

Discussion: “Trade and Volatility at the Firm and Plant Level” (Chris Kurz and Mine Senses)

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Trade and volatility - theory

- Many channels through which trade could affect volatility (or vice versa)
 - Exposure versus diversification
 - With U.S. data, generally trading partners are more volatile in aggregate
- Multiple potential measures of volatility (employment, sales, profits, hazard rate)

Trade and volatility - evidence

- Mixed evidence in the literature, though most papers show openness being positively associated with volatility
 - Tend to use domestic sales as the measure of volatility (e.g. Vannoorenberge 2011, Nguyen and Schaur 2011, Buch et al. 2009)
 - Sometimes combine imports and exports to measure openness (e.g. di Giovanni and Levchenko 2009)

- Primary estimation strategy:
- Using plant fixed effects to estimate using time variation generally yields small and statistically insignificant results.
- Second estimation strategy:
- Bottom line: only exporting tends to be associated with less employment volatility relative to non-traders, only importing with more

- Primary estimation strategy:

$$\ln \sigma(\text{employment}) = \alpha_E \mathbb{I}_E + \alpha_I \mathbb{I}_I + \alpha_B \mathbb{I}_B + \text{Plant controls} + \text{Industry controls} + \epsilon$$

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- Classification of exporter-only, importer-only, or both is limited; replace or combine with continuous measures akin to openness (exposure)
 - Exports/Sales, Imports/Sales, Imports/(Imports + Exports), etc
- Diversification:
 - Make use of covariance information with major trading partners (i.e. it matters with whom a plant trades as well as to how many partners)
 - Use sector-level trade with the world, or simply aggregate GDP correlations with the U.S.

- Try domestic or overall sales volatility for comparison to the previous literature
- Exporters are large, older, and more productive
 - Each of these also tends to be correlated with lower volatility.
 - In addition to employment and age, add a measure of (labor) productivity

Concluding thoughts

- Nice paper which uses fantastic data to provide interesting new results
- Use of employment volatility relatively novel, separating imports and exports appears very important
- Surprising mixed results for the large fraction which both import and export (20% of all firms, 43% of trading firms)
 - Generally non-traders look very different from plants/firms which both import and export.
 - Results for importers only based off of a small group (2% of all firms, 7% of trading firms)
 - U.S. perhaps has atypical firm pattern: In Portugal among trading manufacturing firms, 28% only import, 31% only export, 41% do both.