Voluntary Standards in International Trade: A Heterogeneous Firms Approach

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Motivation

- Widespread concern over negative environmental/labor/safety consequences of trade liberalization
- WTO does not allow restraint of trade based on process standards
  - Voluntary industry standards (e.g. ISO 9001, ISO 14001, "Fair Trade") may fill this gap

Objectives

- Develop formal theoretical framework describing export participation and adoption of voluntary standards
- Characterize link between liberalization and adoption of voluntary standards

Model Framework

- Employ heterogeneous firms and trade framework (Podhorsky, 2012; Melitz, 2003)
- Monopolistically competitive firms choose export *and* voluntary certification status to maximize profit
  - Differentiated by productivity, indexing effective costs of exporting/certification

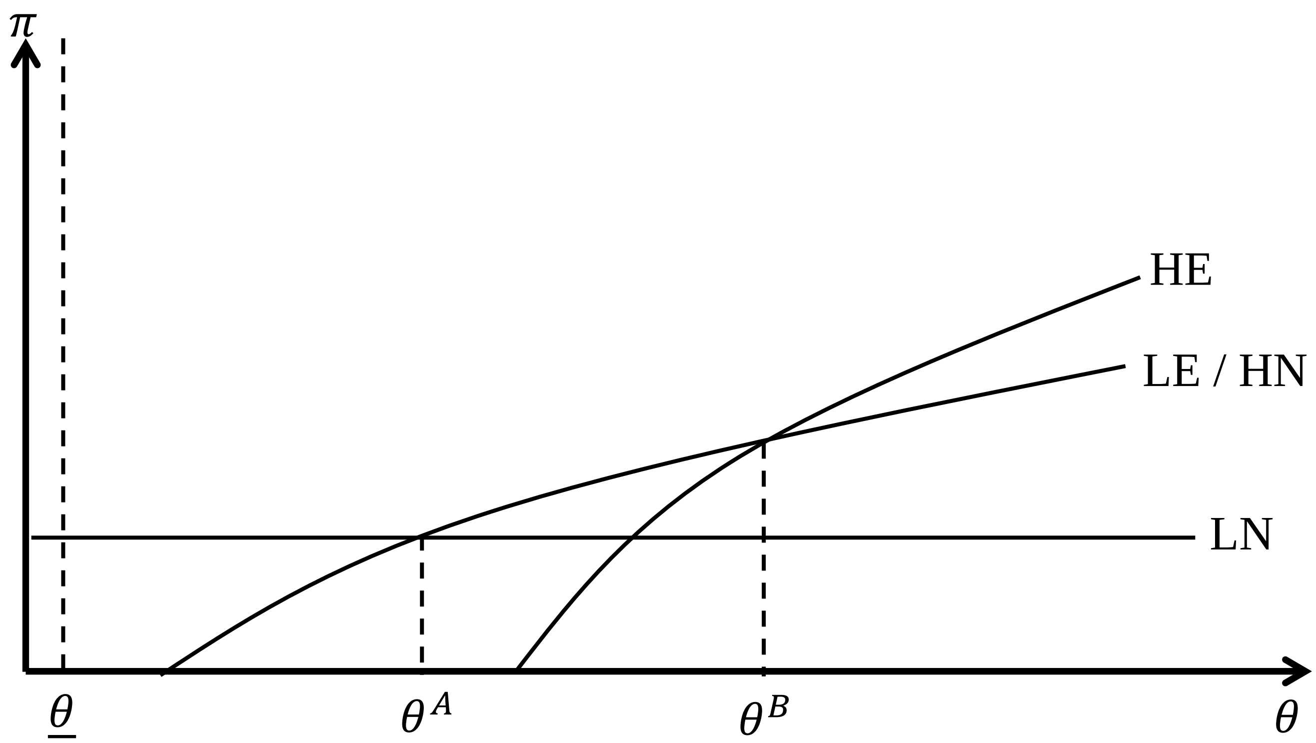
Model Framework

- Firms choose among four possible strategies:

	No Certification	Certification
No Exports	“LN”	“HN”
Exports	“LE”	“HE”

- “LE” and “HN” cannot coexist in equilibrium

Model Equilibrium



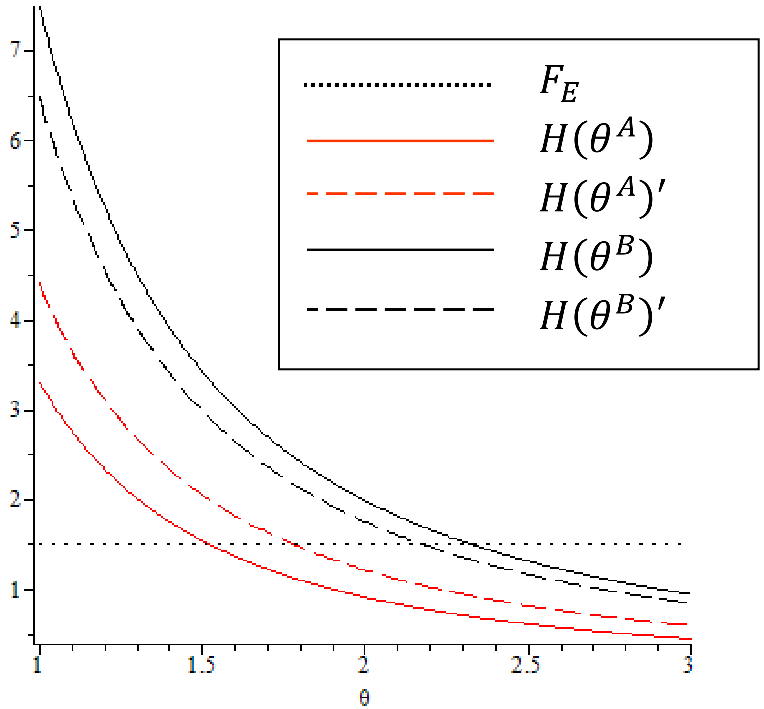
Comparative Statics

- How do productivity cut-offs change with trade policy parameters?

- Effect may depend on policy instrument in question
  - Fixed export costs (non-tariff barriers)
  - Transportation costs (tariffs)

Comparative Statics: Fixed Trade Costs

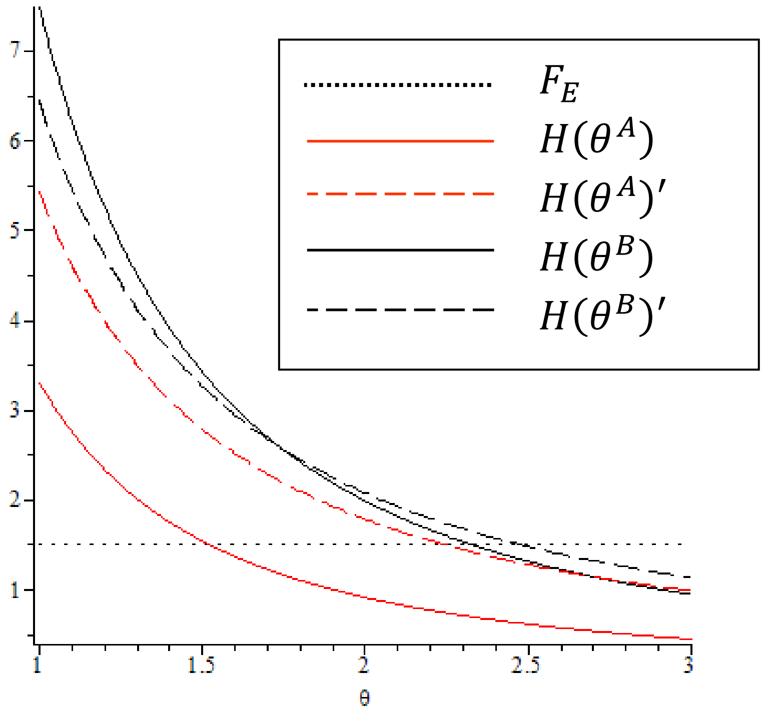
- LN/LE/HE Case



	% Change from Baseline
θ^A	+ 20%
θ^B	- 4%
TQ	- 8%
P	+ 10%

Comparative Statics: Transportation Costs

- LN/LE/HE Case



	% Change from Baseline
θ^A	+ 53%
θ^B	+ 9%
TQ	- 3%
P	+ 23%

Conclusions

- Lowering fixed trade costs always decreases participation in the voluntary standard
  - Driven by competitiveness effect
- Lowering transportation costs *may* increase participation in the voluntary standard
  - If revenue effect dominates
- Raising trade barriers always reduces total quality and consumer welfare

Future Work

- Relax simplifying assumptions in model
  - Allow for trade between asymmetric countries
  - Allow for export status to affect certification costs and vice-versa

- Specify external damage function to expand welfare analysis

Thank you!