Graduate Trade (II): ECON 8433

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Fall Semester 2020

Plan

Week	Topic
Week 1	Introduction to Structural Gravity Equation
Week 2	Calibration and Estimation
Week 3	Mapping Models to the Data
Week 4	Designing Counterfactual Experiments in General Equilibrium
Week 5	Presentations (I) and Catch-up
Week 6	Heterogeneous Firms (I)
Week 7	Heterogeneous Firms (II)
Week 8	Ricardian Models
Week 9	Multi-Sector Models
Week 10	Global Value Chains
Week 11	Presentations (II) and Catch-up
Week 12	Extensions: Demand Side
Week 13	Extensions: Supply Side
Week 14	Extensions: Migration and Geography
Week 15	Presentations (III) and Catch-up

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Final Presentation

Final presentations will take place on Dec. 7th (3 presentations) and Dec. 9th (5 presentations).

- Let me know in advance if you cannot make it on Dec. 9th (same time slot).
- Sign up here: https://docs.google.com/spreadsheets/d/1qeursu1HHj0DM3x2LBkfTbC_A7wSx36swnMbARvKPs0/edit?usp=sharing

Final Presentation

For the final presentation:

- No strict time constraints but I suggest about 15-20 minutes
- Remember that we have already seen your Presentation I& II
- Offer only brief discussion of motivation and previous literature
- Focus on presenting and discussing your results
- Make nice graphs & tables
- Make sure to explain the implications of your results

Final Report

The Final Report is due on December 10th by 11:30 pm. Submit on CANVAS:

- Strict constraint: max. 8 pages
- Imagine that you are writing a paper for an outlet for short papers, i.e., Economics Letters, AER: Insights etc.
- `https://bit.ly/2AWQIgR`

Guidelines from EL website

- Introduction
  - State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.
- Material and methods
  - Provide sufficient details to allow the work to be reproduced by an independent researcher. Methods that are already published should be summarized, and indicated by a reference. If quoting directly from a previously published method, use quotation marks and also cite the source. Any modifications to existing methods should also be described.

Guidelines from EL website

- Theory/calculation
  - A Theory section should extend, not repeat, the background to the article already dealt with in the Introduction and lay the foundation for further work. In contrast, a Calculation section represents a practical development from a theoretical basis.
- Results
  - Results should be clear and concise.
- Discussion
  - This should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate. Avoid extensive citations and discussion of published literature.
- Conclusions
  - The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section.

Extensions: Demand Side + Personal Take

How well do we model preferences?

So far, our approach was to assume:

- Upper-tier utility function is Cobb-Douglas
- Lower-tier utility is CES

Do these assumptions come to grips with the data?

- Cobb-Douglas predicts that independent of your income level you will spend a constant share on each type of good
- CES predicts that all consumers always buy all available varieties

Do you believe these assumptions?

Motivation

Survey year	Question	Agree
2007	The U.S. should eliminate remaining tariffs and other barriers to trade	83%
2005	The U.S. should eliminate remaining tariffs and other barriers to trade	88%
2000	Tariffs and import quotas usually reduce the general welfare of society	93%
1990	Tariffs and import quotas usually reduce the general welfare of society	98%

Sources: Whaples (2006, 2009), Fuller and Geide-Stevenson (2007)

Table: Survey among AEA members

Motivation

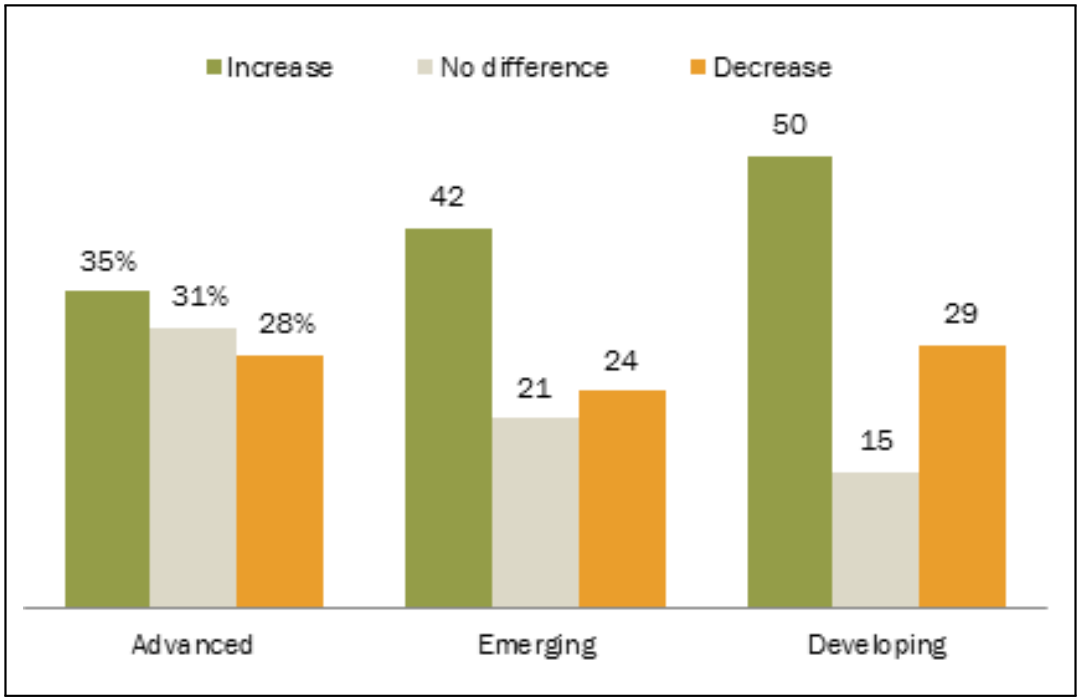
Survey year	Question	Agree
2006	The impact of free trade on the country is good	44%
2005	The impact of free trade on the country is good	44%
2003	The impact of free trade on the country is good	34%
1997	The impact of free trade on the country is good	47%

Source: Pew Research Center Survey

Table: Survey among general population in the US

Motivation

"Trade with other countries leads prices to..."



Source: Pew Research Center Survey

Figure: Trade and prices

Basic idea

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These three mechanisms together imply that:

- Trade liberalization leads to heterogeneous gains from trade
- Estimates based on the assumption of a *representative consumer* (ARC) may be highly misleading

Preview: model and data

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1. Novel data covering 92 countries in the world
   - Decile-specific data on incomes
   - Sector-specific data on prices, trade, and consumption
2. General equilibrium model of trade that features
   - Heterogeneous consumers
   - Non-homothetic preferences
   - Heterogeneous firms
   - Input-output linkages across sectors

Preview: results

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Under a hypothetical 15% reduction in trade costs, ARC:

- Overestimates true welfare gains of the poor by up to 5 percentage points
- Underestimates the gains of the rich by up to 11 percentage points

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Under the global abolishment of import tariffs, ARC:

- Often leads to qualitatively wrong estimates for many consumers
- Leads to measurement errors in the welfare gains between -15 and 4 percentage points

This measurement errors are extremely large, considering that the average gains are below 20%!

Basic mechanism

- Two goods are available for consumption $\{a, m\}$:
  - Welfare is measured in terms of equivalent variation $V[y_{id}(1 + ev_{id}), p_{ai}, p_{mi}] = V[y'_{id}, p'_{ai}, p'_{mi}]$

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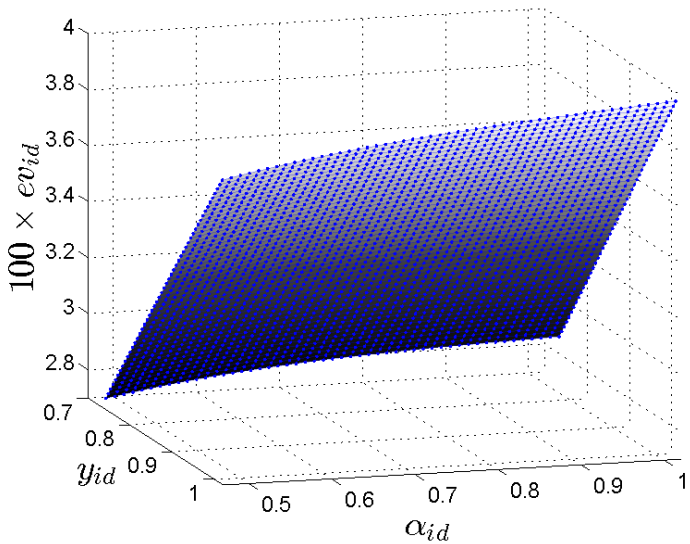
  - Welfare is measured in terms of equivalent variation $V[y_{id}(1 + ev_{id}), p_{ai}, p_{mi}] = V[y'_{id}, p'_{ai}, p'_{mi}]$
- Consumers are heterogeneous in:
  - Income levels
  - Marginal propensity to consume a versus m
  - Expenditure shares on a and m
- Trade liberalization leads to asymmetric reductions in prices:
  - Different dispersion of technologies in a and m across countries

Basic mechanism

(1) Higher reduction in p_m



(2) Higher reduction in p_a

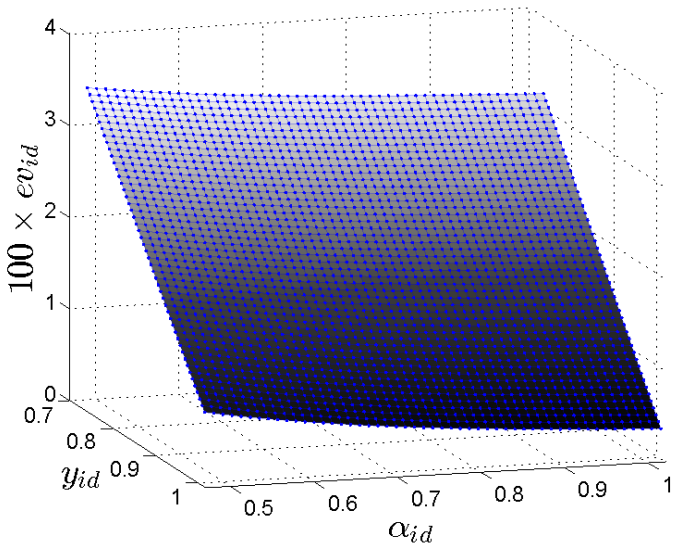


Figure: Heterogeneity in the welfare gains from trade

Basic mechanism

What determines how p_a and p_m react to trade liberalization?

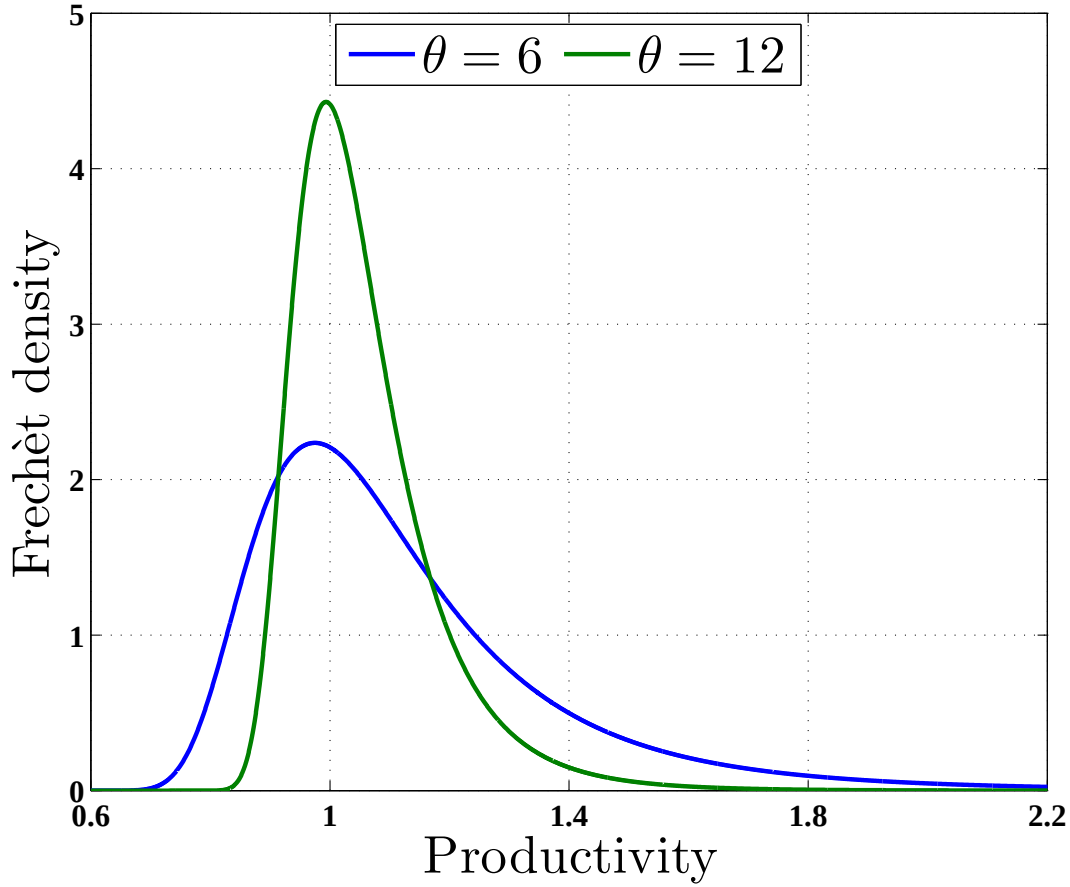


Figure: Firm-level heterogeneity