

Foreign Workers, Product Quality, and Trade: Evidence from a Natural Experiment

Andrea Ariu

Discussion by [Rosario Crinò](#) (Università Cattolica del Sacro Cuore, CEPR and CESifo)

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Summary of the paper

Broad question

How do immigrants affect the export performance of the receiving country?

Setting

"Natural experiment": liberalization of workers' movements under the Swiss-EU Agreement on the Free Movements of Persons (AFMP)

- Staggered implementation: border regions (BR) in 2004, central regions (CR) in 2007.
- Asymmetric effects across zip codes (ZC): share of foreign workers (mostly cross-border and high-skill workers) ↑ relatively more in ZC closer to border crossing

Data

ZC-level export and import data

- 1996-2010
- values and quantities
 - ◇ by product (Harmonized System, 8-digit)
 - ◇ by destination and origin

Summary of the paper

Empirical approach

Difference-in-differences

- Compare exports by product-destination between ZC close to border (≤ 15 min) and other ZC before/after the implementation of AFMP

Main findings

- Exports \uparrow more in ZC close to border than in other ZC after AFMP
- Exports \uparrow especially toward non-EU countries (not involved in AFMP)
- Both export quantities and prices $\uparrow \Rightarrow$ relative export quality of ZC close to border \uparrow
- ZC close to border also \uparrow quality of imported inputs, especially from border countries

Interpretation

- Foreign workers reduce *upstream* information frictions
 - \Rightarrow Sourcing high-quality inputs from immigrants' origin countries becomes cheaper
 - \Rightarrow Firms upgrade product quality
 - \Rightarrow Swiss exports become more appealing to foreign customers
 - \Rightarrow Export flows increase

Contribution and main strengths of the paper

Contribution

One of few attempts at studying the effects of immigration on trade using a clear policy shock

First paper focusing on high-skill immigration

Strengt 1: Data

Amazing data on exports/imports at the ZC-level by product and destination/origin country

Strengt 2: Mechanism

Interesting and novel mechanism based on upstream information frictions

The paper can speak to different, important, strands of literature

- Information frictions and trade
- Trade and quality
- Global Value Chains (GVCs)

Comments

Mechanism

Story based on upstream info frictions is interesting \Rightarrow Corroborate it with more evidence

1) Discuss the quantitative relevance of this channel

- How much of the relative \uparrow in export value and quality of ZC close to border is explained by the relative \uparrow in the quality of their imported inputs?

2) Discard alternative mechanisms

- Complementarity between skills and input quality in producing output quality (e.g., Verhoogen, 2008; Kugler and Verhoogen, 2012; Bastos et al., 2018)
 - \Rightarrow Study how input and output quality are related to *domestic* high-skill labor
- Immigration and wages
 - \Rightarrow Do you find any effect of immigration on wages across ZC?
- Immigration and entrepreneurship (e.g. Kerr and Kerr, 2016; Brown et al., 2019)
 - \Rightarrow Do you find any effect of immigration on the entry of new firms across ZC?
- Immigration and comparative advantage (e.g. Bratsberg et al., 2019)
 - \Rightarrow Control for the number of immigrants in a ZC \times skill-intensity of the product

Comments

Specification (1)

1) Product-destination demand shocks

- Alternative specification including λ_{pct} and λ_i fixed effects

2) Definition of treatment, $R_{it} \Rightarrow$ CR switch from control group (pre 2007) to treatment group (post 2007)

- Include BR only in the baseline sample
- Show specifications in which $R_t = 1$ for *all* ZC post 2004 (or post 2007)

3) Definition of treatment group

- Why ≤ 15 min? It would be useful to also see results using undiscretized distance
- Some ZC close to Southern border are considered CR. Do they matter for the results? Especially for CBW, the change in regulation induced by AFMP was strong after 2007

Comments

Specification (2)

4) Extensive margin

- The lack of evidence in the descriptive regressions may reflect some confounding factor
 - ⇒ Estimate eq. (1) using more aggregated data (e.g., HS4) and distinguish intensive and extensive margins

5) Spatial correlation

- There could be spillovers across ZC, e.g., due to:
 - ◇ learning from exporting firms' located in nearby ZC
 - ◇ knowledge flows across workers in nearby ZC
 - ◇ changes in wages and prices
- ⇒ Correct the standard errors for spatial correlation (e.g., Conley, 1999)

Comments

Interpretation of the results

- 1) Why did exports grow particularly to non-EU countries?
 - Do migrants improve some *market-specific* dimension of product quality
- 2) Prices of imported inputs are endogenous in eq. (1)
 - Hard to interpret the results in Table 15
- 3) Effect of AFMP on imports gets weaker as the set of origin countries is enlarged (Table 14)
 - Yet, differences between Border, EU-15 and EU-25 countries look small. Are they statistically significant?
- 4) So far, there is little in the paper about GVCs
 - Risky to refer so extensively to the GVCs literature

Comments

Minor points about the motivating evidence

1) Change in exports across ZC (Table 5)

- R^2 are minuscule: distance from the border explains less than 0.1% of the variation in export growth across ZC

⇒ Can you show the *evolution* of exports separately for the three groups of ZC?

2) Change in the skill composition of foreign and Swiss workers (Figure 2)

- The share of tertiary-educated migrants seems to have increased substantially before AFMP (1998) or much later (2010)

⇒ Can you also show the *relative* (foreign/Swiss) share in the graph?

3) Change in exports by country and distance from border (Table 7)

- It is not entirely clear from the table that exports to non-EU countries have increased relatively more for ZC closer to border

⇒ Can you redo Table 7 for the change in the *share* of each country group in the total exports of the three types of ZC?

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