



Standards as Strategies: Forestry Standards and Public Procurement Policies

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Thibaud Henin, Ph.D. Candidate
University of Oregon



Context

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

Why do Governments Increase Environmental Regulation?

- Improve social welfare
- Pressure from NGOs / Public
 - Reelection
- Pressure from other states
 - International Treaties
 - Diffusion
- **Lobbying From Firms**
 - **E.g. California Hypothesis (Vogel 1996)**

Focus: Transnational Private Standards

- Do firms use the adoption of Transnational Private Standards to lobby governments, and if so, under what conditions?

Transnational Private Standards

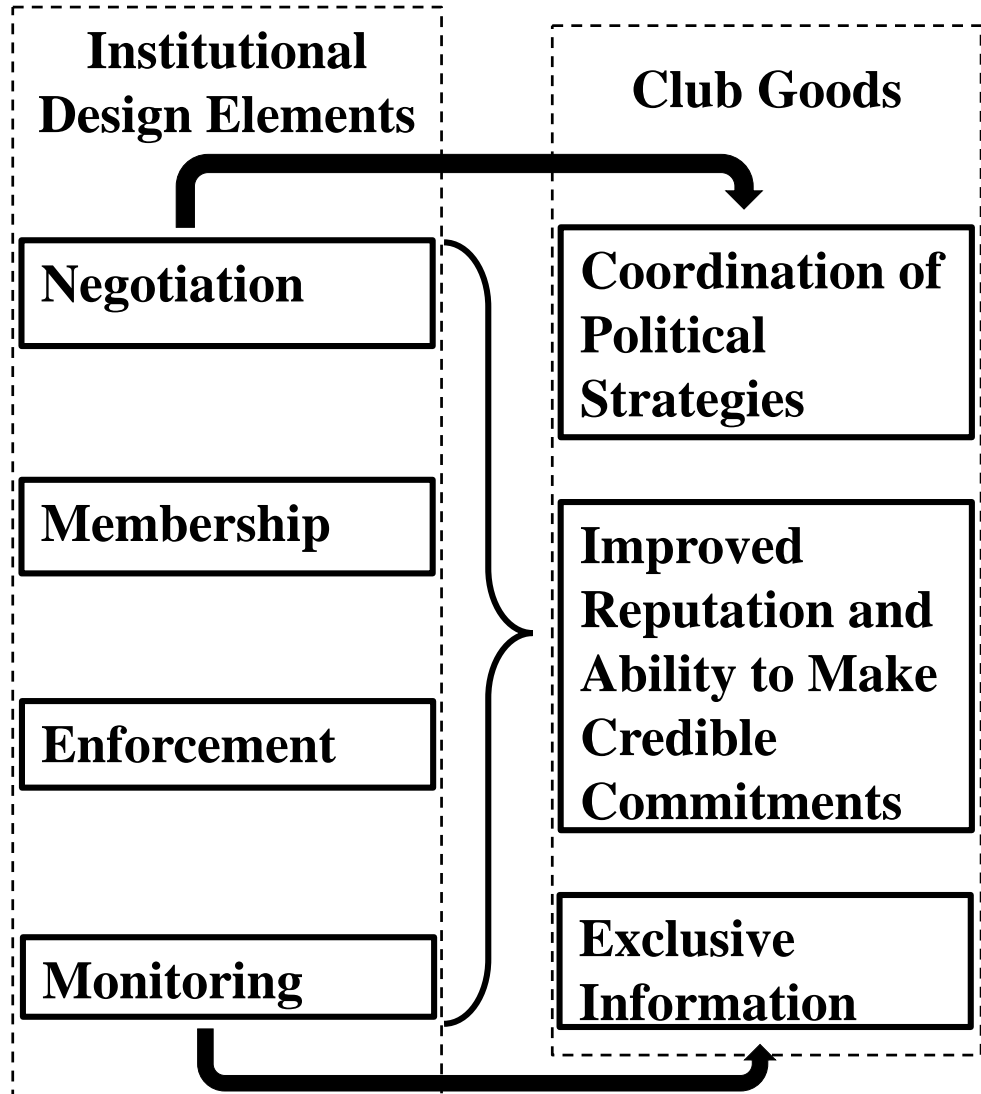
- Principally Established by Firms and NGOs
- Non-trivial costs of adoption
- Require adopters exceed government regulation



Why Adopt?

- Some firms receive market benefits from differentiating their product
 - Consumers pay premium for label
- Some use standards for supply-chain management
- Many standards do not appear to provide market benefits
 - Technical
 - Firms don't sell directly to end consumers
 - Consumers unwilling to pay premium
- My Argument: Adoption → Club Goods → Political advantages

Institutional Design of Transnational Private Standards



Transnational Private Standards as Club Goods

(Prakash and Potoski 2006, Green 2013, Abbot and Snidal 2009)

Aims of Lobbying

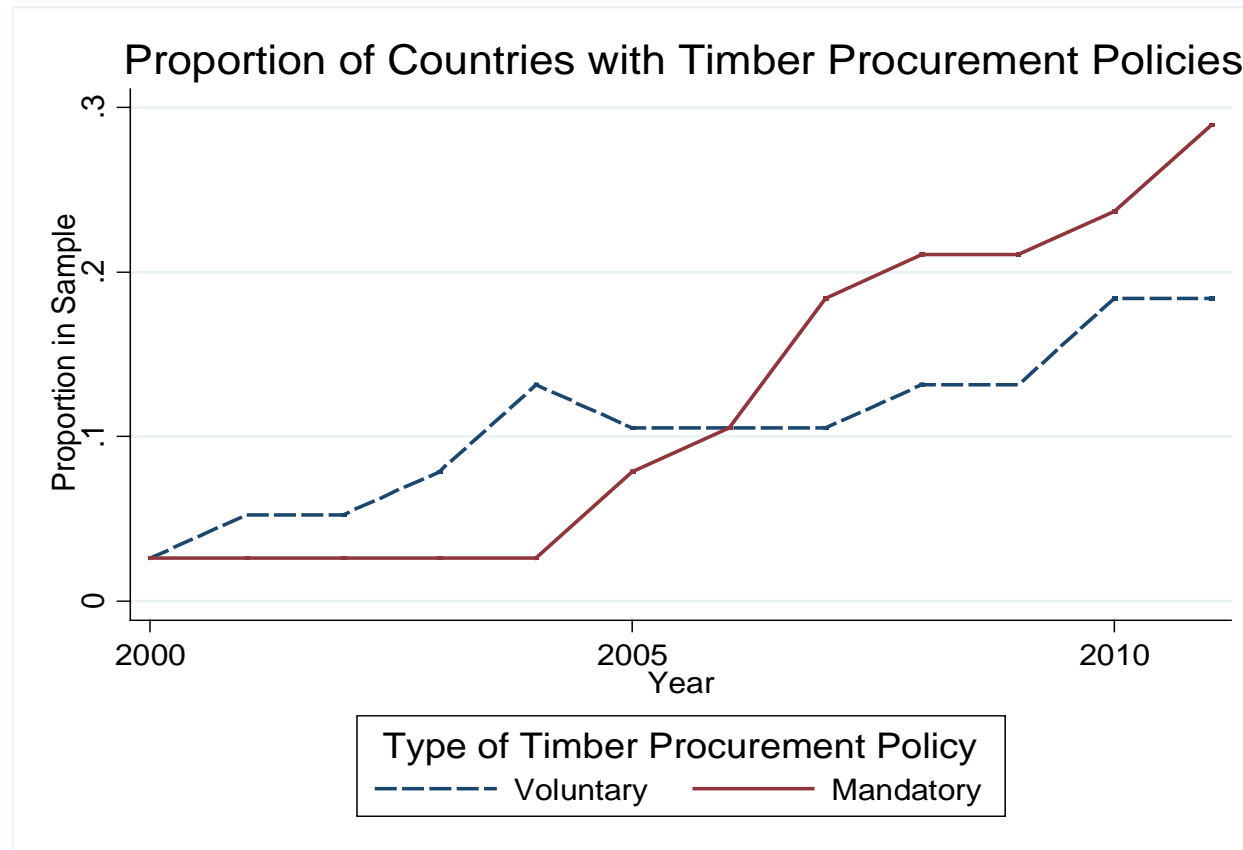
- Cynical version: Status quo, weak government regulation, self-regulation
 - Bhopal, Chernobyl, Exxon Valdez, Deepwater Horizon, Detergent Industry
- Slightly less cynical version: stronger government regulation, barriers for competitors
 - Dolphin-Free Tuna in US, ISO 14001 in developed countries, Marine Steward Council

The Case: Private Forestry Standards and National Public Procurement Policies

- Sustainability standards:
 - Forest Management
 - Forestry industry (roundwood and non-wood forest products);
 - Chain-of-Custody
 - Wood industry (sawnwood, wood-based panels, wood chips and residues, charcoal and further processed wood products excluding furniture.);
 - Pulp and paper industry (pulp, recovered paper, paper, and further processed paper products excluding printed articles);
 - Wooden furniture industry
- National Public Procurement Policies
 - Rules and regulations regarding sustainability of purchasing by National Governments

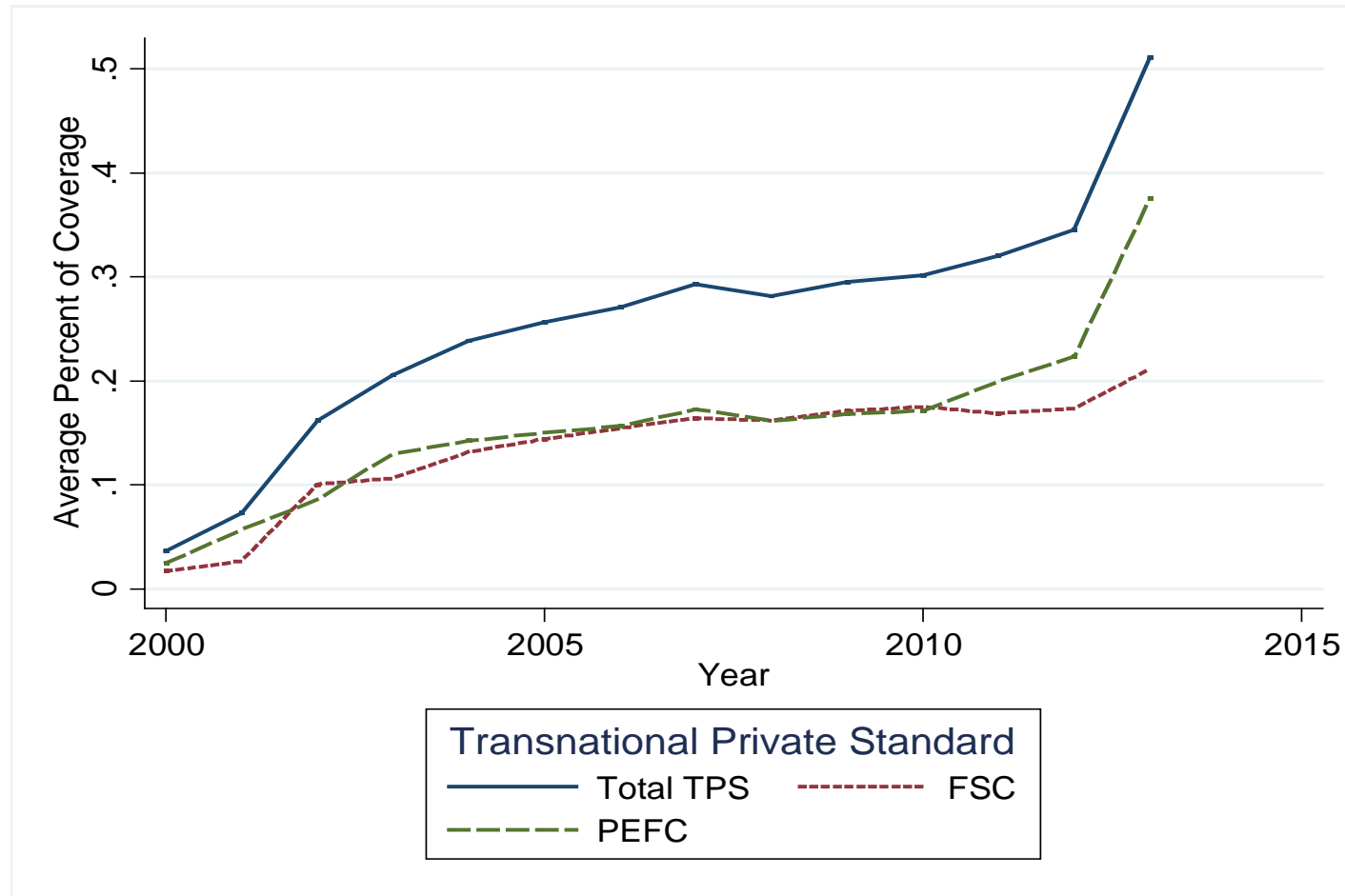
Forest Standards and Procurement Policies

- Government Procurement (Purchasing) 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)



Hypothesis

The adoption of sustainable forestry certifications by firms in the forestry sector has led to stronger regulation in government purchasing policies.

Dependent Variable

DV₁: Stringency of Public Procurement Timber and Forest-Products Regulation

Ordinal Scale:

- No requirements / General 'Green Public Procurement'
- Voluntary requirements
- Mandatory requirements

DV₂: Time to Adoption

- Number of years from year 2000 before adopting voluntary or mandatory sustainability policies

Explanatory Variables

- (+) Percent of Forest Area certified by Transnational Private Standards
 - Proxy for resources and size of Forestry industry

- (+) Density of Chain-of-Custody certificates
 - # of certificates / Gross-Value added of Forestry Sector
 - Proxy for resources and size of forest-goods manufacturing sector

Control Variables

Institutional Variables

- (-) Number of corporate campaign finance Regulations on
- (-) Majoritarian electoral system
- (+) EU Membership

NGO Influence

(+) Policy Engagement

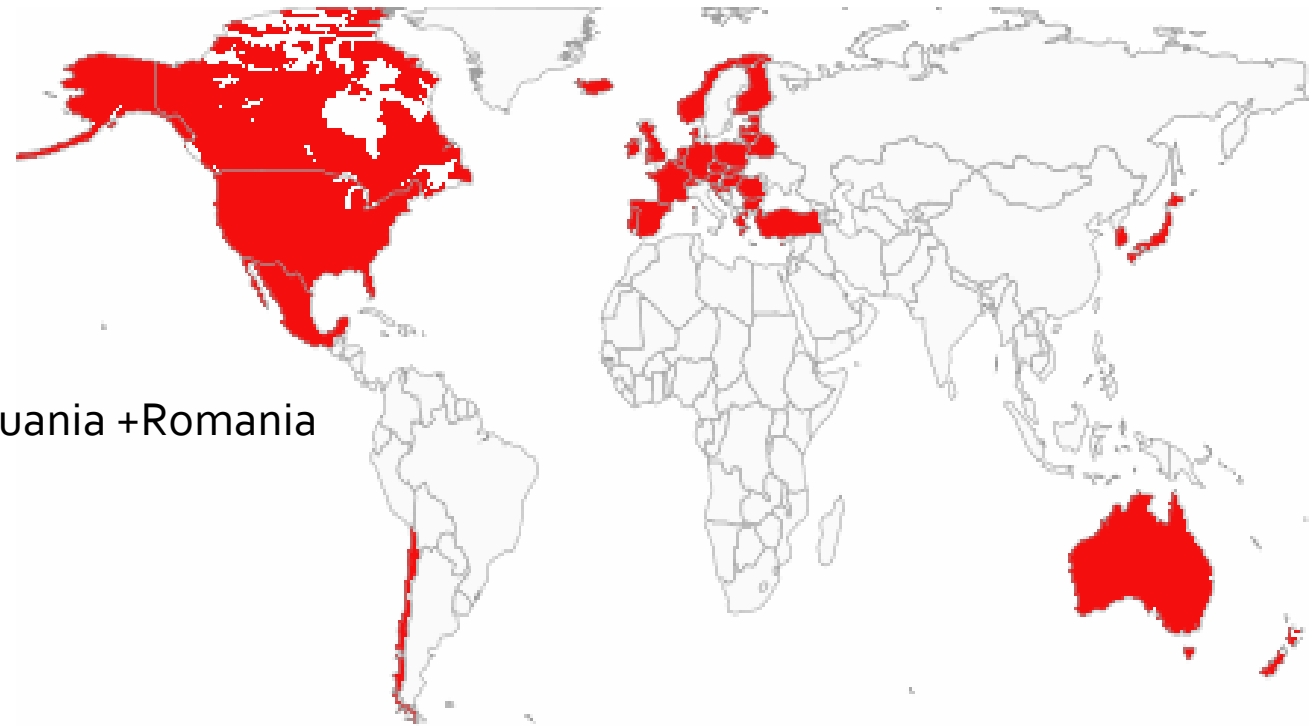
(+) Number of Environmental NGOS

Economic Variables

- (+) GDP per Capita
- (+) Forest Rents as share of GDP
- (+) Share of GDP from Forest Sector
- (-) Share of Employment from Forest Sector
- (+) Share of Imports

() Expected direction of relationship

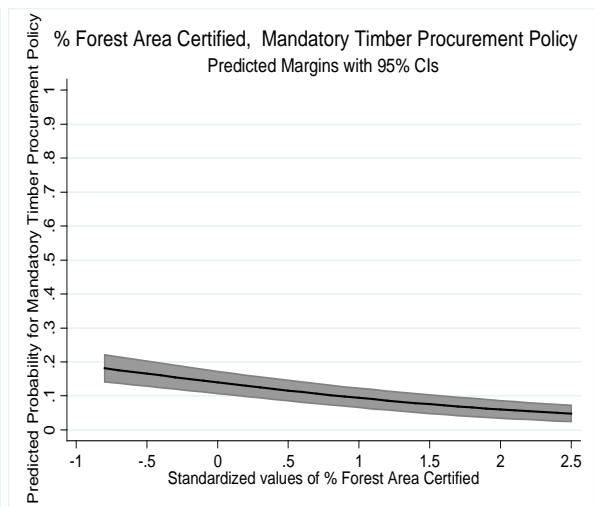
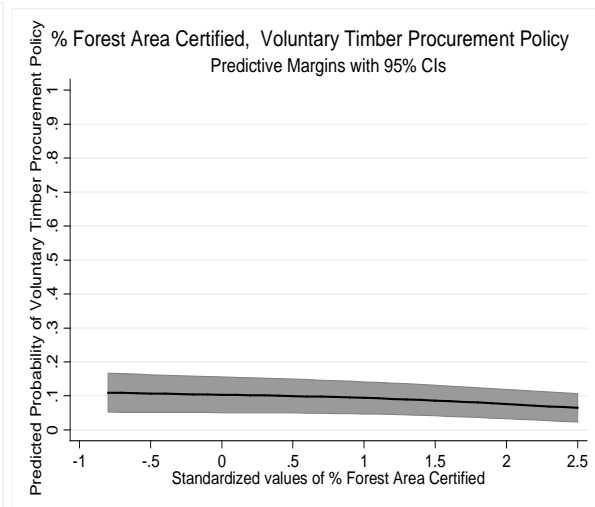
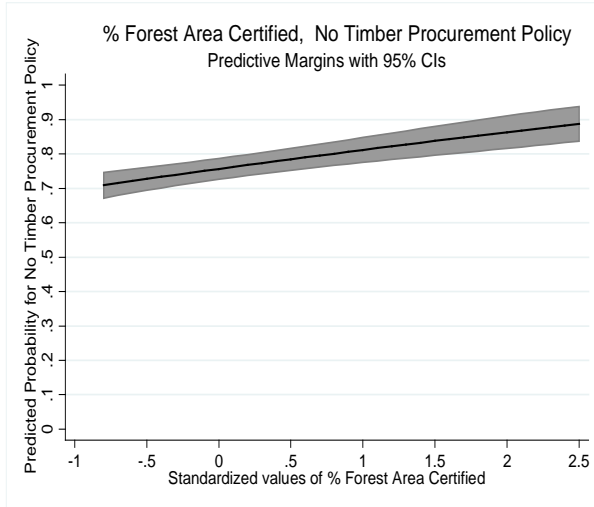
The Models



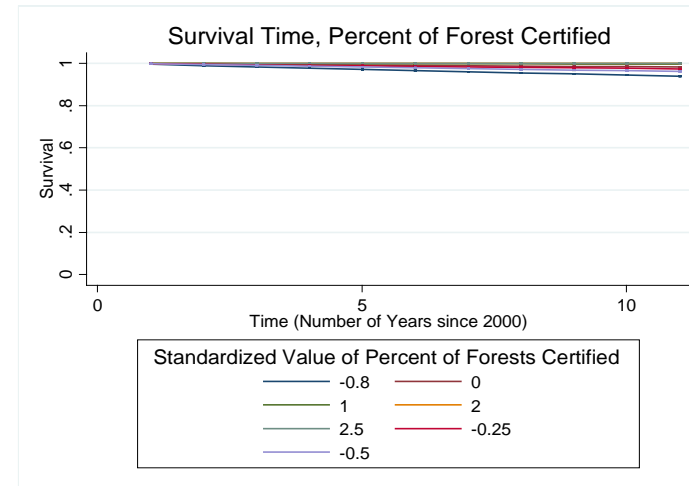
- 38 mid and high income countries
 - OECD – ITALY + Bulgaria + Croatia + Lithuania +Romania
- 456 observations
- 2000-2011 (strongly balanced)

- Random-Effects Ordered Logistic Regression
 - Include Institutional Effects
 - Variety of fixed-effects models as robustness check
- Survival model: Weibull parametric model
 - Time variant parameters included as anillary
 - Cox semi-parametric model as robustness check

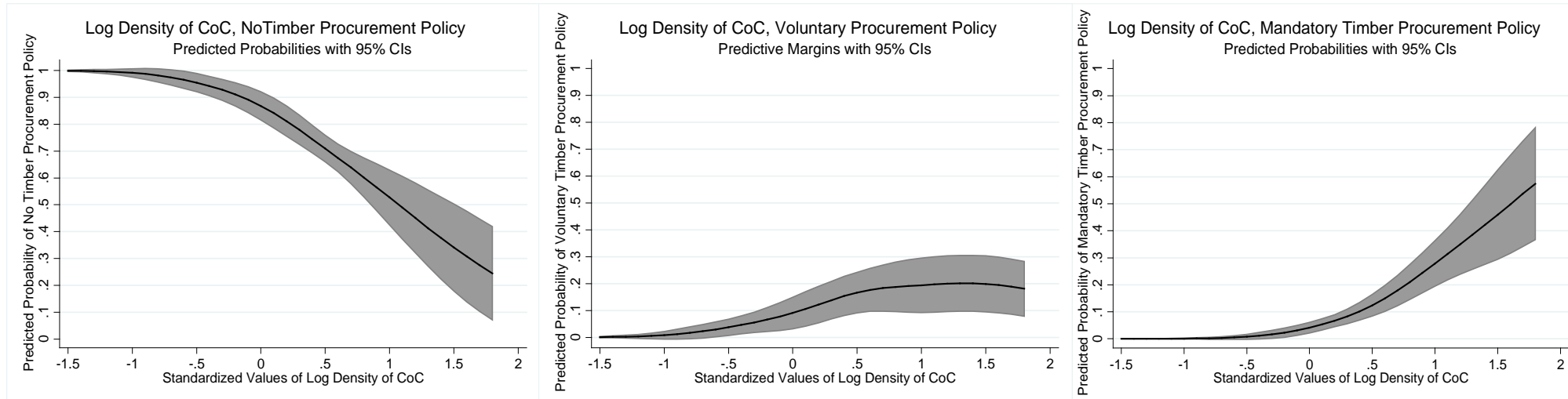
Results: Percent of Forests Certified



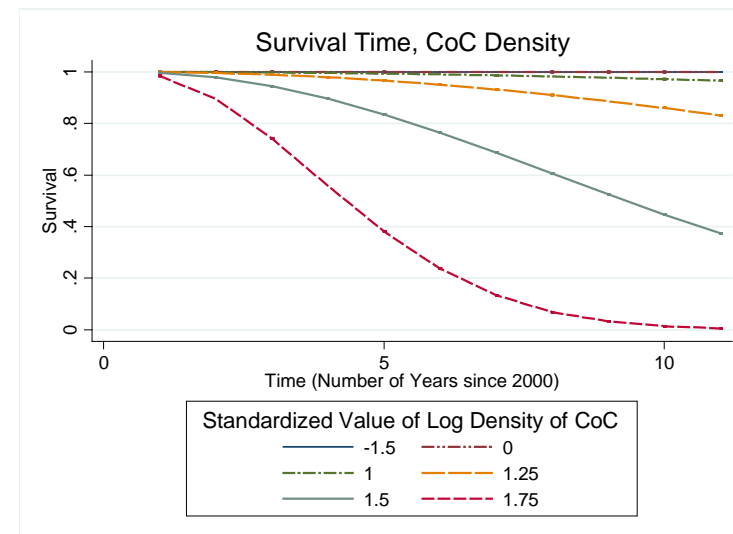
- Increase in percent of forests certified associated with slight decrease in likelihood of adoption
- Associated with later adoption



Results: Density of Chain of Custody Certificates



- Increase in density of Chain of Custody Certificates associated with increase in likelihood of adoption
- Associated with earlier adoption



Significant Results from Control Variables

Significance level $p < 0.5$ in both Survival and Random-Effects model

Variable	Relationship
Number of ENGOs	Positive
Forest Sector GDP	Positive
Forest Sector Employment	Negative
Share of Imports	Positive

Summary of Results

- Firms in forestry sector share different sets of regulatory preferences and use standards for different aims
 - Forestry industry: Adoption to maintain low regulation
 - Manufacturing industry: Adoption to increase regulation
- Influence of NGOs suggests possibility of Baptist-Bootlegger Coalitions
- Given relationship with imports, may be used as form of protectionism

Narrative

- 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
 - Created market for manufactured goods
- Some manufacturers adopt standards to meet demand



Consequence

- Heterogeneous manufacturer firm preferences on sustainability requirements in public procurement policies
- Adopters of FSC and PEFC stand to gain competitive advantages over non-adopters
 - Lobby Governments
- Evidence of lobbying in US, UK and EU by forestry sector and NGOs
 - PACs, political donations and registered lobbyists in US
 - Political Donations and registered lobbyists in UK and EU
- But, forestry industry usually does not sell directly to governments
 - Governments purchase manufactured goods

Conclusion

- The adoption of TPS by firms is associated with a change in likelihood in the adoption and the timing of Timber Procurement Policies by national government
 - Appears to be in two directions
 - Increase in Forest Industry adoption decreases likelihood
 - Increase in Manufacturing Industries increases likelihood
- Why?
 - Two separate interest groups
 - Forest sector does not sell directly to governments
 - Greater adoption by forest sector might preempt government regulation

Challenges

- Non-Proportional Hazards
 - Interactions with time
- Lack of reliability of fixed-effect ordinal models
 - New alternative fixed-effect methodologies as robustness check
- Endogeneity
 - Lagged variables
 - Alternative variables
- Next Steps:
 - Spatial lag using forestry trade dyads

Thanks to Financial Sponsors

- University of Oregon, Department of Political Science
- Global Oregon

		Random-Effects Ordered Logistic		Duration (Weibull)	
Explanatory Variables	Density of CoC	924.4***	96.77***	5.428***	815.2***
		(83.91 - 10,184)	(24.13 - 388.0)	(2.322 - 12.69)	(55.24 - 12,032)
	% Forest Area TPS	0.164***	0.283***	0.163***	0.000368***
		(0.0816 - 0.330)	(0.155 - 0.518)	(0.0431 - 0.616)	(3.45e-05 - 0.004)
Institutional Variables	Majoritarian		0.845		0.316
			(0.172 - 4.156)		(0.0677 - 1.471)
	Campaign Finance		0.913		0.389***
			(0.739 - 1.128)		(0.222 - 0.682)
	EU Membership		1.146		0.529
			(0.547 - 2.400)		(0.122 - 2.299)
NGO Influence	Number of ENGOs		6.819***		398.2***
			(1.750 - 26.57)		(22.15 - 7,157)
	Policy Engagement		1.200		9.748**
			(0.424 - 3.401)		(1.660 - 57.25)
Economic Variables	Forest Sector GDP		66.73***		1,023***
			(8.899 - 500.4)		(45.03 - 23,237)
	Forest Sector Employment		0.0125***		0.0112***
			(0.00173 - 0.0898)		(0.00152 - 0.0829)
	Forest Area		0.115***		0.129
			(0.0413 - 0.320)		(0.00692 - 2.417)
	Share of Imports		2.261**		65.27***
			(1.078 - 4.742)		(5.130 - 830.3)
	Forest Rents		0.341		0.0170***
			(0.0447 - 2.608)		(0.00182 - 0.158)
	GDP per Capita		3.629		0.706
			(0.604 - 21.80)		(0.176 - 2.837)

Goodness-of-Fit

