



European
University
Institute

ROBERT SCHUMAN CENTRE FOR ADVANCED STUDIES

EUI Working Papers

RSCAS 2010/90

ROBERT SCHUMAN CENTRE FOR ADVANCED STUDIES
Florence School of Regulation

THE INSTITUTIONAL ECONOMICS OF REFLEXIVE
GOVERNANCE IN THE AREA OF UTILITY REGULATION

Eric Brousseau and Jean-Michel Glachant

EUROPEAN UNIVERSITY INSTITUTE, FLORENCE
ROBERT SCHUMAN CENTRE FOR ADVANCED STUDIES
FLORENCE SCHOOL OF REGULATION

*The Institutional Economics of Reflexive Governance
in the Area of Utility Regulation*

ERIC BROUSSEAU AND JEAN-MICHEL GLACHANT

This text may be downloaded only for personal research purposes. Additional reproduction for other purposes, whether in hard copies or electronically, requires the consent of the author(s), editor(s). If cited or quoted, reference should be made to the full name of the author(s), editor(s), the title, the working paper, or other series, the year and the publisher.

ISSN 1028-3625

© 2010 Eric Brousseau and Jean-Michel Glachant

Printed in Italy, December 2010
European University Institute
Badia Fiesolana
I – 50014 San Domenico di Fiesole (FI)
Italy
www.eui.eu/RSCAS/Publications/
www.eui.eu
cadmus.eui.eu

Robert Schuman Centre for Advanced Studies

The Robert Schuman Centre for Advanced Studies (RSCAS), directed by Stefano Bartolini since September 2006, is home to a large post-doctoral programme. Created in 1992, it aims to develop inter-disciplinary and comparative research and to promote work on the major issues facing the process of integration and European society.

The Centre hosts major research programmes and projects, and a range of working groups and ad hoc initiatives. The research agenda is organised around a set of core themes and is continuously evolving, reflecting the changing agenda of European integration and the expanding membership of the European Union.

Details of this and the other research of the Centre can be found on:

<http://www.eui.eu/RSCAS/Research/>

Research publications take the form of Working Papers, Policy Papers, Distinguished Lectures and books. Most of these are also available on the RSCAS website:

<http://www.eui.eu/RSCAS/Publications/>

The EUI and the RSCAS are not responsible for the opinion expressed by the author(s).

Florence School of Regulation

The Florence School of Regulation (FSR) is a partnership between the Robert Schuman Centre for Advanced Studies (RSCAS) at the European University Institute (EUI), the Council of the European Energy Regulators (CEER) and the Independent Regulators Group (IRG). Moreover, as part of the EUI, the FSR works closely with the European Commission.

The objectives of the FSR are to promote informed discussions on key policy issues, through workshops and seminars, to provide state-of-the-art training for practitioners (from European Commission, National Regulators and private companies), to produce analytical and empirical researches about regulated sectors, to network, and to exchange documents and ideas.

At present, its scope is focused on the regulation of Energy (electricity and gas markets), of Communications & Media, and of Transport.

This series of working papers aims at disseminating the work of scholars and practitioners on current regulatory issues.

For further information

Florence School of Regulation

Robert Schuman Centre for Advanced Studies

European University Institute

Via Boccaccio, 151

I-50133 Firenze

Tel.: +39 055 4685 751

Fax: +39 055 4685 755

E-mail: fsr@eui.eu

<http://www.eui.eu/RSCAS/ProfessionalDevelopment/FSR/>

Abstract

Regulation of utilities in the XXI Century is challenged by the fast pace of change notably the acceleration of innovation, the restructuring of industry as sets of modular chains and the spreading of new information and communication technology. Living in this world of rapid and renewed changes regulators are also challenged by the basic characteristics of their institutional embeddedness. In the real world, far from being the alpha and the omega of regulation, regulators only act in a multilevel and multichannel frame of regulatory institutions. However regulators can bring a core piece of "reflexive governance" to favour the new industry and institutions' changes. It is by building "knowledge platforms" on an "open forum" model.

Keywords

Reflexive Governance; Regulation; Knowledge Platform; Open Forum; Innovation.

Introduction

Regulation of utilities in the 21st century is challenged by the fast pace of change, notably the acceleration of innovation, the restructuring of industry as sets of modular chains and the spreading of new information and communication technology. Living in this world of rapid and renewed changes regulators are also challenged by the basic characteristics of their institutional embeddedness. In the real world, far from being the alpha and omega of regulation, regulators only act in a multilevel and multichannel frame of regulatory institutions.

I. The New Industrial Challenges of Utility Regulation

The past twenty-five years of “new economics of regulation” (Laffont-Tirole) are already seriously questioned by the evolution of industry and the economy. Notably the changes pushed by three factors: 1° innovation, 2° modularity and 3° the new information and communication technology.

I-1-1 Innovation Innovates

Innovation is said to be “à la Schumpeter” when changes or disruptions are pushed by suppliers as innovation of technology or marketing. A new form of innovation is now pushing aggressive ways of changes. It can be said innovation is “à la Internet Community” because it is an innovation process co-produced by the two sides of the market (suppliers and consumers) and then produces multi-sites. It is based on innovations of uses co-produced by interacting suppliers, intermediaries and users.

I-1-2 Innovative Consequences for Regulation

Firstly it brings new uncertainty and new asymmetries. In these new innovation processes, the knowledge asymmetry is much more consequential than the classical “Laffont – Tirole” information asymmetry. It is because the asymmetry of knowledge forbids the conception of a “mechanism design” to get the information detained by the other agent. You cannot “buy” with an incentive scheme what you do not know, what you do not conceive, what you do not learn.

Second the “ruling” (i.e. the process of producing rules) shapes that innovation process. Of course the innovation process is producing a shape of evolution for the industry. However innovation itself shapes as much as it is shaped by: 1° the design of property rights actually at work among agents and 2° the architecture of interaction rules applied to the tasks that these agents perform.

I-2-1 Modularity Structures and Coordinates

The reconstruction of industries as chains of semi-autonomous modules is another structural factor of industry change. That new modularity packs network interaction and innovation into defined chains of modules. Each of these related modules is a sub-set of “deep local interaction of open tasks”. At the other end all the modules are connected to some other tough, precisely defined “interfaces” which reduce the intricacy of interconnection to a simple “plug and play”-like relationship.

I-2-2 Modularity Structural Consequences for Regulation

Of course industry modularity simplifies the regulatory action plan because it provides both general openness of the whole chain while being compatible with a substantial local innovation.

But it always risks uncontrolled evolution of the modules or of a non optimization of the whole chain of modules (discrepancies, redundancies, bottlenecks, etc). The key here is the proper design and

redesign of modules and of their interfaces. Hence the key is the process which produces the modularity of the industry by defining the modules and their interfaces. Another serious risk is the capture of interfaces by special interests. It hence closes the openness of the chain and it creates the ability to control and hinder innovation. The last big risk is one of chain dead-lock where agents lose control of their ability to link flows of innovations along the chain.

I-3-1 Information and Communication Technology

ICT revolutionizes the whole of economy and society by providing timely and ubiquitous access to information. It gives access to both the current and the past signals and permits them to be kept in an organized data base. It opens a permanent ability to optimize processes in real time. It also offers to track processes ex post. It creates both an efficiency loop and a facility to exert monitoring.

I-3-2 ICT Consequences for Regulation

ICT boosts efficiency, reactivity and ability to generate knowledge through algorithmization. But it is not in itself a complete miracle of transparency and of accessibility. Both production (coding & transmission) and use (decoding) of information signals depend on 1° the given architecture of modules and interfaces which delineate the areas of tasks interaction and 2° property rights and ruling capability which decide the information rights: who does what and how, who accesses what and how. Automation of information also spreads the risk of over reaction and of self-fulfilling catastrophic evolution when automated systems bypass ignorant monitors.

I-4 The Organizational Challenges for Regulators

Innovative chains of modular utility industry are characterized by the lack of central comprehensive knowledge. This lack of knowledge prevents any central design of procedures guaranteeing an efficient general coordination. It is well known since the now classical Aoki's analysis of A (American)-firm vs. J (Japanese)-firm as two alternative ways to manage information (in fact knowledge). The major problem of the centre in A-firm is to concentrate knowledge (as does the Mintzberg's or Taylor's technostructure). It is not an issue of asymmetric information. It is an issue of knowledge: who knows and who does not.

The actual lack of central knowledge is deeply rooted in the fragmentation of rights and of usages. Today's decentralized process of innovation fragments knowledge in multiservices utility network. It is well exemplified by an information infrastructure like the Internet and all its indirect impact on civic, cultural, social, and economic domains of life.

II. Regulators Embedded in Constraining Institutional Frames

Living in a world of rapid and new changes, regulators are also challenged by the broad characteristics of their institutional embeddeness. Regulators only act in a multilevel and multichannel frame of regulatory institutions. It seems then obvious that regulators are not really well "institutionally" equipped to deal with the coordination of network industries fragmentation or the ruling / re-ruling of innovative modular chains.

II-1 "Regulators" are embedded in a multilevel and multichannel regulation-making frame.

Regulation is not produced and implemented on a single regulatory level covering the entire utility industry ruling. This industry still produces its own self-regulation, particularly for the security or the technical coordination of network operations (typically: Grid Codes). Other layers of regulation are produced at the national level (the level of the "standard" regulator – while Belgium and the USA also

have lower regional regulators) or at the upper European level. It raises a substantial coordination issue among these three to four levels of definition and implementation of regulatory rules.

Furthermore regulation is not produced and implemented solely by the regulators. Parliaments define applicable laws. Governments issue decrees or retain regulatory decision powers. Courts review regulators' decisions. Competition authorities hit and run in the regulatory domain (in the EU; not in the US where the "Trinko" doctrine of the Supreme Court gives precedence to utility regulation vis-à-vis competition policy). In the EU the "federal" DG Competition can also frankly contradict national regulatory decision (like with the Deutsche Telekom case) or use competition case settlements to rearrange the regulated industry through "voluntary remedies" (E.ON, RWE, Electrabel cases etc.). The issue at stake there is really serious too. It is the one of consistency among these various channels of "parallel" regulatory actions.

II-2 Extensive "Political Economy" of Regulatory Decision Making

The variety of levels and channels of regulatory decision making opens a wide area to strategic actions by the multiple groups of interest characterizing our "open" post-modern societies. These groups can develop a complete "strategic lobby-isation" of all public decision making including certain appeals to Court and Competition Authority which are used as proper lobby tools alternatively to political or social lobbying. The existence of this very wide arsenal of strategic political economy tools raises an issue of the controllability of public decisions. It extends to foresee-ability and consistency of public decision at different levels as in various channels (for example: in France, as in Germany, the sensitivity of the Senate to groups of local interest differs substantially from the one of the Chamber).

What are the positive functions that a regulator can perform in this very political arena?

Firstly the regulator is there to find how to implement the "basic ruling" being designed by the legislator (in a coalition made of a government and a majority of the parliament). That two-stage implementation process can improve the feasibility and the efficiency of the law because the regulator can remedy the lack of specialised knowledge from the legislators and their high sensitivity to pure political strategic lobbying.

Secondly, regulators can do even more when acting as "ex post minimizers" of errors introduced by an excessive politization of the law. It is not too different –as a principle- from a judge weakening a new law in the name of former laws or a higher level law principle. By doing so regulators "softly re-design" law packages to make them work despite their 'political economy initial design'

Their ability to act in such a manner crucially depends of the actual "political economy slack" of the institutional system. Sometimes political economy does not provide enough "slack and regulators are stuck in a straight corridor of vetoes leading to "dead-lock" industry ruling. It was the case in the California electricity crisis where the multiple vetoes on the redesign of the system for three quarters impeded a remedy with such obvious failures.

Thirdly, very few regulators are able to really act at ease in the field of "soft redesign" of public decision making. To do so regulators should foresee the consequences of continuous innovation (technology, marketing and usages) while guaranteeing the economic sustainability of network operators' activities. They should anticipate the new interactions across modules and interfaces. They should define a hierarchy and a degree of obligation to the rules (including the acceptable delays in implementing them).

Fourth, all of this seems to be very demanding. It is because regulation is at a crossing of multi-players and multi-stake games. It acts at the interplay between stakeholders' interests (holding property rights therefore veto right), government, and its weakness to credibly commit in the long run, plus a kind of "common good" or "general interest" (sometimes with 'non-national' dimension like in

the area of Climate Change). Of course it covers all the redistribution issues of “utilities” policy among users and society constituencies.

III. Toward a New Type of Regulatory Institution?

Regulators are constrained by their relatively weak position in a straight political economy game plaid by agents in a multilevel and multichannel regulatory decision making process. One could think that they are very badly equipped to play a significant role in implementing regulation in a quite complex modular industry chain or to adapt it to a rapid pace of innovation or of rejuvenation by ICT. However the particular type of weakness characterizing regulators also explains why they could play a significant role there.

III-1 The Need for Benevolent Public Rulers

Given the huge stakes in innovation and ICT and the fragmentation of a modular industry, the utility network governance (ruling and ordering) needs a disinterested middleman to reconcile interests, and a neutral “third party” judge to settle conflicts.

This might call for a judicialization of regulation (similar to special labor judges). The regulator is typically a builder of the general/common interest platform, because it is a “public” entity with a legitimate delegation of public authority to do so.

Regulators have two typical characteristics that are relevant for the ordering of regulated chains of industry. First they act as a “civil servant” separated from politicians’ authority; they are a priori interest neutral and not playing for political gains. However they are a “public delegation” holder and retain an asymmetric administrative power vis-à-vis the regulated industry and other agents. This zone can be larger or smaller but it always exists if regulators are regulating authorities.

Hence the need to take into account the behavioural economics of regulators and to open the regulatory authority black box to understand how they could contribute to the governance of an innovative network of markets and industry.

Behavioral Economics of Regulators

Firstly regulators act as “independent civil servant” being a priori neutral among particular interests. That neutrality gives them the ad hoc “incentive” and provides a “credible guarantee” to be a knowledgeable aggregator across the various communities and beyond lobbying interests. Regulators can provide a platform where all sides can be played from to build a common knowledge and share some beliefs. Active and agile regulators nurture a “vision” of the future of the “industry community”.

Secondly, regulators are “public delegation holders”. Of course all utility players rely on their property rights to build their rents and hinder competition. But they also need a third party capable of ruling the industry platform in the “general interest” of players. It is true that regulators are not “law makers”. They are more an “agenda setter” in the implementation process. It is only a soft power while it is sufficient to influence the platform play as it decides the timing and the order of new ruling in a modular chain of interdependences. On that platform regulators can act as processors of “truth revelation information” since they can retaliate against those cheating too much. To influence the process, stakeholders are incited to reveal something to influence the ruling. This gives a value added to playing in the platform play.

Biased Preferences of “Independent” but National Regulators

Regulators are more or less independent across the EU (or across Canada, India or the US). In the EU like in the US they appear to behave as risk minimizer agents. Regulators appear more risk adverse

than politicians (there are always politicians fighting to gain power and positions) while less risk adverse than Competition Authority and Court which are much more constrained by a “blind” observance of due process of law. However regulators are not protected from the threat of public opinion and politicians strongly reacting to certain types of trouble and crises. Hence the regulators’ fear of political tornados. On the other side, public opinion and politicians are not very sensitive to day to day over-cost or “misalignment” of the market and the industry.

As a consequence it is very likely that regulators would be more sensitive to certain lobbies that propose solutions to “stabilize” the industry trajectory or the usages’ change path because it avoids possible visible failures. Regulators could even be too sensitive to certain strong players (not necessarily the industry incumbents) or those able to trigger systemic effects.

At the same time, regulators are weak as compared to the executive or to the judiciary. They enact second-level or third-level rules in the hierarchy of legal norms. And their decisions can be reversed by the judiciary.

Regulators favour “non-global” welfare. Being organized on a national basis and being accountable (at best) only for their domestic territory only, regulators have no incentives (beyond means) to take into account any “global welfare” to rule by coordinating internationally. Even for obvious cross-border issues. It is worrying in the EU because we lack a pan-European regulator. We do hope that the grouping of national regulators as a “European network” named ACER could slowly attenuate that feature.

III-2 What Could Regulators Bring to the Picture? Open fora

First of all, reasonably enabled regulators can provide open fora to the innovative chains of modular utility industry. They can push to build social “knowledge platforms” in the open forum model.

How does this address the three issues of innovation, modularity and ICT?

Firstly, innovation. The utility industry would be kept more open to innovation hurricane through knowledge sharing. The sharing of knowledge reduces the “anti-commons” dilemma resulting in insufficient cognitive coordination which hampers the extensive building of knowledge. The “posting” of knowledge across communities also acts as an “anti-Microsoft” security net by giving access to knowledge by keeping knowledge open.

Secondly, modularity. The definition or adaptation of interfaces is facilitated by a convergence of vision. The soft “sunshine regulation” operates with a public negotiation of new interfaces. It guarantees the “reconfiguration openness” with early codified release of interface characteristics, providing more competition and readiness.

Thirdly, ICT. ICTs spreading on open fora reinforces the ability to design a better information and measurement system. Open fora permit better following (“anticommons”) and better monitoring (“antiGoldmanSachs”). It improves the ability to manage crises thanks to ex-ante coordination capability provided by databases on former events and a real time monitoring of “accurate” flows.

Coordination among National Information Fora

In the EU, an international forum of regulators’ fora can enhance the international capability to rule and to harmonize existing rules, even when those rules are still produced at a sub-optimal multilevel design (the famous European “regulatory gap”). One of the advantages of regulators is that they can partly bypass the complexity and the difficulty of political bargaining associated with European law enactment, because they mainly make decisions (not laws) while these have a strong “technical” legitimacy to do so. They might then de facto rule. At an international level (typically the EU level), it is difficult to settle the strong conflicts of national norms at the political level. Enhanced regulators can provide legitimate “technical” solutions to cross-border discrepancies and coordination needs. In

the energy sector there is a surprising role taken by the European forum of stakeholders and the European network of regulators because a formal European law is always difficult to be enacted. In the multi-channel dimension of European regulation, it is so because European anti-trust, while being very active in the regulatory area, is still unable to build new markets rules and needed mechanisms of integration. Anti-trust is only aimed at curbing “illegal” behaviors, and cannot go into the details of coordination needs or cannot address the general consistency of interactions among heterogeneous agents. Antitrust authorities are not able to punish for default of coordination or closeness of norms when no essential facility or no dominant player is at stake.

An international forum enhances national capability to rule in the regulatory area. It permits crossing experiences, allowing to learn and benchmarking national practices. It could help to better monitoring or “scanning” of trans-national operators.

Conclusion

The building of institutional framework of markets in regulated utility industries is not only “multilevel” but also “multi-channel”. It sensibly complicates the definition and the implementation of regulatory rules in innovative chains of modular utility industry. However it does not make regulators obsolete or not welcome. On the contrary regulators are needed two times. The regulator is complementary to the legislator, the executive and the judiciary, i.e. those in charge of designing and implementing public constraints. The regulator is also complementary to the players, i.e. those that can implement self-regulation to expand the order of their self-interest.

This institutional complementarity is twofold. First it is a functional complementarity: the regulator does what the other entities (parliament, government, antitrust-authority, judge) can likely not do well. The regulator has a “do-it-yourself” dirty craft work which is her rationale. Secondly it is informational and cognitive. By experimenting and assessing on the basis of open fora, regulators facilitate knowledge building and sharing, both within the industry and among the various players of the institutional game. This capability of building a “knowledge platform” on the specificities of utility industries and markets also plays as a strong rationale. An ideal regulator plays well in these two dimensions. A “far from the ideal” regulator is far from playing this well.

Authors contacts:

Jean-Michel Glachant

Loyola de Palacio Professor in European Energy Policy and Director of Florence School of Regulation

Robert Schuman Center for Advanced Studies, EUI

Villa Malafrasca

Via Boccaccio, 151

I - 50133 Firenze (FI)

Email: jean-michel.glachant@eui.eu

Eric Brousseau

Université de Paris X

Bâtiment K : Maison Max Weber

Bureau K 110, Bat K,

1er étage

200 avenue de la république

F-92001 Nanterre Cedex

France

Email: eric@brousseau.info

