Developing Trade Consultants

Policy | Research | Capacity Building

Workshop Recap

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Overview

1. Enterprise Surveys Dataset
2. Stata Tips and Traps
3. Conclusion: Research Design and Methodology

Enterprise Surveys Dataset

- The Enterprise Surveys dataset offers an attractive alternative to traditional firm-level data sources
  - Cross-country (125 countries, 120,000+ 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 Dataset

- 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 Tips and Traps

- Stata is ideally suited to working with large firm-level datasets like the Enterprise Surveys data
  - Use Stata SE or MP to work with large datasets
- Start with descriptive statistics and graphical methods:
  - Summarize
  - Tabulate
  - Correlate
  - Histogram 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 Tips and Traps

- 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
  - e.g., 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 Tips and Traps

- 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.

Stata Tips and Traps

- 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 tabulate, gen()
  - Use wildcards (*) in the regression 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 time

Stata Tips and Traps

- Various packages are available to automatically create publication-ready tables from raw Stata output
  - Don’t enter the stars on your own, or make your RA do it!
  - Use Estout or a similar set of commands to take the work out of it

- Always use a do file and logs to keep track of your regressions and results
  - One do file to create the database through merging
  - One do file for the regressions
  - You will often need to come back to your specifications as you revise material for publication

Conclusion: Research Design and Methodology

- Firm-level research in trade is still in its infancy, but….
- Diminishing returns are setting in for work that just looks at export or import premia
  - The basic results are now well-established
  - Some value in replicating them for different countries
  - Publication possibilities are limited to national or regional journals
- The trick to making a good publication is in finding an interesting research question that can be answered well with firm-level data, but not so well with other types of data

Conclusion: Research Design and Methodology

- Potentially under-researched areas with firm-level data include:
  - Services
  - Behind the border barriers
  - Corruption and governance
  - Regulatory barriers to trade
  - Importance of networks and connectivity in international trade
  - Trade facilitation
  - Links between trade and innovation
  - …

Conclusion: Research Design and Methodology

- Start with a good question
- Identify the relevant data and conduct an exploratory analysis using descriptive statistics, graphs, and simple regressions
- If the data seem to be telling an interesting story, push the analysis further in terms of technique, but…
- Use the simplest technique that is consistent with your research design and data: there is no advantage in using complicated techniques if the data do not call for them