

# Independent Regulatory Authorities in Europe



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## **Abstract**

Liberalisation of the electricity market has taken place in most European countries within the last decade. It is considered a precondition of successful liberalisation to establish so-called independent regulatory authorities. In this article we try, theoretically, to explain why independent regulators have become so widespread, and we compare the status and practice of them in 16 European countries.

Most of the countries have chosen to create sector-specific independent regulators combining the independence from commercial interests with separation from the ministerial administration. However, there are large differences between these regulators with respect to organisation, competencies and practice. Such differences can partly be explained by their very dissimilar national background, which can also help to understand the variety regarding the outcome so far of liberalisation.

## **1. Introduction**

In recent years, the European markets for electricity have been undergoing large changes due to the European Union's decision to create an internal market for electricity through the gradual opening of the national electricity markets. The purpose of this article is to discuss an important aspect of this liberalisation process, namely the establishment and development of electricity regulatory agencies.

In the European Directive from 1996 charting the course of the liberalisation of European electricity markets very little was said about this issue<sup>1</sup>. In 2003, the European Council and Parliament issued a new directive on the common market for electricity, repealing the directive from 1996. Unbundling requirements are sharpened, and all member states are required to establish an arrangement, where third-party access to distribution and transmission systems is given on the basis of non-discriminatory and published tariffs. Unlike the 1996 directive, the new 2003 directive is much more explicit on regulatory authorities and their duties and has been followed by the formal establishment of a European Regulators Group for Electricity and Gas to work in close cooperation with the European Commission (see European Parliament and Council, 2003; and European Commission, 2003).

These regulatory agencies play an important role in the implementation of the directive and the establishment and development of a competitive European electricity market. The liberalisation process has meant that in member states, like Denmark,

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1 "Member States shall designate a competent authority, which must be independent of the parties, to settle disputes relating to the contracts and negotiations in question. In particular, this authority must settle disputes concerning contracts, negotiations and refusal of access or refusal to purchase." (Article 20, paragraph 3, European Parliament and Council, 1996).

where regulatory commissions have been built on corporatist representation, the market participants can no longer have seats in the regulatory commission. In other member states, like France, where state-owned public monopolies have prevailed, the liberalisation necessitates a clear separation of the state as regulator and the state as owner of public utilities, either through privatisation or through the establishment of independent regulators or both. Most EU member states have chosen to create sector-specific independent regulators combining the independence from commercial interests with separation from the ministerial administration.

Taking this development into account it is interesting to investigate why such independent regulatory agencies emerge (section 2) and which particular problems they face (section 3). Although we talk about independent regulators as a well-defined phenomenon, the term actually covers a wide range of different institutional and organisational arrangements that are discussed in section 4. An empirical analysis of European regulators with respect to independence, regulatory objectives and competencies is presented in section 5. In section 6 it is demonstrated that because of very different institutional traditions there is no simple relationship between the member states' choice of regulatory set-up and the development of competition on their electricity market.

When analysing the formal rules governing energy regulators in relation to their context, we have chosen only to focus on their capacity as regulators of electricity markets. The investigated regulatory authorities generally also regulate gas markets, but their responsibilities for gas markets are of a more recent date. In section 7 we discuss the result. We only include the 15 old members of the EU together with Norway in the study.

## **2. Why independent regulators?**

There are several normative arguments for creating independent regulatory authorities. A classic economic justification for regulatory intervention in the liberalised power market is market failure, e.g. the existence of natural monopolies (Breyer, 1998). In electricity, transmission and distribution networks remain natural monopolies, and regulators must guarantee that all competitors have access to these networks as well as oversee that resources are spent economically in the

monopolistic part of the sector. In order to provide the monopolist companies with incentives to keep their cost low and operate the utilities in an efficient way, regulations of their rate of return, permitted income or similar regulations, are put in place (Olsen, 1993; Crew, 1991; Olsen et al., 2000). Security of supply, e.g. by preventing that excessive competition in one period of time leads to a situation with insufficient supply later on, is another important concern (Stern, 1997). The protection of small consumers against price discrimination, i.e. regulation motivated in concern for social fairness and redistribution, may also be an important regulatory task, just like interventions motivated in externalities – typically environmental problems – or insufficient information and transparency in the market (Stern, 1997; Olsen et al., 2000; Olsen 1993).

Although correcting market failure is often the most important task for independent regulators, the main reason, why they are given independence, is their role in limiting ‘government failure’. In a European context, the independent regulators have often replaced public ownership as a means of control, and the separation of the state as owner or potential seller of utilities, and the state as regulator is important for the liberalisation process to be credible (Majone, 1996). Thus, those in favour of independent regulators often stress that such regulators can limit political interference in business decisions and regulatory risks.

According to European adherents, the advantages over other kinds of regulatory institutions include enhanced expertise and flexibility due to the combination of rule making and rule application in a particular field, a combination which would be inappropriate for courts or an executive department. But they are also expected to stimulate debate and handle hearings and other relations to the public with more ease than other institutions, as they are not dependent on appealing to the electorate. This is also the reason why they are said to promote stability and continuity (Majone, 1993; Demarigny, 1996). Thus, the independent regulator is expected to increase the credibility of the regulation, and that credibility is crucial for a successful liberalisation process (Majone, 1996).

The decision to delegate competencies to independent regulatory authorities can also be explained in rational choice terms. From the point of view of self-interested politicians, seeking to maximise their own power and popularity, different

kinds of functional pressure can provide increased incentives to create independent regulatory authorities and delegate decision-making competencies to them. Thatcher (2001) mentions four typical kinds of functional pressure: 1. Blame shifting, 2. The technical nature of regulation, 3. Regulation as the implementation of EU policies, 4. Credibility. The first kind of functional pressure, blame shifting, arises when it is politically convenient for the legislators to delegate competencies because it allows them to shift the blame for unpopular decisions or unsuccessful implementation processes to the independent regulator. The technical nature of a regulatory field can also act as a pressure for delegation in at least two ways: Firstly, because there are real problems with asymmetric information which demand great expertise of the regulator, and secondly, because when politicians delegate, they get rid of complicated and boring tasks without much appeal to the public.

The same argument goes for regulatory tasks, which are part of the implementation of EU policies, as the implementation of EU policies is often rather complex and rarely gives the politicians an opportunity to produce clear benefits for their voters. Thatcher (2001) mentions the problem of credible commitment as a fourth functional pressure. In order to handle the problem of credible commitment politicians can delegate decision-making power to show that they are so committed to the policy that they are willing to prevent both others and themselves from intervening and obstructing the implementation of it. Thatcher's study indicates that both functional pressures and contextual factors can contribute to explaining the variation in both the decision to delegate competencies to independent regulators, the extent of competencies delegated to them and the degree of autonomy that they enjoy. Thus, decisions on delegation to independent regulatory authorities can be explained as a result of interactions between self-interested politicians making rational choices and institutions mediating functional pressures.

The “classic economic justification” and the rational choice explanation for creating a regulator have elements in common. The regulator of the classic-economic perspective needs credibility to be able to handle the important issues. And if the rational politician really wants to show his commitment to the liberalisation and competition by installing an independent regulator, he too needs to give the regulator credibility and independence.

### **3. Problems of Regulatory Independence**

Three important critiques of independent regulatory authorities have also been raised. They concern regulatory capture, accountability and legitimacy.

#### ***Capture and Asymmetric Information***

Some authors argue that independent regulators are particularly vulnerable when it comes to agency capture and the establishment of rigid structures (Mitnick, 1980; see also OECD, 1999). One reason is that the turnover in staff is limited due to the technical specialisation of sector-specific independent regulators. The lack of turnover means that many things come to be taken for granted and the staff tend to over-identify with the regulated party. This problem is amplified by the fact that such regulators rarely have an active »public constituency« to supply feedback pressure (Mitnick, 1980). Others, however, argue that the independent sector-specific regulatory authorities in general are more likely to be able to match the expert knowledge of the regulated industry and limit the problem of asymmetric information (Majone, 1996). Organising balanced consultations or hearings may be a way to limit the risk of capture, provided that all relevant interest groups are willing and able to participate on an equal footing. The choice of regulatory approach can help solving this problem such as the substitution of cost-plus regulation by incentive regulation, which requires less information about the cost function of individual companies.

#### ***Accountability***

Independent regulatory authorities have also been criticized for being unaccountable. In the UK, where the decision-making competence formerly was personalised and lay with the Director-General (DG), critics claimed that the DG had become too powerful and autonomous, but similar concerns have also been discussed in relation

to commission-type independent regulators (Graham, 1998; Stern, 1997; Stern and Holder, 1998; Majone, 1996; Thatcher, 1998). Majone (1996) and Hall, Scott and Hood (2000) all stress that the concept of a completely autonomous and absolute regulator may be very far from the practical reality of independent regulators. In real life, even if nobody controls the regulators completely, independent regulators have to co-operate with numerous actors including both government institutions and the regulated industry. Therefore, independence and accountability need not be totally incompatible concepts – especially if we broaden our concept of accountability to include more than direct control by Parliament. Among the sources of accountability is unambiguous primary legislation limiting the discretion of the regulator, the existence of an appeals mechanism, formal rules prescribing the use of fair and acceptable procedures and justification of methods and decisions by the regulator.

Several studies suggest that more informal measures of accountability are at least as important as these formal measures in practical life. Both Stern (1997) and Hall, Scott and Hood (2000) stress that reputation for doing a decent job as a regulator is more important than formal legitimacy and independence. Stern (1997) and Thatcher (1998, 2001) also note that UK regulators have used transparency and »answerability« as an important strategy to meet the demands for more accountability. Applying normal rules of »good governance« and making public hearings may also improve the informal accountability without compromising the regulator's independence.

### *Legitimacy*

In spite of all the possibilities to increase their accountability, independent regulators lack the solid kind of democratic legitimacy that comes from being elected by and accountable to an electorate. Independent regulators are often seen as constitutional anomalies (Majone, 1996; Colliard and Timsit, 1988). The arguments in favour of independent regulators generally build on some implicit or explicit assumption that independent experts will make decisions based on rationality, balancing divergent interest and thus favouring the common good or the public interest (Hall, Scott and Hood, 2000). Independent regulators are assumed to incarnate impartiality, expertise and rationality unblemished by dirty party politics. That is the legitimacy on which

independent regulators are originally founded.

The notion that the independent regulators serve the public interest better than self-interested politicians and bureaucrats has been rejected as naive for many decades (Mitnick, 1980; Crew, 1991), but it is, nonetheless, still the kind of argumentation which is used by adherents, and a theoretical argument supporting this idea can be derived from game theory (Milgrom and Roberts, 1992). The argument goes that in a repeated game, reputation is important even for self-interested actors, and that reputation for rationality, fairness and impartiality is more important for experts than for politicians (having a short time horizon) and bureaucratic generalists (being less visible). As experts have the most to lose from a ruined reputation, they are less likely to cheat, simply because it is in their self-interest to protect their reputation. While the creation of independent regulators is defended as a necessary condition for the realisation of a credible liberalisation and privatisation process by some authors (Majone, 1996, 1997), others state that their independence makes the regulators too powerful and jeopardizes the democratic accountability of the regulatory process (Graham, 1998). Still others suggest that the legislature delegates regulatory powers to independent agencies, because in this way, they can actually maximize their own influence, given uncertainties, limited time resources etc. (Horn, 1995; Moe, 1990). Thus, whether regulatory independence is beneficial or problematic and why regulatory independence has become fashionable is still a matter of dispute.

After discussing the major pros and cons of regulatory independence we now turn to prescriptions for independent authorities in order to be able to identify and measure different dimensions of regulatory independence.

#### **4. The Concept of Regulatory Independence**

There are many different recommendations by economic expert institutions and other academics regarding independent regulators and regulatory independence. Their link to theory is not always clear, but looking at them in hindsight they try to install regulators with credibility and in this endeavour they focus on various threats.

Fesler's definition captures what most authors seem to understand by regulatory independence in the field of utility regulation. He states that regulatory inde-

pendence is often used in the meaning »independence of control by the governor and legislature, independence of control by utility companies, and independence in the sense of integrity and impartiality« (Fesler quoted in Mitnick, 1980:69). Fesler's definition stresses the independence not only from government, but also from the regulated parties, ruling out traditional corporatist arrangements. The emphasis on intangible qualities such as integrity and impartiality is quite in line with other scholars like Stern (1997) and Teitgen-Colly (1988: 26-27), who point to the role of independent regulators in balancing interests and making all parties understand the rules of the game.

In his definition from 1997, Smith mentions three dimensions of regulatory independence, which are much in line with Fesler's stress on independence from government, independence from stakeholders and integrity (Smith, 1997).

In the following we will elaborate on these three dimensions of regulatory independence.:

1. An arm's-length relationship with the government, which will also include features of organisational autonomy such as earmarked funding and the exception from restrictive civil service salary rules.
2. An arm's-length relationship with the stakeholders.
3. Scope of independent decision-making.

### ***Independence from Government***

When it comes to the first dimension – the relation to government and the legislature – there are limits to the degree of independence attainable (or desirable), regulators being part of the state apparatus. Even if regulators are granted formal independence, government can influence the regulators in numerous ways, e.g. by cutting their budgets or dismissing unpopular regulators. However, some measures have been devised to support the arm's-length relationship with the political system (Stern, 1997; Stern and Holder, 1998; Majone, 1996; OECD, 2001; Greve, 2002). These measures are the exception from the minister's discretionary powers and clearly defined and exclusive competencies including the right to impose sanctions. Other measures address the risk of informal pressure from the political authorities. Such

measures include irrevocable appointments of regulators for fixed terms and prevent appointment and dismissal on political grounds. To avoid a situation where the regulator takes instructions from the appointer in order to get reappointed, appointment procedures, which involve several parties (e.g. both parliament and government) and provisions against reappointment can be made.

As mentioned by Smith, a measure of organisational autonomy may enhance the independence of the regulatory authority. Organisations gain autonomy when they have maximum control of the input of resources on which they are dependent (Pfeffer and Salancik, 1978). In this case, a stable source of funding, e.g. by a fee levied on the regulated industries, and the authority to control appointment, allocation, promotion, dismissal and salary policies in relation to the regulatory authority's staff, are important resources.

### ***Independence from Stakeholders***

With regard to the second dimension, relations with stakeholders, the literature discusses at least three threats to the independence of the regulators.

Firstly, there is a risk that the regulated parties may »capture« the regulators, e.g. by holding up the prospect of well-paid jobs if the regulators are sympathetic to the views of industry (Laffont and Tirole, 1993; Stigler, 1971; Peltzman, 1989). Secondly, there is a risk that the industry can manipulate the regulator due to the asymmetric access to information (Mitnick, 1980). Finally, there is a risk that the regulator's independence is compromised by the regulator's private interest in the sector, e.g. when the regulator holds stocks in a unit trust investing in the regulated industry.

Theorists and practical policy makers have developed many recommendations for safeguarding measures against the risks to regulatory independence from industry (Stern, 1997; Elforsyningsloven, 1999; Majone, 1996; OECD, 2001).

Some of these measures are closely related to standard rules regarding good governance. For instance, it is common practice that regulators cannot have personal interests in industry. In some cases, there are formal rules prohibiting informal discussions of pending cases with any of the parties involved. There can also be rules prohibiting the employment of regulators in the regulated industry before, during and

after their term in order to increase the relational distance between the regulator and the regulated parties and to prevent that regulators protect certain companies against strict regulation in order to get a good job in the sector afterwards. Some of these rules can be difficult to honour in the real world, where there are usually a limited number of people with insight in the quite technical issues involved in regulation.

### ***Scope of Independent Decision-making***

The third dimension of regulatory independence concerns the scope of decision-making authority. In the literature, many authors stress the distinction between regulatory agencies that are truly regulatory and possess actual decision-making powers and agencies that are merely consultative (Colliard and Timsit, 1988; Demarigny, 1996; Dupuis, 1988). Thus, according to this position, independent regulatory authorities must hold exclusive decision-making powers. Ideally, independent regulatory authorities do not produce services or perform ordinary administrative tasks nor do they engage in policy-making. Instead, they are given the power to lay down rules, regarding, for instance, the calculation of tariffs for network access, in order to attain the goals set out in the legislation (Teitgen-Colly, 1988:26). In addition to this task, the independent regulators often function as a board of complaints and settle disputes between the regulated parties. Thus, the independent regulators may combine three functions that are normally separated: rule making, rule application and litigation (Demarigny, 1996).

## **5. Empirical Evidence of European Electricity Regulators**

The empirical background for the analyses in this article consists of a survey<sup>2</sup> (see Appendix 1), in-depth interviews with representatives of regulatory authorities, IEA country reports (IEA, 1999; IEA, 2000a; IEA, 2000b; IEA, 2000c; IEA, 2000d; IEA, 2001a; IEA, 2001b; IEA, 2001c; IEA, 2002a; IEA, 2002b; IEA, 2002c; IEA, 2002d; IEA, 2002e; IEA, 2003) and consultation of the web pages of the European regulators. The empirical work is thoroughly explained and documented in

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2 The survey has been conducted through a questionnaire answered by CEER members in 2002/2003. At this point CEER consisted of regulatory authorities from 14 of the 15 EU member countries plus Northern Ireland and Norway. Germany is not represented in the CEER, because it has no sector-specific regulatory authority, so no questionnaire has been sent to Germany. Furthermore answers are missing from the Belgian authority.

Johannsen, Pedersen and Sørensen, 2004).

The empirical analysis will be divided into three main sections. In the first section we present some of the results from the survey on the independence of regulators. In the second section their competencies, scope of activities and regulatory practice are presented and in the third section they are discussed and related to the very different national context of liberalisation.

## **5.1. Independence of Regulators**

The reality of the European electricity regulators varies a lot and is not always in line with the recommendations presented in section 4. According to the new market directive the regulatory authorities must monitor transmission and distribution companies, regulate network access and balancing services, settle disputes and monitor abuses of market power<sup>3</sup>. There are, however, no provisions on the choice of the concrete organisational form and it is not even required that there should be only one regulator.

### ***Who are the Regulators?***

Some of the regulators are sections of a government ministry or agency whereas others are independent agencies headed by a commission or a director, some of them with a large bureaucracy and others with only a small secretariat.

There are two main types of leadership: commissions/boards and agency heads/directors. Generally, commissioners and board members are experts within different areas of relevance to energy regulation: i.e. law, economics or engineering. They often have a background as university professors, consultants, senior civil servants or former staff in sector organisations or energy utilities. Agency heads or directors often have a background as civil servants, but there are also some who are former directors or board members in energy utilities.

All South European authorities (Greece, Portugal, Spain and Italy) as well as Great Britain, Belgium, France and Denmark have commission type leadership. In Portugal and Italy there are three-person commissions, consisting of a president and

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<sup>3</sup> Article 23, paragraph 2, 4, 5, and 8.

two members. The other countries have larger commissions. The Irish authority is formally a commission, but there is only one commissioner. In Austria the regulatory tasks are divided between a limited company owned by the government and a three-person commission.

In most North European countries, i.e. the Netherlands, Sweden, Finland and Norway the regulatory authority is organised as an agency with a director as leader. In Norway and Sweden the regulator is part of the energy agency, whereas the Dutch regulatory office is part of the competition authority. As Germany initially chose the ‘negotiated’ approach to network access, there is so far no designated regulatory authority for electricity. However, following the 2003 directives for electricity and gas markets, legislation is being negotiated, which will establish a regulatory authority for electricity and gas. This will be part of the existing independent regulatory authority for telecommunications, which is headed by a president and two vice-presidents.

### ***How Independent are Regulators from Government?***

Several international organisations such as the World Forum on Energy Regulation have commented on this issue<sup>4</sup>:

“The regulatory authority should be a distinct administrative institution from the executive branch, and independent or interdependent from the executive branch in its procedures and decision-making process. An element of independence refers to commissioners, members, and heads of the regulatory authority being appointed by transparent methods for fixed mandates. Another element refers to the budget, resources and funds necessary to the energy regulator so that she or he may discharge his functions as assigned” (World Forum on Energy Regulation, 2003).

In our survey the regulators were asked about the appointment and dismissal of the commission or the person in charge of the regulating authority and its financial and organisational autonomy (see Table 7 in the Appendix).

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<sup>4</sup> The International Energy Agency (IEA) and the World Bank (see IEA, 2001; and Smith, 1997) have come up with similar recommendations.

With respect to the first issue we regard regulators with a long tenure, who are appointed by the legislature, who cannot be dismissed for policy reasons and who are not allowed to hold offices in government as more independent than regulators with a short tenure, appointed by a minister, who can be dismissed for policy reasons and hold offices in government. Most regulators are appointed by the government or by one or two ministers for a period of 4-7 years. Only in France, Greece, Italy and Spain the legislature is involved in the appointment. Dismissal for policy reasons is not possible in most countries (The Netherlands is the exception) and the commissions and heads are not allowed to hold offices in government.

The electricity regulator can be financed either by a fee levied on the regulated firms or from the state budget. We consider the former as more independent than the latter. France and Norway are cases of purely government finance whereas the other regulators are financed by fees or by a mixture. In most countries the regulator controls the budget after it has been appropriated. The exception is Spain whereas Austria and Denmark have mixed government-agency control. When it comes to matters of internal organisation and personnel policy most regulators decide by themselves. Only in Austria, Denmark, Greece and Luxemburg do the government participate in the decision-making.

### ***How Independent are Regulators from Stakeholders?***

It is explicitly stated in the European market directive that the regulator shall be independent of the industry<sup>5</sup>. This obligation can be and is interpreted in different ways in the member states. Most countries apply restrictions on the former and future affiliation of the commissioners and agency heads with the electricity industry (see Table 8 in the Appendix). In some countries they are not allowed to have held a position in the industry or in its associations in the years preceding the appointment (this is the case in Austria, Italy, Luxemburg and Portugal) and some put restrictions on accepting a job in the years after their term (in France, Italy, Portugal, Spain and Ireland). The commissioners and agency heads are also forbidden to have any personal or pecuniary interest in the industry, a restriction that is applied in all

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5 “Member States shall designate one or more competent bodies with the function of regulatory authorities. These authorities shall be wholly independent from the interests of the electricity industry” (Article 23).

countries.

### ***Scope of Independent Decision-making***

When it comes to independent decision-making most regulators are fully competent with respect to the approval or determination of network tariffs and network access conditions and the terms of delivery issued by the network companies. Exceptions are France, Spain, Greece and Luxemburg where the regulator only has an advisory role in some of these matters (see Table 9 in the Appendix). However, the new market directive provides such regulators with stronger powers<sup>6</sup>. In some countries the regulator has the authority to issue licences and in most countries they can settle disputes between companies and between companies and their customers (the main exception is Finland). Finally, most regulators possess the powers to enforce their decisions (exceptions are Austria and Spain).

## **5.2. What do the Independent Regulators Regulate?**

In our survey we asked the respondents to report the regulatory objectives of the authority, e.g. the objectives explicitly stated in the legislation or in a mission statement. This question may be somewhat open to interpretation by the respondents, because some authorities have missions and objectives stated in several different pieces of legislation and with different degrees of priority. Table 1 presents the answers to the question on the objectives of the regulators.

According to the answers there are few regulatory authorities with few objectives and many authorities with many objectives. Market transparency and competition are the core objectives for the regulators, whereas security of supply, environmental objectives and objectives on socially responsible price policies are less widespread.

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<sup>6</sup> ” ... Member States may provide that the regulatory authorities shall submit, for formal decision, to the relevant body in the Member State the tariffs or at least the methodologies referred to in that paragraph as well as the modifications in paragraph 4. The relevant body shall, in such a case, have the power to either approve or reject a draft decision submitted by the regulatory authority. These tariffs or the methodologies or modifications thereto shall be published together with the decision on formal adoption. Any formal rejection of a draft decision shall also be published, including its justification”. (Article 23, paragraph 3).

**Table 1. Objectives of the IRAs**

Country	Competition	Market transparency	Consumer protection	Economic efficiency in the supply industry	Environmentally friendly electricity supply	Security of supply	Socially responsible price policies	Number of objectives (n=7)
Austria	X	X	X		X	X		5
Denmark	X	X	X	X	X			5
Finland	X	X						2
France	X	X	X	X			X	5
Greece	X	X	X	X	X	X	X	7
Ireland	X	X	X	X	X	X	X	7
Italy	X	X	X	X	X		X	6
Luxemburg	X	X	X					3
Netherlands	X	X	X	X		X		5
Northern Ireland	X		X	X	X	X		5
Norway	X	X	X	X	X	X		6
Portugal	X	X	X	X	X		X	6
Spain	X	X	X	X		X		5
Sweden		X						1
GB	X		X	X			X	4
No. of countries with the objective (n=15)	14	13	13	11	8	7	6	

Source: Johannsen, Pedersen and Sørensen (2004).

In addition to the uncertainties mentioned above it is far from clear that the objectives have the same meaning in the different national contexts. If for instance regulator A claims to have “security of supply” as one of its objectives does it mean that it shall address the issue in its annual report on the state of the world or should it also take concrete actions in matters of relevance for security of supply? Another example is “environmentally friendly electricity supply” that is quoted by both the Danish and the Irish regulator. The Irish regulator is heavily involved in the process of connecting new renewable and CHP capacity to the grid (see [www.cer.ie](http://www.cer.ie)), an activity, which in Denmark is vested with the energy agency and not the regulator.

The objective of “environmentally friendly electricity supply” is here just a vague indication of what should be taken into consideration when network tariffs and connections are assessed<sup>7</sup>.

Therefore, we have attempted an alternative classification that includes not only the formally stated objectives, but also the actual activities undertaken by the individual regulators:

1. Monopoly regulation: network tariffs and access conditions, supply tariffs for captive customers, licensing of network operators and suppliers of captive customers.
2. Competition regulation: surveillance of wholesale and retail markets (supply of eligible customers).
3. Protecting customers: handling of consumer complaints, helping vulnerable consumers.
4. Wider energy policy obligations: environmental friendly energy supply (promotion of and access conditions for renewable energy and cogeneration), security of supply.

According to this scheme the North European regulators (the Nordic countries and the Netherlands) are assigned quite a narrow scope of activities mainly concentrated on monitoring the network monopoly. The competition authorities regulate the wholesale and retail markets whereas the consumer authorities (consumer agencies and specific complaint boards) handle consumer complaints on supply conditions. The wider energy policy obligations are here the responsibility of the energy agencies – one can of course argue that as the electricity regulator in countries like Norway and Sweden is part of the energy agency this statement is misleading<sup>8</sup>. However, regulation of network monopolies has by now become more separated from the rest of the ministerial agency in these two countries.

Contrary to Northern Europe the regulators in Ireland, Britain, Belgium and the

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7 It was not quoted by the British regulator who nevertheless is heavily involved in the administration of policy instruments to promote renewable energy such as the Renewables Obligation (see [www.ofgem.gov.uk](http://www.ofgem.gov.uk)).

8 Such confusion could be the explanation of why the Norwegian regulator reported six objectives in the questionnaire and the Swedish only reported one (cf. Table 1).

Southern European countries are characterized by quite broad responsibilities - also according to this classification<sup>9</sup>. In addition to monopoly regulation they supervise competition and handle or refer violations to the competition authorities, they are active in protecting vulnerable consumers, they participate in the promotion of renewable energy and in securing future supply. In some of these countries (Italy, Portugal and Spain) the regulator also participates in the creation of market institutions such as national and international power pools.

### ***Regulatory Practice***

The above classifications according to the formal objectives and scope of actual activities cover a wide range of different regulatory practices that cuts across the groupings identified by these classifications:

- Some regulators decide and specify in detail the (nationwide) tariffs to be paid for network use and for supply by captive customers. This is the case in Belgium, France, Ireland, Italy, Portugal and Greece. The other regulators issue tariff principles and monitor the pricing practices of the transmission and distribution system operators. As these countries have introduced full third party access they have no remaining captive customers<sup>10</sup>.
- There are wide differences regarding the practice of the regulators in the last mentioned group of countries (the Nordic countries, Britain, Austria, the Netherlands). In some of these, ex ante incentive regulation has been introduced (e.g. the UK) whereas only monitoring and ex post intervention in case of detected violations is practiced in others (e.g. Finland). However, the trend goes towards ex ante regulation, which is also encouraged in the new electricity directive<sup>11</sup>.

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9 In its recent 2005-2010 Corporate Strategy and Plan Ofgem announces seven key themes for this period: 1. Creating and sustaining competition; 2. Regulating network monopolies; 3. Helping protect the security of Britain's energy supplies; 4. A leading voice in Europe; 5. Helping to protect the environment; 6. Helping tackle fuel poverty; 7. Improving Ofgem's efficiency and effectiveness.

10 In Denmark, separate supply obligation companies still offer regulated supply tariffs to customers not wanting to use the market.

11 "The regulatory authorities shall be responsible for fixing or approving, prior to their entry into force, at least the methodologies used to calculate or establish the terms and conditions for: (a) connection and access to national networks, including transmission and distribution tariffs." (Article 23, Paragraph 2).

In Germany there has until recently been no sector-specific regulator. Non-binding criteria for network access have been developed in corporatist agreements between sector stakeholders, and abusive practices have been prosecuted ex post by the General Competition Authorities and civil courts. End-user tariffs are usually regulated by the Länder Ministries of Economics. Political agreement has still not been reached on the regulatory practice to be applied by the new sector-specific independent regulator.

***Table 2. Regulatory scope and practice***

Scope/ Regulatory practice	Narrow scope focused on monopoly regulation	Broad scope including monopoly regulation, competition regulation, consumer complaints, wider energy policies
‘Hands-on regulation’: regulators decide network and supply tariffs		Belgium, France, Ireland, Italy, Spain, Portugal
‘Light regulation’: monitoring and ex post intervention	Finland, Germany	
Ex ante incentive regulation	Denmark, Norway, Sweden	UK

### **5.3. Liberalization and its National Context**

Despite many years of European Union membership and harmonization the countries included in the investigation are still very different regarding the design and implementation of competitive electricity markets. Their legal and administrative tradition, which is relevant for regulation, is different and so is their electricity supply industry. Such differences should be expected to have significant influence on the formal design of regulators, their practice and the market outcome as well.

#### **Centralised vs. Decentralized Structures in the Electricity Supply Industry**

Historically, the electricity supply industry has been the object of much public intervention. A number of countries (Ireland, the UK, France, Portugal, Italy and Greece) have a long history of state-owned monopolies. To make electricity

liberalisation credible in these countries calls for a strong regulator independent of the state and with a broad mandate and competencies. Such a regulator has to a larger or smaller extent been chosen in all of the above-mentioned countries. However, the formal design of an independent regulator with a broad mandate does not guarantee that practice will follow expectations. A long tradition of central control of the industry often means that strong vested interests composed by the state-owned enterprise and its supporters in the state bureaucracy and among the politicians still have a role to play.

Other member states such as the Nordic countries, Germany and the Netherlands have a different background with a much more decentralized industry structure, less state-ownership and a tradition of self-regulation. Such a history does not create as strong a need to make liberalisation credible by signaling arm's length relation to a regulatory authority, and politicians will be more reluctant towards a new independent regulatory bureaucracy with broad competencies. The approach to electricity market regulation in these countries has indeed been much less ambitious building on existing institutions that gradually are modified to cope with the new situation. In the Netherlands the regulator is part of the competition authority and in Germany the authorities have only reluctantly and very recently accepted the European concept of a separate energy regulator. In the Nordic countries (except Denmark that has a tradition of tariff regulation by a separate board<sup>12</sup>) the former light-handed regulation by ministerial energy agencies was continued and only gradually changed into the direction stipulated by the market directives.

### **Approach to Liberalization**

The political attitude towards liberalisation and the speed of opening the electricity market for credible competition are also of relevance for the design and in particular the practice of the regulators. This dimension cuts across the classification according to the tradition of centralized or decentralized electric utilities. The UK together with the Nordic countries and Germany were the first to open their electricity market for full third party access. However, the approach to liberalisation was very different.

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<sup>12</sup> Representatives of the interested parties, utilities and consumers, and independent experts composed the tariff board.

The British became the pioneers of liberalisation starting from a situation with 100 per cent state-ownership. Privatisation, reorganisation of the industry and a strong regulator became an integrated part of the new policy. The regulator Ofgem (before Offer) has become an internationally recognised benchmark for efficient and credible regulation of a competitive electricity market. Ofgem is a large organization with broad competencies and widespread activities, it is visible and considered competent and independent in decision-making.

Also the Nordic countries have a reputation of successful liberalisation, but with a very different background and applying a very different approach than the UK. There were no privatisations. Market institutions and regulation were gradually unfolded from the former institutional structure. The power pool Nord Pool, which is now a key institution in the Nordic electricity market, is an illustrative case. It started as a private association for the Norwegian power producers and then gradually moved to its present position as a common market place owned by the transmission system operators. Instead of creating one new agency with broad competencies, regulation in the Nordic countries is developed by existing state agencies (for energy, competition and consumers) that cooperate to establish the necessary regulations and sometimes even include private associations for consumers and electric utilities to achieve that.

The German approach to liberalisation is very different from both the UK and the Nordic countries. Into a European context the German liberalisation took place relatively early. The institutional background was similar to that in the Nordic countries – decentralized industry structure with little state-ownership and light-handed regulation – but the commitment of the state authorities to the implementation of a competitive electricity market was minimal. It was left to stakeholders to agree on regulations for network access under some supervision by the competition authorities. Unbundling requirements have so far been limited and negotiated third-party access has been preferred to regulated third-party access.

## **6. Regulation and Market Outcome**

Is there a connection between the choice of regulatory structure and the market outcome in the European countries? The discussion in the previous sections indicates

that there is not – at least it has yet not materialised. Each year the Commission issues a report on the development of the competitive electricity market in the European Union and its member states. Different indicators are applied to characterise the relative success of the member states to achieve the goals of the market directives.

In the latest report published in January 2005 the member states are classified according to their main obstacles to competition:

**Table 3. Summary of main obstacles to competition\*)**

		Customer switching: Large Customers
a. No major issues	SE, FI, DK, NO, UK	>50%
b. Unbundling\Regulation	LU, AT, DE	Range 10%(LU)-35%(DE)
c. Market Structure or Lack of Integration	FR, BE, GR, IE, ES, NL, IT	Range 0%(GR)-35%(NL)
d. Long-term Power Purchase Agreements\Regulated end user prices	PT	

\*) In this table the most important obstacle for each Member State is identified. As can be seen below this does not imply that other obstacles do not exist.

Source: European Commission (2005).

The table indicates that the Nordic countries and the UK so far have been the most successful in achieving a competitive electricity market whereas the other member states are behind to a greater or lesser extent. In both groups there are countries with very different approaches to regulation and the organisation of regulatory agencies. As discussed in the previous section the first group includes the UK that has a strong regulator with a broad mandate as well as the Nordic countries that have opted for a more pragmatic approach with different public agencies involved besides the regulator. The second group includes countries that have established regulatory agencies with status and ambitions similar to that of Ofgem (first of all Italy) as well as countries with a much less ambitious approach (Germany and the Netherlands).

In the Technical Annexes to the annual report more details on the introduction of competition are provided. In table 4, 5 and 6 some indicators regarding market opening, unbundling, regulated third-party access and market structure in the 16 countries are presented. It confirms the division between the two groups of countries

as explained in the former section (UK and the Nordic countries vs. the rest).

**Table 4. Implementation summary**

	Market opening (%)	Eligibility threshold	Unbundling TSO	Unbundling PSO
Austria	100		Legal	Legal
Belgium	c. 90		Legal	Legal
Denmark	100		Legal	Legal
Finland	100		Ownership	Accounts
France	70	Non- households	Legal	Management
Germany	100		Legal	Accounts
Greece	62	Non- households	Legal	None
Ireland	56	1 GWh	Legal	Management
Italy	79	Non households	Ownership	Management
Luxemburg	57	20 GWh	Management	Management
Netherlands	100		Ownership	Management
Portugal	100		Ownership	Accounts
Spain	100		Ownership	Legal
Sweden	100		Ownership	Legal
UK	100		Ownership	Legal
Norway	100		Ownership	Legal/accounts

Source: European Commission (2005), Technical Annexes.

**Table 5. Summary of regulated third party access**

Network access	Large users	Small users
Network tariffs out of line with norm or not available	Greece and Luxembourg	Austria, Belgium, Germany, Greece, Italy and Luxembourg
<b>Balancing</b>		
Balancing regimes favourable\prices in line with norm	The Nordic countries, UK, Ireland and Spain	
Some favourable elements	Austria, France, Italy, Netherlands, Portugal	
Out of line with norm or unclear	Germany, Belgium and Greece	

Source: See Table 4.

**Table 6. Summary of market structure: significant market participants**

	Generation	Supply
Six or more	UK and the Nordic countries	UK, the Nordic countries and Italy
Three to six	Austria, Germany, Belgium, Netherlands, Luxemburg, Italy, Spain and Portugal	Austria, Germany, Ireland, Netherlands, Portugal and Spain
Less than three	France, Greece and Ireland	Belgium, France, Greece and Luxemburg

Source: See Table 4.

## 7 Discussion

Most member states in the European Union have chosen to create sector-specific independent regulators combining the independence from commercial interests with separation from the ministerial administration.

A number of theoretical arguments from the political science literature support such a choice. Independent regulators can help to improve regulation by limiting government failure as they often replace public ownership as a means of control. After liberalisation it has become important to make the process credible to separate the state as owner and potential seller of utilities and the state as regulator. Arguments against independent regulators are the risk of regulatory capture, the lack of accountability and the lack of democratic legitimacy. However, there are institutional remedies to overcome these problems an example of which is the self-interest of the regulator to keep a good reputation.

To politicians delegation of competencies to independent regulators offers several advantages in rational choice terms. They can shift the blame of unpopular decisions to the regulator, they can avoid direct administration of a highly technical field without much appeal to the public, and they can demonstrate their commitment by preventing themselves from intervening and obstructing.

The empirical analysis of 16 European regulators (including the old member states and Norway) provides an impression of large differences with respect to formal independence as well as to regulatory practice. All regulators are formally independent of stakeholder interest, which is stipulated in the European market directives. In addition, many of them are separated from the ministerial

administration and possess considerable independence with respect to budget control and internal organisation.

The scope of competencies and independence in decision-making of the 16 regulators differs a lot. A few of them mainly perform advisory functions whereas most can make their own decisions. Some regulators have broad competencies including monopoly regulation, competition regulation, consumer complaints, and wider energy policy issues whereas others are mainly confined to regulating access conditions and network tariffs. The members of the first group of countries are often those with a tradition of state-owned national monopolies. The countries in the second group have a more private and decentralised utility structure and they prefer a much more pragmatic approach including a regulator with a narrow agenda and an extended division of labour with other public authorities such as the competition and consumer agencies.

The speed of liberalisation and the achievement so far in terms of market opening differs considerably among the 16 European countries and there is no clear correlation with their choice of regulatory approach. The UK and the Nordic countries have chosen very different regulatory models and practices, but all have managed to develop competitive markets relying on well-functioning market institutions. Similar differences can be found among the countries with less developed markets.

European liberalisation of the electricity market is still young and much can be expected in terms of changes and harmonisation of market conditions and regulatory practices. Therefore, it is premature to expect a definite model of the European independent regulator.

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## **Appendix 1**

The survey is undertaken among the members of the Council of European Energy Regulators (CEER), which was set up in 2000. Initially, the CEER was a self-grown »club« of 16 »National Independent Regulators in the fields of electricity and/or natural gas« (CEER 2000:1), co-operating in order to promote competitive European markets in electricity and gas, among others by exchanging knowledge, making codes of conduct, formulating policy papers etc. From 2003 the CEER has been more formalised, and its role in the EU policy-making process has increased (European Parliament and Council, 2003; and European Commission, 2003). Most recently, membership has increased by the 10 new EU member countries and Iceland, but the survey was conducted among the original 16 members, which were regulatory authorities from the then 15 EU member countries, except Germany, but with the addition of Norway and Northern Ireland.

The delimitation of the population is pragmatic in that it uses a given empirically delimited population. These authorities should be fairly comparable, since they all participate in the European internal market for electricity and they are thus countries that have liberalised or are in the process of liberalising their electricity markets with reference to the same supra-national rules.

The questionnaire was sent to the regulatory authorities by e-mail and answers were received from all CEER members except Belgium. Any person in the authority, who knows about the statute and obligations of the authority, can complete the questionnaire. The answers should not be dependent on the judgements of a particular person – although it is not possible to completely preclude any differences in the interpretation of both questions and answers.

In most of the authorities, the questionnaire has been looked over by senior staff and most of the respondents have given thorough answers and comments. Furthermore, some of the more ambiguous or inconsistent answers were discussed with the respondents to eliminate misinterpretation.

The results from the survey are summarised in the following tables:

**Table 7 Formal independence from government and legislature**

<b>1. What is the term of the agency head or the commissioners?</b>	<i>7 years or more</i>	<i>4-6 years</i>	
	IT	AT, DK, FR, GR, IE, LU, NO, PT, ES, SE, UK	
<b>2. Who appoints the agency head or commissioners?</b>	<i>A mix of the legislature and the executive</i>	<i>The executive collectively</i>	<i>One or two ministers</i>
	FR, GR, IT, ES	AT, FI, LU, PT, SE	DK, IE, NL, NO, UK
<b>3. What are the provisions regarding dismissal of agency head or commissioners?</b>	<i>Impossible or only possible for reasons related to policy</i>	<i>Possible at the appointer's discretion</i>	<i>No specific provisions</i>
	AT, DK, FI, FR, GR, IE, IT, LU, NO, ES, SE, PT, UK		NL
<b>4. May the agency head or the commissioners hold offices in government?</b>	<i>No</i>	<i>Yes</i>	<i>No special provisions</i>
	AT, FI, FR, GR, IE, IT, LU, NL, NO, PT, ES, SE	DK	UK
<b>5. Is independence a formal requirement for the appointment?</b>	<i>Yes</i>	<i>No</i>	
	AT, DK, FR, IE, IT, NL, SE, PT	FI, GR, LU, NO, ES, UK	
<b>6. Which is the source of the regulatory authority's budget?</b>	<i>Fees levied on regulated firms</i>	<i>Government</i>	<i>Mixed</i>
	DK, GR, IE, IT, LU, ES, UK	FR, NO	AT, FI, NL, PT, SE
<b>7. When budget has been appointed, who controls the budget?</b>	<i>Regulatory authority</i>	<i>Government</i>	<i>Mixed</i>
	FI, FR, GR, IE, IT, LU, NL, NO, PT, SE, UK	ES	AT, DK
<b>8. Who decides the regulatory authority's internal organisation?</b>	<i>Regulatory authority</i>	<i>Government</i>	<i>Mixed</i>
	FI, FR, IE, IT, LU, NL, NO, PT, ES, SE, UK		AT, DK, GR
<b>9. Who is in charge of the personnel policy?</b>	<i>Regulatory authority</i>	<i>Government</i>	<i>Mixed</i>
	AT, FI, FR, IE, IT, NL, NO, PT, ES, SE, UK	LU	DK, GR

**Table 8. Independence of stakeholders**

<b>1. May commissioners/the agency head have held a position in the industry/its associations in the years preceding appointment</b>	<i>No</i>	<i>Yes, but not within a specified number of years</i>	<i>Yes</i>
	AT, IT, LU	PT	DK, GR, IE, ES, NO, SE, FI, NL, FR, UK
<b>2. Are there provisions restricting the commissioners'/the agency head's job seeking in the industry after their term</b>	<i>Yes, not for several years</i>	<i>Yes, for one year</i>	<i>No</i>
	FR, IT, PT, ES	IE	AT, DK, FI, GR, LU, NL, NO, SE, UK
<b>3. Are their provisions forbidding discussions of pending cases with stakeholders</b>	<i>Yes, in the specific legislation regarding the regulator</i>	<i>Yes, in general legislation regarding good governance</i>	<i>No</i>
	FR	DK, FI, IE, LU, SE, UK	AT, GR, IT, 43NL, NO, PT, ES
<b>4. Are there provisions forbidding the agency head/commission members to have any personal or pecuniary interest in the electricity sector</b>	<i>Yes, in relation to appointment and individual cases</i>	<i>Yes, in relation to individual cases</i>	<i>No</i>
	AT, FR, GR, IE, IT, LU, NL, PT, ES, UK	DK, FI, NO, SW	

**Table 9. Independent decision-making – which competencies does the regulator exercise\*)**

<i>Country</i>	<i>Tariffs</i>	<i>Network access</i>	<i>Licensing</i>	<i>Terms of delivery</i>	<i>Disputes</i>	<i>Enforcement</i>
<i>Austria</i>	F	F	P	F	P	N
<i>Denmark</i>	F	F	N	F	F	F
<i>Finland</i>	F	F	F	F	N	F
<i>France</i>	P	P	N	No answer	F	F
<i>Greece</i>	P	P	P	P	F	F
<i>Ireland</i>	F	F	F	F	F	F
<i>Italy</i>	F	F	P	F	F	F
<i>Luxemburg</i>	P	P	N	N	?	F
<i>Netherlands</i>	F	F	F	F	P	F
<i>Portugal</i>	F	F	N	F	F	P
<i>Spain</i>	P	F	P	P	P	N
<i>Norway</i>	F	F	F	F	F	F
<i>Sweden</i>	F	F	F	P	F	P
<i>UK</i>	F	F	P	F	F	F

\*) F = Fully competent; P = Partly competent; N = Not competent