mortality).
 - ▶ Increased competition reduces work safety, tighter deadlines, longer shift (increased mortality).
 - ▶ Lower prices increases consumer welfare (reduced mortality).
- ▶ Trade affects (1) workers losing their job, (2) those keeping their manufacturing job, but also (3) other workers.

Methodology

- ▶ Individual level data from US (26 years) and Italy (23 years), merged with death records.
- ▶ Difference-in-difference model for worker i in sector s in area a at time t ,

$$Y_{isat} = \alpha_s + \delta_t + \lambda_a + \beta \text{Trade}_{s,t-k} + X_i\gamma + U_{isat}$$

- ▶ Three empirical problems:
 1. Individuals can only switch from alive ($Y = 0$) to death ($Y = 1$).
 2. How to choose the lag k .
 3. What is a good control groep to identify α_s , δ_t and λ_a .
- ▶ For the first problem, there are two alternatives.

$$\log(\bar{Y}_{sat}) = \alpha_s + \delta_t + \lambda_a + \beta \text{Trade}_{s,t-k} + \bar{X}_{sat}\gamma + U_{isat}$$

or hazard rate model

$$h(\text{Age}_{isat} | \text{Trade}_{s,t-k}, X_{isa}) = h_0(\text{Age}_{isat} | X_{isa}) \exp(\beta \text{Trade}_{s,t-k} + \delta_t)$$

Methodology

- ▶ How to choose the lag k in $\text{Trade}_{s,t-k}$.
 - ▶ Solution is to estimate separate models with different values for k .
 - ▶ Estimated impact quite constant for Italy, but increasing (in k) for the US.
 - ▶ I tend to be more convinced by the US pattern.
 - ▶ Why not a single model with more lags, e.g. $k = 1$, $k = 4$, $k = 8$?
- ▶ How to choose the control group.
 - ▶ Do trade shock hit a random set of sectors?
 - ▶ Even if sector is not hit by trade, workers may be affected (changed composition, treat of competition).
 - ▶ Common trend (or parallel path) assumption satisfied.
 - ▶ Provide some evidence about what induces trade increases in particular sectors.
- ▶ Survival model relies on same assumption.
- ▶ I like the stratified partial likelihood approach, but individual unobserved heterogeneity is ignored.
- ▶ Can trade from other countries be ignored for all sectors?

Empirical results

- ▶ Heterogeneous effects and cause-specific mortality provide interesting insight in pathways.
- ▶ Increased mortality ($\sim 30\%$) via suicide (luckily small number).
- ▶ Shows that economic activity has a larger effect on mortality than only via workplace safety.
- ▶ However, suicide increase not for low-educated workers.
- ▶ And mortality increase is driven by managers and small firms rather blue-collar workers.

Concluding remarks

- ▶ We already knew that trade has negative labor-market effects (more polarization).
- ▶ Literature on relation between economic conditions and health unsettled.
- ▶ This paper provides useful evidence on relation between trade and health (mortality).
- ▶ Robustness of the results and identifying assumptions.
- ▶ Striking result that managers are mainly affected and low-educated not.
- ▶ I always believed that increasing education provide the best (only) insurance against globalization.
- ▶ Maybe I am wrong...
- ▶ And how about trade-induced mortality in China? Shouldn't we worry about that as well...
- ▶ Avoid race to the bottom in work safety (although workplace accidents have decreasing trend).