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Business-Regulator interaction in German and UK Telecommunication and Energy Sectors: A Multi-Level and Multi-Institutional Study.

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Business-Regulator interaction in German and UK Telecom and Energy Sectors: A Multi-level and Multi-institutional Study.[1]

Introduction.

The objective of this paper is to examine the interaction between companies and the changing regulatory map in key industries, namely energy (electricity and gas), and telecommunications. Companies operating in Germany and the UK are well placed to judge the efficacy of different regulatory institutions. Moreover, through their market and lobbying behaviour, such companies are an important influence in shaping the future direction of regulation. For these reasons, we examined, through a set of interviews, how companies perceive regulation in Germany and the UK, and whether their actions provided pressure on national governments and European institutions for convergence of regulation or continued divergence.

Regulatory governance refers to structures incorporating legislative, executive and judicial institutions, and the mechanisms used to constrain regulatory discretion and to resolve disputes in relation to these constraints. Regulatory incentives are the rules overseeing matters such as pricing, cross-subsidization, interconnection, etc. In practice, and especially in Europe, both regulatory governance and regulatory incentives affecting network industries are choice variables available to policy makers. The principal actors in the regulatory game are firms, regulators and member states.

The focus of this paper is therefore to understand the interactions between the German and UK firms and regulatory institutions and the influence of these exchanges on the development of regulatory structures A key question in the development of European regulation is the appropriate level of regulation. As liberalisation leads to greater cross-border company relationships, national regulation may find it more difficult to deal effectively with inter-jurisdictional problems, for example access or interconnect issues that are key to the promotion of effective competition in network industries

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(Bergman et al 1999). However, asymmetric information may mean that national authorities are better informed about local conditions, and therefore better able to act on other regulatory issues (Caillaud *et al*, 1996, Thatcher 1999). Corporate perspectives on the regulatory issues that are best centralised, those that are best coordinated, and those that are best left to national authorities will be of interest, particularly if these perspectives inform lobbying activity (Coen and Doyle 2000).

Methodology.

Telecommunications and Energy were chosen, as both industries are important for the economic performance of the European economy, since they provide important inputs to other sectors of the economy. They are all industries in which important boundary shifts will be happening over the next five to ten years: industry boundaries are shifting with technological developments, market range is altering, company boundaries are shifting as cross-sector mergers become possible with deregulation, and regulatory boundaries are shifting (Thatcher 1999, Werle 1999, Schmidt 1999 Coen and Thatcher 2000, and Eberlein 2000). However, they are each vertically structured network industries that contain important elements of natural monopoly or essential facilities, and hence require some economic regulation. In addition, they all exhibit some non-economic regulation, whether social, environmental or safety (Heriter and Schmidt 2000). All have been the subject of EU wide regulation in the form of EU directives (Eising 1999, Eberlein 1999, Schmidt 1998). However, the sectors also exhibit important contrasts. Thus they vary with respect to the speed, and possibly degree, with which effective competition will emerge; in the balance between economic and non-economic regulation; in the balance between national and supra-national regulation; and in the nature of regulation (e.g. whether an independent national regulatory agency is required by the EU directive and/or national legislation).

The companies that we chose exhibit important variation. Thus we included incumbents in the two national markets; incumbents entering a new market, whether defined by geography or by product; new entrants from outside the EU market; and new start-ups. These differences we assumed were likely to influence their assessment of alternative regulatory systems across countries. The different structures of company ownership may also be relevant, between state- or municipally- owned

companies, privately owned and recently privatised companies, and companies that have always been in the private sector.

We studied Germany and the UK to assess the impact of national attitudes to, and extent of, liberalisation and privatisation in the sectors in question; their regulatory institutions and traditions of regulatory practice; their political and economic legacies (Wilks 1996); their structure of corporate governance (e.g. the differing scope for hostile takeovers); and the effectiveness of their national competition policy agencies which can both work with sector regulators and provide a substitute for sector regulation (Eyre and Lodge 2000). Different countries exhibit different institutional endowments, which in turn lead to different regulatory practices (Vogel 1986, Heritier et al 2001, and Heritier 1997). Particularly important are the constraints on executive and legislative discretion that arise from different inter-relationships between legislative, executive and judicial institutions (Levy and Spiller 1994, Majone 1996). These have important implications for the credibility of regulation, and therefore for regulatory risk and the cost of capital, a crucial influence on corporate and economic performance in capital-intensive industries.

Accepting national and sectoral variance we attempted to formulate some generalisable propositions that influence the "degree of access" of firms and "implementation" of regulation. In the course of studying these propositions we observed how firms have evolved and change the institutional environment in which they operate. While some of the propositions are ultimately collapsible we set them out below for general discussion. Specifically, in attempting to explore the above "degree of access" and "implementation" propositions in the two respective countries we held sectoral features constant and initially explored the variables of size and type of firms. However, in the conclusion we do attempt to make a few assertions as to the degree of convergence and divergence in sectors and countries. Finally, we recognised the problems of assessing the dependent variable of access in terms of formal and informal procedures and the implications that these differing arrangements have for "real" long term compliance.

Figure 1. Regulator-Regulatee Propositions

A. Access to regulatory authorities:

•Firms address regulatory bodies that are pertinent for their commercial activities at national and European level.

•Firms seek to nurture access to regulators with established reputations and long-term experience.

•Firms offering specialised expertise and reliability are more likely to gain high access to regulatory authorities.

•Large firms have better access to regulatory bodies.

•Incumbents have better access to regulatory bodies than new entrants.

•Strong associations facilitate access to regulatory bodies.

•Multiple institutional regimes offer firms strategic possibilities to gain access to the regulatory game.

•The discretion of the regulator to provide favoured access is a function of the number of firms in market.

B. Implementation of regulation.

•The firm will exploit the informational asymmetry between regulator and firm to reduce the cost of regulation.

•The regulator is aware of the informational asymmetry and seeks devices to increase his or her information.

• A market structure with multiple players allows the regulator to reduce the informational asymmetry by comparing performance.

•The regulator, if the level of performance of the firm is judged as unsatisfactory, seeks to change contract terms.

•The regulator seeks to change contracts if there is a change in the government and political guidance changes.

•A regulatory structure with multiple authorities on the vertical and horizontal level offers the firm more strategic possibilities to reduce regulatory costs.

•An independent regulator is able to guarantee a more stable relationship with the firm

2. The New Regulatory Structures.

2.1. 1. Regulatory Arrangements in Telecommunications in Britain.

The government began the privatisation of BT with the 1984 Telecommunication Act and the selling of 51% of its shares, and had by the 1993 Duopoly Review sold 100%. Significantly, BT was sold as a single, vertically integrated service and infrastructure provider. The slow speed of liberalisation was influenced by the desire of government to maximise its revenue returns on shares and allow BT to adapt to changing and internationalising markets. Recognising the continued existence of market failures and the need for universal telecommunication services an industry specific regulator was created to monitor and enforce the government issued licences.

In principle the Office of Telecommunications (OFTEL) headed by an independent director general has the power to change the licences agreements in two ways. The first requires the agreement of the licensee and can be vetoed by the government -in the form of the Secretary of state for trade and Industry. The second mode is to refer the change of license to the Monopolies and Mergers Commission (MMC) - a cross sector competition regulator (See Thatcher 1999a). Today, in light of the Competition Act 1998, and in line with other potentially competitive markets, telecommunications are increasingly regulated by principles of competition law - which are jointly monitored by OFTEL and the Office of Fair Trading (Riley 2000, Yarrow 2000).

The UK regulatory framework gives a great deal of discretion to the regulator over how to define and create competition (Stelzer 1991 and 1996, Thatcher 1999a). This discretion and independence while clearly set out in the Telecommunication Act has also evolved through regulatory precedence. For example, Sir Bryan Carlsberg was able to established the concept of competition as a guiding principle of UK telecommunication regulation, arguing that competition would benefit the consumers with higher quality of service and lower prices (Thatcher 1999a). As competition emerged in the 1990s, the regulator, Don Cruickshank, was seen to exert his independence to move the regulatory focus from "ex ante" to "ex post" policing of competition (Hall, Hood and Scott 1999). This change in regulatory focus was are on the grounds of the evolving competition in many telecommunication markets and a

need for flexibility in a highly innovative market place. In recent times, David Edwards successfully argued that the Telecommunication sector should be exempt from the government 1999 Utility Bill, but is now under threat of the creation of multiple-media regulator (OFCOM).

With the introduction in March 2000 of the Competition Act 1998 the traditional primacy of OFTEL, as the single regulator, came under scrutiny. In the past OFTEL successfully positioned itself as the regulatory body fostering competition and limited the use of the MMC (Thatcher 1999b), however, the new competition laws, potentially ceded powers to the Office of Fair Trading.

Aware of the potential for regulatory games between the two authorities, OFTEL issued a procedural document that noted that the Director General of Telecommunications and the Director General of Fair trading have concurrent jurisdiction to apply and enforce the Competition Act (OFTEL Concurrency guidelines March 2000). Hence OFTEL and OFT have established procedures for the allocation of cases depending on the degree to which issues touch upon sector duties of OFTEL as set out in the Telecommunication act. OFTEL is aware of the potential dangers that could arise from the existence of concurrent powers with OFT and EC competition law and its broader goals of quality and universal services.

Hence, in OFTEL, we have a single sector regulator with primary competencies for the creation and monitoring of markets and secondary regulatory institutions, like the OFT which monitor competitive principles. Due to a high degree of liberalisation and regulatory competition, gone are the pre 1993 days when a policy triangle of OFTEL, Government and BT dictated UK Telecommunication policy (Hall, Scott and Hood 1999). While initially, OFTEL distanced itself from BT by threatening to refer uncooperative behaviour to the MMC - the threat of break up was enough to alter BT behaviour (Veljanoski 1991). Today, OFTEL does not only have to resort to regulatory threats of referral, but uses the opportunity of regulatory bench marking. In the European context the UK's regulatory model initially had a favoured position due to its early liberalisation. However, this position has been undermined in recent years. Questions are raised regarding the appropriateness of medium term price caps and the regulatory agencies (Jones 2000). Moreover, British "first mover" advantage in

Europe is now under attack, as the FT (2:10:2000) reported the European Commission believes *"Britain had relegated itself from the premier league (of European telecom regulation) to the relegation zone of the second division."* This low ranking can be explained in terms of the increasing internationalisation and competitiveness requiring a greater emphasis on umbrella competition law.

2.1.2. Regulatory Arrangements in Telecommunications in Germany.

In comparison with the UK, Germany was slow to privatise its telecommunications industry due to the numerous vested interests in the PTT and Unions (Grande 1994, Schneider and Werle 1991 and Werle 1999). Today, the German market has liberalised and a large number of new entrants have established themselves, but the government still maintains a 51% stake in the vertically integrated Deutsche Telecom AG (DT).

In regulatory terms the Telecommunications Act of 1996 removed the public monopoly and established a National Regulatory Authority (RegTP), which works within the existing framework of German Competition law. However, like in the UK it also led to problems of co-ordinating concurrent competition powers between a regulator and the competition authorities. These parallel competencies created problems of demarcation and initiation between the RegTP and the established Federal Cartel office (Bundeskartellamt), although the cartel office does operate a reserve function on NRA decisions (Martenczuk 1999). In terms of demarcation of responsibilities it is also important to note that, for an industry where the incumbent is still partly owned by the government ministry (BMWi), the Economic Minister can, on application, overturn decisions of the NRA on grounds of national economic interest. The RegTP has taken responsibility for licence fees, provision of universal services, and price regulation. The BMWi has Strategic responsibility for telecom policy and overseeing the RegTP. Hence, within this regime, the RegTP is independent but accountable to the Economic Ministry and has developed competencies in areas of technical regulation, universal services and pro-competition policy. Independent decision-making chambers, set-up by the Minister of Economic affairs decide on network access and interconnection and licence allocation, in the RegTP. However, significantly for a young institution, legal complaints against their decisions can be filed in the administrative courts. Moreover, an advisory council

comprising of members of the Bundestag and Bundesrat maintains parliamentary monitoring/control (Werle 1999). Further competencies lie in the area of multimedia with the individual Länder having broadcasting jurisdiction.

Hence we see multiple authority structures with strong elements of political guidance. With the RegTP there is an institutionally constrained quasi-independent regulator seeking to establish itself in an innovative and increasingly competitive market. Under these uncertain conditions the RegTP is potentially looking for business as well as institutional allies. Because of the speed of change in telecommunication technology and market the regulatory emphasis has been less on ex ante and more on the ex post policing of competition and unbundling services on the local loop. This has brought the RegTP into conflict with the competition authorities and incumbents. However, for all the dramatic headway in the liberalisation of the German Telecom market, DT still maintains a dominant position as a service provider and can potentially act as a barrier to entry in the area of network access. Recognising these limitations it is too early to talk of allowing the market to operate purely under competition rules.

2.1.3. The European Telecommunication Regime.

Accepting that regulation must have an *ex ante* and *ex* post function, the Commission has largely played the former role in the liberalisation of European utilities (Thatcher 2000c, Schmidt 1997). It is possible to see cross-sector regulatory goals at the European and national level (Schmidt 1997, Coen and Thatcher 1999, Eberlein and Grande 2000). The Commission has set broad market and regulatory principles via internal market rules (Article 95), formulation of competition (Article 81 (Restrictive practices) Article 82 (Dominance) and Article 86 (exclusive rights), state aid (Articles 87-89) and State monopolies (art 90).

Since January 1998 competition has been established across the EU telecommunications sector. Thus new entrants are challenging incumbent telecommunication firms by demanding interconnection rights and the unbundling of the network. At the same time the EU directives called for the separation of ownership and regulation of access to the market. As a result, ex-ante regulation and NRAs were created to monitor evolving markets, but in the spirit of subsidiary the powers and goals of the regulators were left to member states to decide (Werle 1999,

Thatcher 1999c). However, while the Commission requested stringent criteria on the independence and transparency of these new regulatory authorities and functions, it has not dictated the institutional reform that these bodies must take. However, while the Commission requested stringent criteria on the independence and transparency of these new regulatory authorities and functions under the ONP Directive 90/3888/EC directive, it has not dictated the institutional reform that these bodies must take. As a result, even in liberalised and EU regulated market like telecommunications we see considerable national variation (Eyre and Sitter 1999 and Coen and Thatcher 2000).

With increased competition and the opening up of national markets a high degree of rationalisation, merger activity and alliances occurred within the telecommunication sector and related industries (Bergman et.al 1998, Eliassen and Sjovaag 1999). In the increasingly concentrating market place there are potential opportunities for abuse of monopoly power, and thus a need for regulation and competition law. However, while common market questions abound, the NRAs have taken the lead on detailed implementation of community legislation, which has been accompanied by considerable national specific regulation (Thatcher 2000, Argyris 2001, Kurth 2001).

Recognising these limits, but also recognising the need for co-ordination and harmonisation of regulatory responses in a single market, the Commission proposed the creation of a network of national regulators (Telecommunication Review 1999). The proposed high level communication group (HLCG) composed of delegates from the NRA and Commission, and the Communication Committee (COCOM) made up of Government Ministry officials is the formalisation of the existing ad-hoc high-level regulators group. Such a EU regulatory forum bringing together experts from the national and EU level facilitates consensus among divergent NRAs and helps mediate with international economic and social interests (Coen and Doyle 1999). These NRA regulatory policy forums therefore set the agenda for the formal endorsement by COCOM and the EU executive bodies.

At present, the regulatory forums have been undermined by the risk of a Commission veto over national regulatory solutions as set out in Article 6 (European Parliament and Council Directive Comm. 2000, 393 final). The article proposes that where NRA intends to take action under Article 8 and Article 14 of the Telecommunication

directive it must communicate it reasoning to the EC and other member states NRAs. If there is no agreement, the Commission can require the NRA to revise or redraft (Coen and Heritier 2000). This potential EU regulatory "claw back" has created some distrust of the new NRA networks and a fear in some quarters that they are a halfway house towards full harmonisation of national regulatory solutions via a quasi European Regulatory Agency.

Thus the present the vertically structured EU regulatory regime appears to generate regulatory principles from the national and European level in a form of two level game (Coen and Doyle 2000, Eberlein and Grande 2000, Thatcher 2001). The EU institutions are important at setting broad principles and prescription, for example in telecommunications the Commission has chosen to focus on the business issues of market access and structure and has chosen to work with, rather than harmonise, the member states regimes. However the Commission will intervene if the NRAs take an unreasonable time to decide on a case that has substantial community interest and DgV continues to monitor NRA judgements to check consistency with article 81-82. However, it should be noted that speed of process is important in the success of a regulatory regime and thus the EU and European Court of Justice (ECJ) are the least favoured means of influencing regulatory policy

2. 2. 1 The Energy Regulatory arrangements in Britain.

The Office of Gas and Electricity Markets (Ofgem) was formed in 1999 by combining the functions of the former office of Gas supply (OFGAS) and the Office of Electricity Regulation (OFFER). Like his counter part in OFTEL the director general (Callum McCarthy) has discretionary powers and independence from government. The Director general has the power to alter licenses directly with firms subject to governmental approval or via referral to the Competition Commission (Goyder 2001). Again like Telecommunications the introduction of a new UK Competition Act will increase the potential involvement of the OFT (Riley 2000). However, unlike telecommunication, which is increasingly left to the market and competition rulings, there is strong political involvement in the energy sector. This potential intervention in the market was most visibly demonstrated by the 1999 Utility Bill, which proposed the concept of "claw back" taxes for significant windfalls, profits and placed regulatory emphasis on the provision of consumers, quality of service and the

environment. Political interventionist proposals have large implications for the incentive structures established in RPI-x price review (Beesley 1998, Irwin 1996).

In the gas sector, the Office of Gas Supply (OFGAS) was set up to monitor the newly privatised vertically integrated British Gas monopoly in 1986. It sought initially to promote competition in the gas supply to industrial consumers and set prices charged by British gas. From 1995, in light of the increasing liberalisation of the market, OFGAS took responsibility for securing competition in gas supply to domestic consumers, the issuing of licences to competing companies in the transportation, shipping and supply of gas. By 1999 it was estimated that new entrants had attracted some 4 billion new customers from BG Trading, some 20% of the market (OFGAS Review 1999).[2] Under Consumer group and government scrutiny OFGEM continues to closely monitor the progress of competition and to ensure that the benefits of competition are equitably distributed.

In the gas sector instead of dealing with a single privatised monopoly, as in Gas and Telecommunications, the newly privatised electricity supply industry was made up of 15 companies. 12 regionally based distribution companies (RECs), and the old CEGB (which was divided into 3 parts - two generation and the distribution monopoly). With limited expectations of electricity demand-growth it was assumed that companies would grow by diversifying or competing with one another (Thomas 1996). The Office of Electricity Regulation (OFFER) was created in 1990 to monitor access to distribution networks, set price caps and encourage competition where possible. These regulatory functions were provided by an independent regulator with much the same institutional links, with government, MMC and OFT, as OFTEL and OFGAS (Thatcher 1998).

Summing up the UK Energy regime, in terms of structure, we must be aware of the new potential for competition in the supply of gas and electricity. Wholesale trading arrangements in both gas and electricity markets are currently under review. Revised gas trading arrangements were introduced in October 1999 and the revised electricity

[2] Competition already existed in the industrial and commercial market, where BG market share was down to only 28%.

arrangements are in the process of being implemented This has provided opportunities for new entrants like BP Gas and Enron.

The energy regulatory regime with its independent economic regulator must balance fostering and promotion of competition with strategic and social responsibilities - as emphasised in the UK Utility Bill. The director generals statement in OFGEM's 1998 annual report noted: "*The new regulatory organisation will place importance on the social dimension of its work, in particular in relation to the effect that its decision have on the fuel poor. The task is to identify carefully the effective contribution regulation can make to helping those who need help, as part of the wider work by government*"

However, while the regulatory emphasis may be increasingly socially aware, conduct price reviews for both distribution and domestic supply businesses of the public electricity suppliers and domestic supply activities of BGT will continue to be a core focus. It is this relationship that can put a strain on the regulatory relationship with firms. The fact that there is political intervention may jeopardise credibility, which is a necessary condition for the price review process (Jones 2000).

2.2.2 German Energy Regulatory Arrangements.

In line with EU Energy Directive 96/92/EC and Gas Directive 98/30/EC Germany liberalised it energy markets in 1998 and 2000 respectively. However, unlike most other EU member states, it has not opted for a sector specific regulator, but instead favoured a market led solution based upon voluntary access agreements. Moreover, this emphasis on the competition and the speed at which the market opened surprised many, if we take into consideration the governments' and industries' reluctance to liberalise through out the 1990s (Sturm and Wilks 1997, Schmidt 1998, Eising and Jabko 1999, Eising 2000, and Eberlein 2000a).

Prior to liberalisation nine privately and semi-publicly owned supra-regional electricity companies that account for about 80% of the production of electricity dominated the German electricity industry. While, several dozen regional companies and a few hundred local authorities were responsible for distribution (Schmidt 1998, Eberlein 2000b).

Structurally, at the horizontal level the transmission-dispatching system is not integrated, either in operational or ownership terms: it is interconnected but remains decentralised. At the vertical level, by contrast, generation and transmission (and to some extent even distribution) are integrated (Glachant and Finon 1998).

The German 1998 Energy law (EnWG, Energiewirtschaftsgesetz) created an open market where firms could enter any stage of production. As a result, the rules of exclusive concession rights as set were abolished (Bergman et al 1999). Competition was in theory encouraged by the removal of demarcation contract in the cartel and competition law (GWB, Gesetz gegen Wettbewerbsbeschraenkungen). Hence at a stroke the German energy markets moved from regional cartels to fully liberalised market. Significantly, this speed of change was quicker than demanded by the EU directives and raised many questions of regulatory management (Schneider 1999, Eberlein 2000b).

Crucially for the German energy regulation liberalisation of markets does not necessarily overcome market failures or even guarantee competition. In energy, the natural monopoly network providers need to be monitored and if equitable access prices are to be attained. In the German case this market failure is worsened by the fact that the transmission networks are owned by the vertically integrated generators/sellers, such as RWE. Especially, as structural unbundling and the transfer of networks to an independent grid or pipeline was not an option for the privately owned regional monopolies.[3] Under such conditions, the risk of transfer and discriminatory pricing is high and the need for some form of monitoring of "third party access" paramount.

Within the scope of the EC directives, the German regulatory solution has been the creation of "negotiated third party access" In the electricity market the access pricing were set out in the "voluntary association agreement" (Verbaendevereinbarung), which was negotiated between the large electricity firms association (VDEW), the

[3] While the option to unbundle the transmission network has been on the political agenda it was restricted by the cost of buying back privately owned utilities and the possibility of

industrial producers and consumers association (VIK) and the Federal Association of German Industry (BDI) in May 1998. However, after much criticism by original negotiating parties and those excluded from the process such as consumer groups, SMEs, Energy traders and potential new entrant sellers, it was revised in 1999.

The new voluntary association agreement introduced in January 2000 simplified the rules for pricing mechanisms removed barriers for domestic consumers to switch suppliers, and electricity-trading arrangements were introduced (Eberlein 2000b). Much in the same vein as electricity, gas signed its first voluntary association agreement in July 2000, but is experiencing similar access agreement criticisms (FAZ November 2000). But for all the changes to the voluntary agreement, self-regulation continues to focus on ex-post regulation and provides advantages to the large incumbents. In recent months, the Federal Economic Ministry has resisted calls for regulated access, via sector specific NRA or a more pro-active ex-ante role for the Federal cartel office (FTD November 2000).

However, while access charges are left to firms to negotiate, the informational advantages mean that energy network providers can charge practically what they wish.[4] Hence, the only regulation of access price charges is by international comparisons and then recourse to national and EU competition law (Bonn Cartel Office 2001).

Finally, in institutional terms, in the energy market the Federal Cartel Office can in line with the essential facility doctrine order integrated network providers to open to rivals and ban anti-competitive merger activity. In addition to the Federal level, the Länder Cartel offices have responsibility for regional monopoly questions, but their powers have been restricted with increasing merger activity in Germany and European markets and their staffing levels on energy questions limited (Schneider 1999).[5]

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unfavourable rulings from Supreme Court on contracting the constitution (Schnieder 1999 and Bergman et al 1999).

[4] For example, the distance-related price has been criticised as being anti-competitive, as it disadvantages distant suppliers v integrated incumbent suppliers and it is entirely unclear where the level of the distance price (12DM/kW/100km) come from (Perner and Riechmann 1998).

[5] For example the merger of Veba and Viag to create E.ON was judge under European competition definitions and framed by European strategic considerations in light of EdF entry

2.2.3 European Energy Regime.

The liberalisation of the Electricity sector in Europe has been a much slower affair due to complex intergovernmental battles (Schmidt 1998, Eising 2000, Eising and Jabko 2000). However, in December 1996, the European Council adopted Directive 96/92/EC on common rules for the internal market in electricity, which came into force February 1997. In liberalisation terms, it requires that the market in each member state must open a proportion - determined by the share of EU consumption accounted for by customers using more than 20GWh/year on February 2000 - which currently represent about 28% of national demand. This threshold will be reduced to 9GWh/year, in 2003, which will result in the opening of 33% of the market. However, these are the minimum estimates and in 2000 over 60% of the EU market is liberalised (Bergman et al 1999 and 2000, Eberlein 2000a).

With liberalisation of the EU market, increased cross-boarder activity is occurring and US firms are making significant investments in Europe. Liberalisation provides two broad options regarding access to the network to transmission and distribution: 1) Third Party Access (TPA) and 2) Single buyer systems (SBS). Thus new entrants without an integrated distribution network must bargain with the incumbent within a domestic regulatory regime. In the UK OFGEM will monitor the activities of the players (regulated third party access (rTPA)) while in Germany we have seen the market operate a negotiated settlement (nTPA). The negotiated settlements are facilitated by the EU directive insistence on accounting separation, which reduces the risk that vertically integrated undertakings practice undue price discrimination or cross-subsidy (transfer pricing). Significantly, the directive also contains provisions designed to protect public service obligations. However, member states (regulators and governments) are allowed to define public services imposed upon electricity undertakings.

Variance between rTPA and nTPA methods has made cross-border regulatory comparison difficult for academics and regulators alike. Partly for this reason the

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into the German market. Similar EU logic was applied when the Cartel Office cleared RWE's merger with VEW, which created a company with 40% of German market share (F.T. September 2000).

Commission DGXVII has tried to foster cross-border contacts with high level Electricity regulators, government officials and industry managers at twice-yearly forum in Florence. Recognising the variance in administrative and institutional solutions to regulation it is hoped that these forums can establish common principles for the EU market and perhaps best practice on style of implementation (Coen and Doyle 1999, Eberlein and Grande 2000). Significantly, German has already found itself disadvantaged at these meeting by its lack of a specialised sector regulator (Interviews at Commission and Cartel Office month of interview 2001).

The common rules for liberalisation of the gas market follow very closely those proposed for the Electricity sector. The market will be opened up to competition gradually. At the start it is proposed that the opening up of the market should represent at least 20% of the total annual gas consumption of each national gas market. However, some markets like the UK and German have opened larger percentages. Again access to transmission systems can either be through nTPA or rTPA, which must operate in accordance with objective, transparent and non-discriminatory criteria. Under nTPA, if transparency and non-discrimination is to be encouraged, it is important that the parties publish the terms for the use of transmission systems. In the rTPA model this transparency would be automatic in the ex ante contracts and published prices (Waddam-Price 2000, Shuttleworth 2000). Again, like the electricity sector, the Commission DGXVII has attempted to co-ordinate rather than dictate the best means of regulation and has organised a biannual gas forum in Madrid.

Finally, an integrated EU energy market is more of a reality today with the liberalisation of both sectors (Levi-Faur 1999). Much of the new generating capacity in the electricity sector is based on gas supply and the potential for horizontal activity the gas and electricity supply. With a market in such flux national regulatory institutions and the EU regime are changing dramatically to the flexibility to adapt to changes in technology and market structure.

3. Business Perspectives to Access and Implementation:

3.2. 1. Telecommunications in Britain.

3.2.1. 1. Access to regulatory authorities. Raising first the question of access of firms to regulators, which – we argued - depends on sector characteristics, firm type, and regulatory target structure, it emerges that in the highly competitive and internationalised telecommunication sector firms navigate between national institutions and European regulatory bodies depending on the nature of the regulatory issue. However, in line with subsidiarity the primary locus of activity is currently focused at the national level, where NRAs have taken responsibility for issues that impact on the core competencies of the firm such as access pricing, unbundling the local loop and RPI-X.

Thus, in the case of the UK, the impact of EU policy was initially weak, as OFTEL and the industry had taken the lead in liberalisation and regulatory development. OFTEL established itself as the primary point of contact and consultation for UK based firms and the agency model and RPI-X model where the benchmarks on which other EU telecommunication privatisations were judged.

Accepting that formal direct access is guaranteed to all firms through consultation procedures, we are interested in how different sized firms lobby and the degree of access they achieve with different authorities? In a multiple level regulatory environment firms were aware that they had to adapt their regulatory strategies to national institutional and cultural differences – simultaneously addressing various national regulatory authorities (employing where possible nationals from the country concerned, e.g. consultants with sector specialisation and ex regulatory officials. The variance in institutional form is not seen as a fundamental problem by firms as long as there is consistency in the interpretations of EU directives and equal access to the market. Rather, the informational advantages for those firms that operate in a number of markets may actually give them favoured positions when dealing with individual NRAs.

The importance of associations, while critical in Brussels and the German regulatory process, is less significant in British regime. However, this does not mean firms have

not attempted to take advantage of information asymmetry in the regulatory system to engage in forms of non-compliance.

However British firms of all sizes do use associations to enhance their leverage in seeking access to European regulation. Most firms recognise the importance of direct representation and the establishing of reputations via membership of trade federations or informal business alliances.

Additionally, all the incumbent telecommunication companies and the larger new entrants have established Brussels offices to monitor the directives and attend the Commission and European Parliamentary consultation processes (European Public Affairs Directory 1999). However, small new entrants, due to economic and staffing constraints, tend to favour occasional Brussels trips and national associations. This would tend to confirm our proposition that large firms with a dominant market position have better access to the European policy debate.

However, direct lobbying will be of limited success if expertise, reliable information provision (trust) and European credentials are not established. For this reason, even large firms with good direct access to EU officials continue to utilise their EU Federations and seek to establish cross-border alliances when making representation.

However, with the explosion of new entrants and the disaggregation of the telecommunication market, the nature of the traditional federations and the cleavage structure in the sector has changed The traditional federations have often become lowest common denominator policy-makers As a result a number of new federations and associations have evolved out of the niche markets and new technologies (Coen 1999). For example the cable firms have established the association of private European cable operators (APEC) while also participating amongst others in the European Telecommunications and Professional Electronics Industry (ECTEL), and the Comité Européen des Equipements Techniques du Bâtiment (CEETB). These new associations and industrial groupings are of particular importance to the new entrants and small operators as it allows them to gain critical mass in the policy process.

Within this competitive environment larger firms have led the way in the formation of the new specialised sector federations and have also sought to utilise their complex network of Joint Ventures and cross-border holdings to create European collective identities and credible lobbying mass for themselves (UK Firm Interview February 2000). While sophisticated, this new 'issue network' building is not unique to the utility sector and EU regulatory lobbying, rather it is a broad lobbying phenomena observed across most sectors in Brussels and regardless of the firms national origins (Coen 1997 and 1998).

In EU regulatory competition terms, while we found that firms may consider it an advantage to play on differences between NRAs, from the national regulator's perspective it is a concern: "*of course people are coming and saying - the German regulators decided this, the French one said that, why are you not doing the same*" (OFTEL Interview March 2000).

Finally, one interesting alliance at the EU, noted by BT and OFTEL, is the potential for occasional co-ordination of a national position. As OFTEL noted, when asked about the potential for NRAs and firms to go to Brussels together, " *We will do it if it is right for the national market, not because it was BT! We would do it with other companies if appropriate*" March 2000. BT noted that there were occasions during the consultation process for the Telecom directive when OFTEL and BT worked together for liberalisation (London. Interview February 2000). But neither claimed to push the full UK regulatory agency or economic model.

In term of the EU regime, in the search for regulatory consistency, the creation of a European network of NRAs has been seen as a positive development. As one regulator noted: "*We might have a debate on how we decide to act in different situations. In general, regulator-to-regulator, they are not too upset if you don't do the same thing as long as you see that people are pulling in the same direction (i.e. Opening the market). There is regulatory learning" (OFTEL Interview March 2000).* Business too looked favourably towards the creation of EU/NRA procedural "best practice" and norms within the single market.

However, while identifying best practice and regulatory goals the network is not attempting to establish a single regulatory model or European Agency. Rather the national regulators appear to recognise the importance of national variations as OFTEL observed "*I am sure that the regulators in the other countries ...do not want to fit into one model. We as OFTEL are not the only models*". Instead, it is believed that the regulators themselves can play an active part in counter-acting the information asymmetry without creating a uniformed solution. As OFTEL observed: "*We do play an active part in terms of the international regulators group. They (other NRAs) want to learn from us. Our web site is heavily searched by European regulators and (foreign) telecom players. They are interested what OFTEL is doing in the UK. We try to keep closely in touch with the EC. (Finally) what ever comes out (of the EU) has to be applicable to the (UK) system that is 16 years old*" (Interview March 2000). However, while the regulators and the EU co-ordinate to limit the opportunities to be 'played off' we must recognise the proposition that multilevel authority widens the strategic possibilities of national actors.

In the UK, as regulation matures, patterns of ownership change, and controls begin to cross boundaries between regulators, it is important that competition laws and single utility goals are established. However, in establishing a new competition act and Utility Bill, doors to potential regulatory shopping by firms have been opened. Alive to this risk, OFTEL has issued a statement about the joint working of regulatory bodies (OFTEL October 1999). Though at "*the end of the day every case is determined on its specific facts. We have said, that we will start from the perspective that if you can do things under the competition act, we will. That is a statement of principle. In those areas where it could be either, OFTEL's preference is to start off with the competition act.*" *(OFTEL April 2000).*

Significantly, while OFTEL uses competition law, it tries to make clear and transparent demarcation as to which agency (OFT or OFTEL) takes the lead in investigating a particular infringement. Instead of scrapping over who will monitor an issue it is actually the other way round, with OFTEL asking the other agencies to investigate. In the only instance where a firm has, thus far, tried to play the system, the firm went to the OFT, who contacted OFTEL. As a result OFTEL now tells companies, that they should formally contact OFT for public accountability purposes,

but at the same time should also contact other appropriate agencies, as this saves time, as all the agencies will co-ordinate. (OFTEL Interview April 2000). Thus for concurrency to work effectively, both institutions must be kept informed of the others initiatives to avoid business circumvention and the development of understanding and goodwill between institutions (Riley 2000).

3.2.1.b. Implementation of Regulatory Propositions: The success of the discretionary regime has clearly been a function of the independence of the regulator and the credibility that this brings to the RPI-X incentive structure. In the UK price model, firms are encouraged to find efficiencies under the RPI-X price cap, and can maximise profits for the period of 4-5years until a new price review. This efficiency drive requires that firms believe they can keep whatever profits are made and can distribute profits as dividends, bonuses or reinvestment as they wish. The heated policy debate, that surrounded the 1998 White Paper "Fair deal for consumer: modernising the framework for Utility Regulation", suggestion 'windfall' taxes could be introduced, illustrated the risk of politicising the regulatory process. Significantly, OFTEL and business appeared to sing from the same hymn sheet, claiming that consumer interests were protected by the increasing competition in the telecommunication market and in areas of incentive price regulation 'clarity' of procedure was required. Both new entrants and incumbents seemed united in their reluctance to political intervention in the regulatory process. Thus in terms of our assumptions firms would argue that an independent regulator is more able to guarantee a stable contact with the firm.

As regulation matures, patterns of ownership change, and controls begin to cross boundaries between regulators, it is important that competition laws and single utility goals are established. However, in establishing a new competition act and Utility Bill doors to potential regulatory shopping by firms have been opened. Alive to this risk, OFTEL has issued a statement about the joint working of regulatory bodies (OFTEL October 1999). Though at *"the end of the day every case is determined on its specific facts. We have said, that we will start from the perspective that if you can do things under the competition act, we will. That is a statement of principle. In those areas where it could be either, OFTEL's preference is to start off with the competition act." (OFTEL April 2000).*

Over the 16 years since privatisation there has been a high degree of regulatory learning on the behalf of OFTEL and firms' regulatory affairs team. Firms have recognised that while they may achieve a potentially under valuation of an X factor at one price review or a favourable bundle price for services today, the regulator will eventually recognise misrepresentation and may restrict access to future consultations or demand increased information at the next review. Hence, it is clear that an iterative reputation game is in place where actors are aware of the risks of misinformation (Coen and Willman 1998). The importance of reputation is particularly important in the UK telecom sector where the regulator has so much discretion as to who is "actively" involved in the consultation process and an increasingly wide selection of firms to play for information. This discretion has been used as a tool/sword to reduce business temptation to misrepresent or fail to comply, but is also seen as a very non-transparent means of regulation and is perhaps hard to replicate in other European countries which are perhaps more rule based (OFTEL interview April 2000).

3.2.2 German Telecommunications.

3.2.2a Access to the Regulatory Process. In comparison with the UK German regulatory institutions are governed more by rules than discretion and are more politicised. Moreover, the study illustrates that the regime is more complex web of interdependent agencies and while formal access is guaranteed to firms of all sizes to the RegTP, the numerous legal appeals create cost barriers for many new entrants.

Under these multiple access conditions, and within a young (3yrs) and evolving regulatory environment, firms are attempting to establish and frame the rules of engagement with regulators. At present incumbents and new entrants believed that they had reasonable formal access to the RegTP, however the question is more how open and transparent this access should be (Interview with Incumbent February 2000 and new entrant April 2000). What is more, because of the importance of the law and procedural courts, many of these business-regulator exchanges have been played out openly in the courts, where access is a function of funds to pay a case. As one new entrant observed "*it is quite a confrontational system. We spend more than 300-400,000 DM per year on external lawyers just to get our suits before the courts and the RegTP*" (Interview new entrant April 2000)

However, while the demarcation and levels of access to domestic institutions is yet to be resolved, it would appear from our preliminary interviews that German firms are very comfortable interacting at the European level and have developed a high level of visibility (Brussels Interviews March 2001). This can be explained, in part, by the fact that German government has been successful in shaping EU liberalisation directives and Competition policy (Eyre and Sitter 1999, Lodge 2000) and the RegTP has been active in the new high level regulatory group (Interview April 2000). Thus, large firms with a long tradition of dealing with the cartel office are comfortable with the issues and definitions of anti-trust behaviour addressed at DGIV (Interview April 2000). Traditions of collective action and conciliatory capitalism have also been advantageous in Brussels where much emphasis is placed on establishing reputation as a firm in the appropriate federations and associations. Finally, with increased merger and JV activity in the German market place many of the largest German telecommunication players have a significant pan-European presence and have developed good direct access to the Commission officials in the Telecommunication directorate (Brussels interview 2001).

From the above, we could make the case that large German firms have the potential for good access to the Brussels regulatory debate. However, DTAG questioned whether being an incumbent was an advantage. "*We see resistance in Brussels, as far as the typical incumbent positions are affected. Commission officials tell me: You don't even have to talk about this, because I know what you have to say and don't care!*" (Interview February 2000). This quote illustrates dramatically, that while size may provide firms with potential access and profile in Brussels the strong discretionary powers of the EU can still facilitate access of new entrant positions. For this reason, larger firms whether incumbents or new entrants have been pro-active in establishing relationships with one another's Brussels offices to try to co-ordinate sector and/or national positions

However, operating effectively in Brussels and being comfortable with increased Europeanisation of regulatory affairs, are two distinct propositions? Both large and small firms were unanimous in seeing risks in a single European regulatory agency or even increased competencies for the Commission vis-à-vis the national regulators (Interviews February and April 2000). However, as DT noted it was widely

recognised that more co-ordination between the national and EU regulators was needed to reduce variance in implementation of EU liberalisation directives and the creation of a level playing field (Bonn, February 2000).

One established medium size firm expressed a desire that the new regulator group, (HLCG) as proposed in the EC 1999 Telecommunication Review, would establish a degree of uniformity in goals, while allowing for important national institutional variations. (February 2000) However, the general business view was reluctance for any additional institutions at the EU-level. As one firm observed "*The creation of an EU regulatory authority would not make things better, (rather) it could would even make things worse, because an additional layer would not mean further competencies but it would just lead to additional bureaucracy.*" (Bonn, February 2000). This sentiment is driven by a belief that the telecommunication market will continue to liberalise and that competition will open up new markets. Accepting that competition is the end point of the market, business is therefore reluctant to establish agencies that may be difficult to "*get rid of*" at a later date.

Finally, at the EU level, German firms, Regulators and Politicians were very reluctant to accept the December 2000 Telecommunication review with its emphasis on clause 6 which gave the Commission greater claw--back powers. It was felt that this was an attempt for EU led regulation of domestic markets, as the Commission would have final decisions, and were necessary, require the national regulatory authorities to amend and redraft proposed regulatory measures. If this did become the case firms would have to change their emphasis and access strategies when lobbying Brussels forums (Brussels interview 2001).

3.2.2b Implementation of Regulation. In compliance terms, regulatory resources are equally important at the domestic level as dealing with the RegTP is already creating a huge informational demand on firms. DTAG estimates that it spends 300-400 hours a month attempting to make direct contact with the RegTP, and employed over 80 people in the regulatory affairs office. This compares very favourable with BT, but vastly out strips any of its domestic rivals, with companies like Mannesman mobilising 10-12 people and new entrants only dedicating part of one persons time. Clearly, then large firms and especially incumbents have a strategic advantage in

accessing the regulatory institutions based purely on physical resources they can mobilise to address the informational demand of regulators.

Significantly, while the interviewees noted the 'weakness' of the RegTP and the parallel competencies of the Cartel office all recognised it as one of their focal points of regulatory contact. In the case of the incumbent the primary activity at the RegTP was the reaction to competitors complaints on the misuse of monopoly power and the unbundling of the local loop.

However, for all the recognition that the RegTP is providing an important function, there was a deep-seated belief in the sector that the cartel office provided an important role in the ex-post regulation of the sector. For example, a new entrant observed, "*We are very happy with the cartel office. In principle, for the ex-post part, the RegTP does exactly the same as the cartel. RegTP has three chambers. Two for ex-ante control, and the third one for ex-post. The working relationship is that the case has to be brought to this chamber three and the cartel office does not say anything to it. They get to see the final decision, make some comments on it, but they do not have the right for veto. If it is a sector specific regulation the RegTP has the last word.*". Company X would, however, like to see the experience of the cartel office brought in as a counter weight to the weak and politically pressured directors of the RegTP. However, DT went further claiming: "*We have always argued that sector regulation is not needed. We have a fundamental position that regulation belongs to the cartel office.*" (Bonn Interview February 2000)

When asked if this use of the court would make the German regulatory regime too confrontational one large firm replied. "*I am not sure, first, if you look to other utility markets, like the electricity, you have an institutional arrangement like that: no sector specific laws, no ex-ante price control, no sector specific regulation and institution. And the cartel office is absolutely clear that they can use their new S 19 to exercise power.*" When questioned as to the speed of the court process the firm elaborated that after pilot cases, the industry would recognise the signals of the cartel office (Bonn, February 2000).

However, new entrants were aware that "*with the cartel office, you have ex-post regulation. (Hence) You always wait, until the incumbent does something, then you complain. We have seen DTAG employing at least 40 people...thinking about hampering competitors. We are in desperate need for ex-ante control. I am glad that we have the American or British model of regulatory agency. It turns out that DTAG has some trouble getting approval for all their prices and other things. (Therefore), they make a strong political effort to decrease the amount of regulation. Of course, we on the other side claim for more regulation. There is a political discussion going on right now*" (New entrant, Cologne April 2000).

Political representation is highly significance in the German regime, as the incumbent is still partly owned by the government. This has implications for the way that competition is introduced in areas like cable or access to local loop, where DT still has to recoup its capital investment, as the government is aware of the share price value. (N.B. TO ADD. 1) Comment on the strength of the Director Generals vis-à-vis government. 2) Tradition of ministry links and informal link to DTAG and Deutsche Post – Policy inertia 3) Potential for direct political pressure on business for universal service obligations i.e. likely to be under the heading of creating the 'information society' and access to the superhighway.

The age of the RegTP was clearly a significant limitation to the development of strategic interaction between regulators and firms. As the interviews showed, today, there is limited confidence and trust in the regulatory regime, as incumbents and new entrants try to established the rules of the game and understand the nature of the decision-making process. This limited confidence was reinforced by the fact that the RegTP was not seen to be transparent, and that it demanded too much information.[6] For example, One large firm, after providing a 700 page report on unbundling the local loop, answering hundreds of questions and exchanging thousands of pages of comments claimed that at no point did they know what was important to the regulator. Then, three days before the final decision, the regulator drew out two academic studies that where unfavourable to the firm. The point made by the business was that

[6] Interestingly this was a common complaint in the early days of regulation in the UK. As firms had to establish a working relationship and a regulatory capacity to supply the information

it wanted all the information in the decision process to be transparent, so that counter arguments could be developed (Interview February 2000).

Another recent example of problems arising from lack of transparency occurred in the unbundling of the local loop (ULL). Here, the RegTP ruled that new entrant had to pay 25.40 DM to DT, when they were expecting a figure below 20DM. The new entrant complained, but the reasoning and information was not made public. Suspecting that it may have been political pressure from the Minister for economics, the new entrant took the RegTP to court. However, when the lawsuit arrived in court, the Ministry for Economics successful blocked the judges access the RegTP files. In parallel, DT took a case (and won) against RegTP, which stopped RegTP disclosing its information. The new entrant then sued the economic ministry to allow the price documents to be available to the judges - which it won in April in the Cologne regional courts. (New entrants interview April 2000). This case has huge implications for the strength and independence of the national regulators and shows how business has attempted to frame the regulatory regime's development. It also illustrates well, how the courts in Germany have been brought in as referees. Amazingly, the new entrant claimed that at present 75% of all the regulatory decisions he is dealing with are disputed in the courts by themselves or DT. (Interview April 2000).

In terms of our assertions, we can say that where high distrust and ambiguity about the goals of the regulator are observed, it is highly likely that we will see high non-compliance and withholding of information. However, whether the German telecommunication sector will give the RegTP time to assert itself and establish norms or whether it will succeed in introducing negotiated access agreements and competition policy is harder to assess.

Finally, the rigid and legalistic German regime would appear to limit the RegTP's ability to take a more pro-active role in framing its own regulatory function. For example OFTEL published a policy paper, which states how it sees the future of

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requested. It often took a couple of price reviews or a MMC referral for the firms to dedicate sufficient resources to managing the regulatory relationship. Coen and Willman 1998.

regulation, business could not envisage the current RegTP being so self-critical. [7] Again age must be a consideration, as the RegTP still has to clearly define its current role, before projecting it into the future.

Thus as a new entrant observed, "*in the end it is a question of reputation. That is the difference between the cartel office and the RegTP. The ministry of economics is head of the cartel office as well, but there have only been a few cases where the ministry has influenced the cartel office. The Ministry has no problems with influencing the RegTP, but they would never influence the cartel. It will probably take 10 years to build up a strong independent authority for the regulation of telecommunications and postal issue*" (April interview). The success of this transition period will however also be contingent on strong individual and independent regulatory directors being placed in the 3 chambers.

That said, regardless of the merits of ex-ante and ex-post regulation for telecommunication, there is a consensus in the German sector that the current multiple institutional agencies cannot continue - as it provides for too much regulatory gaming between firms, institutions and government. In the future, industry would appear to favour the introduction of a non-sector regulatory regime. As one firm observed, "*The regulator has a personal staff of 2700. 2500 are for technical regulation. This will be needed always. 200 are dealing with sector specific regulation. In the future you could place them in the cartel office.*" (Interview February 2000) This, it is believed, would provide the sector expertise to deal with the transition to competition and the management of regulatory bottlenecks, while allowing the remainder of the market to operate in a competitive environment.

3.2.1 Energy Regulation in Britain.

3.2.1a Britain: Access in Policy Formation. While the complexity of the UK regulatory regime is increasing at the same time that competition is a realistic option in some aspects of the market, in line with the other sectors and the concept of subsidiary national regulation is still considered the primary focus of firm level

[7] The age and limited strategic role of RegTP also accounted for why the respondents thought it unlikely that the RegTP would be active in fostering and supporting German firm's positions in Brussels.

activity. Formal direct access is guaranteed, to firms of all sizes, through participation in the normal consultation procedures of OFGEM and over time informal access can also be achieved for those willing to invest in the provision of additional information and expertise (Stelzer 1991 and 2000, Coen and Willman 1998).

As in telecommunications, it is clear that informal interaction and discrete exchanges of information are of paramount importance to the success of the UK regulatory regime and firm access and influence. It was evident from our study that this informal access was facilitated by having a single dominant regulatory authority like OFGEM that has had time to established relationships with active policy playing firms (Coen and Heritier 2000). However, the high levels of regulatory discretion by regulators at all levels mean that it is hard to quantify who and what facilitates improved access and influence. However, as we will see in the compliance discussion information and trust are key variables in a successful UK access strategy.

At the European level business has developed direct and indirect access routes to the European Commission and Parliament. In line with the Commissions desire to create inclusive consultation processes for economic and regulatory interests a number energy policy forums have been created (Coen and Doyle 2000, Coen and Heritier 2000, and Eberlein and Grande 2000) At the Florence electricity and Madrid gas forums, large incumbent firms have been invited to participate along with their trade associations and national regulators In addition to these biannual large incumbents, like British Energy, have European affairs offices, which monitor and comment of legislative drafts. In establishing direct lobbying capabilities these firms can be proactive in their involvement in the development of EU Energy directives and develop good will over time with Commission officials and consistent positions in member states (Coen 1997, Levi-Faur 1999). As one director of a large UK firm noted " *I do (work) very closely with the Brussels office. We have a very weighty lobbying position in Brussels and certainly draw on that. We have a government and public Affairs team, which are stronger and weaker (across Europe). We have a strong presence in Brussels, Spain, Germany and Netherlands. So I'm trying to push out, roll*

out our message in Europe, we are looking to use that presence" (UK Interview March 2000)

However, caveats exist to the degree of direct access available to firms in the open and transparent Commission consultation procedures and the degree of influence that individual large firms can establish. First, the Commission recognises the benefit of EU collective positions and therefore encourages firms to participate in the European and national associations. Second, due to the diverging interests of national network providers, suppliers and traders a number of new niche associations and industrial alliances have evolved in recent years. For example the new entrant trading companies like ENRON have created industrial alliances like the European Federation of Energy Traders (EFED) and network providers have created a splinter group from the European Electricity Federation. Moreover, because regulatory solutions and speed of liberalisation has varied in the member states most national trade associations have established offices in Brussels.

However, while incumbents appear to have strategic advantages in mobilising, in terms of direct representation, invited memberships of forums and participation in a creation of federations, new entrants are favoured by the Commission's desire to liberalise the European market and therefore receive a favourable ear

Thus in the energy sector we observed a high degree of multiple-level regulatory action between firms and national and European regulatory authorities. Significantly, in the UK, Europe was seen as a natural partner to both OFGEM and firms in the regulatory process, as the general direction of EU regulatory principles were in line with UK policy. In terms of EU access strategies and national regulators, OFGEM while not the official "voice" of British business in Europe, does consult, mediate and inform firms about the position of directives, and is with the DTI an important source of information for the smaller companies.

Finally in the multilevel access environment, it is worth noting that while the EU is seen as an important element in setting principles of Utility regulation, there was no desire for a EU regulatory agency As one Brussels based regulatory affair manager

noted, "There is definitely no sympathy within member states towards a European Regulator (Brussels Interview March 2001).

3.2.2b Implementation. Accepting that non-compliance was a function of informational asymmetries in the regulatory regime and inconsistent incentives for business our study sort to assess how the regulatory players adapted and overcame these constraints. In both electricity and gas, the regulators are charged to promote competition, and have a shared common view of appropriate industry structure to achieve this. This structure involves vertical separation of the transmission, distribution and sales. The aim was to minimise the extent of the monopolistic business, by creating a competitive supply selling and trading businesses. The structures of the competitive aspects of the market are left to market forces, subject to the usual constraints of competition and merger policy (see Competition Act 1998 and Utility Bill 2000).

However, in the regulatory price reviews the increasingly competitive supply and distribution market firms (RECs) still continue to have an informational advantage. Thus, regulators and firms have tried to establish informal information exchanges and yardstick regulation as a check. It is hoped that the constant contact with a single-sector regulator creates a *reputation game* between firm and regulator, which over time helps both the monitoring and creation of regulation. In other words, a relationship of trust develops between regulator and regulatee, which create potentially a win-win regulatory environment (Coen and Willman 1998). However, the disadvantage of having such a discretionary regulatory environment is the risk of inconsistent and personalised judgements changing with each regulator (Helm 2000, Thatcher 1998) and an over dependence on specific individuals in the regulatory community.

This personalisation of UK regulation is an extremely important observation in the distribution market, when you consider the small size of most regulatory teams and the bad publicity of the sector in the late 1990s. A survey at the LBS of regulation departments' size and career paths showed that the average number of staff of RECs was about 5 people. The team usually consisted of a senior director, a couple of

economists and lawyers and occasionally a technical engineer.[8] However, during price review teams will often grow fourfold as the technical requirements and regulatory intrusiveness increases. However, it is the day-to-day contact that builds up the credibility of a firm's position vis-à-vis rivals and good will that lends weight to information provided.

In the case of the Electricity sector the establishment of *good will* today is of extreme importance as many firms out performed their not very onerous early price caps. In fact, RECS were widely perceived by the public to be fat and lazy monopolies, with directors with inflated salaries and over priced electricity for consumers (Wilks 1997, Economist June 1998). It was this perception that led to Labour introducing the Windfall profit tax in 1997 and the reorganisation of the sector's regulatory goals with the Utility Act 2000. During the recent price review 2000/2001 many firms complained of high informational demands placed upon them and the incompatible attempts to yardstick different regional companies, which can be traced back to their earlier attempts to miss lead the regulators on cost functions and potential performance gains.

However, while the regulator can create potential regulatory games in the gas and electricity distribution markets. The energy sector still has problems of regulated access to network transmission, as the regulator is dealing with a monopoly suppler of information in gas and electricity. New entrants in both sectors clearly want to continue with ex-ante regulation for third party access agreements and the natural monopolies have gradually accepted they have political and regulatory responsibilities (Interview April 2000).

Businesses' recognition of the increased *politisation* of regulation has been brought into sharp focus with the introduction of the Utility Bill 2000. The 2000 Utility Bill while not as sweeping as the proposed DTI 1998 green paper, continues to place emphasis on competition where ever possible and firm and fair regulation where this is not. However, there is also a realisation that those companies responsible for the

[8] However, large incumbents like BG Transco in the Gas sector have some 60 plus people, due to the high regulatory accounting demands placed upon them as part of regulated access contracts.

monopoly part of the business, like Transco, NGC and the distribution companies will for the foreseeable future remain regulated. But perhaps most significantly for regulator independence, the government has requested that consumer interests need to be monitor explicitly. This may have long run effects on the firm-regulator relationship in terms of regulator credibility/ability to deliver on negotiated agreements (incumbent interview 1999). Finally, there are potentially high-level tensions between the aim of promoting competition (consumption) and the new thrust of environmental policy towards controlling green house emissions in line with International agreements.

With respect to the proposition that multi-authority structure make the monitoring of compliance more difficult, we find that while there was potentially some conflict of interest between the OFT and OFGEM, in reality clear demarcations are in place. OFGEM acts on the basis of the Energy Act and is the dominant institution in regulating energy and monitors competition in the sector. OFT only intervenes in the most overt anti-competitive cases. Significantly, institutional processes have been put in place to establish dialogue between the two regulatory bodies and avoid double jeopardy (OFGEM 20001). Similar procedures have evolved at the European level where dialogue at Commission Energy and Competition forums helps avoid conflict and confusion. However, as EU competition increases as demonstrated by recent take-overs by EDF and E.ON, this potential regulatory level may come to play a greater part in the regulatory games of firms and NRAs

3.2.2 German: Access in Policy Formation. Formal access to the negotiations for access rights is not an issue in German, but a fair price is. Structural advantages for vertically integrated energy incumbents mean that questions of market power arise in terms of the risk of cross-subsidies and equitable contract negotiations. As Southern Energy noted: *"In Germany, little has been done to ensure that the free-for-all matures into genuine competition. Almost over night it has gone from pure monopoly to pure anarchy.....it has the vital signs of a liberalised market, but not the structures"(Economist November 1999)*

In terms of access to the regulatory process being a function of expertise, reputation and experience. Incumbents had the most favoured position in the early rounds of the

AA with representation via the VDEW, VIK, BDI and their traditional close contacts with BMWi. Hence, formal business representation via traditional corporatist arrangements were instrumental in the foundation of the AA, but significantly the BMWi failed to take account of new industrial interests such as the energy traders, new entrant suppliers and house hold consumers.

As one ministry official observed "*The adequate representation of interests was not seen as a relevant problem in the beginning of the negotiations. More than the new entrants the small consumers were regarded as being underrepresented. The ministry tried to support the German Consumer Association (AGV)....Concerning the representation of interests of new entrants the ministry initially regarded them as being represented by the BDI....The ministry reacted very passively when new entrants raised their claims concerning the issue of adequate access to the networks.....it was the obligation and duty of the new entrants to organise themselves in some of the associations that were already participating in the process - i.e. like the VIK*" (Berlin March 2001). The passive role of the BMWi was further highlighted by the comment that the ministry tried to keep out when conflicts occurred between the associations and they asked the Ministry for help. This was a surprising admission, if we consider that the aim of liberalisation of the market was to encourage competition not just between existing firms but also by expanding the number of firms.

Thus, not surprisingly incumbents, because of their early success in setting the rules of contact and contract, see nTPA and the AA as "*quick and flexible and regulators as too reactive, information demanding and slow.*" (Essen 2000). However, new entrants in both the gas and electricity sectors have had to take a dual regulatory strategy establishing access to the AA via the creation and participation in associations while calling in the press and lobbying government for the creation of ex-ante regulation and an agency.

Recognising the importance of association in the regulatory process in Germany, large and small new entrants have set about creating new associations and business lobbying alliances to facilitate access to new rounds of the AA. The most visible new grouping has been the Riva, ARES, and Carbat initiative that created the Free Energy Supply Association (FEDV) with the aim of improved access to the AA and pooling

informational and financial resources for representation at the Cartel office and courts. Significantly, FEDV has sought alliances with established associations like the VKU and VEDW to improve its voice in the AA negotiations, but it has found divergence in goals as "*both of them are trying to conserve the market, and we are working against it*" (SME interview Essen January 2001). A more ad-hoc alliance is represented by the three small new energy distributors, Yellow, Best Energy and LichtBlick, which have started the initiative "pro-competition" to lobby for real competition in the sector.[9] Instead of a third association agreement, they call for clear rules for net access to be defined and a sector-specific regulatory institution with competencies on price regulation and sanctioning (FAZ 20-09.2000).

However, for all the new alliances and associations small new entrants continued to complain that nTPA allows the large regional generators to tie them into loss-making long term contracts. Hence, real access to the market requires a strong local partner to gain fair access to the network. For example, in October 2000, the British firm Eastern Energy withdrew from bidding for a German regional utility after its German partner dropped out (Economist 13.11.2000).

Associations have also played an important part in the representation of the German Energy sector in Europe. The VDEW, VIK and BDI have all attended the Florence forums and taken a more proactive role than other national associations in the absence of a NRA to voice industry concerns. At a direct access level large German incumbents have established a European affairs function but all seem happy to work closely with their national associations and are encourage to by the Commission. However, the major problem for German business representation is its continuing use of nTPA when the remainder of Europe has rTPA and the Commission wishes to establish a formal network of NRAs to facilitate EU best practice, non-discriminatory behaviour and improved transparency (FTD 14.3.2001, EC xxxx). Thus, while new entrants potentially have the ear of the Commission, due to limited resources and the need to fight more pressing domestic access cases, few have mobilised to the EU level

[9] This significant call for a regulator and competition is particularly not worthy as Yellow is subsidiary of EnBW and Best Energy main shareholder id BEWAG two of the largest vertically integrated producers. (see http://www.pro-wettbewerb.de)

to lobby for agencies or representation at the ECJ and Competition directorate (Essen January 2000).

At the domestic institutional level the Federal Cartel Office can in line with the essential facilities doctrine open up access to new entrants and ban anti-competitive behaviour. The process is therefore highly juridical and its role is to apply and interpret legal norms rather than consider the public interest (Sturm 1996, Eyre and Lodge 2000). Significantly, the Carte Office is less investigative and proactive, than UK agencies and competition authorities, and its procedures require that firms and interests initiate cases. However, the number of cases and technical information required assessing energy issues casts doubts over its continued ability to exercise speedy judgements. As one new entrant observed: "*We do not really think that a regulator is a 100% right thing. But compared to telecom, where we had 1 monopolist, who is now controlled by around 200 people in the RegTP, which really focus on competition questions. In contrast, the electricity sector has 900 network operators. How should 5-8 people in the Federal Cartel Office do that...?* (N.B. they are mainly concerned with M&A control in electricity and have to monitor, Gas Water and Banking as well). *They do not have a real chance to control the market*"

3.2.2. German Implementation of Regulation. There has been much dissatisfaction with the recent AA agreements and the nTPA prices negotiated between the regional monopolies and the new distributors In Electricity the main criticisms of the new access agreement have been that prices for the net access are too much, not all grid owners have openly published their grid prices, high switching costs and a long time for processing (Bearbeitungszeit). This causes barriers to entry for new entrants and restricts their ability to gain new customers (FAZ 14.12.2000). Significantly many of the Electricity AA problems are mirrored in July 2000 Gas AA. Mr Hennemeyer and Mr Haack of Enron observed that the AA has hindered liberalisation as new entrants have been faced with a variety of tariff systems, an unclear basis on how to define prices - e.g. diameter or distance of the used pipelines. Moreover, usage of the net often involves a variety of grid owners, but no standard treaty has been defined, hence individually negotiated contracts have to be negotiated that can take up to 7 months (FAZ 21.11.2000).

Because of understaffing, the slow process of the courts based appeal system, the uncertainty of judgements at end of process and the prohibitively high costs of going to court, new entrants have been calling for rTPA and a sector agency. The FEDV has become a very vocal actor lobbying for the creation of a sector regulator and has initiated a number of high profile court cases to highlight the discriminatory pricing strategies of the grid network monopolies (FAZ 28.5.2000). Riva Energie estimated that the potential cost reduction was as high as 30% and has hired consultants like LBD to conduct a number of international yard-sticking exercises (Riva, January 2001). High profile court cases like the above coupled with increasing consumer demands for more choice and lower prices has placed the government under pressure to intervene and create a formal regulatory agency.

However, while the primary drive for a regulatory agency has come from new entrants some larger incumbents have recognised that the Federal Cartel office is having difficulties dealing with all the scale of the regulatory tasks required for the smooth running of the new energy markets. As Energie Baden-Wurttemberg (EnBW) observed "*the Federal Cartel Offices does not have the personal capacity, to cope with all the complaints without delay*" (FAZ 14.12.2000).

Moreover, large integrated companies like E.ON are discovering conflicting interests between the net operation divisions like RWE that say everything is ok and the distribution companies like Yellow that say nothing is fine as the negotiated access contracts are longer than the customer contracts. At the regional monopoly level, the number of contracts required between different network operators for example small network operators like the Stadtwerke have caused problems for them starting distribution outside their own networks and as a result they have also lost customers or been forced into mergers.

As a result of these barriers and the bargain between unequal partners it has been estimated that Energy costs are two to five times as expensive as other European states. In the short run, the FEDA, VEDW and consumer groups have called for an increase in staffing and expertise in the Cartel office, but in the long run, in line with the Commission, they seek to establish a regulatory agency.

Significantly, the Cartel Office, once happy to allow the technical expertise of the market to establish rules of access, balancing codes and metering, has recognised that new entrants and consumers need greater protection. As one official noted *"Ex-ante regulation is much better. We see it in the merger cases. Here we say simply to the company that we are not going to give the permission. So they have to react. In ex-post regulation you have to prove that they are charging prices that are too high."* Faced with judging prices the Cartel office has attempted to develop national yardstick regulation for example in a recent case involving Edis an East German local distributor, the Cartel office compared costs with EWE comparable firm in Niedersachsen. However, the Federal Cartel office is faced with information deficits and no rights to audit firms not being investigated and has thus had to resort to international yardstick comparison, with all the assorted problems that this entails (Baldwin and Cave 1999). For example the case brought by Riva against RWE has to be assessed against international prices (i.e. Sweden, Norway and Finland) before proceedings and a full inquiry is made.

Such studies however are time consuming and require more than the current 5 employees. At present technical studies are often left to consultants and the cost of the study paid for by the parties involved. For example, a recent case involving ENRON, Stadtwerke Tubingen and Heidelberg accused Ruhrgas of over charging, the Cartel Office Commissioned EWI (Cologne) to conduct the study and billed the participants. However, while the treat of proceedings can act as a deterrent and force some firms to reduce their costs. The reality is that the number of cases that the Cartel office must face has been increasing dramatically every year since liberalisation and there is now a call from within the Cartel office to have more personnel and regulatory powers (FAZ 14.12.2000). In addition t more staff the Cartel Office would *like "Some more regulation could be on price regulation. We have some new methods, which we think we can use for index method....another thing I would prefer is to change the burden of proof. Who has to prove that the tariffs are suitable? - at the moment we have to prove it."* (Cartel Office February 2001)

Thus in sum, voluntary self-regulation with its over-reliance on competition courts and limited Economic Ministry powers is under great strain from both new entrants

who require quick regulatory judgements and representation on the new voluntary association agreement negotiations, and Cartel office who seeks more specialised staff and regulatory competencies. Whether the co-operative (corporatist) business agreement can survive the increasingly visible dissatisfaction is ultimately a political decision and the Economic Ministry holding the shadow of regulatory intervention over the competing parties heads. As one German incumbent noted "*If the minister feels that the association agreement does not really solve the problem, he will sit down and create a network access regulatory system with tariffs, conditions and terms. There is a sword hanging over us*" (Interview Essen April 2000).

Conclusions:

Viewed as an on going process, liberalisation of Telecommunication and Energy markets has not as yet created a uniformed European regulatory model. Hence, firms that increasingly operate across borders as incumbents or new entrants must learn to adapt to national variations and be aware of the opportunities that these differences provide. However, it is also apparent that businesses, operating within specific national institutional constraints, have a strong influence upon the nature of the firm-regulator relationship and thus directly and indirectly on how national and EU regulatory institutions interact and evolve.

With increased competition and the opening up of national markets a high degree of rationalisation, merger activity and alliances have occurred in both Telecommunication and Energy sectors. In the increasingly concentrated market place there are potential opportunities for abuse of monopoly power, and thus a need for regulation and competition law. However, while common market questions abound, the NRAs have taken the lead on detailed implementation of community regulation, which has been accompanied by considerable national specific regulation. Consequently, the primary focus of business regulatory activity has been at the national level, while recognising that there are risks of double jeopardy for those firms operating in a number of regulatory jurisdictions. To over come these problems the Commission has sought to co-ordinated national regulatory responses via the creation of networks of national regulators. In this context all firms large and small have welcomed the creation of the new regulatory forums, with the hope that EU regulatory

'norms' and best practice will evolve and permeate national regimes. However, business in line with their NRAs is averse to the idea of an additional regulatory tier or European regulatory agency. In terms of EU access and lobbying, incumbents would appear to have a comparative advantage, with their Brussels based government affairs offices, but in reality the EU institutions have looked favourably towards new entrants positions, especially when presented in aggregate form via new issue specific associations and alliances.

In comparative terms new entrants preferences across sectors and countries are uniformed in their desire for strong ex-ante regulation that facilitates equal access to the networks and monitors potential discriminatory pricing. Moreover, this desire for proactive regulation has manifested itself in a *desire for strong and independent regulatory agencies* in both sectors and countries. Incumbents, conversely, have favoured the growth of EU competition law and the trend towards ex-post regulation.

However, while the general trend would appear to be towards the creation of sector specific agencies solutions, the exact nature, functioning of agencies and interaction with other regulatory institutions is framed by distinct and robust business and bureaucratic traditions in member states. As the German case illustrates, firms of all sizes appear to be comfortable with strong rule of law, the dominance of anti-trust law and the Cartel office, and the favoured role of associations in regulatory negotiations. However, new entrants for third countries have found the high level of litigation and overlapping competencies of regulatory institutions hard to manage, closed, risky and expensive. In contrast, the UK model was perceived of as open to all firms regardless of origins or size, but it does require that firms learn a style of conciliatory lobbying behaviour, which can act as a hidden access barrier to firms from abroad.

Yet, for all the inertia in the initial stages of Telecommunication and Energy regulation, new entrants in German have lobbied government hard for respectively strengthening and creating independent sector regulators with ex-ante and ex-post competencies. In the German case this has meant that new businesses have occasionally come into conflict with the existing regulatory competencies of the Federal Cartel Offices and BMWi. Moreover, where clashes have occurred the new entrants have turn to the courts as a means of signalling market failures and creating

regulatory/institutional precedence. Thus we could argue that in the younger and multiple institutional German regulatory regime where norms and relationships are still to be defined business has actually take a proactive role in attempting to frame the institutional debated. The British model has also evolved over time and in the light of high profile clashes between regulator and firms, but unlike German it has also benefited from a clear regulatory hierarchy and price review cycle that make contact an iterative "trust based" game. Nevertheless, while we see more conflict in the present German regulatory model than its British counterpart, we could envisage that the relationship between regulated and regulatee will stabilise as firms recognise that conflicts and courts do on always win the long run battles.

Bibliography.

Argyris. N. (2001) *"Convergence and the Electronic Communications Review"* Workshop on EU regulation and Convergence. London Business School February 2001.

Baldwin. R. and Cave. M. (1999) *Understanding Regulation. Theory, Strategy and Practice.* Oxford University Press.

Bergman. L. Doyle D. Gaul. J. Hultrantz. L. Neven. D. Roller. L Waverman. L (1998) *Europe's Network Industries: Conflicting Priorities.* Monitoring European Deregulation series 1. London CEPR.

Bergman. L. Brunekreeft G. Doyle D. Newbury. D. Regibeau P. (1999) *A European market for Electricity?* Monitoring European Deregulation series 1. London CEPR.

Blundell. J. and Robinson C. (1999). *Regulation without the state.* IEA. Occasional Papers 109.

Doern B and Wilks. S (eds.) (1998) *Changing regulatory institutions in Britain and North America. Toronto:* University of Toronto Press.

Dyson. K (ed.) 1992 Politics of German Regulation. Aldershot: Dartmouth.

Cave. M. and Prosperetti. L. (2000) "The future of European communications regulation: an assessment of the European Commission's 1999 communications review" in Robinson. *Regulating Utilities: New Issues, New Solutions.* IEA series Edward Elgar

Coen. D. (1997) "The Firm as a Political Actor in the European Union" *Journal of European Public Policy* 4:1:91-108

Coen. D. (1998) "The European Business Interest and the Nation State: Large-Firm lobbying in the European Union" *Journal of Public Policy* 18:1:75-101

Coen. D. and Doyle C. (2000) "Designing Economic Regulatory Institutions for the European Network Industries" *Current Politics and Economics of Europe 9:4:455-476*

Coen. D. and Heritier. A. (2000) "Business Perspectives on German and British Regulation: Telecoms. energy and Rail" *Business Strategy Review* 11:4:29-39

Coen. D. and Thatcher. M. (2000) "The Reform of Utilities Regulation" *Current Politics and Economics of Europe* 9:4:377-387

Coen, D, and Willman, P. (1998) "The Evolution of the firm's Regulatory Affairs offices" *Business Strategy Review. 9:4:*

Eising, R. (2000) *Bounded Rationality and Policy Learning in the EU negotiations: The Liberalisation of the Electricity Supply Industry.* RSC No 2000/26.

Eising, R. and Nicolas J (1999) Moving Targets: Institutional Embeddedness and Domestic Politics in the Liberalisation of EU Electricity Markets. *ESCA paper Pittsburgh* June 2-5 1999.

Eisner, M (1993) *Regulatory Politics in Transition.* Baltimore.

Eberlein, B. (2000a) "Institutional Change and Continuity in German Infrastructure management: The Case of Electricity) German Politics 9:3:81-103

Eberlein, B. (2000b) "Configurations of Economic regulation in the European Union: The Case of Electricity in Comparative Perspective" *Current Politics and Economics of Europe 9:4.*

Eberlein, B and E, Grande (2000) Regulatory and Infrastructure Management: German Regulatory Regimes and the EU Framework German Policy Studies. Http://www.spaef.com/GPS-PUB/index.html.

Eyre S and Lodge M (2000) "National tunes and a European Melody? Competition law reform in the UK and Germany" *Journal of European Public Policy* 7:1:63-79.

Eyre, S and Sitter S (1999) From PTT to NRA: Towards a new regulatory Regime? " in Eliassen, K and Svojaag, M. (eds), *Liberalising European Telecommunications.* Routledge.

Grande, E. (1994) The New Role of the state in telecommunications. An International Comparison. In *West European Politics* 17:138-157.

Goyder, D. (2000) The Competition Commission: Prospects and Problems in Robinson, C. Regulating *Utilities: New Issues, New Solutions.* IEA series Edward Elgar

Hall, C. C. Scott and Hood C. (2000). *Telecommunications Regulation: Culture, Chaos and Interdependence inside the Regulatory Process.* London Routledge.

Hansard Society (1996) The Report of the Commission on the Regulation of privatised Utilities. London: Hansard.

Helm, D. (1994). "British Utility Regulation: Theory, Practice and Reform" *Oxford Review of Economic Policy.* 10:3:17-39.

Helm, D. (1999). "Regulatory Reform" Utilities Journal. November, pp30-31

Helm, D. (2000) A Critique of Rail Regulation. IEA Lecture Series.

Heritier, A. (1997) "Market-making policy in Europe:its impact on members state policies. The case of road haulage in Britain, the Netherlands, Germany and Italy" *Journal of European Public Policy* 4:4:539-55.

Heritier, A. and Schmidt S. (2000) "After liberalization. Public Interest Services and Employment in the Utilities" in Scharfp and Schidmt (eds): Welfare and Work in the open Economy: Diverse responses to Common Challenges OUP

Heritier, A. Kerwer D. Knill C and Lehmkuhl D. Teusch, M. Douillet, A (2001) Differential Europe New Opportunities and Constraints for National Policy-Making. Rowan and Littlefield.

Kreher, A. (1997) Agencies in The European Community- a Step Towards Administrative Integration in Europe" *Journal of European Public Policy* 4.2:225-245.

Kurth. M (2001) *"EU Regulation and Convergence- Reg TP's Position"* workshop on EU Regulation and Convergence at 1st February 2001.

Lodge M. (1999) "Competing Approaches to Regulation " in Eliassen. K and Svojaag. M (eds). *Liberalising European Telecommunications*. Routledge.

Levi-Faur. D (1999) "Governing Dutch telecommunications Reform: State-Businees interaction in the transformation of the national policy regimes to European embedded policy regimes" Journal of European Public Policy 6:1.

Majone. G. (1996) *Regulating Europe*. London Routledge.

Majone. G (1997) "From the Positive to the Regulatory State: Causes and Consequences of Changes in the mode of Governance", in *Journal of Public Policy* 17:139-67.

Majone. G (1997). "The New European Agencies: regulation by information." *Journal of European Public Policy* 4:2.

Prosser. T (1999) "Theorising Utility Regulation" *Modern Law Review* 62:2:196-217

Riley. A. (2000) "A Unique Antitrust Regulatory Problem: Co-ordinating Concurrent Competition Powers" *Utility Law Review*. 11:2:36-40.

Robinson. C. (2000) *Regulating Utilities: New Issues, New Solutions*. IEA series Edward Elgar.

Thatcher. M. (1997) "Regulators: The Regulatory Regime for the British Privatisation Utilities" *Parliamentary Affairs*. 5:1:2.

Thatcher. M. (1998) "Institutions. Regulation. and change: New Regulatory Agencies in the British Privatised Utilities" Vol 21:1

Thatcher. M (1999a) "Liberalisation in Britain: From Monopoly to Regulation of competition" in Eliassen. K and Svojaag. M (eds). *Liberalising European Telecommunications*. Routledge.

Thatcher. M (1999b) *The Politics of Telecommunications*. Oxford University Press

Thatcher. M. (2000) "The National Politics of the European Regulation: Institutional Reform in Telecommunications" *Current Politics and Economics of Europe* 9:4:387-407.

Thatcher. (2001) "European Regulation" in J Richardson (ed) *Power and Policy Making in the EU*. Routledge.

Schneider. J. (1999) *"The German Model of Co-operative Energy Regulation"* EU Regulation Workshop at London Business School 4-5 November 1999.

Schmidt. S. (1996) "Sterile debates and dubious generalisations: European Integration tested by telecommunications and electricity" Journal of Public Policy 16:3:233-271.

Schmidt. S. (1998) Commission Activism: Subsuming Telecommunications and Electricity under European Competition Law in *Journal of European Public Policy* 5:169-184.

Sturm. R. (1996) "The German Cartel office in a hostile environment" in G. Doern and S. Wilks (eds.) *Comparative Competitive Policy - National institutions in a Global Market*. Oxford: Clarendon Press.

Sturm. R and S. Wilks (1997) Competition Policy and the Regulation of the Electricity Supply Industy in Britain and Germany. Anglo-German Foundation for the study of Industrial Society. London.

Schneider. V. (2000) "Institutional Reform in Telecommunications: The European Union in Transitional Policy Diffusion" in transforming Europe. Europeanisation and Domestic Change eds: N Cowles. Caporaso and Risse T Cornell University Press.

Stelzer I. (1991) "Regulatory Methods: A case of Hands across the Atlantic". in Veljanovski C. (eds) Regulators and the Markets. IEA series

Stelzer I. (1996) Lessons for UK Regulation from Recent US Experience. In M. Beesley, eds Regulating Utilities: A Time for Change. London: Institute for Economic Affairs.

Stelzer, I. (2000) "A review of privatisation and regulation Experience in Britain" IEA Beesley series.

Vogel, D. (1986) " National Styles of Regulation: Environmental Policy in Britian and the US. Cornell University Press

Vogel, S. (1996), Freer Markets, More Rules: Regulatory Reform in Advanced Industrial Countries Cornell University Press.

Veljanovski, C (1991) *The Regulation Game, in Regulators and the Market. An assessment of the growth of Regulation in the UK.* IEA series

Waddams-Price, C (2000) "Gas: Regulatory Responses to Social Needs" in Robinson, C. *Regulating Utilities: New Issues, New Solutions.* IEA series Edward Elgar

Werle, R. (1990) *Telekommunication in der Bundesrepublik*, Campus Verlag

Werle, R. (1999). "Liberaliation of telecommunications in Germany" in Eliassen, K and Svojaag, M (eds). *Liberalising European Telecommunications*, Routledge.

Wilks, S. (1996a) "Regulatory compliance and capitalist diversity in Europe" *Journal of European Public Policy*, 3:4;536-559

Wilks, S (1997) The Amoral Corporation and British Utility Regulation, New Political Economy, 2:2:279-297.

Yarrow, G. (2000), "Competition Act Assessments and Economic efficiency" in Robinson, C. *Regulating Utilities: New Issues, New Solutions.* IEA series Edward Elgar