

# Recent Advances in the Field of Trade Theory and Policy Analysis Using Micro-Level Data

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# Workshop consolidation

- Enterprise Surveys database
- Stata T&T (tips and traps)
- Conclusion: research design and methodology

## Enterprise Surveys database

- The Enterprise Surveys dataset offers an attractive alternative to traditional firm-level data sources
  - Cross-country (135 countries, 130,000 firms)
  - Standardized methodology
  - Inclusion of data relevant to policy
  - Covers producers of goods and services
- These data always need to be used carefully, however:
  - Accounting problems and under-reporting of sales for tax reasons
  - Possible non-comparability of business climate data across countries
  - Over-sampling of large firms and exporters
  - Often difficult to obtain robust measures of productivity

## Enterprise Surveys database (ct'd)

- The Enterprise Surveys data have been used in a variety of contexts in published research:
  - Identification of firm-level premia for exporting and importing
  - Examination of the determinants of export performance (propensity and intensity)
  - Analysis of the links between the business climate or trade facilitation and trade performance
  - Identification of the determinants of trade-related corruption
- Remember that you CANNOT use the example data from this course to do real research – they are fictional and have been altered from the original source
  - Contact the Enterprise Surveys team directly to have access to the original (real) data
  - The data are freely accessible to researchers upon agreeing to terms regarding confidentiality of individual survey responses

## Stata T&T (tips and traps)

- Stata is ideally suited to working with large firm-level datasets like the Enterprise Surveys data
  - Ideally, use Stata MP to work with large datasets
- Start with descriptive statistics and graphical methods:
  - *summarize* (*sum*)
  - *tabulate* (*tab*)
  - *correlate* (*corr*)
  - *histogram* (*hist*) and *kdensity*
  - *twoway* [+ *scatter*, *lfit*, *kdensity*, etc.]
- Always try to tell your story with simple statistics or, even better, a graph or two before moving to the econometrics
- Make use of the *if* command to exploit interesting splits in the data

## Stata T&T (tips and traps) (ct'd)

- When working with Enterprise Surveys data, you will mostly be using panel data techniques to control for unobserved heterogeneity:
  - Countries or regions
  - Years
  - Industries
  - Combinations of the above
- Make sure your results are robust to different panel data assumptions, and try to push the unobserved heterogeneity as far as it can go
- For example, results with fixed effects by country-industry-year are stronger than those with fixed effects by country, fixed effects by industry, and fixed effects by year

## Stata T&T (tips and traps) (ct'd)

- When working with panel data, you will be using *xt* commands:
  - *xtset*
  - *xtreg*
  - *xtlogit*
  - *xtivreg* and *xtivreg2*
  - etc.
- The literature mostly uses fixed effects, and this should be the starting point for your research
- Random effects is a more restricted model, and so should only be used if absolutely necessary and if the data support it
- The Hausman test can be used as a guide, but it is often unreliable in practice...
- ...The test of overidentifying restrictions should be preferred

## Stata T&T (tips and traps) (ct'd)

- When working with fixed effects, use the *xt* commands whenever possible for one dimension:
  - Takes care of clustering
  - Makes computation faster
- For multiple dimensions of fixed effects, you will need to enter some dimensions manually
  - *quietly tab, gen(newvar\_)*
  - Use wildcards (\*) in the regression command
  - Or use the *i.* command
  - Use *xtset* to have the *xt* command take care of the dimension with the largest number of fixed effects, thereby maximizing the reduction in computation

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