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Regulating the Utilities: UK and Germany Compared

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Regulating the Utilities: Business and Regulator Perspectives in the UK and Germany

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REGULATORY UTILITIES IN THE UK AND GERMANY

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List of abbreviations

NRA	National Regulatory Authority
PTT	Post, Telegraph and Telecommunications Utilities
RPI	Retail Price Index (RPI-X is a price-capping formula in which an efficiency factor X is subtracted from the Retail Price Index to give firms an incentive to cut costs)
ULL	Unbundled Local Loop
European Union	
APEC	Association of Private European Cable Operators
ATOC	Association of Train-Operating Companies
CEETB	<i>Comité Européen des Equipements Techniques du Bâtiment</i> (European Contractors Committee for the Construction Industry)
CER	Community of European Railways
COCOM	Communication Committee
DG IV	EU Commission's Directorate General for Competition Policy
DG XVII	EU Commission's Directorate General for Telecommunications, Information Technologies and Industries
ECJ	European Court of Justice
ECTEL	European Telecommunications and Professional Electronics Industry
EdF	Electricité de France, French energy operator
EFED	European Federation of Energy Traders
EIM	European Rail Infrastructure Managers' Association
EROS	European Rail Observation System
ETNO	European Telecommunications Network Operators
EU	European Union
HLCG	High Level Communication Group
nTPA	Negotiated Third Party Access
rTPA	Regulated Third Party Access
SBS	Single Buyer System
TPA	Third Party Access
UIC	<i>Union Internationale des Chemins de Fer</i> (International Railways Union)
UNIFE	Union of European Railway Industries
United Kingdom	
BG	British Gas
BR	British Rail
BRB	British Rail Board
BT	British Telecom
CC	Competition Commission
CEGB	Central Electricity Generating Board
CLG	Company Limited by Guarantee
CWP	Concurrent Working Party
DETR	Department of Environment, Transport and Regions

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DGES	Director General for Electricity Supply
DGGS	Director General for Gas Supply
DGT	Director General for Telecommunications
DoT	Department of Transport
DTI	Department of Trade and Industry
FOCs	Freight-Operating Companies
HSE	Health and Safety Executive
MMC	Monopolies and Mergers Commission
NGC	National Grid Company
OFCOM	Office for Communications
OFFER	Office for Electricity Regulation
OFGAS	Office for Gas Regulation
OFGEM	Office of Gas and Electricity Markets
OFT	Office of Fair Trading
OFTTEL	Office of Telecommunications
OPRAF	Office of Rail Passenger Franchising
ORR	Office of Rail Regulation
PO	Post Office
REC	Regional Electricity Companies
RF	Rail Forum
RI	Rail Inspectorate
ROSCOs	Rolling Stock Companies
RT	Railtrack
SRA	Strategic Rail Authority
TOCs	Train-Operating Companies

Germany

AA	Associations' Agreement (<i>Verbändevereinbarung</i>)
AEG	Rail Law (<i>Allgemeines Eisenbahngesetz</i>)
AGV	Working Committee of the German Consumer Associations (<i>Arbeitsgemeinschaft der Verbraucherverbände</i>)
BAPT	Agency for Post and Telecommunications (<i>Bundesamt für Post und Telekommunikation</i>)
BDI	Federal Association of German Industry (<i>Bundesverband der Deutschen Industrie</i>)
BEWAG	Berliner Kraft und Licht AG, energy operator
BGH	Federal Supreme Court (<i>Bundesgerichtshof</i>)
BGW	German Gas and Water Association (<i>Bundesverband der Deutschen Gas- und Wasserwirtschaft</i>)
BKartA	Federal Cartel Office (<i>Bundeskartellamt</i>)
BMF	Treasury (<i>Bundesministerium für Finanzen</i>)
BMPT	Ministry for Post and Telecommunications (<i>Bundesministerium für Post und Telekommunikation</i>)
BMVBW	Ministry of Transport, Building and Housing (<i>Bundesministerium für Verkehr, Bauen und Wohnen</i>)
BMWi	Ministry of Economics (<i>Bundesministerium für Wirtschaft</i>)
DBAG	Deutsche Bundesbahn AG
DBB	Deutsche Bundesbahn
DTAG	Deutsche Telekom AG
E.ON	E.ON, energy operator
EBA	Federal Rail Agency (<i>Eisenbahnbundesamt</i>)

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EnBW	Energie Baden Württemberg AG, energy operator
EnWG	Energy Law (<i>Energiewirtschaftsgesetz</i>)
FEDV	Association for Energy Services (<i>Freier Energiedienstleister-Verband</i>)
GWB	Cartel Law (<i>Gesetz gegen Wettbewerbsbeschränkungen</i>)
RegTP	Regulatory Agency for Telecommunication and Post (<i>Regulierungsbehörde für Telekommunikation und Post</i>)
RIVA	RIVA Energie AG, energy operator
RWE	Rheinisch-Westfälische Elektrizitätswerke Energie AG, energy operator
SPD	Social Democratic Party (<i>Sozialdemokratische Partei Deutschlands</i>)
TKG	Telecommunications Law (<i>Telekommunikationsgesetz</i>)
VATM	Association of the Providers of Telecommunications and Value Added Services (<i>Verband der Anbieter von Telekommunikations- und Mehrwertdiensten</i>)
VDEW	Electricity Association (<i>Verband der Elektrizitätswirtschaft</i>)
VEW	Vereinigte Elektrizitätswerke Westfalen AG, former German energy operator, merged with RWE
VIK	Association of the Industrial Energy Producers (<i>Verband der Industriellen Energie- und Kraftwirtschaft</i>)
VKU	Association for Local Utilities (<i>Verband kommunaler Unternehmen</i>)

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Executive summary

This report considers the impact of liberalisation and the introduction of new regulatory structures on three sectors of the UK and the German network industries: telecommunications, energy and rail. With regulation seeking to foster competition while at the same time protecting essential services, we investigate how firms in the new sector landscape access and influence regulatory authorities and the policy process, and how firms and regulators manage the day-to-day implementation of regulation.

In our study of the interaction between the different players in the regulatory regime of the two countries, key questions include:

- What are the typical features of the regulatory regimes in the different sectors?
- How do different firms access multiple regulatory authorities at the national and international level?
- What are the respective advantages and disadvantages of regulators and regulatees in the regulatory regimes, and how do these affect the implementation and refinement of regulatory goals and processes?
- Is there convergence of regulatory regimes across countries and sectors?

To answer these questions we start with a detailed description and comparison of the regulatory regimes and structures in the UK and Germany, encompassing both the horizontal level of national regulatory regimes and the vertical level of interaction between national and European Union structures. This comparison is complemented by empirical data gained from extensive interviews with regulatory authorities and with businesses of different sizes and market positions across the three sectors and the two countries. In the interviews we sought to confirm or disconfirm a range of initial propositions to explain the degree and nature of business access to and influence on regulatory institutions.

Although sector-specific regulation has been established at both the national and at the European level to protect consumers against possible monopoly abuse, we find that the Europeanisation of economic policy has not brought with it a concomitant harmonisation of liberalisation of regulatory regimes in the UK and Germany. The two countries represent contrasting cases regarding not only the speed of liberalisation but also the style of regulatory management. While independent agencies dominate in the UK regulatory regime, with distinct relationships with other organisations in the regulatory landscape, the German regime is characterised by a strong emphasis on the role of sector-specific competition law and the procedural courts, with prominent ministerial interference in all three sectors.

In both countries and all sectors businesses consider access to national regulatory authorities to be more important than access to EU institutions. Liberalisation of the network industries, with the diverging interests of network members and service operator members, has profoundly changed the sectoral associative structures in both countries. National regulators, in their efforts to ensure compliance, are faced with the problem of overcoming informational asymmetry in favour of regulatees.

Overall, we can discern weak institutional convergence within Germany and incremental sector convergence between Germany and the UK, particularly regarding the role of the ministries and the growing preference of industry for agencies. While under existing conditions national regulatory regimes will maintain their distinct characteristics, with firms predominantly turning to their national regulators, the European Commission has had an important influence in the liberalisation of the three sectors by setting principles and internal market rules and formulating sector-specific competition law. However, recognising that increased liberalisation in Europe has not created increased regulatory uniformity, the European Commission has established a number of groups and networks to promote broad pan-European regulatory goals, administrative co-ordination and regulatory best practice. Although industry continues to favour distinct national and sectoral regulatory solutions, embedded in an informal multi-level EU network, we can nevertheless expect gradual convergence towards sector-specific regulation and fewer business–regulator conflicts as the actors begin to understand regulatory functions and procedures.

1 Introduction: business–regulator relations in the UK and Germany

In the last decade the industrial landscape and regulatory structures of the network industries, such as telecommunications, energy and rail transport, have undergone a profound transformation. Liberalisation has fragmented the former natural monopoly sectors; new players with new preferences have emerged. New regulatory institutions have been created to regulate the market at the national and the European level to foster competition, and at the same time to compensate for the negative consequences of market integration in order to protect services of general interest. These changes raise a number of important questions about regulatory structures and function. Specifically, how do firms in the new sector landscape deal with the regulatory authorities, how do they gain access to influence the policy process, and how do firms and regulators manage the day-to-day implementation and monitoring of regulation under different national and sector regimes?

The focus of this report is therefore on understanding 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 and style of regulation. As liberalisation leads to greater cross-border company relationships, national regulation may find it more difficult to deal effectively with interjurisdictional problems, for example access or interconnect issues that are key to the promotion of effective competition in network industries. Informational asymmetry in the regulatory debate between companies and regulators may mean that national authorities are better informed about local conditions and therefore better able to act on regulatory issues. We consider business perspectives on the regulatory issues that are best centralised, those that are best co-ordinated, and those that are best left to national authorities. This is of particular interest if these perspectives inform regulatory activity and the provision of services.

1.1 Research questions

Given that the exchanges between firms and regulators influence the structure and content of regulation, we explored the following questions:

- Which regulatory authorities can firms target in different regulatory regimes?
- What are the typical features of the different regulatory regimes in the different sectors in the two countries under consideration?
- Given multiple horizontal and vertical regulatory authorities, where is the primary focus for access?
- To what degree does access to these authorities vary according to size and function of a firm?

- How effective is regulation in securing implementation of the regulatory goals?
- To what extent are regulatory authorities played off against one another?
- Given that there is an informational asymmetry between regulator and business, to what extent does business exploit its advantage and how does the regulator react to overcome this informational disadvantage?
- Is the interaction between firms and regulators a learning process that enables both parties to refine regulatory instruments and goals?
- Is there convergence of regulatory regimes across countries and sectors?

1.2 Organisation of study

Telecommunications, energy and rail were chosen as the subjects of this study as these industries are important for the economic performance of the European economy and provide important inputs to other sectors of the economy. Moreover, they are all industries in which important boundary shifts at different levels are and 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, 1990; Coen and Thatcher, 2000; Eberlein and Grande 2000; Bartle *et al.*, 2002). Nevertheless, they are all 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 (Héritier and Schmidt, 2000). All have been the subject of EU-wide regulation in the form of EU directives (Eising, 2000; Eberlein, 2000a; Schmidt, 1998). However, the sectors also exhibit important contrasts: they vary with respect to the speed, and possible degree, with which effective competition will emerge; in technological innovation; in the balance between economic and non-economic regulation; in the balance between national and supra-national regulation; and the acceptance of institutional and self-regulation

We took two different comparative perspectives in answering the questions outlined above:

1. We described and compared the regulatory regimes in the UK and Germany with their different political institutional architectures, administrative traditions and economic legacies (Wilks, 1996; Wilks, 2001; Eyre and Lodge, 2000). Particularly important are the constraints on the executive and legislative discretion that arise from different interrelationships between legislative, executive and judicial institutions (Levy and Spiller, 1994).

We take a comparative perspective as regards the structure of the regulatory arrangements: we distinguish between multiple-authority structure and a single-authority structure at the horizontal (national regulatory regime) and vertical level (EU interaction with national). In exploring these levels we explored how various regulatory arrangements provide different access opportunities for business to the regulatory debate and also the degree to which this affords problems for compliance/implementation of regulation.

2. In taking a comparative perspective on type of firm, we recognised that regulatory behaviour varies with business size, origin and market position. Hence, we expected access and contract compliance/implementation to vary depending on the nature of the firm. For this reason we distinguished between incumbents that have a long-standing relationship to governments and new market entrants. Finally, we distinguished between large firms that call upon significant resources and small and medium companies that are faced with tight budget constraints.

We should emphasise that we are not trying to account for the policy impact of business on actual regulatory directives or contract. Rather, we are seeking to analyse how firms interact and define the regulatory regime in which they operate.

We conducted high-level interviews with all the regulatory authorities at the national and European level and with a representative cross-sample of industry, taking account of the fact that businesses' institutional preferences vary with size, origin and market position. Hence 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 and between national regulatory options. We also recognised that the different structure of company ownership was relevant: whether state- or municipally owned companies, privately owned and recently privatised companies, or companies that have always been in the private sector.¹ Appendix 1 lists the firms and institutions interviewed.

Accepting national and sector variance, we formulated generalisable propositions to explain the degree of business 'access' to various regulatory institutions and the behavioural criteria these institutions expect in return for potentially favoured access.

Our preliminary propositions guide the interpretation of the empirical data and are shown in Boxes 1 and 2. While most propositions are applied to all three sectors, some are not equally pertinent for all sectors.

Box 1

Access propositions: telecommunications, energy and rail

- 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
- A regime with multiple access points and overlapping competencies offers firms strategic possibilities to gain improved access to the regulatory process
- The discretion of the regulator to provide favoured access is a function of the number of firms in the market
- Firms seek to nurture access to regulators through their established reputations and long-term experience

¹ This disaggregation was not systematically explored, but reference was made where appropriate.

Box 2**Implementation propositions: telecommunications, energy and rail**

- Firms will exploit the informational asymmetry between regulator and themselves to reduce the cost of regulation
- The regulator is aware of the informational asymmetry and seeks devices to increase his or her information
- If the firms' level of performance is judged unsatisfactory, the regulator seeks to change regulatory terms
- A regulatory structure with multiple authorities on the vertical and horizontal level offers the firm more strategic possibilities to reduce regulatory costs
- A single independent regulator is able to guarantee a more stable relationship with regulatees
- The regulator changes contracts if there is a change in government and political guidance changes
- A market structure with multiple players allows the regulator to reduce the informational asymmetry by comparing performance
- Where performance of regulatee is judged unsatisfactory, the regulator seeks to change the terms of the contract

1.3 Structure of report

Chapter 2 presents the regulatory institutional arrangements in the three sectors in the two countries to contextualise the subsequent analysis. The chapter observes that at the national level regulatory regimes usually combine three core institutions – a sector-specific regulatory agency, a ministry and a competition authority – and explores their shared competencies and interaction. From a comparative perspective, the chapter illustrates how regulatory regimes are not stable entities, but rather, in creating and correcting markets, there are ongoing modifications to both the UK and German regimes.

Chapter 3 explores how firms have developed distinct relationships with the respective regulatory authorities at the national and European level. In the process a number of propositions are explored empirically, for example what type of firms favour access to what type of regulatory authorities; how access and implementation vary with the sector and country regulatory regime; and how these day-to-day interactions redefine the roles of regulatory authorities.

Chapter 4 presents our conclusions, in the form of a country and sector comparison.

2 Regulatory regimes in telecommunications, energy and rail

This chapter explores the regulatory regimes, especially the developments in regulatory regimes after they were established in the telecommunications, energy and rail regimes in the UK and Germany. We focus on three institutions: the ministry (department), the competition authority and the sector-specific regulatory institution. In both countries these three institutions share regulatory competencies and interact with each other.

2.1 Telecommunications

The pre-liberalisation telecommunications sectors in the UK and Germany were dominated by the post, telegraph and telecommunications utilities (PTT), in which operative and regulative functions were linked together – i.e., net, service and equipment. The net and service were vertically integrated in the hands of a state monopoly. The strong link between political, administrative and private actors entailed ‘highly closed games’ and strong state intervention (Thatcher, 1998: 123). The key regulatory reform transformed the PTT into national regulatory agencies (NRAs). The UK, and later Germany, opted for the regulatory agency model, establishing its regulators in 1984 and 1998 respectively.

2.1.1 UK: regulatory regime

The transformation of the telecommunications sector started with the Telecommunications Act 1981, which split the Post Office (PO) into two public corporations: the PO and British Telecom (BT). The separation prepared the ground for the second Telecommunications Act in 1984, which privatised BT and created an independent regulatory body, the Office of Telecommunications (OFTEL), as a non-ministerial department within the ambit of the Department of Trade and Industry (DTI). As a uniquely British feature, a single Director General of Telecommunications (DGT) was appointed to head OFTEL.

Traditionally, the UK has not had regulatory bodies for utility regulation. Different institutional designs were a ministry, a competition authority or a regulatory agency (Böllhoff, 2002). After assessing a variety of alternatives, the regulatory agency model was opted for, and a ‘specialist look-alike’ to the Office of Fair Trading (OFT) was invented (Prosser, 1997: 46). OFTEL was the first network and utility regulatory body in the UK.

The Telecommunications Act 1984 is still in place. However, over the years OFTEL has changed its design. When OFTEL was set up in 1984, Europe did not play a role in telecommunications. Since the 1990s, especially since the liberalisation of the whole European telecommunications market, OFTEL has had to take decisions in accordance

with European legislation. Until the mid-1990s the focus of OFTEL was on infrastructure investment. With European legislation, the regulator was forced to increase competition, for example to initiate the unbundling of the local loop. Additionally, policies changed when new DGTs came into office. For example, Don Cruickshank, DGT from 1993 until 1997, became famous for his proposal to shift OFTEL from a regulatory authority to a competition authority (Hall *et al.*, 2000: 28).

The role of the DTI in the telecommunications regulatory regime

An analysis of the role of the relationship between OFTEL and the DTI shows that there is no clear separation of competencies between the two institutions. The involvement of the DTI in licensing issues serves as one prominent example: not only does the Secretary of State retain the power to license new operators, he or she also has a right to veto licence modifications. In contrast to this, OFTEL is responsible for advising the DTI on matters of telecommunications. The DTI regards OFTEL as an expert on telecom issues and relies on the regulator to give specialised and detailed advice (interview DTI, February 2001). However, the DTI does not accept all OFTEL recommendations. The DTI and the Secretary of State take a strong interest in analysing OFTEL decisions and publications, for example consultation documents. Since British ministries do not have general or special instructions, the DTI is allowed and is willing to informally influence the regulatory decision-making. The DTI plays a central role within the regulatory regime.

The role of the competition authorities in the regime

Two institutions are involved with the competition authorities in the telecommunications regulatory regime: the Office of Fair Trading (OFT) and the Competition Commission (CC, known as the Monopolies and Mergers Commission (MMC) until 2000). Regarding the modification of licences, if OFTEL and the company involved do not reach an agreement, reference is made to the CC, which then investigates the licence conditions and takes a final decision.

Competition law has often been amended for issues of anti-competitive behaviour or the abuse of dominant position. To prevent anti-competitive behaviour, under the Competition Act 1980 and the Fair Trading Act 1973, either the Secretary of State or the OFT referred to the MMC. However, after OFTEL was set up for telecommunications regulation, the DGT is able to ask the MMC/CC to start investigations or prescribe remedies.

The Competition Act 1998 greatly enhanced the powers of the state on anti-competitive agreements and the abuse of market power. Both the OFT and the utility regulators are allowed to apply this act. Consequently, a mechanism (Concurrent Working Party, CWP) has had to be put into place to co-ordinate relations between OFT and the regulators.² However, as we will see in Chapter 3, the OFT views its role within the regulatory regime as being of minor importance.

² The CWP is not a completely new instrument. To co-ordinate the work of OFTEL and OFT, even the Telecommunications Act 1984 had asked both institutions in Article 50 (4) to co-ordinate their decision-making. For the development of the new CWP see Schneider, 2001: 283.

Future institutional changes in the regulatory regime

Because of increased convergence between telecommunications, broadcasting and internet services, the Labour government has often argued in favour of a communication office (see for example Hansard Society, 1996: 51). In 2000 it published a White Paper in which it proposed establishing a new regulatory framework by transforming OFTEL into an Office for Communications (OFCOM) (DTI 2000). In accord with this, an 'umbrella' agency will be set up, combining the expertise of five previously independent institutions. With OFCOM as an economic as well as a 'content regulator', the goal is to attain synergy effects and to reduce communications gaps between formally independent authorities. It is assumed that OFCOM will be established in 2003.

2.1.2 Germany: regulatory regime

While the German government traditionally viewed the PTT model as the optimal regulatory regime, it changed its mind in the mid-1980s. In parallel with reform proposals of the European Commission, the government started its own initiatives to liberalise and privatise the national telecommunications sector and to establish a new regulatory regime.

The PTT was transformed into a new regulatory regime in three steps (see for example Grande, 1999; Mette, 1999). With the Post Reform 1 (1989/1990), three separate operational units for telecommunications, postal service and post banking were made into public corporations. The Ministry for Postal and Telecommunications (BMPT) still holds the steering competencies for the sector (among other things it owns and regulates it). In 1994, with the Post Reform 2, the intention was to separate regulatory competencies from ownership. While the competencies have been left with the BMPT, a new administrative agency, the Agency for Postal and Telecommunications (BAPT), was institutionalised for ownership. The three public corporations were transformed into stock companies, one of which was the Deutsche Telekom AG (DTAG). With the Post Reform 3, in 1996, the decision was made to fully open telecommunications to competition by 1 January 1998. On the basis of a new telecommunications law (TKG), sector-specific regulation was set up with a new telecommunications regulator, the Regulatory Authority for Telecommunication and Post (RegTP), an institution under the supervision of the Federal Ministry of Economics (BMW). The BMPT became part of the BMWi, and responsibility for ownership was transferred to the Treasury (BMF). Civil servants of the BMPT moved to the newly created RegTP. Additionally, the BAPT was incorporated into the RegTP.

Until 1998 Germany did not have regulatory bodies for utility regulation. The case of the RegTP shows that instead of a traditional model, a new and – for the German administrative tradition – innovative institutional design was introduced. A variety of models were closely scrutinised when the RegTP was being designed. However, predominantly because of European legislation and the American and British experience with sector-specific regulation in telecommunications, a regulatory agency design was opted for (Böllhoff, 2002).

The RegTP has jury-like decision chambers as the central instrument for decision-making, established in order to attain independence from the ministry. Five decision chambers, chaired by a president and two vice presidents, are responsible for decisions in accordance with the TKG on specific regulatory tasks, such as licensing management or price regulation. (For a detailed analysis of the decision-making chambers and their

independence see Oertel, 2000.) The institutional design of this chamber system was adopted from the German Federal Cartel Office (BKartA), which uses a similar system. However, in addition to the decision chambers, the RegTP has a variety of traditional departments, responsible for technical regulatory issues, that have been taken over from the BAPT. This combination of traditional administrative departments and jury-like decision chambers makes RegTP a unique institution.

The role of the BMWi in the telecommunications regulatory regime

From a formal perspective the competencies of the RegTP and the Federal Ministry of Economics (BMWi) are clearly separated. While the RegTP is responsible for the day-to-day decision-making, the ministry defines general telecommunications policy and supervises the RegTP.

There is some debate about the independence of the RegTP and the intensity of the interaction between the two institutions. In comparison to traditional administrative agencies, the ministerial oversight of the RegTP is restricted. Article 66 (5) of the TKG indicates that the BMWi is allowed to give general instructions. These instructions have to be published in the federal register, which means that there is a 'subtle reduction' of ministerial competencies (Oertel, 2000: 238).³

The ministry views the RegTP as 'fully independent' and claims that there is no political influence on the decision-making of the RegTP (interview BMWi, February 2000). As yet there is officially only one case in which the ministry formally interfered with special instructions in a RegTP decision. However, the RegTP complains of constant and subtle ministerial attempts to guide regulatory decision-making (interview RegTP, February 2000). In sum, while BMWi only rarely formally interferes with RegTP decision-making, there seems to be steady informal interference. This leaves the ministry as one of the central players in the regime.

The role of the BKartA in the regulatory regime

From a formal perspective, the relationship between the RegTP and the Federal Cartel Office (BKartA) is defined in the TKG and the Cartel Law (*Gesetz gegen Wettbewerbsbeschränkungen*, GWB). TKG Article 82 points to different degrees of cooperation (Paulweber, 1999: 79ff.). There are cases – such as when there is an abuse of dominant position in the telecommunications sector – where both institutions have to agree. The BKartA has the right to comment on some decisions of the RegTP, such as decisions concerning net access or interconnection. On the other hand GWB Article 19 and 30 allow the RegTP to comment on BKartA decisions if the telecommunications sector is affected. Although these rules define the different competencies in the two institutions, they do not ensure a clear-cut separation (Paulweber, 1999: 81). Because of the complicated distribution of competencies, the relationship between the RegTP and the BKartA is described by political scientists as 'competitive', causing a 'regulatory dilemma' (Grande, 1999). This interpretation might have been accurate for the first few months of the relationship in 1998, after the RegTP was established. However, because of regulatory learning, the BKartA and the RegTP have since agreed to develop a stable and

³ To publish instructions is perceived as a barrier to extensive ministerial influence because published instructions are open to external scrutiny. Besides, it requires the minister to provide reasons.

co-operative relationship (interview RegTP, February 2000; interview BKartA, September 2000). In this, the RegTP is the dominant institution, while the BKartA has more 'reserve functions', which it uses quite passively (Schneider, 2001: 279f.). Researchers describe this silence as a 'self-deprivation of power' (*Selbstentmachtung*) (Schroeder, 1999: 27f.). It might be a silent consensus between the two institutions that the RegTP is to be the central institution for regulatory decision-making, while the BKartA is to keep quiet.

2.2 Energy

Like the telecommunications sector, the energy sector (electricity and gas) has also witnessed a shift from monopolistic to more liberalised regulatory regimes. In the UK different regulatory bodies were developed for the two energy sources but were later merged. In Germany two self-regulatory regimes were established.

2.2.1 UK: regulatory regime

The UK was the first European country to shift its focus from 'energy planning to the realm of competition administration' (Sturm *et al.*, 1998). Before liberalisation, the gas and electricity sectors were primarily nationalised industries in public ownership. In the 1990s the Conservative government decided to reduce the number of nationalised industries. First, the British Gas Corporation was sold; later companies from the more fragmented electricity sector were sold to the public. To ensure the influence of the state, regulatory agencies for gas and electricity were established: OFGAS (Office for Gas Regulation) and OFFER (Office for Electricity Regulation). In 2000 the two regulators were merged in the Office for Gas and Electricity Markets (OFGEM)

The gas sector – OFGAS

Before liberalisation the British gas sector was a vertically integrated entity. Regulatory reforms were initiated with the Gas Act 1986. The incumbent British Gas Corporation was left as a vertically integrated body, and later – like British Gas plc (BG) – it was privatised as a single unit. To regulate the sector, an Office for Gas regulation (OFGAS) was established. Headed by a Director General of Gas Supply (DGGs), the main function of the regulator was to monitor BG by price caps. BG, as a carrier as well as a provider of gas, was 'a monopoly carrier and a near monopoly supplier' (Hogwood, 1990: 600). OFGAS therefore only had to regulate one company. The Gas Act 1995 aimed to fully open the gas market to competition. BG was forced to separate into two companies: Transco International is now responsible for the production and transport of gas, while British Gas Energy has taken over the responsibility for supply, retail and service. However, since there is still a monopoly in gas supply, the sector still needs to be regulated in order to prevent discriminatory practices.

The electricity sector – OFFER

Liberalisation of the electricity sector was much more complex than that of the gas sector. In contrast to the gas sector, with only one incumbent, the pre-liberalisation electricity sector already had a market structure with a complex network of actors involved. A Central Electricity Generating Board (CEGB) co-ordinated electricity generation and

supply of the national grid. Electricity was supplied by 12 area boards as regional monopolies. This vertically and horizontally disintegrated sector was reformed with the Electricity Act 1989. The CEGB was split into three power-generating companies; for transmission a National Grid Company (NGC) was created, jointly owned by 12 regional electricity companies (RECs) and replacing the area boards. The RECs were privatised, and the regional monopolies were abolished to promote competition. In 1995 the NGC, too, was privatised.

The government's core goal for the Electricity Act 1989 was to promote competition in power generation and supply and 'to regulate the behaviour of the monopoly companies in the market' (Gilland, 1996: 244). Therefore, a Director General for Electricity Supply (DGES) and a new Office for Electricity Regulation (OFFER) were established. Because electricity supply and distribution were already separated, the regulator was mainly concerned about ensuring open access to the grid and regulating prices.

OFGEM – the merger of offices

Since the two separate regulators for gas and electricity were set up, there have been proposals to merge the two institutions (see for example Helm, 1994: 30). However, it was not until 1997 that the new Labour government re-examined the existing regulatory framework (DTI, 1998a). The regulatory approach of previous Conservative governments was criticised for being too narrow, primarily on economic regulatory issues. In contrast to the earlier approach, Labour proposed extending obligations on social and environmental regulatory issues. It also suggested aligning the electricity and gas regimes and merging the regulatory offices for electricity (OFFER) and gas (OFGAS) (DTI, 1998a) because of increasing convergence between the two energy markets.

The Utilities Act 2000 merged OFFER and OFGAS into the Office of Gas and Electricity Markets (OFGEM) (see Graham, 2000). OFGEM takes decisions under the Gas Act 1986, the Electricity Act 1989 and the Utilities Act 2000. The main objectives of the new regulator are to protect the interests of gas and electricity customers by promoting competition and regulating monopolies and to enhance competition in electricity generation or gas transportation. OFGEM will provide the regulatory model for the foreseeable future.

The role of the DTI in the energy regulatory regime

Before liberalisation the gas and electricity sectors were supervised by the Department of Energy. In 1992 the Conservative government abolished the department, transferring its competencies to the DTI, which has been the sponsoring department for energy regulators since then (Eising, 2000: 158). To ensure a smooth transition from a monopolistic to a competitive system, the ministry intervened heavily in both sectors (Gilland 1996: 257f.).

The DTI held 'strong reserve powers in addition to those of the regulator' and was allowed to impose supplementary price caps on OFFER (Prosser, 1997: 151ff.). Additionally, the DTI had the power to issue licences, and the Secretary of State was allowed to veto any licence modification concerning the regulator and industry (Veljanovski 1994: 9f.). The DTI retained its responsibilities following the establishment of OFGEM: for example, it was still allowed to veto licence modifications. However, a new kind of relationship emerged with the Utilities Act 2000: the Secretary of State has

competencies for guiding OFGEM on social and environmental objectives. In sum, in the energy sector the ministry plays a central role as it closely monitors the energy regulator.

The role of competition authorities in the regime

Apart from the regulatory agency, the regulatory regime in the British energy sector also includes the Competition Commission (CC) (until 2000 the Monopolies and Mergers Commission, MMC) and the Office of Fair Trading (OFT).

Both OFFER and OFGAS had to agree with the CC on the licence changes, and OFGEM must now do so, too. If there is disagreement between the regulator and the companies, e.g. on price caps, it is the CC that takes the final decision. However, because this is a time-consuming decision-making process, companies try to avoid this procedure (Gilland, 1996). With respect to issues of anti-competitive behaviour or the abuse of dominant position, in the energy sector the Competition Act 1998 changed relations between OFGEM and the OFT. Similarly to OFTEL, these two institutions agreed to set up a Concurrent Working Party (CWP) to ensure consistent decisions and optimal co-ordination.

2.2.2 Germany: regulatory regime

The regulatory regime in the German energy sector remains an exception. In contrast to the UK, Germany has not yet created sector-specific regulatory agencies. Instead, a system of 'regulated self-regulation', based on so-called associations' agreements (AAs), has been set up (Schneider, 1999: 41ff.). However, three years after liberalisation, the BMWi and the BKartA established new divisions and task forces to parallel the AAs to reduce anti-discriminatory practices.

Germany started regulatory reforms in the late 1990s. The electricity and gas sectors were liberalised predominantly because of international pressures on the energy sector and European legislation that promoted the opening of these sectors (Eberlein, 2000b 85f.).⁴ Before liberalisation the German gas and electricity sector had around 1,000 firms involved in the provision of energy – privately as well as publicly owned. These were interconnected utilities (*Verbundwirtschaft*), which owned the national grid together with regional companies and municipal utilities. To install and protect the monopoly, companies concluded horizontal demarcation contracts and vertical contracts between energy suppliers and local grid companies (see Ortwein, 1996: 108ff.).

The state did not establish a full regulatory system in the sector. In contrast to telecommunications, this sector never had a special ministry for energy regulation. Instead, the economic ministries of the *Länder* defined and supervised the duties of regional energy and gas monopolies.

As a consequence, the central regulatory instruments in the German electricity and gas sector are the AAs: contracts negotiated between associations representing the actors of the energy markets. They aim to define basic rules to prevent competitors from engaging in discriminatory practices and to establish transparent principles to ensure third party

⁴ EU directive 96/92/EC defined rules for creating a common electricity market in 1996. For the gas sector EU directive 98/30/EC was passed in 1998.

access. In general AAs are considered to be flexible regulatory systems for reaching agreements because they leave the state out of the bargaining process. However, there are now increasing calls for setting up regulatory institutions, especially in the gas sector (see Section 3.2), and (as stated above) supplementary institutions have been established within the BMWi and the BKartA for regulating the electricity sector.

Electricity regulation

One core reason for liberalising the German electricity sector was the 1996 EU directive for electricity. This directive mainly focused on the creation of competition in electricity generation but also made reference to the transmission and supply of electricity. It outlined regulatory models for third party access, allowing member states to choose between a single buyer model, or regulated and negotiated third party access (see Articles 15, 16, EC 98/30/EC). While all other states opted for a regulatory agency model, with the definition of AAs, the German system of negotiated third party access 'stands out as a regulatory exception' (Eberlein and Grande, 2000: 7).

The 1998 Energy Law (*Energiewirtschaftsgesetz, EnWG*) opened the German electricity sector to competition. However, it was left up to the companies to define procedures for implementation. Therefore, associations agreed to a first AA (AA1) for the electricity sector in order to fill this gap. AA1 was set up in 1998 and mainly defined criteria for calculating access fees on the basis of a concept of capacity-based and distance-related prices.

With AA2, agreed in 2000, a more market- and competition-friendly solution was negotiated. Instead of a distance-related definition of costs, the system was adjusted to regulations for access to the net. AA2 defines core components of the costs of transmitting energy through grids. On the basis of these components each grid owner has to publicise individual net access and transmission prices, which are not distance-related. Additionally, AA2 requires the parties involved to agree to net access contracts (*Netznutzungsverträge*).

Gas regulation

In the gas sector, liberalised two years after the electricity sector, a similar self-regulatory system based on associations' agreements was established. AA1 for gas was negotiated by traditional actors in the sector, i.e. the Gas and Water Association (BGW), the Association of Industrial Energy Producers (VIK), the Association of Local Utilities (VKU) and the Federal Association of German Industry (BDI). In July 2000 AA1 defined guidelines for opening the sector to new competitors. The agreement outlined principles such as procedures for access to networks or rules for gas compatibility to make transmission through grids possible.

However, AA1 did not include a comprehensive regulatory framework. Various technical details were left open and only preliminary agreements were made, e.g. on the use of different gas qualities or on the access to storage facilities (*Erdgasspeicher*). As a consequence, negotiations on the agreement continued. In March 2001 a supplement to AA1 was implemented. More transparent principles regarding grid access were agreed to. Additionally, the supplement clarified that new entrants have equal access to storage facilities, and it ensured that there would be principles for dealing with distribution shortages (*Engpassmanagement*). A second supplement, implemented in September 2001, defined further technical details, such as principles to define transmission prices,

and announced the opening of the gas market for private customers in 2002. The associations agreed to formulate an AA2 by mid-2002 (*Frankfurter Allgemeine Zeitung (FAZ)*, 22.09.2001).

The role of the BMWi in the energy regulatory regime

Officially the BMWi will not get involved in this system of 'regulated self-regulation' in the German electricity and gas sectors. The BMWi does not want to be influenced and prejudiced, seeking to ensure its own independence in case it has to step in (interview BMWi, March 2001).

The BMWi has encouraged all parties involved and their associations to negotiate the agreements. The ministry has not only closely shadowed the negotiation process (interview BMWi, March 2001), but, by threatening to set up a regulator, has also pushed the associations to intensify negotiations and come to an agreement (see for example *Financial Times Deutschland (FTD)*, 02.03.2001). Since the BMWi does not influence the content of the AAs, it informally influences the negotiation processes: for example, since private consumer groups were absent from the negotiations for the AA for gas, the BMWi motivated and spurred the representatives of consumer groups (*Arbeitsgemeinschaft der Verbraucherverbände, AGV*) to interfere (interview BMWi, March 2001).

However, the BMWi has changed its role in energy regulation. Three years after liberalisation the ministry established a task force, which started work at the end of 2001 (*FAZ*, 8./9.09.2001). Its goal is to prepare test cases (*Musterverfahren*) for grid owners for the BKartA. However, the task force has no legally sanctioned competencies or enforcement powers to optimise the process of regulation. In sum, the BMWi plays a central role in the energy regime and has an impact on the AAs. The BMWi not only shadows the negotiations of the AAs, it also influences their outcomes.

The role of the BKartA in the regime

Since AAs are not enforced by law, actors within the sector utilised other state institutions to gain support. Grid owners have often agreed to provide access to their nets after the decisions of cartel offices and courts.⁵

The gas and electricity sector has a fragmented system of competition authorities on the federal (the Federal Cartel Office, BKartA) and *Länder* level. The BKartA and *Länder* cartel offices share competencies for dealing with the abuse of dominant market power in energy production and supply. Because the energy sector has regional markets, the *Länder* cartel offices are responsible for cases in their geographical area.⁶ At both levels the offices have to deal with an increasing number of cases.

⁵ The courts play a central role in the regime. They deal with cases to force grid owners to allow transmission. However, because the BKartA receives the highest publicity, most cases are brought before the BKartA (interview BKartA, March 2001). There are serious problems with decisions of courts: as complaints often go through various stages of appeal before the case reaches the Federal Supreme Court (*Bundesgerichtshof, BGH*), it can take up to five years until a final decision is taken. Additionally, courts only decide on specific single cases, with little precedence-setting (*geringe Präjudizwirkung*) (*FAZ*, 10.03.2001).

⁶ For details on the competencies of cartel offices and the distribution between the *Länder* and federal levels see Schneider, 1999: 468ff.

This style of decision-making has been strongly criticised. Compared to regulatory agencies, cartel offices only have a partial regulatory function. They have little capacity – in terms of staff as well as knowledge – to cope with energy regulation issues. Furthermore, there is neither an immediate enforcement mechanism nor sufficient capacity to cope with complaints without delay (FAZ, 14.12.2000).

Therefore, in August 2001, the BKartA established a new division as a decision chamber (*Beschlussabteilung*), staffed by seven civil servants. This division is entrusted with the issue of competition in the German electricity supply industry, dealing with test cases and attempting to reduce the number of individual cases. Although the division lacks competencies of direct enforcement, the BKartA hopes that initiating court procedures will serve as a deterrent. The president of the BKartA views this set-up as a ‘new quality of regulation’ (*Süddeutsche Zeitung (SZ)*, 02.08.2001). The division closely co-operates with the task force of the BMWi (interview BKartA, August 2001).

Since September 2000 a working group comprising the BKartA and some *Länder* cartel offices has been considering general issues of energy regulation. Its main purpose is to organise coherent decision-making between the offices, to co-ordinate cases and to decide on test cases. In sum, competition authorities play an active role in the regulatory regime for energy.

2.3 The rail sector

The rail sector was long considered as a natural monopoly with high ‘sunk costs’. However, more recently states have opened up their rail sectors with the goals of reducing state subsidies, enhancing productivity and increasing the sovereignty of consumers. The state nevertheless retained strong influence on public service obligations. To create and support markets, new regulatory regimes were set up.

2.3.1 UK: regulatory regime

In the UK the rail sector was the last utility sector to be liberalised by the Conservative government. With high speed and intensity, a radical approach was taken to reform the sector (Dudley and Richardson, 2000: 198). Before the rail reform, the sector was publicly owned, with British Rail (BR) as the vertically integrated, hierarchically organised incumbent. The state was heavily involved in the sector: BR was financed by the state and supervised by the Department of Transport (DoT).⁷

The Railways Act 1993 initiated a rail reform with the core goal of splitting up BR. The separation of rail track and services led to vertical and horizontal fragmentations. The following private bodies were created:

⁷ The DoT was later transformed to a Department of Environment, Transport and the Regions (DETR).

- Railtrack (RT), constituted as a separate track authority in 1994 and privatised in 1996, is responsible for managing the infrastructure (network and stations), i.e. for train planning, signalling and supplying access to tracks and stations.⁸
- The Rolling Stock Companies (ROSCOs) own the trains and lease them to private businesses.
- For passenger transport, 25 private train-operating companies (TOCs) were set up. The TOCs are franchises, where private sector companies compete to buy the rights of operation.
- For freight and parcel business, freight-operating companies (FOCs) with specific tasks – such as regional distribution or transportation from harbours or airports – were established and sold to the private sector.

To regulate this complex and fragmented system of privatised bodies, interlinked by contractual relationships, there is not just one regulator, as in the case of telecommunications and energy. Instead, two regulatory bodies were created. They have to regulate the private market, but as a second sector-specific function they also subsidise unprofitable passenger services.⁹

Especially because of this second regulatory function, the regime is described as ‘radically different from ... other utility regulators’. This reflects the ‘considerable regulatory complexity’ of the rail sector (Prosser, 1997: 185ff.).

The Office of Rail Regulation (ORR) was set up as a primary regulatory body. This institution functions similarly to regulators such as OFTEL or OFGEM (Thatcher, 1998). The overall task of the agency is to regulate the newly created market in the rail sector, including promoting competition and preventing the abuse of dominant position. To do so, first, the ORR grants and enforces licences to operate trains. Second, the regulator defines and monitors the access to and charges for the network. Third, the regulator supervises the contracts negotiated between TOCs and Railtrack, and monitors the performance of Railtrack (Knill, 2001).

The second regulator was the Office of Rail Passenger Franchising (OPRAF), established as a franchise authority to negotiate and monitor the franchise contracts with the TOCs. The central characteristic of the rail sector is that it is mostly not a profitable entity, with TOCs dependent on state subsidies. The central goal of OPRAF was to distribute public funding as subsidies and to ensure the quality of the rail service at the lowest possible cost.

The Railways Act 1993 thus took a radical stance, initiating changes that went beyond regulatory reforms in other utility sectors in the UK. With ORR and OPRAF the reform established a unique dual regulatory regime that went ‘against the grain’ of the general trends in other utility sectors.

⁸ Railtrack had to announce bankruptcy in 2001 and was taken into administration by Ernst & Young. In October 2002 Network Rail, a non-profit organisation, took over from RT.

⁹ The existence of two regulators is mainly due to the decision to set up Railtrack as a private monopoly. A single regulator would have had conflicting interests, on the one hand subsidising Railtrack and on the other defining Railtrack’s access charges (interview Office of Rail Regulation (ORR), November 2000).

However, this regime had problems successfully regulating the sector. A central concern was the imbalance between Railtrack and the TOCs. Contracts were not negotiated carefully enough (interview Strategic Rail Authority (SRA), November 1999). The confusion between ORR and OPRAF within the system of 'dual regulation' presented another challenge (ORR, 1997). For example, both institutions had overlapping competencies in consumer protection. There were still unsatisfactory outcomes, e.g. with train delays, underinvestment in the net and a high rate of accidents. The performance of the whole liberalised rail system was described as 'rather poor' (Héritier, 1998: 15f.; Héritier and Schmidt, 2000: 562).

The Labour government, which came to power in 1997, started an investigation of the sector and developed the regulatory regime further. First plans to renationalise the sector were stopped. Instead, with a reform of the rail law, the fundamental weaknesses of the sector were to be overcome. The most prominent proposal was to reform the regulatory regime by setting up the Strategic Rail Authority (SRA), an institution described as a 'vehicle for long-term commitment by Government to the railways' (ORR, 1997). The Transport Act 2000 established the SRA as a 'multi-party merger', taking over other institutions from authorities still in operation as well as individual competencies (SRA, 2000: 15). Most importantly, OPRAF was abolished, and the SRA took over its competencies. In contrast to the short-term oriented regulatory style of OPRAF, the SRA decides with reference to long-term perspectives. The SRA will become a strategic investor, with competencies to negotiate passenger rail franchises and to enforce consumer protection.

The role of the DETR in the rail regulatory regime

Before liberalisation, the British Rail Board (BRB), which steered BR, was under close supervision by the DoT, which had powers of intervention. Although there was a clearly defined separation between general policy and day-to-day administration by the BRB, there was intense political involvement. For example, when ministers tried to reduce the investment in the railways, endless discussions delayed the decision-making (see Foster, 1992: 83).

Following regulatory reform, the government continued to set general railways policy. Besides, as the rail sector is still very politicised, ministers continue to have a hand in the regulatory process and the day-to-day decisions.

With the Transport Act 2000, the relationship of ORR and SRA to the DETR changed. While the ORR is formally independent of the government, there is governmental intervention. The ministry still plays a central role, as it issues the licences to Railtrack. Additionally, the ORR is allowed to close passenger services so long as the ministry agrees (Prosser, 1997: 186f.). The ORR admits that it 'cannot be completely independent of the views of the government of the day' (interview ORR, November 1999).

OPRAF, and now the SRA, are even more closely supervised by the DETR. Article 206 of the Transport Act 2000 explicitly determines that the DETR is allowed to direct the SRA and guide its strategies. The ministry admits that it 'gives a firm steer', for example on the renegotiations of franchises, to ensure that performance improves (interview DETR, January 2001). Especially with decisions by the government, promising a £1.5 billion subsidy to Railtrack, there will be enhanced relationships between the ministry and SRA

(*Financial Times (FT)*, 24.03.2001), since with this decision the government has an even stronger interest in directly controlling Railtrack.

The role of competition authorities in the regime

Both the Office of Fair Trading (OFT) and the Competition Commission (CC, until 2000 the Monopolies and Mergers Commission, MMC) are involved in the regulatory regime of the rail sector. In cases where the TOCs or companies such as Railtrack do not agree with the decisions of the ORR, it is possible to appeal to the CC for a final decision.

The Competition Act 1998 changed the competencies of ORR and OFT on anti-competitive behaviour or the abuse of dominant position. Like OFTEL and OFGEM, ORR and OFT set up a Concurrent Working Party (CWP) to co-ordinate decision-making between the two institutions. The institution with the most sectoral knowledge and most recent experience has to decide on the case. As a consequence, the ORR is more involved in cases on competition issues related to the rail sector, and the involvement of the OFT has decreased.

2.3.2 Germany: regulatory regime

Before the liberalisation of the German rail sector, the Deutsche Bundesbahn (DBB), as a publicly owned monopoly, had the status of a public authority. Article 87 (1) of the Basic Law (*Grundgesetz*) defined the railways as part of the federal administration. Therefore, the majority of 'sovereign functions' (*hoheitliche Funktionen*) were carried out by the DBB itself.

State supervision incorporated two institutions: the Federal Ministry of Transport (BMV, later BMVBW) and the Federal Cartel Office (BKartA). The main competency of the BMV focused on strategic policies as well as detailed operational issues intrinsic to the DBB: for example tariffs, personnel management or budgetary plans. Additionally, the *Länder* had supervisory functions regarding regional planning and technical issues (see Kühlwetter, 1996: 15). In 1994, influenced by the European railways Directive 91/440/EC, a rail reform was initiated to reduce the 'structural overload' of the state (Lehmkuhl, 1996). The state monopoly of the DBB led to unsatisfactory results, e.g. low productivity, rising annual deficits and increasing debts, with the ongoing threat of bankruptcy (Héritier, 1998: 8). The main goal of the reform was therefore to stop further losses in revenues and to strengthen the railways by re-organising the public monopoly.

The key measures of the new Rail Law 1993 (*Allgemeines Eisenbahngesetz, AEG*) were as follows:

1. The two state railways were transformed into one joint stock company: the West German Deutsche Bundesbahn and the East German Deutsche Reichsbahn were merged into the Deutsche Bundesbahn AG (DBAG), a unified joint-stock company under private law, with the debts of the old state railways taken over by the federal government.
2. Track and infrastructure were separated from operational units. On the European level, the option of completely separating the infrastructure and operation was discussed. However, the DBAG remained vertically integrated and had to separate its functions into sections such as track, freight and passenger transport services.

In 1999 these sections were transformed into independent companies under the holding of the DBAG.

3. Non-discriminatory third party access to the rail network was ensured. As the consequence of the liberalisation and the opening of the market, non-state companies now had to be given access to the net from DB Net AG, the infrastructure branch of the DBAG. Operators now pay for the cost of using the track, with the precise conditions negotiated in a self-regulatory process.

With the formal privatisation and the establishment of the DBAG, all sovereign functions formerly carried out by the DBB had to be separated and transferred to new institutions and a new regulatory regime had to be developed. A new agency was set up to work alongside the ministry (the BMVBW) and the Federal Cartel Office (BKartA): the Federal Rail Agency (*Eisenbahnbundesamt*, EBA).

The Federal Rail Agency (EBA)

All sovereign functions were transferred to the EBA, which was established in 1994.¹⁰ Defined as an administrative agency, the EBA is responsible for 'supervision' and 'approval' in the rail sector (*Aufsicht und Genehmigung*). Its main focus is on technical issues such as responsibility for licensing railway companies, control of the safety of technical equipment or issues related to infrastructure planning and financing (Holst, 1997: 88). As the state remains involved in financing the infrastructure of the railways, the EBA awards and supervises grants for services on the federal level. For financing services on the regional level, competencies to distribute subsidies have been taken over by regional and local authorities.

However, so far the EBA is not a 'mainstream' regulatory agency. Lawyers and practitioners argue that 'the term "regulation" is unknown to the German rail law' (Kühlwetter, 1997: 94). Instead of setting up a rail regulator with price regulatory and other extensive competencies – e.g. to enforce third party access – a rail authority with weak competencies was founded to develop competition. Competencies have been left in the hands of the DBAG, which is therefore often 'player and referee in one person' (Holst, 1997: 89). Thus the EBA describes itself 'not as a regulatory agency, but as a non-discrimination supervisory agency' (interview EBA, August 2000).

The government plans to develop the regulatory regime further with a second rail reform. A draft proposal to amend the rail law in order to transfer new regulatory functions to the EBA was accepted by the government in April 2000. The EBA will receive *ex ante* regulatory competencies to stop discriminatory behaviour and thus become a regulatory agency ('track agency') (FTD, 08.09.2000; SZ, 07.03.2001).

The role of the BMVBW in the rail regulatory regime

Before liberalisation the German government was heavily involved in the rail sector, with close co-operation between the ministry and the DBB. With the rail reform the role of the BMVBW changed. The new EBA took on a 'hinge function' (*Scharnierfunktion*), mediating between BMVBW and rail companies (Kühlwetter, 1997: 105); consequently the impact of the BMVBW on the operational issues of the rail sector diminished. Apart from its core

¹⁰ Additionally, Federal Railway Property was established to administer debts, personnel and real estate.

function of distributing direct subsidies that reflect the overall responsibility of the government (Article 87e (4) GG), the ministry received new supervisory functions: as an administrative agency the EBA has to be regulated by the ministry via supervision and directives. There is still no case-to-case intervention in the decision-making of the EBA, a fact that the EBA views as 'surprising' (interview EBA, August 2000).

The role of the BKartA in the rail regime

Because of the state monopoly the Federal Cartel Office (BKartA) did not play a prominent role in the rail sector before liberalisation. Because of 'regulations for controlled competition' (*kontrollierte Wettbewerbsordnung*) (Lehmkuhl, 1996: 72), attempts were rarely made to prevent anti-competitive behaviour.

Parallel to the rail reform, the competition law (*Gesetz gegen Wettbewerbsbeschränkungen*, GWB) was amended. The BKartA received competencies for merger control and for preventing anti-competitive practices in the rail sector. The BKartA is now able to take sector-specific decisions for the rail sector, thus sharing competencies on net access with the EBA. If negotiations between competitors in the rail sector fail, the operators have two options: in cases referring to technical issues, they call the EBA (Article 14 (5) AEG); in cases dealing more with commercial issues, the complaint is handed over to the BKartA. These competencies are shared because of an informal arrangement from 1998 between the presidents of the EBA and BKartA. The EBA and BKartA have a 'good relationship' and co-operate closely (interviews BKartA and EBA, August 2000).

3 Empirical results: business–regulator relations

The objective of this chapter is to examine the interaction between companies and regulators in key industries, namely telecommunications, energy (electricity and gas) and rail. Companies operating in Germany and the UK are well placed to assess different regulatory institutions. Moreover, through their market and regulatory 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 and regulators perceive regulation in Germany and the UK, and whether their actions allow for national variation or pressurise national governments and European institutions to convergence on regulatory governance.

3.1 Telecommunications

3.1.1 UK

Access to regulatory process

Firms in the highly competitive and internationalised telecommunication sector navigate between open national and European authorities. However, in line with subsidiarity and business preferences, the primary focus of activity is at the *horizontal national level*, where national regulatory authorities (NRAs) have taken responsibility for issues that impact on the core competencies of business. In particular, OFTEL was seen as the primary institution to deal with on price, access and social regulation. Most importantly, firms recognised that the director general had a high degree of discretion in the definition and creation of competition and the level of inclusiveness in the consultation process (Stelzer; 1996; Thatcher, 1999). This discretion and independence, while clearly set out in the Telecommunications Act, has evolved through regulatory precedence and the gradual managed interaction with business (Coen and Willman, 1998).

Recognising the importance of regulatory governance, firms of all sizes have developed regulatory competency for dealing with OFTEL and the OFT. Some, like BT, have developed dedicated specialist regulatory groups of 60 individuals or more, while small new entrants often make do with one of their contract lawyers. Such inequalities in resource allocation must, however, be seen as a function of the regulatory demands placed upon the firm. A large incumbent will have to face regular price reviews, access pricing and questions on unbundling the local loop, in addition to developing their new markets and licence requests. The small entrant, on the other hand, having made the initial licence request, may actually enter a competitive market place where legal council at the appropriate competition authority will suffice.

The last point illustrates the potential for alternative regulatory focus in a *multiple regulatory institutional environment*. In the UK, as regulation matures, patterns of ownership change, and controls begin to cross boundaries between sector regulators and

competition authorities, it is crucial that competition laws and single utility sector goals are established. Even so, in establishing a new Competition Act, doors have opened to potential 'regulatory shopping' by firms. Alive to this risk, OFTEL issued a statement about the joint working of regulatory bodies (interview OFTEL, March 2000).

Significantly, while OFTEL uses competition law, it tries to make a clear and transparent demarcation as to which agency (OFT or OFTEL) takes the lead in investigating a particular infringement. This demarcation is achieved through the so-called Concurrent Working Party (CWP), with OFTEL and OFT co-ordinating who will investigate. In cases where a firm tries to play the system and goes only to one of the two institutions, that one will inform the other. OFTEL now tells companies that they should formally contact the OFT for public accountability purposes, but at the same time should also contact other appropriate agencies to save time, as all the agencies will co-ordinate (interview OFTEL, March 2000). For concurrency to work effectively, both institutions must be kept informed of the other's initiatives, to avoid business circumvention and to promote the development of understanding and goodwill between institutions (Riley, 2000).

In such a competitive regulatory market, with a number of firms and regulatory authorities with overlapping competencies, the need for information and political constituencies grows. Firms must choose between regulatory institutions to allocate their expertise and information, and this in turn has implications for the primacy of one regulatory body over another in terms of informational flows and legitimacy. Thus we can see resource interdependence between firms and regulators, where understaffed regulators look to firms to provide expertise on markets in return for improved access over time to the regulatory consultation process. These synergies are magnified if we accept that regulators were often faced with defining unpopular or difficult measures and had to look for a credible constituency in the sector to facilitate implementation. Hence, incumbent and large firms were often sought out for their regulatory input, even at the risk of misinformation and capture (Hall *et al.*, 2000). Conversely, as we will see in the next section, we could argue that where the market was more liberalised and potentially competitive, regulators have been able to develop multiple sources of information (via audits and/or associations) in order to yardstick and benchmark the market.

In vertical institutional terms, at EU level, all the incumbent telecommunication companies and larger new entrants established Brussels offices to monitor EU directives and lobby the European Commission and European Parliament consultation processes.¹¹ Due to economic and staffing constraints small new entrants tend to favour occasional Brussels trips and the use of national and European trade associations. However, while large firms have a location and resource advantage, the European Commission can be seen to be open to all economic and social interests and in fostering liberalisation is sympathetic to new entrant positions. So while large firms with a dominant market position potentially have better access to the European policy debate, their influence cannot always be taken for granted.

Significantly, in terms of regulatory competition between the EU and national authorities, we found that firms consider it an advantage to play the differences between NRAs and

¹¹ See *European Public Affairs Directory 1999* for full list of telecommunication companies that have established Brussels representation.

the European Commission (interview telecom company, January 2000). This willingness to use other European regulatory authorities may, however, be a function of the distances from the national markets. This distance means that firms can play institutions against each other without permanently damaging domestic relationships.

From the national regulator's perspective this was 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"'** (interview OFTEL, March 2000). In terms 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'** (interview OFTEL, March 2000). But significantly, business too, looked favourably towards the creation of EU/NRA procedural 'best practice' and norms within the single market (Coen and Doyle, 2000).

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. It is believed that the regulators themselves can play an active part in counteracting the informational asymmetry without creating uniformed solutions. 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'** (interview OFTEL, March 2000). It must be recognised that, although the regulators and the EU co-ordinate to limit the opportunities to be 'played off', multi-level authority widens the strategic possibilities of national actors.

While critical in Brussels and the German regulatory process, *trade associations* are less significant in the British regime. British firms recognised the limits of resources – especially for new entrants, but considered one-to-one representation as the most effective means of 'accessing' and 'influencing' the domestic regulatory process. Nonetheless, British firms of all sizes used associations to enhance their leverage in seeking access to European regulation, as direct lobbying of EU institutions will be of limited success if expertise, reliable information provision (trust) and European credentials are not established (Coen, 1998).

With the explosion of new entrants and the disaggregation of the telecommunication market, the nature of the traditional trade associations and the sector cleavages has changed. The traditional federations became 'lowest common denominator' policy-makers, and a number of new federations have grown out of the niche markets and new technologies. For example, the cable firms have established the Association of Private European Cable Operators (APEC) while also participating 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 importance to both the new entrants and to small operators, as they allow 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 associations 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 (interview telecom company, January 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, 1998). The reason for this development is that these new 'issue alliances' facilitate more focused and quicker resource exchanges between the European Commission and business in the highly competitive European markets.

Finally, one interesting alliance at the EU, noted by BT and OFTEL, is the potential for the occasional co-ordination of a national position. But neither claimed to push the full UK regulatory agency or economic model.

Managing implementation

The biggest problem facing national regulators in the day-to-day implementation of regulation is *informational asymmetry*. Over the 16 years since privatisation, there has been a high degree of regulatory learning on the part of OFTEL and firms' regulatory affairs teams. Firms have recognised that while they may achieve an undervaluation of an X factor in one price cap review period or a favourable network price today, the regulator will over time recognise misrepresentation and may censor the firm in the court, via increased auditing and informational demands or restricting access to future consultation processes. Hence it is clear that a *game of reputation* is in place, where actors are aware of the risks of misinformation (Coen and Willman, 1998). 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 where there is 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 may be more rule-based (interview OFTEL, March 2000).

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 price-capping formula, in which an efficiency factor X is subtracted from the Retail Price Index to give firms an incentive to cut costs. 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 four to five years 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 re-investment as they wish. The heated policy debate that surrounded the 1998 White Paper *A Fair Deal for Consumers: Modernising the Framework for Utilities Regulation* (DTI, 1998b), which suggested that '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 that 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 propositions, firms would argue that an independent regulator is more able to guarantee a stable contact with the firm and that political uncertainty may create incentives for the firm to shirk in contract compliance and information provision.

Finally, we must not lose sight of the fact that an increasingly large percentage of the telecommunication market is competitive and, as a result, the rationale for market creation and correction regulation is harder to sustain. Following the creation of the new multimedia regulator OFCOM in 2003, it will be interesting to see how much of the market will be subjected to political pressures such as universal services.

3.1.2 Germany

Access to regulatory process

In comparison with the UK, German regulatory institutions are governed more by rules than discretion. Most significantly, we see a number of concurrent powers between regulators and the cartel office, which created *problems of demarcation and access* for firms at the horizontal national level. Under these conditions of uncertainty we recognise that numerous appeals at the procedural courts and cartel office will slow down the policy-making process. Moreover, such adversarial litigation will act as an entry barrier to many new entrants (interview telecom company, March 2000).

Under these *multiple access* conditions, and within a young and evolving regulatory environment of three years, firms are attempting to establish and frame the rules of engagement with regulators. Incumbents and new entrants believed that they had reasonable *formal and informal access* to the RegTP, but the question is **more 'how open and transparent this access should be'** (interview telecom company, February 2000). What is more, because of the importance of the telecoms and competition law and procedural courts, many of these business–regulator exchanges have been played out openly in the courts, where access depends on having the funds to pay for a case.

The RegTP is an institutionally constrained, quasi-independent regulator seeking to establish itself in an innovative and increasingly competitive market. The ministry (BMW_i) and the Federal Cartel Office (BKartA) play a decisive role in RegTP decision-making. Companies point out that it is an 'open secret' that the BMW_i closely monitors the RegTP and interferes where necessary (interview telecom company, August 2001). New entrants are especially unhappy with this influence, claiming that the ministry influences decisions in favour of the Deutsche Telecom AG (DTAG), in which the German state still owns 43 per cent of the stakes. Thus, as the RegTP shares competencies with the BKartA, there are attempts to induce the BKartA to constrain or influence RegTP decisions. Dissatisfied with the decision-making of the RegTP, the VATM, an association in the telecommunications sector, recently argued in favour of more closely involving the BKartA, in order to use BKartA's knowledge to optimise decision-making (VATM, 2001: 20).

Because of the speed of change in telecommunication technology and markets, the regulatory emphasis has been on policing of competition and unbundling services on the local loop. This has brought the RegTP into conflict with business, the new entrants claiming that it is toothless and incumbents seeing it as a time-consuming monolith. However, for all the dramatic headway in the liberalisation of the German telecom market, DTAG still maintains a dominant position as a service provider and can potentially act as a barrier to entry in the area of network access.

While the demarcation and levels of access to domestic institutions is yet to be resolved, it would appear from our interviews that German firms are very comfortable interacting at the *European level* and have developed a high level of visibility (interviews telecom company Brussels, 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) and the RegTP has been active in the new high-level regulatory group (interview telecom company Brussels, March 2000). As a result, 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 DG IV, the European Commission's directorate general for competition policy. Traditions of *collective action* and conciliatory capitalism have also been advantageous in Brussels, where much emphasis is placed on establishing reputation in the appropriate federations and associations. Finally, with increased merger and joint venture 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 (interview telecom company Brussels, March 2001).

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. Even so, 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 European Commission *vis-à-vis* the national regulators (interviews incumbent and new entrant telecom companies, February and March 2000). However, as DTAG 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.

One established medium-sized firm expressed a desire that the new regulator group, High-Level Communication 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 (interview telecom company, February 2000). However, the general business view was reluctance towards any additional institutions at the EU level, 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.

German firms, regulators and politicians were very reluctant to accept the EU's December 2000 Telecommunication review, 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 European Commission would have final decision-making powers and, where 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 (interview telecom company, March 2001).

Managing implementation

In learning to *manage informational asymmetry* in a young regime, all firms argued that building firm-level regulatory competencies is important, as day-to-day contact with the RegTP is creating huge informational demands. DTAG estimates that it spends 300–400 hours per month attempting to make direct contact with the RegTP, and employed over 80 people in its regulatory affairs office. This compares very favourably with BT, but vastly outstrips any of its domestic rivals, with one leading telecoms operator mobilising 10–12 people and new entrants only dedicating part of one person's time.

Significantly, while the interviewees noted the ‘weakness’ of the RegTP and the need for more power *vis-à-vis* the BKartA, 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 BKartA provided an important role in the *ex post* regulation of the sector. One new entrant stated that they would like to see the experience of the cartel office brought in to counterbalance the weak and politically pressured directors of the RegTP. DTAG 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’** (interview telecom company, February 2000). Their view was that, as in the electricity market, which has **‘no sector-specific laws, no ex ante price control, no sector-specific regulation and institution’**, the cartel office can use competition law 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 (interview telecom company, February 2000).

However, new entrants were aware that **‘with the BKartA, you have ex post regulation. You always wait until the incumbent does something, then you complain ... We are in desperate need for ex ante control. I am glad that we have the regulatory agency ... 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’** (interview new entrant, March 2000).

Political guidance is highly significant 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 the local loop, where DTAG still has to recoup its capital investment, as the government is aware of the share price value. Concerns have been raised as to the independence of RegTP management *vis-à-vis* government – especially after the appointment of Matthias Kurth, a high-level politician in the Social Democratic Party (SPD). Moreover, with policy shifts at the EU level and the public goods concerns over the ‘information society’ and access to the superhighway, the risk of direct political intervention has increased. The *discretion of the RegTP* is also restricted because of traditional ministerial and informal links to DTAG and Deutsche Post.

The relative newness of the RegTP was clearly a significant limitation to the development of strategic interaction between regulators and firms. Interviewees had limited confidence and trust in the regulatory regime and the independence of the RegTP. Incumbents and new entrants have tried to establish the rules of the game (within institutional and legal constraints) and understand the nature of the decision-making process. This limited confidence was reinforced by the fact that the RegTP was perceived to be lacking in transparency, and that it demanded too much information.¹² The

¹² 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 requested, it often took a couple of price reviews or a MMC referral for them to dedicate sufficient resources to managing the regulatory relationship (Coen and Willman, 1998).

incumbent as well as new entrants are using the German court system to challenge RegTP decisions, which 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. The courts in Germany are frequently brought in as referees between the regulator and business. A new entrant claimed that at present 75 per cent of all the regulatory decisions he is dealing with are disputed in the courts by themselves or DTAG (interview new entrant, March 2000).

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 economics ministry 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 office. It will probably take ten years to build up a strong independent authority for the regulation of the telecommunications and postal system'** (interview new entrant, March 2000).

The rigid and legalistic German regime would appear to limit the RegTP's ability to take a more proactive role in framing its own regulatory function. Whereas OFTEL published a policy paper stating how it sees the future of regulation, business could not envisage the current RegTP being so self-critical.¹³ Again newness must be a consideration, as the RegTP has yet to clearly define its current role, before projecting it into the future.

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 they allow for too much regulatory gaming between firms, institutions and government. For the future industry would appear to favour the introduction of a non-sector regulatory regime. As one firm observed, **'The regulator has a staff of 2,700: 2,500 are for technical regulation and 200 dealing with sector-specific regulation. In the future you could place the latter in the cartel office'** (interview new entrant, February 2000) This, it is believed, would provide the sector with 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.

In terms of our propositions, where a high level of distrust and ambiguity about the goals of the regulator is observed, it is highly likely that we will see high non-compliance and withholding of information. However, it is harder to assess 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.

¹³ The newness and limited strategic role of the RegTP also accounted for respondents' view that the RegTP was unlikely to foster and support German firms' positions in Brussels.

3.2 Energy

3.2.1 UK

Access to regulatory process

In both the electricity and the gas sector the regulators are charged with promoting 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 competitive supply, selling and trading businesses. The competitive aspects of the market are left to market forces, subject to the usual constraints of competition and merger policy as outlined in the Competition Act 1998 and the Utilities Bill 2000. However, few doubt that the complexity of the UK regulatory regime is increasing at the same time that competition is a realistic option in 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 access* and activity, and formal direct access is guaranteed through participation in the normal consultation procedures of OFGEM.

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-level access and influence (Stelzer, 2000; Coen and Willman, 1998). It was evident from our study that this informal access was facilitated by having a single dominant regulatory authority, such as OFGEM, that has had time to establish relationships with active policy playing firms (Coen and H eritier, 2000). However, the high level of regulatory discretion by regulators means that it is hard to quantify who and what facilitates improved access and influence. 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 Commission's desire to create inclusive consultation processes for economic and regulatory interests, a number of energy policy forums have been created (Coen and Doyle, 2000; Coen and Heritier, 2000; 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 bi-annual forums, large incumbents such as British Energy have European affairs offices to monitor and comment on legislative drafts. In establishing direct lobbying capabilities, these firms can be proactive in their involvement in the development of EU energy directives and over time they develop goodwill with Commission officials and consistent positions in member states (Levi-Faur, 1999).

However, there are some limitations to the degree of direct access available to firms in the open and transparent Commission consultation procedures and the degree of influence that 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, new entrant trading companies have created industrial alliances such as 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 (interview energy company, January 2000).

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.

In the energy sector we observed a high degree of *multi-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 was 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, with the DTI, is an important source of information for smaller companies.

Finally, in the multi-level 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 affairs manager noted, **'There is definitely no sympathy within member states towards a European regulator'** (interview energy company, March 2001).

Managing implementation

Accepting that non-compliance was a function of informational asymmetries in the regulatory regime and inconsistent incentives for business, our study sought to assess how the regulatory players adapted and overcame these constraints. It has been argued that the initial regulatory tools bequeathed by the government to the regulators were woefully inadequate, especially since the government paid little attention to the restructuring of the energy sector to encourage competition (Stelzer, 2000). This structural problem was compounded in the early days as regulators had limited resources and expertise to accurately calculate the appropriate RPI-X and few could envisage the political consequences of an efficiency formula that placed few constraints on the profits of the new monopolies.

Even today after the break-up of British Gas (BG) and the learning from regular regulatory price reviews in the competitive supply and distribution market, regional electricity companies (RECs) continue to have informational advantages. In this non-co-operative environment regulators have gradually attempted to establish informal information exchanges, yardstick regulation and increasingly 'cost plus' regulation. 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 the creation of regulation. In other words, a relationship of trust develops between regulator and regulatee, which potentially creates 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 overdependence on specific individuals in the regulatory community.

This *independence and discretion* 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. Usually consisting of a senior director, a couple of economists and lawyers and occasionally a technical engineer,¹⁴ teams will often grow fourfold during a price review as the technical requirements and regulatory intrusiveness increases. Nevertheless, it is the day-to-day contact that builds up the credibility of a firm's position *vis-à-vis* rivals and goodwill that lends weight to information provided.

In the electricity sector the establishment of *goodwill* is of extreme importance today, as many firms outperformed 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 overpriced electricity for consumers (Wilks, 1997). It was this perception that led to Labour introducing the windfall profit tax in 1997 and the re-organisation of the sector's regulatory goals with the Utilities Act 2000.

The energy sector still has problems of regulated access to network transmission, as the regulator is dealing with a monopoly supplier 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 that they have political and regulatory responsibilities (interview energy company, March 2000).

Businesses recognition of the increased *politicisation* of regulation has been brought into sharp focus with the introduction of the Utilities Bill 2000. While not as sweeping as proposed in the 1998 DTI Green Paper, the Bill continues to place emphasis on competition wherever possible, and firm and fair regulation where this is not. Yet, there is also a realisation that those companies responsible for the monopoly part of the business – such as Transco, National Grid 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 monitored explicitly. This may have long-term effects on the firm–regulator relationship in terms of regulator credibility/ability to deliver on negotiated agreements (interview incumbent, March 2000). Finally, there are potentially high-level tensions between the aim of promoting competition (consumption) and the new thrust of environmental policy towards controlling greenhouse emissions in line with international agreements.

With respect to the proposition that multi-authority structures 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; it is the dominant institution in regulating energy and monitors competition in the sector. The 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 (interview OFGEM, March 2001). 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 takeovers by

¹⁴ However, large incumbents such as BG Transco in the gas sector have some 60+ people, due to the high regulatory accounting demands placed upon them as part of regulated access contracts.

EDF and E.ON, this potential regulatory level may come to play a greater part in the regulatory games of firms and national regulators.

3.2.2 Germany

Access to regulatory process

Formal access to negotiations for 'access rights' is not an issue in Germany, but a fair price is. Structural advantages for vertically integrated energy incumbents mean that questions of market power arise in relation to the risk of cross-subsidies and equitable contract negotiations.

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 associations' agreement (AA) with representation via the VDEW, VIK, BDI and their traditional close contacts with BMWi. For this reason, 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 household consumers.

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, given that the aim of liberalisation 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 negotiated third party access (nTPA) and the AA as **'quick and flexible and regulators as too reactive, information-demanding and slow'** (interview energy company, March 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 *ex ante* regulation and a formal regulatory 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 VDEW 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'** (interview new entrant, January 2001). A more *ad hoc* alliance is that of 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.¹⁵ Instead of a third association

¹⁵ This significant call for a regulator and competition is particularly noteworthy as Yellow is subsidiary of EnBW and Best Energy main shareholder of BEWAG, two of the largest vertically integrated producers (see <http://www.pro-wettbewerb.de>).

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.

Nonetheless, 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 and that there is ongoing price discrimination. Therefore 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.

In the courts the BKartA 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). Consequently, the BKartA, due to limited resources, was less investigative and proactive than UK authorities, and its procedures required that firms and interests initiated cases. However, the number of cases and the amount of technical information required for assessing energy issues casts doubts over the BKartA's continued ability to exercise speedy judgements.

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 an 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 encouraged by the European Commission. However, the major problem for German business representation is its continuing use of nTPA when the remainder of Europe has regulated third party access (rTPA) and the Commission wishes to establish a formal network of NRAs to facilitate EU best practice, non-discriminatory behaviour and improved transparency. As a result, 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 to lobby for agencies or representation at the European Court of Justice (ECJ) or at the competition directorate, DGIV (interviews energy company, January 2000).

Managing implementation

Because of the above access and monitoring problems, there has been much dissatisfaction with the AAs and 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 net access are too high, not all grid owners have openly published their grid prices, switching is expensive and processing takes a long time. 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 the July 2000 gas AA. One new entrant observed in the press 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 and can take up to seven months (FAZ, 21.11.2000).

Because of understaffing, the slow process of the courts-based appeal system, the uncertainty of judgements at the end of the 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. Riva Energie estimated that the potential cost reduction was as high as 30 per cent and has hired consultants to conduct a number of international yardstick exercises (interview energy company, January 2001). High-profile court cases like the above, coupled with increasing consumer demands for more choice and lower prices, 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 BKartA is having difficulties dealing with the scale of the regulatory tasks required for the smooth running of the new energy markets.

Moreover, large integrated companies such as E.ON are discovering conflicting interests between their net operation divisions such as RWE, which are content with the nTPA, and their distribution subsidiaries such as Yellow, which are faced with negotiated access contracts that run for a longer period 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 limited the opportunities to start distribution outside their own networks and as a result they have lost customers or been forced into mergers.

As a result of these barriers and the bargain between unequal partners, German energy costs have been estimated to be two to five times higher than in other European states.¹⁶ In the short run the BDI, VDEW and consumer groups have called for increased staffing and expertise in the BKartA, but in the long run, in line with the European Commission, they seek to establish a regulatory agency.

In recent months the BKartA – once happy to allow the technical expertise of the market to establish rules of access, balancing codes and metering – has recognised the limits to self-regulation and 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'** (interview energy company, January 2001).

The BKartA has attempted to develop national yardstick regulation for pricing. For example, in a recent case involving Edis, an east German local distributor, the BKartA compared costs with firms in Lower Saxony. However, the BKartA is faced with information deficits and has no right to audit firms not already under investigation. Consequently it has had to resort to international yardstick comparison, with all the various problems that this entails (Baldwin and Cave, 1999). For example, in the case

¹⁶ See <http://pro-wettbewerb.de>

brought by Riva against RWE, the BKartA had to assess the market price against international prices in Sweden, Norway and Finland before proceeding to a full inquiry. Such assessments are labour-intensive and expensive; often consultants are commissioned to conduct them and the costs charged to the disputing parties.

While the threat of proceedings can act as a deterrent and force some firms to reduce their costs, the number of cases the BKartA faced has in fact increased dramatically every year since liberalisation and there was a call from within the BKartA to have more personnel. As a result, in August 2001 the BKartA established a new decision chamber with seven energy specialists assigned to develop test competition cases. In addition, the BKartA is seeking more regulatory powers, for example to shift the burden of proof on price suitability from the BKartA to the energy companies.

In sum, voluntary self-regulation with its overreliance on administrative courts and limited BMWi powers is under great strain from both new entrants, who require quick regulatory judgements and representation on the new voluntary AA negotiations, and the BKartA, which seeks more specialised staff and regulatory competencies. Whether the co-operative (corporatist) business agreement can survive the increasing dissatisfaction is ultimately a political decision and the BMWi holding the shadow of regulatory intervention over the competing parties' heads.

3.3 Rail

3.3.1 UK

Access to regulatory process

Focusing on policy formulation first, our empirical findings show that the most relevant level of regulation is still considered to be the *national* level, where a lot is to be re-regulated (interview Rail Forum (RF), November 1999) and informal access is sought. Formal access to the national regulator is guaranteed through extensive consultation processes conducted by the Office of Rail Regulation (ORR), in which the network company and the train operators take part. These procedures may impose quite a workload on firms (interview TOC, January 2000).

European authorities can be accessed both formally and informally. There are frequent consultation processes involving all sectoral actors. There is some confirmation of the proposition that incumbents and large firms with a dominant market position have the highest degree of access to the European Commission. Thus the former private network monopolist Railtrack (RT), with a permanent office in Brussels, had already established good working links with the Commission and regularly commented on legislative drafts (interview RT, November 1999).

Access is facilitated by forming *associations*, but is not facilitated to the same degree for all types of firms: the expectation that larger players more successfully access European regulators through associations than the small players is confirmed. The network infrastructure managers have been active in creating new associative structures that reflect the changes in the interests of the sectoral actors since liberalisation and have founded the European Rail Infrastructure Managers' Association (EIM) to represent their

interests (interview RT, November 1999). By contrast, the smaller firms, such as the train operators, whose subsector has been divided up into 25 companies, are much less active in taking such steps. They are still represented by the old European railway associations. These 'old' associations, however, such as the Community of European Railways (CER) and the Union Internationale des Chemins de Fer (UIC), which were founded by the formerly integrated railways, do not reflect the fact that network managers and service operators have conflicting interests. Indeed, CER seeks to accommodate the interests of both parties. This makes it difficult to actively influence European legislative proposals.

The TOCs' view on access through associations is not quite as critical. According to one train operator, TOCs are working through ATOC (Association of Train-Operating Companies) at the European level. This TOC is also convinced that the largest sectoral player – the network operator, with its office in Brussels – is **'keeping an eye out for the interests of the wider UK rail industry'** (interview TOC, November 2000).

In the interplay between firms with *multiple sectoral regulatory authorities* situated at different levels, the evidence confirms the claim that a multi-level authority structure indeed widens the strategic possibilities of individual national actors. One indicator is that the various public and private actors from the rail sector do not speak with one voice when they address European bodies, instead pursuing their individual strategies. RT addresses the European Commission directly in order to oppose the regulatory goals of the ORR at the national level. The main reason for this is that RT considers the Commission's regulatory goals to be closer to its own regulatory objectives. It even emphasises that it would hesitate to pass on information about its communication with the Commission to the British regulatory authorities, ORR or SRA (interview RT, November 1999).

These attempts by private national sectoral actors to bypass their national regulators by collaborating with Brussels could be pre-empted by co-ordinating activities between the national and European regulatory authorities. Our findings suggest that this sometimes occurs. The ORR basically has two links with European bodies: a direct link to the Commission, to which it offers its expert views on regulation, and a political route through the Department of Transport, which it uses to influence Council decisions, i.e. political decisions. Additionally, there are first signs of co-ordination between national regulators by means of a new observatory body, the European Rail Observation System (EROS), chaired by the Commission. EROS functions as a forum for the exchange of information on how the infrastructure package is applied and how the traffic on railways is developing. While functioning as a forum at present, it might gradually turn either into a policy-making body making recommendations to the Commission or into a proper regulatory body (interview ORR, November 1999).

Managing implementation

Turning to contract compliance and the mode in which regulators deal with it, our findings show that there is indeed dissatisfaction with the performance of Railtrack and the TOCs. The regulatory bodies do think that there has been non-compliance, and the performance of the TOCs in providing services has been mixed as well (see Héritier and Schmidt, 2000).

Non-compliance, it has been argued, is facilitated by *informational asymmetry*, which the regulator seeks to compensate for. Additionally, our empirical findings point to an

unexpected factor of non-compliance: inconsistent incentives in the contractual regime. To prevent non-compliance, steps are taken in both directions: to compensate for informational asymmetry, the regulator seeks to improve his information; simultaneously, instruments are redesigned to improve compliance and to generally make the regulatory regime more consistent.

Various measures are used to *compensate for informational asymmetry*. One strategy to gain additional information about the regulatees' behaviour is to develop internal expert structures in order to cope with monitoring tasks. For example, the SRA plans to take more technical experts on board in order to deal with technical aspects of controlling TOCs.

Firms, for their part, view these monitoring efforts critically, as attempts **'to get inside the organisation'** (interview RF, January 2000). They complain that the regulator progressively **'sucks in more information, but in an ill-targeted and scatter-gun approach'** (interview RT, November 1999) and that there is **'a law of increasing regulatory intrusiveness'** at work, implying that regulators tend to ask more and more questions and that, in companies, regulation tends to take the form of **'micro-management'** (interview RF, November 1999). Small companies, which often do not have their own regulatory director, find it difficult to deal with all the information queries. In response to this regulatory intrusiveness, regulatees work with a strategy of counter-information, supplying large packages of information to the regulator.

Another measure to compensate for informational asymmetry between the regulator and the regulatee is 'firebell ringing' (Moe, 1984), with affected third parties providing information about the regulatees' market behaviour. Since liberalisation a lot of public attention has been directed towards the privatised railway and its performance. Paradoxically, privatisation has made the system more transparent and increased public attention: precisely because the railways are private, yet simultaneously receive public funds, the public is critical when shareholders make profits and service performance is poor. Moreover, because of the fragmentation of the service-operating sector in question, responsibilities can be allocated more easily and this further enhances accountability (interview ORR, November 1999). However, it has also been pointed out that **'Thanks to the Passenger Charter, under which performance statements were made available, there was transparency prior to privatisation. I do not think that there is more officially published data [now] ...What has changed is that as a result of privatisation there is a lot more of what I would call quite good "second-guessing data"'** (interview TOC, November 2000). **'All investment houses in the city now have their transport departments "create" and "invent" data that is [then made] publicly available ... They get quite close.'** (interview TOC, November 2000).

The regulator's attempts to control regulatees' contract compliance are affected by a change in *political guidance*, which in turn may make an impact on a regulatory regime. This is indeed confirmed by our findings. After the Labour government came into office, the regulator and the franchise director were to some degree forced to more strictly check implementation and overcome informational asymmetry. Labour appointed a new rail regulator, who had been active in developing Labour's rail programme, calling for tougher regulation of the rail industry (interview RT, November 1999). As a consequence, the regulatory style has arguably changed from being consensual and confidential to being confrontational, keen on publicising the behaviour of companies and 'aggressive' in seeking more and more information (interview RT, November 1999; interview RF,

January 2000). The current regulator is also keen on using the available instruments more proactively.

The decision to anticipate the *renegotiation of licences* is an expression of the political discontent with the original terms of regulatory contracts and the resulting non-compliance. It has been argued that the early franchise agreements with the TOCs were too loosely written and are therefore now being tightened (interview RT, November 1999). A number of franchises are being renegotiated in a competitive process. In the first round franchising was directed by the notion that **'Currently there are 20 trains a day, so that's what was being franchised, and the bidder who asked for the lowest subsidy got the bid. This time there is much emphasis on the bidders coming forward with proposals to enhance the service by running more train services, by running more miles, by improving performance and rolling stock and by increasing investment in infrastructure. This time around, instead of asking them to bid for fixed service levels, the SRA asks them to continuously explore higher and better service levels and more investment'** (interview SRA, May 2000).¹⁷

In the attempt to strengthen incentives to invest, TOCs are offered longer franchises when renegotiating contracts (interview RF, January 2000). Another central objective is to form 'joint project management teams' between the TOCs and the network operator in order to gain some control over the very large investments that will go into the new franchises. Under the new contracts the TOC is asked to specify which infrastructure it needs to increase the capacity of the network so that it can deal with increasing passenger transport (interview TOC, November 2000).

Another factor accounting for the lack of compliance is *inconsistency in the regulatory regime*. The incentives created by the reform are judged to be partially in conflict with one another and with the basic given conditions. Thus it has been pointed out that the competitive bidding processes for franchises have resulted in upward bidding to run extra trains, the franchise going to the highest bidder. This did not take into account the network's reduced capacity and it inevitably led to train delays and overcrowding (interview SRA, November 1999).

Conflicting incentives were also created between the train operators and the network operators. When there is underperformance, both tend to shift the blame for a lack of investment back and forth. If one invests, the other need not. **'One problem with the contractual regime is that once train operators have their franchises, they know what they are going to pay to RT. They know that we have a large expenditure programme. Therefore they do not really have any incentive other than to argue that all the money should be spent on making their business better. They argue that they are already paying us for everything we do on maintenance and repair. The end result is that the operators are not spending enough either. Our interest is not to spend more than we have to. The operator's interest is to extract as much as they possibly can. There are conflicting economic incentives'** (interview RT, November 1999).

¹⁷ In the view of some TOCs, some present contract holders have been 'kicked out' demonstratively for political purposes to encourage bidding against the incumbents (interview TOC, November 2000).

Another inconsistent incentive is that the length of RT's and the TOCs' licences differ, thus creating different planning horizons.

However, some sectoral actors challenge the view that the regulatory regime is ill-conceived. These actors emphasise that it is not the system that is problematic, but the fact that the political goals and the economic context of the sector changed after the present contractual regime was set up. Incentives to invest were not put in place: **'The basic philosophy was that this is an industry which [is losing] the basic economic drive ... [and] that will contract fast. So most of the incentive regime is about cropping up and keeping things going. But three things have happened since [then]: [first,] industry has changed its attitude towards growth and marketing; second, the price regulation within the franchise agreement¹⁸ has stimulated significant growth (within four to five years); and third, the political thrust of the government – of the modal shift, fuel prices, the abandonment of the road programme, congestion – [all these] have all been pushing [for] change. The issue is now whether we are talking about 15 or 20 per cent growth in the next 15 years. That is the nature of the debate'** (interview SRA, May 2000).

The criticism addressed to the overall structure of the regulatory field defined by the contractual relations is underlined by the unbalanced market structure of the sector. It was argued that a *market structure* with multiple players facilitates regulatory monitoring, whereas a sectoral structure with one player renders it more difficult. The empirical evidence corroborates this claim. The sectoral structure is seen to lack balance and to favour RT to the disadvantage of the 25 train operators. RT, as a monopolist, is not pressed by competition. This imbalance has arguably led to network access contracts that are unfavourable for the TOCs. By negotiating 25 to 30 contracts RT has gained a lot of experience, whereas a TOC in the same time period negotiated just one contract. In order to compensate for that weakness, the ORR passes information on to the TOCs that includes expertise on how to negotiate contracts (interview ORR, January 2001). As one TOC said, **'If we didn't have the ORR, our negotiating powers with RT would be almost non-existent ... They are so large, so monopolistic, that without a regulator to say, "No, we will change your licence conditions", we would not get any movement. Many of the small ones ... were just brushed aside'** (interview TOC, November 2000).

As a response to the *unbalanced sectoral structure*, there are now attempts during the licence renegotiations to reduce the number of market players, particularly to reduce the number of small ones (interview TOC, January and November 2000).

Conversely, there is some evidence confirming that a *multiple player sector* – which exists in service operation – facilitates the control of contract compliance. With so many players (24 TOCs), yardsticking can be used by the regulator to gain considerable information on performance. The SRA does collect comparative data: **'A year ago we divided [the service operators] up by classes on the basis of performance. That generated quite a bit of correspondence with the train operators, particularly the ones who found themselves at the bottom edge of the scale'** (interview SRA, May 2000). By contrast, the private network monopolist, RT, presents its own issues to the ORR.

¹⁸ RPI-1 on regulated fares on basically all travel to work to London and the Southeast

Finally, there is some evidence, but also some counterevidence, that a *multi-authority structure* makes monitoring compliance more difficult. There is indeed a certain overlap between the ORR's and the SRA's monitoring functions (interview ORR, November 1999). The ORR oversees RT's and the TOCs' licences, while the SRA is only responsible for the latter. Thus in terms of consumer protection the overlapping functions are thought to be confusing, because consumers do not know who to address; hence their ability to press for contract compliance is reduced (interview ORR, November 1999). **'Some consumer issues are dealt with in franchise agreements. Some are dealt with through licences issued by the regulator. Some are dealt with by both. The public does not know which person they should write to. When they want to complain about fares, they need to write to the franchising director. If they want to complain about passenger information, they need to write to the ORR'** (interview ORR, November 1999). The revised legislation of 2000 put all consumer protection into the hands of the SRA (interview ORR, November 1999).

Another area of split responsibility is safety: at the moment competencies are split among the formerly private network monopolist and the safety regulator, the Health and Safety Executive (HSE), and they are split within the framework approved by the latter. The monopolist's licences in turn are issued by the ORR. In case of an accident, the HSE does not act on its own; instead, it relies on RT to act and will ask the regulator to take licensing action if necessary (interview ORR, November 1999).

Whereas there is some evidence of split responsibilities between the regulatory authorities, it appears that the ORR and the SRA have not been played off against each other much in the past in attempts to avoid compliance (interview RF, January 2000; interview TOC, November 2000). In part this is due to the co-ordination of cases between the different responsible bodies.

There is a further piece of evidence that disconfirms the claim that a multi-authority structure invites non-compliance: namely, the firms' conviction that the more regulatory bodies there are, the more frequent the regulatory activities, and the higher regulatory burdens for the firm. **'What slightly worries me is that with two regulatory bodies, they will generate twice or three times as much work if you don't keep them under control'** (interview RF, November 1999).

3.3.2 Germany

Access to regulatory process

The most relevant level of access in the German rail industry lies with *national* authorities, that is, with the Federal Cartel Office (BKartA) and the Federal Rail Agency (Eisenbahnbundesamt, EBA). This is where the important decisions in interpreting the sectoral legislation are made. Informal access to these two authorities does not seem to be problematic for any of the market actors – i.e., for either the incumbent or the small market actors.

The *European* level of access does not play a prominent role for sectoral players. However, the European Commission regularly organises informal meetings for small railway undertakings and new market accessants to exchange views and information on market behaviour and technological innovation. The EBA has few contacts with the European bodies (interview TOC, September 2000).

The proposition that access is facilitated through *associations* is not confirmed. The role of associations in guaranteeing access and influence has been subject to change for three reasons:

1. Liberalisation and the new opportunities associated with it have brought about differentiated interests among the various regional operators. While some operators have used the new opportunities to develop new transport business activities, to acquire new customers, and to enlarge their own networks, others have remained closely attached to the Deutsche Bahn AG (DBAG)
2. The Association of German Transport Industry used to include all German public transport enterprises and railways except the DBB (Deutsche Bundesbahn); now the privatised DBAG has joined the association. Hence the latter has to represent very heterogeneous interests, including the interests of this large incumbent. With interests having thus become much more diverse, consensus in the association has dwindled.
3. The association's activities have been weakened because the DBAG seeks to settle all the relevant issues of co-operation in bilateral negotiations with the regional railways (interview TOC, September 2000).

Due to these factors, the association does not play an important role in enhancing access or in expanding the influence on regulatory decision-making.

Managing implementation

In the German railway sector compliance is created through *market access*, in other words, discrimination in network access and in market operations in general is to be prevented. Competition has increased as a whole: at present 150–160 railway companies – other than the DBAG – offer services on the railway network (interview TOC, September 2000). However, DBAG has by far the largest number of market shares in network and service operations. Thus, the DBAG, with DB Network, DB Regio and DB Freight, is in a very strong position: in long-distance passenger services it has a *de facto* monopoly. In regional passenger transport and freight transport it is the largest player.

Given the overpowering position of the DBAG, it is not surprising that there are many complaints from new market accessants and other small competitors, who accuse the former state monopoly of trying to impede market access and of discriminating against them in the market. Many instances and modes of discrimination have been pointed out:

- The DBAG has a *de facto* monopoly in maintenance operations – i.e., it is too costly for new market entrants to run their own maintenance shops. This means that competitors need a contract with the DBAG for maintenance work. These contracts often entail lengthy negotiations, and sometimes no agreement is reached at all. The DBAG argues that it lacks maintenance capacity, even for its own rolling stock (interview BKartA, September 2000). In a case where DB Regio, a DBAG enterprise, lost the tendering process for running trains on a line, the DBAG now refuses to properly maintain the tracks. It argues that it lacks the funds and has to give priority to its own lines. Instead of repairing the tracks, they ask the new operator to run its trains at low speeds (30 km) across bridges. **'Now is this an abuse of a market position by DBAG?'** (interview BKartA, September 2000). It is even suspected that by not maintaining the line, DBAG aims to make it less and less attractive, so that it

carries less and less traffic and finally can be closed down (interview EBA, August 2000).

- The prices charged to non-DBAG train operators for market access have also been discriminatory. The DBAG network is free to charge the prices it deems fit for access to the network. There have been many complaints, particularly in regional passenger transport, because prices charged to DB Regio (belonging to DBAG) were up to 40 per cent lower than the prices asked from other market players. The reason is that DB Regio was given a discount for long-distance transport, which – by definition – can only be offered by a large player such as DB Regio (interview BKartA, September 2000). The BKartA considered this to be discriminatory behaviour on the part of the DBAG and an abuse of market power.
- Under national freight transport legislation, freight leadership lies exclusively with DB Cargo. The DBAG is also the only operator who has the necessary know-how and the logistics to put together an entire system of single-wagon transport (interview TOC, September 2000). By contrast, international freight transport has a joint freight contract for all shippers participating in a system of single-wagon transport. As a consequence, under the German system, those freight transport operators with no direct contact to the customer see themselves in danger of being eliminated from the market because they are losing all knowledge of the changing market conditions (interview TOC, September 2000).
- The DBAG has leased all freight infrastructure, such as shunting stations and shunting tracks, to DB Cargo. **'Each time another market participant ... does not just need the line, but an additional track to reposition a train, you have to go to DB Cargo ... that is, to your competitor, in order to rent the necessary additional infrastructure ... It just may so happen that there is none available or that it is very expensive'** (interview TOC, September 2000).
- A further point of conflict have been station access prices, which have varied greatly. Some regional railway operators have argued that they are discriminated against by the DBAG (Network) because the prices at some stations are 800 per cent higher than in other stations. The DBAG has argued that the high charges are due to high staff numbers (interview EBA, August 2000).

In sum, as the BKartA points out, **'There are endless possibilities for the DBAG to discriminate against new market accessants, and these are very hard for the cartel office to pinpoint'** (interview BKartA, September 2000).

These multiple and subtle possibilities for market discrimination by the DBAG indicate a considerable degree of informational asymmetry between the regulator and the regulatee in favour of the regulatee(s), that is, the DBAG. In other words, it is difficult to substantiate the lack of compliance.

To compensate for the informational asymmetry, various measures have been taken. 'Firebell-ringing' relies on third parties providing information regarding lack of compliance. The complaints addressed to the BKartA from actors in the rail sector have increased dramatically since privatisation. This is not surprising since the reform is quite recent: **'The sectoral actors involved simply do not yet know what the rules of the game are, what is allowed and what is not allowed'** (interview BKartA, September 2000). When there is a complaint, the BKartA intervenes. Many individual cases are solved informally **'with two telephone calls or a letter, rather than through formal complaint and investigation procedures'** (interview BKartA,

September 2000). Formal BKartA procedures are very lengthy because they have to be confirmed in the courts, except in special cases where there is 'immediate application'. This, again, has to be confirmed by a court (interview BKartA, September 2000). Informality is also convenient because of the lack of personnel at the BKartA. At present there is just one person responsible for rail transport, which is not even his exclusive function. At particularly busy times two more staff members can be temporarily recruited from other divisions, but in view of this lack of personnel, it would be difficult for the BKartA to simultaneously conduct several 'large' procedures (interview BKartA, September 2000).

The EBA is a much larger, though less powerful organisation than the BKartA. With its 1,200 staff members (mostly consisting of former DBB employees), it defines its role as an authority for supervising technical matters and discrimination to market access. It does not see itself as a regulatory authority. It initially had very limited competences: its own initiatives were restricted as were its rights of scrutiny and its sanctioning power. As one official put it: **'We are a toothless tiger'** (interview EBA, August 2000).

The number of complaints addressed to the EBA has increased since it was established. Many complaints are made informally, communicated by telephone. Most decisions are made informally before the official decision is taken: **'The network operator often offers a compromise solution and the [formal] complaints are withdrawn; the DBAG makes extraordinary offers to its competitors. That's how many conflicts are dealt with'** (interview EBA, August 2000).

Since being instituted, the EBA has sought to expand and consolidate its powers. To do so, in some instances it has proceeded very strictly. The station price case provides one example. In that instance the EBA demanded a lot of specific information from the DBAG concerning pricing: **'We did it on purpose to clarify whether they are obligated to give us information'** (interview EBA, August 2000). DBAG refused to do so, only offering data giving a general overview.

In another case, where a competitor accused the DBAG of not properly maintaining one of the regional lines that DB Regio had lost in a public tendering process, the EBA also requested detailed information from the DBAG. This time the DBAG denied the EBA's right to information altogether. The EBA took the case to court and obtained a ruling in its favour (interview BKartA, September 2000).

To make the EBA more powerful, its competences have been extended. If the EBA sees a case of discrimination, it can now intervene without having to wait for a complaint to be filed by an operator. Additionally, it has been given more effective sanctioning instruments, such as the possibility to impose fines up to DM 1 million; further, it has been given access to documents and the regulatees' premises (interview BMVBW, August 2000). **'This was important because there is little formal whistle-blowing when there is market discrimination by the DBAG. [This is] because the new market accessants still have and want to co-operate with the DBAG'** (interview EBA, August 2000). Now complainants can remain anonymous, and the EBA can engage in supervising activities on its own (interview EBA, August 2000), for instance to prevent the company from gradually preparing to close down a line.

The regulatees judge the relationship with the EBA differently. The DBAG believes it has a good working relationship with the EBA. The EBA's process of licensing new locomotives

is considered to be relatively speedy (interview DBAG, September 2000). Other train operators, however, criticise the dual role of the EBA as an authority supervising market discrimination on the one hand, and a body licensing rolling stock on the other. They think a conflict of interest is involved.¹⁹ They consider the EBA to be too strict in the admission of locomotives (interview TOC, September 2000). Further, since the EBA administers its own budget on admission fees, it has – in the view of one operator – incentives to make licensing processes long and costly (interview TOC, September 2000).

No *government influence* is discernible in the severity of the compliance control in the German rail sector. The BKartA is a truly independent body. The EBA is much more susceptible to political influence, but so far it has not seen itself as having been subject to governmental influence (interview EBA, August 2000). To the contrary, the DBAG's attempts to convince political decision-makers to reduce the EBA's competences have been to no avail (interview EBA, August 2000), the EBA's powers being extended instead.

It has been argued that *multiple regulatory authorities* enhance opportunities for the regulatees to avoid compliance, because various bodies can be addressed and may be played against each other. The empirical evidence does not bear out this claim, given the close co-ordination of activities between the two authorities.

With one sectoral regulatory authority, the EBA, and one cross-sectoral regulatory authority, the BKartA, there is a double structure. The division of labour between the EBA and the BKartA, though basically clear, is still being fine-tuned. While the EBA deals with technical questions, such as individual access contracts and the licensing of rolling stock, the BKartA is responsible for competition and general questions, such as the price system question (interview BKartA, September 2000; interview BMVBW, August 2000). When complaints addressed to the BKartA include technical questions, they are handed on to the BKartA. Similarly, all generally relevant information is passed on to BKartA (interview BKartA, September 2000). **'So far the co-ordination has functioned well at an informal level'** (interview EBA; August 2000).

In contrast to the EBA, the BKartA can only prohibit certain activities. It cannot prescribe positive activities. It can only intervene if discrimination is above a specified threshold of importance and if competition in general is at risk. And, as mentioned, in the past the EBA could not take action on its own initiative. This initially left a gap regarding managerial and technical questions, which were covered by neither the BKartA nor the EBA. However, with the amended legislation and extended powers of the EBA, the EBA has been empowered to take action on individual questions, which the BKartA is not allowed to deal with (interview EBA, August 2000).

The DBAG believes that the division of labour between the BKartA and the EBA is not as clear-cut as it should be, and it is critical of the fact that their market competitors may engage in 'regulatory shopping', that is, that they can first turn to one authority and then – if they do not like the outcome – to the other (interview DBAG, September 2000). As we have seen, the incumbent has also questioned the decision-making competences of the EBA on grounds of principle.

¹⁹ In the UK the desire to avoid such a conflict of interest led to the establishment of two regulators (see footnote 9).

In sum, our empirical evidence indicates that the dual structure of the regulatory authority in Germany (BKartA and EBA) does not invite actors to mutually play off authorities – and this is mainly because the co-ordination between the two authorities functions well on an informal basis.

It was claimed that a *multiple sectoral structure* with many market players makes compliance control easier. The evidence confirms that – despite the overpowering position of DBAG – the existence of multiple actors at the margins of the market facilitates control of compliance. It also makes it easier for the BKartA and the EBA to carry out their supervisory functions. As illustrated above with many instances, the non-DBAG market players are very active in ‘ringing the firebell’ and drawing the attention of the BKartA and the EBA to DBAG discrimination.

However, the imbalance in the overall sectoral structure, with the dominant position of the DBAG – with DB Network, DB Regio and DB Freight holding the largest shares in all subsectors of the market – raises questions about the rationale of the regulatory solution. As we have seen, there are many possibilities for the DBAG to discriminate against new market accessants, and these are hard to corroborate. Hence, from the various competition-oriented perspectives, institutionally separating network and train operation seems advisable. On the other hand, the advantages of this solution would have to be weighed against the need for a close technical linkage between the infrastructure and train operation.

4 Conclusion: country and sector comparison

This report has analysed regulatory reforms and the interaction between regulatory authorities and companies in telecommunication, energy and rail. It has observed that to protect consumers against possible monopoly abuse, both European and national policy-makers found it necessary to establish sector-specific regulatory regimes. Yet the Europeanisation of economic policy has not harmonised reforms or created uniformity in the regulatory regimes in Germany and the UK. Hence firms that increasingly operate across borders as traditional incumbents or new entrants must learn to adapt to national variations; further they must be aware of the opportunities that these differences provide. Germany and the UK provide two contrasting cases regarding both the speed of liberalisation and the style of regulatory management.

The UK has long-term experience with privatisation, liberalisation and regulatory reforms. In institutional terms, sector-specific independent regulatory agencies, like OFTEL, OFGEM, ORR and SRA predominate in energy and rail. Though there are increasing ministerial pressures, such as the recent direct interventions in the closing of Railtrack by the Secretary of State for Transport, it is clear that independent agencies are the dominant regulatory authorities in the UK regulatory regime, having established their primacy in distinct interorganisational relationships with the DTI, Competition Commission, OFT and EU authorities. Table 1 summarises the overall trends in the British regulatory regimes.

Table 1
Regulatory regime in the UK

Lines of inquiry	Telecoms	Energy	Rail	Overall converging trend
Regulatory agency dominance	OFTEL	OFGAS, OFFER	ORR, OPRAF	Stabilisation of regulatory agencies
Development in the regime	OFCOM in near future	Merger to OFGEM	OPRAF reformed to SRA	
Ministerial interference	Interference of DTI	Interference of DTI	Interference of DETR	Ministries interfere in regulatory decision-making and play a central role in regulatory regimes
Development in the regime	Increasing New consumer focus Threat of politicised regimes	Increasing New consumer focus Threat of politicised regimes	Increasing New consumer focus Influence on SRA Threat of politicised regimes	Increasing politicisation
Competition authority predominance	Increased competencies, but limited implementation power	Increased competencies, but limited implementation power	Increased competencies, but limited implementation power	Increased competencies, but limited activity of OFT in the regime
Development in the regime	Less input of OFT	Less input of OFT	Less input of OFT	

Recognising that there is a potential informational advantage for incumbents, agencies have attempted to use their autonomy, discretion and credibility to create relationships based on co-operation and understanding. As the discussions in Chapter 3 illustrated, the development of these relationships has not always been smooth, and trust can be lost more quickly than it is established. Yet where equilibrium develops between conciliatory business behaviour and selected and focused conflict, the UK's specialised regulatory regime was seen by business and regulators to be effective in monitoring and regulating sector activities.

Conversely, the disadvantage of giving one regulator such autonomy and discretion is the risk that judgements will change with the appointment of senior regulatory staff, i.e. that such judgements will be inconsistent and personalised. Such personalisation raises questions of the economic consistency and legal clarity of the UK regime, and in the past it has created significant conflicts in the telecommunications, energy and rail sectors. However, for all the potential risks of an independent sector regulator, firms from all sectors and of all sizes and ages recognise the advantages of the stable, transparent and clear regulatory procedures in the UK, and over time they have established working norms.

In Germany, driven by the EU network industries directives, privatisation, liberalisation and regulation are a very recent experience. In national regulatory terms much weight is given to legal clarity and institutional roles, and most regulatory emphasis is placed on the role of sector-specific competition law and the procedural courts. Significantly, the German authorities have followed a mixed regulatory approach for the three sectors studied: there have been negotiated contracts and competition law in energy, agency and cartel offices in telecommunications, and supervisory regulators and cartel offices in rail. Firms of all sizes and in all the network industries dislike pronounced politicisation on the part of the regulatory regime because it implies instability in the face of high investments. However, in Germany ministerial interference has been prominent in all three sectors and administrative competencies exist for continued government intervention. Table 2 summarises the overall trends of the regulatory regimes in Germany.

While the regulatory regimes operate with different regulatory authorities, it is clear that business, ministries, administrative courts and the cartel office have all been proactive in defining the young regulatory regimes in Germany – especially when we consider that the recent regulatory history has been one of litigation and conflict between competing institutions and businesses, aimed at establishing administrative norms and legal precedence. In this fragmented environment incumbents and new entrants have questioned the expertise and standing of regulatory authorities in telecommunications and the absence of an agency in energy. However, for all the problems bedding down the young regulatory regime, the legalistic process has a number of advantages for business: it has clear regulatory goals and procedures, and it is accepted as part of the German business–government tradition.

In comparative terms, the question is whether these national regimes are at different points of regulatory development, and whether in the medium to long term they will tend towards convergence or continued difference (see also Bartle *et al.*, 2002). As stated, the German regulatory regime is very young and has far outstripped the demands placed on it by EU liberalisation directives. Accepting this, the rules of contact between the regulator and the regulatee and the functions of the regulatory authorities are in a state of flux and are being defined in the courts. However, in weak terms, there is evidence suggesting that in telecommunications, rail and, in the long run, in energy, it is increasingly

Table 2
Regulatory regime in Germany

Lines of inquiry	Telecoms	Energy	Rail	Overall converging trend
Regulatory agency dominance	RegTP	No regulatory agency model; instead, self-regulation with associations' agreements	EBA as a supervisory agency	Mixed picture Mid-term perspective: establishment of regulators in all three sectors
Development in the regime	–	Increasing regulation by the BKartA and BMWi	EBA as a regulator in the near future	
Ministerial interference	Intense informal interference of BMWi	Intense involvement of BMWi	Loose interference of BMVBW	Ministries play an important role in the regulatory regimes General tendency of ministerial interference
Development in the regime	–	Open, depends on the future regulatory regime	Ministerial interference may increase with the new role of the EBA as a regulator	
Competition authority predominance	'Quiet role' of the BKartA	BKartA monitors the market	Co-operation between EBA and BKartA	Mixed picture Central role of the BKartA in the regimes Mid-term perspective: depending on the new design of sector-specific institutions, the role of the BKartA might decrease
Development in the regime	–	New branch in the BKartA and working group between BKartA and <i>Länder</i> offices founded to reduce the weaknesses of the self-regulatory regime	With a EBA as a regulator, reduced influence of the BKartA	

important that sector-specific regulatory authorities work in close co-operation with the BKartA. Table 3 summarises the overall converging trends in the UK and Germany.

In both countries and all sectors, our empirical evidence indicates that business believes access to the national regulatory authorities is of greatest importance, attaching only secondary significance to accessing EU institutions. While the German administrative tradition makes much more of the business–government debate than of the UK consultation procedures, informal modes of access should not be underestimated in either country. In general terms, the business–government traditions have also permeated the potential business–regulator solutions. This influence can be seen overtly in Germany's quasi-corporatist gas and electricity AAs and indirectly in the prominent use of associations in telecommunications. Conversely in the UK, businesses of all sizes have tended to favour the development of direct and personal relationships with the regulator. Moreover, the liberalisation of the network industries and the break-up of network operators and service operators/suppliers have profound implications on the sectoral associative structures in both countries. In the case of railways, both in Germany and at the European level, the old associations of the vertically integrated railways are still in

Table 3
Comparing regulatory regimes in the UK and Germany

Lines of inquiry	Overall converging trend: UK	Overall converging trend: Germany	Cross-country comparison: UK – D
Regulatory agency dominance	Stabilisation of regulatory agencies	Mixed picture Mid-term perspective: creation of EBA as a regulator Potential regulation in the energy sector	Differences UK – D Regulatory learning from telecommunications Mixed picture/open future
Ministerial interference	Ministries interfere in regulatory decision-making and play a central role in regulatory regimes Increasing politicisation	Ministries play an important role in the regulatory regimes General tendency of ministerial interference	Convergence UK – D
Competition authority predominance	Increased competencies, but limited activity of OFT in the regime	Mixed picture Central role of the BKartA in the regimes Mid-term perspective: depending on the new design of sector-specific institutions, the role of the BKartA might decrease	Differences UK – D Mixed picture/open future

place, but they have been weakened by the diverging interests of their network members and the service operator members. Similar cleavages are occurring in the energy and telecommunications markets across Europe.

At a more disaggregated level, new entrants across sectors and countries appear united in their desire for strong *ex ante* regulation that facilitates equal access to the networks and pipelines and monitors potential discriminatory pricing by incumbents. Moreover, the new entrants' desire for proactive regulation has manifested itself in an accompanying desire for strong and independent regulatory agencies in these sectors in these countries. Incumbents, conversely, while having acquired access to national regulatory authorities, have been comfortable with the creeping competencies of EU regulation and competition law and the broad trend towards *ex post* regulation in telecommunications and energy.

In managing regulation, the biggest problem facing national regulators is overcoming informational asymmetry. In the rail sector, particularly in the UK, authorities battle with multiple modes of non-compliance, as measured by the defined contract objectives. In both countries informational asymmetry in favour of the regulatees makes it difficult to substantiate non-compliance. However, the substance of compliance control differs in the two countries. In Britain both market-creating regulation and market-correcting regulation is fixed in the contracts and controlled by the regulatory authorities. They watch over the competition and the provision of services under the new regime. In Germany the authorities only supervise non-discrimination and technical aspects of licensing. In telecommunications, in both the UK and Germany, regulators struggle with a surplus of economic and technical information, much of which is provided by the incumbents. Regulators attempt to manage the information flows through consultation,

audits and yardsticking. However, firms' strategies need to be seen in terms of incumbents' desire to slow down and gate-keep information and new entrants' desire for fast decision-making and a focused provision of information. The same problems and processes can be observed in energy regulation in the UK and in the evolving competencies of the BKartA in energy. However, the German energy sector has a long way to go in developing a formal regulator, as the current AAs are biased towards the power of the large incumbents.

In sum, at an institutional level we have observed some weak institutional convergence within Germany and perhaps more incrementally some sector convergence between Germany and the UK, particularly regarding the role of the ministries and the growing preference of industry for agencies. As Chapter 3 illustrated, business has been instrumental in many of these changes, both because of their day-to-day dealings with the different players in the regulatory regime and because of the compliance with the national authorities in each sector. But significantly, by developing European regulator networks, the European Commission has also been influential in establishing EU regulatory 'best practice'.

This leads to the final question: What role is there for Europe? It is clear from our findings that under the existing regulatory and market conditions, national regimes will continue to maintain their own distinct characteristics, with firms predominantly turning to their national regulators. How firms deal with their respective national regulatory authorities is a function of business traditions and of regulatory experience. However, in terms of market-making, the European Commission has played an important role by liberalising telecommunications, energy and rail, by setting principles and internal market rules, and by formulating sector-specific competition law. Under these guidelines, the national authorities have interpreted the detailed implementation of EU directives and have developed their own distinctive national styles of regulation.

The European Commission, recognising that there has been increased liberalisation in Europe without necessarily increased regulatory uniformity, has attempted to rectify this variance by creating networks of national regulatory authorities (NRAs). The formalisation of these groups varies across sectors, from strong centrally co-ordinated high-level telecommunication groups composed of delegates from NRAs and the Commission, and the less formal EU energy forums of government officials, NRAs and senior company executives, to the newly created European rail operators' body. The explicit aim of these bodies is to foster some broad pan-European regulatory goals. Article 6 of the latest Telecommunication Directive even goes so far as to propose giving the European Commission the veto right over national regulators' rulings. But it is also hoped that such bodies will foster administrative co-ordination and regulatory 'best practice'. In the long run, it is at this soft managerial co-ordination level that the networks of NRAs may be most successful.

Recognising that these forums will encourage procedural convergence and the harmonisation of regulatory goals, industry – significantly – is still unanimously in favour of distinct national and sectoral regulatory solutions, embedded in an informal multi-level EU network. This demonstrates clearly the robustness of national business–government traditions and the importance of distinguishing between EU market-making and national market-monitoring. However, in conclusion, we can expect gradual convergence towards sector-specific regulation and fewer business–regulator conflicts as the actors begin to understand the regulatory functions and procedures.

Appendix 1: List of interviews

European level

European Commission, Directorate General for Energy and Transport	March 2001
European Commission, Energy Section	March 2001
European Commission, Telecommunications Section	March 2001
UNIFE (Union of European Railway Industries)	March 2001
Deutsche Telekom AG, Brussels Representative Office	March 2001
ETNO (European Telecommunications Network Operators)	March 2001

Telecommunications sector – United Kingdom

OFTEL (Office of Telecommunications)	March 2000; November 2001
DTI (Department of Trade and Industry)	February 2001
OFT (Office of Fair Trading)	February 2001
BT (British Telecom)	January 2000
COLT	January 2000
Telewest	May 2000

Telecommunications sector – Germany

RegTP (Regulatory Agency for Telecommunication and Post)	February 2000; March 2001
BMWi (Ministry of Economics)	February 2001
DTAG (Deutsche Telekom AG)	February 2000
Mannesmann AG	February 2000
Net Cologne GmbH	March 2000
QSC (QS Communications AG)	August 2001
VATM (Association of the Providers of Telecommunications and Value Added Services)	August 2001

Energy sector – United Kingdom

Transco	January 2000
OFGEM (Office of Gas and Electricity Markets)	March 2000; March 2001
Enron Europe Limited	January 2000
BP Amoco Gas & Power	March 2000
German Embassy	March 2000

Energy sector – Germany

BMW (Ministry of Economics)	March 2001
BKartA (Federal Cartel Office)	August 2001
Ruhrgas AG	March 2000
RWE Energie	March 2000
RIVA Energy AG	January 2001
VIK (Verband der Industriellen Energie und Kraftwirtschaft)	January 2001

Rail sector – United Kingdom

ORR (Office of Rail Regulation)	November 1999; November 2000
SRA (Strategic Rail Authority)	November 1999; May 2000
DETR (Department of Environment, Transport and Regions)	January 2001
RT (Railtrack)	November 1999; January 2001
RF (Rail Forum)	November 1999
Transco	January 2000
Thameslink Trains Division	November 2000
Connex	November 2000
National Express Group PLC	January 2000

Rail sector – Germany

EBA (Federal Rail Agency)	August 2000
BMVBW (Ministry of Transport, Building and Housing)	August 2000
BKartA (Federal Cartel Office)	September 2000
DBAG (Deutsche Bahn AG)	September 2000
HGK (Häfen und Güterverkehr Köln AG)	September 2000

Total interviews: 50

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