Discussion on Trade-Induced Mortality

Bas van der Klaauw
(VU University Amsterdam)

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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 microeconometric 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 group to identify $\alpha_s$, $\delta_t$ and $\lambda_a$.

- 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

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

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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 (∼ 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).