

International Conference on  
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**Juan Pablo Rud**  
**Infrastructure Regulation and Industry Equilibrium**  
**when Firms Have an Outside Option:**  
**Evidence from Indian Firms**

## **Commentary**

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# State Policy, Sector Regulation and Market Equilibrium

- Consistency between theory .. (Laffont-Tirole on regulation; Dixit-S tiglitz, Fujita and Melitz, Bernard on heterogenous firms, market equilibrium and impact of policy)
- .. and evidence in India (large democracy and diverse economy, decentralized state-level elections and policy incl. sector- and tariff regulation, subsidies and utility SOEs)

## State characteristics

- Public sector deficit
- Mfr. industry vs. agro bias

## Electricity regulation

- Tariff policy
- Network & quality
- Cost & incentives

## Industrial policy

- Entry- and licensing
- Trade liberalization

## Firm characteristics

- Productivity, output and size
- Rural, urban vs. metropolitan
- Ownership & funding access



## Market Equilibrium

- Minimum productivity of marginal survivors  
 $\Rightarrow f$  (entry cost, industrial policy)
- MC-reducing captive generation  
 $\Rightarrow$  Cut-off productivity for adoption vs generator cost  
 $\Rightarrow$  Induces exit of marginal firms
- Higher electricity tariffs  
 $\Rightarrow$  Increase adoption levels  
 $\Rightarrow$  Decrease cut-off adoption productivity

# Possible Topics for Discussion

- Reason for significant and negative coefficient between tariff and adoption levels in metropolitan areas, if no tariff bias:
  - ⇒ Higher quality sensitivity and or distinctive industries?
  - ⇒ Could model quality variable explicitly i.e. separately from cost of electricity?
- Adoption levels of medium-size electricity-intensive and sensitive industries (e.g. food, electronics):
  - ⇒ Presence in metropolitan locations (e.g. need for skilled labor, more secure electricity supply)?
  - ⇒ Could model through quadratic electricity-usage or steeper cost saving factor?
- Compare exporters vs. domestic industries:
  - ⇒ Adoption levels among exporters should be higher, importers lower, in open vs. protected economies?
  - ⇒ Could combine into trade model and find productivity threshold separating exporters from non-exporters (latter facing import competition)?

# Possible Topics for Discussion (cont'd)

- Observations for state-owned manufacturing firms:
  - ⇒ Public budget constraints, employment providers, political importance?
- Lobbying behaviour of large private, capital intensive industries (e.g. chemicals, steel, automobile):
  - ⇒ Able to influence state-level tariff policy (e.g. special tariffs)?
- Cross-country study of sector-biased infrastructure policies

THANK YOU