

Global Regulatory Agreements and Corporations: Does Innovation Facilitate Cooperation?

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RESEARCH QUESTION

What explains variation in the pace of adoption of global regulatory agreements?

ARGUMENT

- Global regulatory agreements that proscribe or limit industrial activities have an effect on businesses.
- The most innovative firms within an affected industry have incentives to push for rule adoption because they can profit from the replacement of substances phased out by the agreement (Perlman 2020).
- **The political activity of innovative firms accelerates the adoption of global regulatory agreements.**

THE CHEMICALS REGIME

- Comprised by the Basel (1989), the Rotterdam (1998) and the Stockholm Conventions (2001), these three agreements aim at regulating the disposal, the trade and the production and use of hazardous chemicals, respectively.
- The three agreements are “formally independent, but functionally dependent” (Selin, 2010). Thus, they allow comparisons in terms of their goals and stringency, while holding other attributes constant.

Innovative firms might help accelerate the adoption of formal regulatory agreements at the global level.

The most innovative firms within an industry see global regulatory agreements as a business opportunity.

This study finds supportive evidence for this claim by analyzing the chemicals regime, comprised by the Basel, the Rotterdam and the Stockholm Conventions.

IMPLICATIONS

- At the **agreement-level**, the Stockholm Convention should display a quicker pace of adoption among the three because it is the one that effectively allows innovative firms to profit from substance replacement.
- At the **country-level**, jurisdictions with more registered patents in the chemicals' industry (WIPO) should be more likely to adhere to the regime.
- At the **firm-level**, the most innovative firms within affected industries should see the Stockholm Convention as an opportunity, whereas the least innovative ones should see it as a risk.

RESULTS

	Dependent variable:	
	Days to signature	Days to ratification
Chemical Patents/GDP (log, lagged)	-5.299*** (1.814)	-0.356* (0.195)
Democracy (Polity IV)	-0.323* (0.169)	-0.056*** (0.016)
Government Fractionalization (DPI)	0.332 (2.419)	0.212 (0.313)
GDP PPC (USD, log, lagged)	3.1624*** (0.802)	0.339*** (0.111)
% Agriculture Valued Add/GDP (lagged)	0.198*** (0.076)	0.014 (0.009)
Agreement allows for substance replacement	-8.123*** (0.648)	-0.811*** (0.093)
N	300	303

Results are of accelerated failure time models that use the Weibull distribution.
Smaller coefficients mean faster time to signature/ratification to the three agreements.

Momentive Performance Materials (0.06% of patents in its industry): “Regulation of our products containing such substances by the European Union, Canada, the United States or parties to the Stockholm Convention would likely reduce our sales within the respective jurisdiction and possibly in other geographic areas as well.”

Dow Chemicals Co DEF (20.9% of patents in its industry): “The Stockholm Convention on Persistent Organic Pollutants (“POPs”), which is referenced in the proposal and which Dow supports, does not require any phase-out of current Dow products.”

- Full working paper www.carolinamoehlecke.com