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AGGLOMERATIVE MAGNETS AND INFORMAL REGULATORY NETWORKS: ELECTRICITY MARKET DESIGN CONVERGENCE IN THE USA AND CONTINENTAL EUROPE

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Overview

While the liberalisation of many formerly regulated industries like banks, airlines or telecommunications has moved swiftly into the era of competition, some infrastructure services based on networks encounter severe obstacles in the implementation of competitive markets. The electricity sector is somewhat in a hybrid position. Whereas legislators in a diverse set of countries ratified and, at least partially, implemented competitive elements especially in the wholesale segment of the electricity sector in the second half of the 1990s, many governments who planned reforms have become more sceptical about the actual benefits of power sector liberalisation – exacerbated by the regulatory failure in California – and remain outspokenly reluctant to implement any far-reaching restructuring of the industry. In addition, regulatory practices within the group of countries that have liberalised have not yet converged to a broadly accepted model of market design, and the phase of experimentation seems far from over.

The two major economic powers in the Western world, the European Union and the USA, departed with an ambitious agenda of liberalisation of the electricity supply industry in the mid-1990s. Based on apparent inefficiencies of the traditional rate-of-return regulation and consistent with economic theory emphasising the overall welfare benefits of a market-based approach (see e.g. Joskow and Schmalensee 1983), that initial parallel movement has resulted in strikingly different regulatory outcomes: The European Union's internal electricity market is plagued by horizontal and vertical market power within the member states, it suffers from insufficient cross-border transmission capacity – but it incrementally evolves into a joint market with the harmonisation and standardisation of rules and practices across countries and a strong institutional backing from the European Commission in the context of the larger project of a unified, borderless economic area. In contrast, the regulatory landscape in the United States is split between functioning and expanding competitive wholesale markets in the North-Eastern part of the country and in Texas' independent grid, a hybrid market in California, and a range of traditional service models in the South-East and North-West.

The objective of this paper is to understand why the developments in the USA and in Europe have materialised in such different shapes. For that purpose, it opens the 'black box' of regulatory competition and analyses the impact of agents and structures on the respective sector architectures: How is it possible that a geographically intertwined but culturally, linguistically and institutionally diverse group of countries without a centralised sector authority achieves a more homogeneous institutional arrangement than a single nation state with a federal regulatory agency for energy? Which mechanisms foster regulatory convergence in the EU, and how do they differ from the processes that characterise the incremental expansion of the North-Eastern market model in the USA?

Methods

This research uses a terminology borrowed from political economy and political science – and there in particular theories of regulatory competition (Tiebout's 1956, Cary 1974,

Braithwaite and Drahos 2000) – , theories of economic and judicial path-dependence, as they are part of North's (1990) and Roe's (1996) reasoning, and international business strategies (Dunning 1998). It establishes a range of propositions based on qualitative statements of stakeholders, on literature and discourse analysis.

Results

The analysis reveals substantial differences in the procedural dynamics between the USA and continental Europe. Decision-making in the EU is governed by a polity consensus about the benefits of an internal energy market, as being part of the commitment to a broad EU liberalisation agenda (Eising 2002: 114). The supra-national authority of the European Commission in the supervision of progress towards open and competitive markets is complemented by informal regulatory networks between grid operators, standardisation authorities and regulators, which fill the "regulatory gap" left to member state discretion in the directives (Vasconcelos 2005, Eberlein and Grande 2005), and epistemic communities like the Florence School of Regulation. We suggest to call this coalition "Florence Consensus."

In contrast, the evolution in the United States has drifted from an initial embracing of market principles into a diffuse spectrum of atomistic attitudes about how to proceed with liberalisation. FERC, the Federal Energy Regulatory Commission, has additionally hampered the process of convergence by the attempt to rapidly impose a standard design of "organised markets," whose efficiency is questioned as not being liberal enough by industry lobbying groups, a number of academics and neo-liberal think tanks, whereas consumer advocacy groups and public power utilities consider it an illegitimate intrusion into the regionally diverse, well adapted models of traditional supply structures. Market design convergence in the USA will therefore be constrained to the incremental, radial expansion linked to the creation of regional transmission organisations. For the foreseeable future, large parts of the United States, especially in the South-East and the North-West, will have no incentive to adopt the predominant model of the regionally most integrated markets in the North-East.

Conclusions

The paper discusses two different mechanisms of electricity market design convergence. In the EU, informal regulatory networks as part of the Florence Consensus foster convergence beyond the nation states' formal powers, while in the USA design convergence in the USA may be induced by the gradual expansion of multi-state markets operated by regional transmission organisations, following a scheme comparable to an "agglomerative magnet."

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