



Standards as Strategies: Forestry Standards and Public Procurement Policies

MPSA 2016

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Context

- First-cut of quantitative chapter
- Followed by case-studies (on/off line)
- Feedback on methodology

Transnational Private Standards



Why?

Provision Club Goods

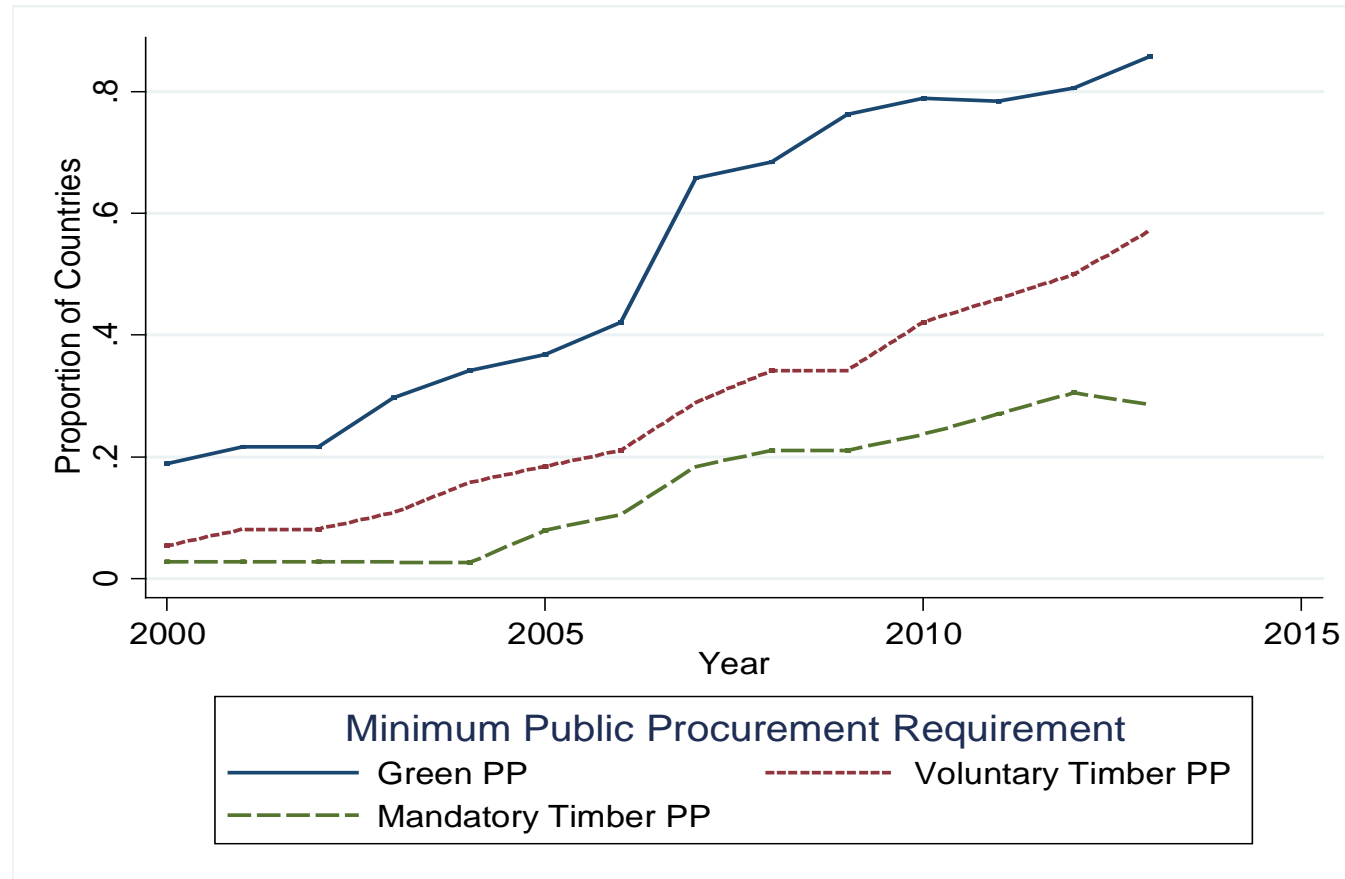
- Increase ability to make credible commitments
- Improve Reputation
- Exclusive Information
- Forum

Why?

- Technical Standards to Facilitate International Trade
- 'Naming-and-Shaming' from NGOs
- Coordinate across supply chains
- Differentiate products, market demand
- **Political Strategies?**
 - Interest groups composed of firms in an industry adopt TPS to influence government regulation
 - Self-Regulation
 - **Competitive Advantages**

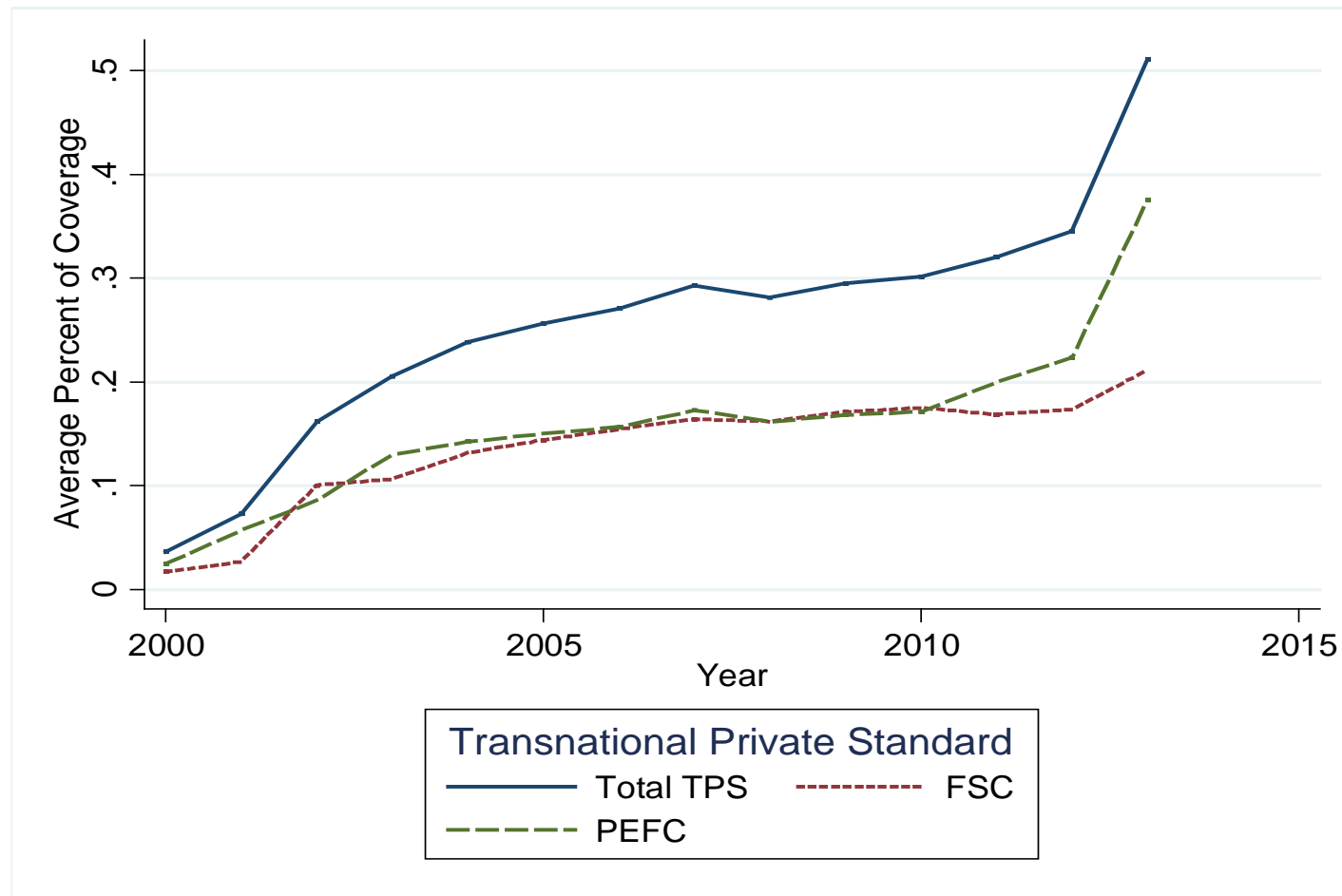
Forest Standards and Procurement Policies

- Government Procurement has significant market effects
 - Between 3.5% (Belgium) and 60% (UK) of demand for timber
 - 'Follow the leader'



Forest Standards and Procurement Policies

- Two Transnational Private Forestry Standards
 - FSC (1993)
 - PEFC (1995)



Narrative: Rent-Seeking

- NGOs and Rio Earth Summit (1992)
- Forest Stewardship Council Standard (1993)
- Campaign against big retailers of timber and forest products
 - E.g. Home Depot, Wal-Mart, Ikea, Staples and Random House
- Retailers change policy, sustainable timber as Corporate Social Responsibility
 - Creates market
- Some timber producers adopt standards to meet demand
- Heterogenous firm preferences on requirements in public procurement policies
- Adopters stand to gain competitive advantages over non-adopters
 - Lobby Governments

Explanations

TPS for Lobbying Hypothesis: The adoption of forestry TPSs by a group of firms increases the probability that a national government will require such standards in their timber procurement policy

- Focal point for firms in an industry to coordinate
- Selective disclosure of exclusive information
- Able to draw on normative arguments

Intervening Relationship: Constituency Size of Electoral System

Alternative Explanations

- Economic development 'Kuznets Curve'
- EU Membership
- Forest Resources
 - Economic Rents
 - Resource abundance

Dependent Variable

Stringency of Public Procurement Timber and Forest-Products Regulation

Ordinal Scale:

- No requirements
- General 'Green Public Procurement'
- Voluntary timber / forest-product sustainability requirements
 - Can be used as criteria when evaluating supplier
- Mandatory timber / forest-product sustainability requirements
 - Suppliers must comply with regulation compatible with PEFC or FSC

Independent Variables

TPS Lobbying

- (+) Percent of forest area certified under TPS
 - Representative of TPS adopting firm resources relative to non-adopters
- (+) Majoritarian system
- (-) Proportional Representation

Economic Development

- (+) GDP per Capita

() Expected direction of relationship

Control

- (+) Member of EU
- Forest Resources
 - (+) Forest Rents as Share of GDP
 - (-) Area Covered by Forests

The Models

- 38 mid and high income countries
- 508 observations
- 2000-2013 (unbalanced)
- Vary Panel Effects
 - Institutional Conditions
- Vary Ordinal Scale
 - Omit Green Public Procurement
- Random Effects Ordered Logistic Regression
- Mixed Effects Ordered Logistic Regression
- Mixed Effects Multinomial Logistic Regression



Findings: Forestry TPS as Political Strategy

- Positive effect
- Large Standard Error
 - *e.g. Random effects model, confidence interval of odds ratio: 1.266 - 133.5*
 - But, lower bound of confidence intervals of odds ratios consistently above 1 across models with 4 categories

A one percent increase in forest area covered in TPS raises the odds of being in a higher set of categories (versus all lower ones) by about 1,300 percent.

Findings: Proportional Representation

- Negative effect
- Small Standard Error
 - *e.g. Random effects model, confidence interval of odds ratio: 0.000 - 0.255*
 - The odds of a country adopting a green procurement policy, or stronger voluntary or mandatory timber procurement regulation, are approximately 99 percent lower for country using proportional representation than for countries using mixed or majoritarian electoral systems

Findings: Economic Development

- No Effect
- Small Standard Error
 - *e.g. Random effects model, confidence interval of odds ratio: 1.000 - 1.001*
- *Equally likely to be in any categories of stringency*

Findings: Forest Area

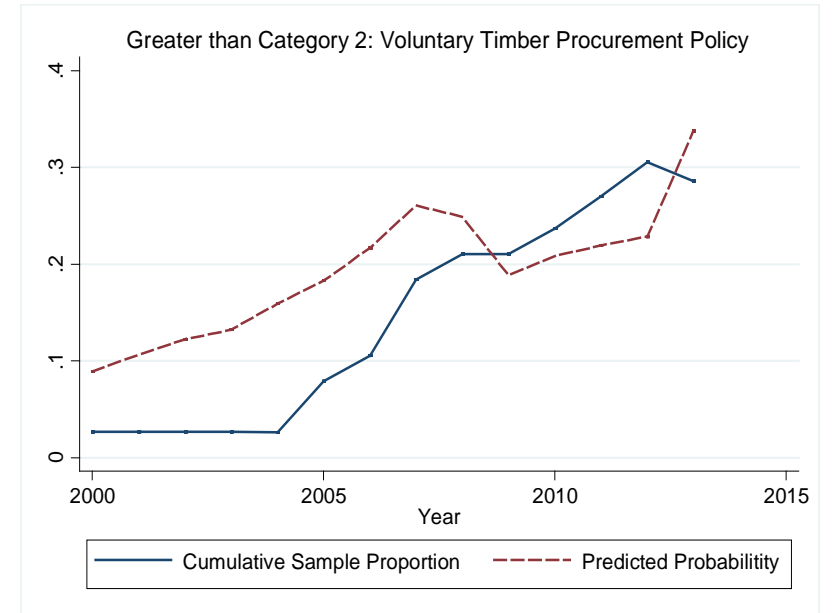
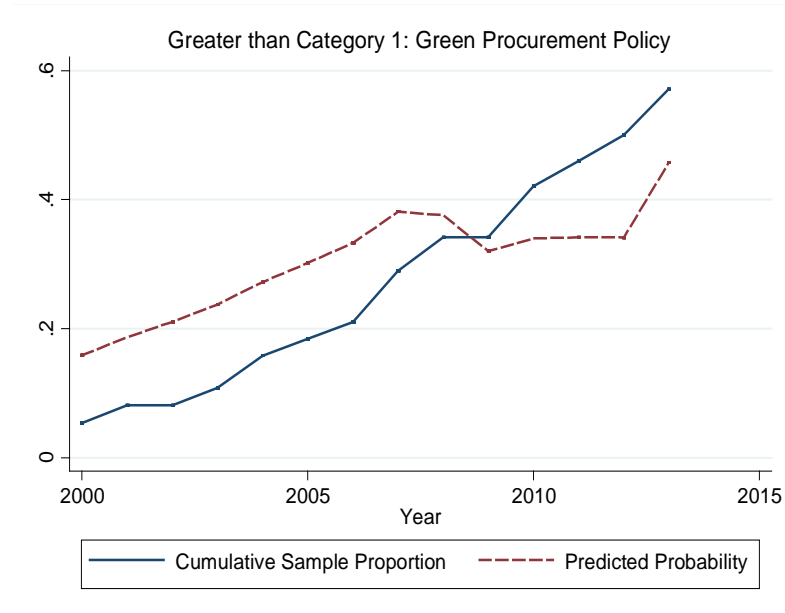
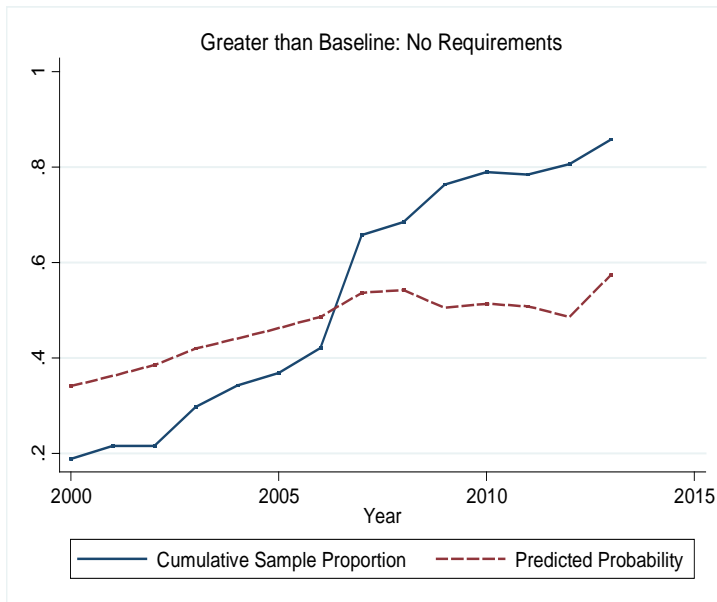
- No Effect
- Small Standard Error
 - *e.g. Random effects model, confidence interval of odds ratio: 1.000 - 1.000*
- *Equally likely to be in any categories of stringency*

Findings: EU Membership

- Limited evidence
- Large standard errors, multinomial model
 - *e.g. Random effects model, confidence interval of relative risk ratio: 2.240 - 1,646*
- Being a member of the European Union raises the odds of having voluntary requirements (6,000 percent)

Model Fit: Random-Effects Ordered Regression

Cumulative sample proportions compared to average predicted probabilities



Conclusions

Explanation	Support
Lobbying by TPS Firm	Moderate Support
Proportional representation	Strong Support
Majoritarian electoral systems	Inconclusive
EU Membership	Limited Support, only for adoption of voluntary timber procurement policies
Economic Development	Rejected
Amount of Forest Area	Rejected
Forest Rents	Inconclusive

Moving Forward

- Respecifying as survival model
 - 'regulatory capitalism'
- Capturing multidimensionality of policy stringency
 - Factor analysis for latent variable
 - Principal components Analysis
- More Explanations?
 - Employment
 - Domestic market (e.g. market saturation)
 - Spatial component using trade data
- Thoughts?

Regression Table (4 Categories)

Explanation	Variables	Random-Effects	Mixed-Effects
		Ordered Logit	Ordered Logit
		Odds-Ratio	Odds-Ratio
Forestry TPS as Political Strategy	Percent TPS	13.35** (1.259 - 141.5)	13.00** (1.266 - 133.5)
	Prop. Rep.	0.0142*** (0.000 - 0.255)	0.0151*** (0 - 0.233)
	Maj. System	0.208* (0.0323 - 1.335)	0.216 (0.0340 - 1.378)
Economic Development	GDP per Capita	1.000*** (1.000 - 1.001)	1.000*** (1.000 - 1.001)
Control Variables	EU Member	1.286 (0.120 - 13.80)	1.214 (0.117 - 12.59)
	Forest Rents	1.129 (0.454 - 2.805)	1.117 (0.454 - 2.749)
	Forest Area	1.000* (1.000 - 1.000)	1.000* (1.000 - 1.000)