

The Diffusion of Feed-In Tariff Policies

LITERATURE REVIEW, THEORETICAL FRAMEWORK AND PROPOSED METHODOLOGY

Introduction

Three Parts of Paper

1. Literature Review of Policy Diffusion
2. Proposal for use of Agent-Based Model
3. Introduction to Case Study: Feed-In Tariffs

Goals

1. To contribute to improving methodology for the study of international policy diffusion
2. Explain why Feed-In Tariffs policies have been rapidly adopted by EU countries

Definition

International Policy Diffusion is “the process by which an innovation is communicated through certain channels over time” across states.

Why do Policies Diffuse?

Null Hypothesis Conditions for Diffusion

- External Shocks (e.g. global economic crises)
- Domestic Elements (independent problem-solving)

Four Diffusion Mechanisms Identified

Dependent Variable

Micro Level: Adoption of a Policy

Macro Level: Diffusion pattern: temporal and spatial adoption rates across potential adopters

Mechanism	IVs	Hypothesized Diffusion Pattern	
		Temporal	Geographic
Coercion: Conditionality (state)	Relative power – dyads of GDP ratio	Rapid adoptions	Clustering around coercer
	Proximity		
Coercion: Conditionality (IO)	Seeking benefit from IO	Rapid adoption	No clustering
	Seeking membership		
Coercion: Hegemonic Ideas	Share of investment in research and promotion of problem	Gradual adoption	No clustering
Competition	Policies of competitors	Rapid adoption - exponential	Clustering
	Similarity in economic structures		
	Proximity		
	Common markets		
Rational Learning	Policy effectiveness in other states	Gradual adoption	Clustering
	Cultural similarity		
	Membership in IOs		
	Presence of TANS		
	Proximity		
Constructivist Learning: Norm Diffusion	Policy Effectiveness	Gradual adoption	No clustering
	Cultural similarity		
	Membership in IOs		
	Presence of TANS		
Constructivist Learning: Policymaking Paradigm	Use of epistemic communities	Gradual adoption	No clustering

Agent-Based Models

- Able to model feedback loops of mechanisms
- Construction of a ‘virtual laboratory’ where the theoretical propositions for how actors interact for each mechanism can be inputted
- Allow to test the implications – operational, not typological, analysis
- Hypothesis building

Feed-In Tariffs

- Subsidy given directly to renewable energy producers in the form of guaranteed rates for energy produced
- Rapidly become significant part of energy policies in 23/28 of EU member states, over 63 states worldwide
- Expensive and Effectiveness still under evaluation

Work In Progress

- Building dataset on Feed-In Tariff policies worldwide
- Designing mechanism dynamics of Agent-Based Model
- Evaluating whether to use spatial regression models
- Evaluating whether to use network analysis tools