Corporate Governance and the Transformation of the Electricity Sector in England and Spain: The Interaction between National Institutions and Regulatory Choices

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Michel Goyer
Warwick Business School
University of Warwick
Michel.Goyer@wbs.ac.uk

Rocío Valdivielso del Real
School of Management
Birbeck College
University of London
r.valdivielso@mbs.bbk.ac.uk

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Abstract:

Privatisation, liberalisation and re-regulation have become major forces shaping societies and economies the world over. These forces have brought along major changes in the ownership and structure of utility industries. The central question of this paper focuses on the impact of these developments on the transformation of the industrial profile of the electricity sector in Britain and Spain. We analyse the impact associated with the national institutions of corporate governance in the two countries – ownership structure, corporate law and voting rights, and takeover regulation. We demonstrate that differences between England and Spain on these three dimensions largely account for the divergence in the transformation of the profile of the electricity sector in the two countries – reduction in the number of players in England through foreign takeovers; building of national champions in Spain through government-sponsored mergers. However, the importance of national-based institutions in accounting for the transformation of the industrial profile of the electricity sector in England and Spain should not be interpreted as a rejection of sector-specific patterns of regulation. We provide two additional contributions in this paper. First, we show how national-based explanations such as those presented in the Varieties of Capitalism (VoC) literature do not capture the origins and political foundations of institutional frameworks of the two countries. Second, we argue that the impact of the institutions of corporate governance is mediated by their interaction with the wider institutional framework in which they are embedded. In particular, it is within their interaction with national regulatory policies that the institutions of corporate governance matter, not by themselves. The importance of the national institutions of corporate governance is themselves the result of regulatory choices made by policy-makers.

Key Words: Privatisation, Liberalisation, Corporate Governance, Regulatory Policy, Electricity Sector

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1. Introduction

Privatisation, liberalisation, and 'deregulation' have brought major changes in the legal and industry structure of utility companies in the European Union. These developments have altered both the processes of policy-making and the forms and extent of public control over suppliers. Nonetheless, these developments have failed to produce convergence among EU member states. Two groups of scholars have addressed the question of divergence in the liberalised economic environment of the European Union. Strong evidence has been presented by these two different streams of research to seriously question the convergence thesis, but often without cross-referencing. For regulation researchers, privatisation and liberalisation of network utilities in Europe did not result in a simple retreat of the state, but rather in a redefinition of its role. The new capitalist order is mediated by regulation and the rise of the regulatory state. (Braithwaite 2000; Jordana and Levi-Faur 2004b, 2005; Loughin and Scott 1997; Moran 2003; Muller and Wright 1994) The liberalisation of network industries has demonstrated that freer markets require more rules to properly function (Vogel, 1996). The paradox of 'privatisation and deregulation' testifies to a paradigm shift from the interventionist to the regulatory state (Majone 1996 and 1997).

For scholars working from the perspective of institutional comparative political economy, the constellation of domestic institutional frameworks mediates the advent of new (external and internal) developments, thereby accounting for the lack of convergence. The Varieties of Capitalism (VoC) theoretical perspective, in particular, has emphasised the critical importance of patterns of institutional complementarities across the various sub-spheres (finance and corporate governance, industrial relations, innovation system, and inter-firm relations) of the economy that lead to diverging forms of behaviour on the part of economic actors (Hall and Soskice 2001). The key insight is that the impact of an institution cannot be studied in isolation as it is mediated by its interaction with other features of the national institutional framework, therefore implying that different types of institutional fit are possible (Hall and Franseze 1998). Moreover, the VoC perspective contends that superior economic performance and the development of competitive advantage result from the extent to which patterns of institutional complementarity support the development of firm competencies. The presence of institutional complementarity constitutes a source of economic efficiency as it contributes to solving coordination problems since the actions a firm takes in one sphere of the economy are contingent on the actions of others in different spheres (Culpepper, 2003). Different patterns of institutional fit across nations should be good at excelling at different types of activities, thereby leading to different types of specialisation (Soskice 1999). As a result, a purely deregulated economic environment could be undesirable if it negatively affects the ability of actors to issue credible commitments to each other in order to coordinate their activities.

We analyse in this paper the transformation of the industrial profile of the electricity sector in England and Spain. These two case studies provide excellent materials to integrate regulation approaches with institutional comparative political economy approaches (VoC) - two groups of scholars that have mostly failed to integrate the insights from each other's analysis. The transformation of electricity sector in England was characterised by a transition from a fragmented structure of domestic players to one where a few foreign firms are the dominant players. The evolution of the structure of the Spanish electricity sector, in contrast, was marked by the consolidation of the market power of the established companies with a substantial control by domestic players. We demonstrate that differences in the national institutions of corporate governance largely account for the divergence in the transformation of their respective electricity sector. The adjustment process of electricity companies is best conceptualised as a set of constraints faced by managers in the conduct of the business strategy of the firm. The institutions of corporate governance in England expose the firm to the pressures of financial markets and force management to seriously pay attention to the interests of minority shareholders. As a result, takeovers have been prominent in the transformation of the sector. The Spanish system of corporate governance, in contrast, does not exposed managers to the same extent to the pressures of the financial markets. Lower degrees of consideration given to the interests of minority shareholders have lessened the prevalence of takeovers as a mechanism of firm adjustment.

But the ability of institutional comparative political economy (VoC) to account for the transformation of the electricity sector in the two countries does not deny the importance of regulation theoretical perspectives. Governments set the terms of market competition by favouring particular modes of re-regulation. The mode of re-regulation affects which companies enter the market, what services they offer, and what strategies they pursue. Most importantly, regulation approaches best capture the origins and political foundations of institutional frameworks. The choice of an institutional framework, often resulting from sectoral patterns of re-regulation, represents the choice of policy-makers exhibiting motivational multiplicity across and within national settings.

Therefore, the study of the transformation of the electricity sector in England and Spain requires a joint analysis of both regulation perspectives and institutional-based comparative political economy approaches. These two theoretical perspectives present a strong case against a purely deregulatory economic environment – but the impact of each of these perspectives is not substitutable. The concept of substitutability in qualitative social sciences refers to a situation where two conditions can produce independently of each other a similar outcome: X1 or X2 produces Y (Ragin 1987). The concept of substitutability would imply that there is no interaction between the mode of coordination of firms (i.e. VoC theoretical perspective) and patterns of re-regulation and that each one of them can be analysed separately in the study of the consequences of deregulation in the electricity sector. The argument and evidence presented in this paper, by contrast, highlight the importance of the interaction between coordination and regulatory policies. The case studies of the electricity sector in England and Spain is instead better characterised by the importance of conjunctural causation whereby only the combination of multiple conditions will produce a specific outcome: X1 and X2 produce Y. The impact of the national institutional of corporate governance depends on the re-regulatory policies in the electricity sector.

We make a final methodological note. The process of liberalisation of the electricity sector in England began in 1990 – earlier than in Spain (1996) and in the rest of the European Union. The golden share scheme for the electricity sector in England expired in March 1995. The expiration date for the golden share scheme in Spain is

June 2007.[1] Is the empirical data presented in the paper driven by an issue of timing? Is Spain condemned to follow the same path as England, the pioneer in the liberalisation and re-regulation of the electricity sector in the European Union? The argument presented in this paper is not contingent on the timing of the liberalisation and re-regulation processes of the electricity sector in different countries. We highlight the importance of national institutions of corporate governance – institutions that have been in place before liberalisation and re-regulation and have remained largely stable since then. The argument presented in this paper is also about the regulatory choices made by policy-makers in the two countries. The cases of England and Spain testify to the sharp differences in the regulatory choices made by policy-makers. These national institutions and choices, in turn, have been highly influential in the transformation of the electricity sector in the two countries.

This paper is divided in three sections. First, we present the broad patterns of transformation of the electricity sector in England and Spain. Second, we demonstrate how the differences between the two countries are best accounted by their national institutions of corporate governance. Third, we argue that regulation perspectives serve as an essential complement to institutional-based comparative political economy approaches.

2. The Transformation of the Industrial Profile of the Electricity Sector in Britain and Spain

This section documents the different patterns of the evolution of the transformation of the industrial profile of the electricity sector in Britain and Spain. We summarise the main characteristics of the market structure and ownership of the electricity industries in Britain and Spain in the wake of privatisation, liberalisation and re-regulation. We operationalise the concept of the industrial profile of the electricity sector with the use of two indicators. First, we refer to the market structure of competition, namely whether a few firms dominate the industry or not. Second, we also refer to the structure of

[1] However, the Zapatero's government abolished this scheme in November 2005 in part due to pressures from the European Commission. (*Wall Street Journal,* 28 November, 2005: 6).

private property. Are electricity firms independent entities owned by domestic shareholders or are they subsidiaries of other (foreign) companies? The degree of prominence of takeovers constitutes a fundamental feature of the transformation of the industrial profile of the electricity sector in the two countries. We start the examination of the British electricity industry since the regulatory regime set up in 1980s in the United Kingdom has had a profound impact on the reform of utility networks in the European Union. We then proceed to describe the evolution of the industry structure and privatisation policies that took place in Spain.

A. The Reform of the Electricity Sector in Britain

Throughout the 1990s, the suite of policies known variously as privatisation, liberalisation, deregulation and the 'British Model' dominated the political agenda for electricity utilities (Thomas, 2001). At the heart of these reforms was a desire to transform the electricity industry from a monopoly into a competitive market. There is no precise definition of the British Model, but there would appear to be some central elements such as: the creation of a wholesale spot market as the main price-setting arena for wholesale electricity sales; the creation of retail competition so that all consumers can choose their electricity supplier; the corporate separation of the activities that would remain long-term monopolies, essentially the operation of the network, from activities that would be market-driven; and the corporate separation between generation and supply (See Thomas, 2005; 2006a).

The UK comprises two main separate electricity systems. The largest supplies England & Wales and accounts for about 90 per cent of the UK demand; Scotland is synchronised with the England & Wales grid, but has been operated by a separate set of companies. Northern Ireland, a minor electricity system, was not connected to the British (England, Wales and Scotland) grid and had only a weak and unreliable synchronous connection with the Republic of Ireland.[2] Only the England & Wales system were restructured according to the British Model.

[2] The third system, geographically isolated, covers Northern Ireland. This was privatised in 1992 with some restructuring but like Scotland with a minimal scope for competition. It is now connected by DC link (250 MW) to the British mainland system but cannot realistically be fully integrated into the British market. According to Thomas, a more likely direction, if political barriers can be overcome, would be to form an Irish electricity market by merging with the Republic of Ireland system (Thomas, 2006a: 584).

Up to 1990, the dominant company in England & Wales was the Central Generating Board (CEGB), which carried out generation and transmission. It owned about 60 GW of power plant. Distribution and retail was carried out by 12 regional companies which were privatised in the original form as Regional Electricity Companies (RECs) but with the separation between retail and distribution. The CEGB was split into a transmission company, the National Grid Company (NGC) and three generation companies, National Power, Powergen and Nuclear Electric. National Power, Powergen and the 12 RECs were floated as private companies and Nuclear Electric.

The Scottish system, with about a 10 GW capacity, was also restructured in March 1990. The North of Scotland Hydro-Electric Board became Scottish Hydro-Electric, and the non-nuclear assets of the South of Scotland Electricity Board were transferred to Scottish Power. Both were privatised as vertically integrated regulated utilities in June 1991, free to sell into the English market (Newbery, 2004: 3). The system for Scotland is synchronised to that of England and Wales but has historically been supplied but a separate set of companies. There was strong political opposition in Scotland to the Thatcher privatisation programme and the break-up of the existing companies. In order to avoid perhaps unnecessary confrontation, - the companies were left largely intact as two regional, fully vertically integrated newly privatised companies with minimal scope for competition (Thomas, 2006a: 385). Vertical integration was also accepted for the government, since it better suited for the supply of electricity to sparsely-populated areas which are characteristics of many areas of Scotland (Onofri, 2005). The two Scottish companies have moved strongly into England & Wales since 1995, acquiring some of the smaller RECs and they now comprise two of the six major electricity companies in Britain.

The British electricity sector has experienced a huge amount of restructuring since its privatisation in 1990, especially in the distribution and retail supply. The regulatory system designed by Beesley and Littlechild (1983) was intended to provide a structure that allowed free entry to the market. Two key features characterise the transformation of the sector: changing industry structure and prominence of takeovers. First, there has been a complete redrawing of the profile of the industry structure. In the wake of the privatisation process, there were three main generators (National Power, Powergen and Nuclear Electric); 12 regional distribution/retail supply companies; two fully integrated Scottish companies, Scottish Power and Scottish Hydro; and a transmission company covering England and Wales. The latter three companies are the only ones to have survived as independent companies in anything like their 1990 form. All were initially protected from unwanted takeover bids by the government's Golden Shares scheme. This protection system scheme ran out in 1995. The distribution companies were probably individually too small to have had an impact outside the UK, and as soon as government protection from takeover was removed the companies were taken over by American companies. The two more likely candidates to become world players were National Power and Powergen, the two privatised generation companies, which had between them a market share of about 80 per cent in power generation in 1990. These two companies, however, were shadows of the companies created a decade before; their market share in 1998 being about a third of what it had been in 1990. Their decline was the direct result of regulatory policies designed to reduce their market power (See Table 1).[3] By 2001, National Power had had to split itself into a UK company (Innogy) and an international company (IPG) in order to insure its survival. Powergen, on the other hand, was taken over by E.ON. In March 2002, Innogy was taken over by RWE.

Second, takeovers of English electricity companies by foreign rivals have been both prevalent and paramount (See Table 2). The implications of Beesley and Littlechild's insights on competition, namely that the priority was to provide a structure that allowed free entry to the market, was soon to become a reality despite the initial structural compromises to the 'British Model'. Takeovers and mergers played a prominent role in this evolution as they were interpreted as the exertion of a healthy sign of market discipline in competitive markets. Takeover and mergers were of little

[3] National Power and Powergen were blocked by the government with the support of Ofgen (the independent regulatory authority for the electricity sector) when they tried to take over RECs in 1996 (Bailey, 1996; Department of Trade and Industry Press Release, 1996). The Energy minister ignored the recommendations of another key independent regulatory authority, the Monopolies and Mergers Commission, which found that the takeovers would be acceptable, provided some conditions (not expected to be onerous) were met (Monopolies and Mergers Commission, 1996a, b). The government justified this apparent contradictory decision by saying that integration of retail and generation was not wrong as such, but that the market power of the duopoly was too strong to integrate.

concern as long the entry barriers were low enough to maintain a realistic threat of competition (Finon and Midttun, 2004; Thomas, 2001 and 2005).

The logic of privatisation and liberalisation was to minimise government involvement in electricity. The threat of takeovers was considered an important discipline on companies. Moreover, management had a direct financial interest in takeover activities through their share options and remuneration packages. The regulator himself viewed takeovers in a positive light, regarding this mechanism as an essential check on managerial efficiency. Competition in the capital market could discipline managers where the natural monopoly in the product market could not (Littlechild, 1988).

Privatised electricity companies in England were initially protected from unwanted takeover bids by a governments' golden share scheme. The principle behind the golden share scheme in each of the electricity companies was to allow time for the companies to adapt to changed circumstances, free from the threat of a hostile takeover. In effect, the golden share was a restriction on any one body owning more than 15% of the outstanding shares of an electricity company. Its expiration in March 1995, therefore, removed this restriction and opened up the possibility of predators securing control of the companies. This possibility was far from hypothetical since they offered the prospect of secure, if unspectacular monopoly profits, good cash flows and access to what were widely perceived to be substantial capital assets. The Government's attitude towards potential changes in ownership was also crucial. Once the first hostile takeover bid was announced there was considerable speculation as to the likelihood of the bid being referred to the Monopolies and Mergers Committee (MMC). The decision of the Secretary of State not to make such a reference therefore gave an effective green light to the ambitions of other companies with an interest in acquiring a REC (Hollinger and Mason, 1995).

The main initial buyers of the distribution companies were US utilities who at one point owned seven of them. Their move into Britain was seen by some as the harbinger for a global expansion (Thomas, 2003: 400). However, the US utilities were litter bigger than the companies they took over and, from their actions; it seems they had few other objectives than to make quick easy money exploiting the sill immature

British regulatory system. What was lacking was any clearly stated policy on foreign ownership (other than pure *laissez-faire*), or, indeed, any guidance as to who would - and who would not - be deemed acceptable owners (Helm, 2003: 222). According to Thomas (2003: 18), there were two main factors behind this indifference to foreign ownership: First, the British public was resigned to key industries being taken over by foreign companies; for example, all large-scale car manufacture was by then in foreign ownership. Second, experience with private ownership had made it clear that the first priority of the privatised companies was profits, not public service, and it made little difference whether the shareholders were British or foreign".

Most of the traditional US utilities companies sold their interests in Britain after 1997 when the easy profits were achieved and operating conditions in U.K. started to be more difficult. Ofgen also became concerned about the scope for cross subsidy between distribution and retail businesses. It feared that companies would cross-subsidise their competitive retail business from their monopoly distribution business choking off competition. It therefore required a full legal separation of the businesses so there was no scope for cross-subsidies. The distribution businesses of the 12 RECs began to split from the retail businesses after 1998. By 2005, the distribution businesses of half of the 14 regions of England, Wales and Scotland were owned by companies other than the owner of the retail business. The new sets of owners are different from the previous American wave. Most companies, including EDF, Scottish Power, Powergen and Scottish and Southern have chosen to operate in both distribution and retail, while the US companies PPL and Mid-American Energy Holding, and United Utilities (mainly a U.K. water company) have sold their retail business (See Table 3 and 4).

It is also interesting to note that many of these hostile takeover bids were initially fought vehemently by the management team of the target company. For example, Sweb and Manweb sought to preserve their autonomy in the face of the eventually successful bids made for them by the Southern Company and Scottish Power respectively. In both cases the executive boards of the two companies resisted the advances of their predators using special dividends and discussing the possibility of rescue by a variety of 'white knights'. In the case of Manweb the failure of its defence was followed by the replacement of its main board by executives from Scottish Power, a change that reflected the company's new status as a subsidiary of its new parent rather than a separately listed entity (Fagan 1995). The majority of Northern's board was also replaced after the contest with Calenergy was finally concluded. These examples illustrate the fact that the defensive tactics employed by electricity companies -- such as the use of special dividends, share buy-backs and so on -- only succeeded in drawing market attention to the existence of substantial capital assets within the sector. More importantly, however, the use of these defensive tactics illustrates the inability of the management team of the target company to compensate for the dispersed ownership structure of the firm and the absence of deviations from the one-share, one-vote standards.

Finally, it is important to point out that the ultimate outcome of the transformation of the industrial profile of the electricity sector in England diverges substantially from the original vision of Beesley and Littlechild. As noted by Thomas (2003: 339), "the electricity companies in Britain were victims of the political and regulatory desire to be seen to be creating a competitive industry". The evolution of the UK energy industry is noteworthy for the study of regulation since the centralised electricity incumbent (CEGB) was split up both horizontally and vertically by political design. The political authorities limited its reconfiguration for quite some time through strong policy against vertical integration. However, the ideal industrial structure, a full de-integrated structure with competitive generation and retail services, has only been partially achieved. The combination of structural split and liquid capital markets did render English companies ripe for being the recipients of takeover bids from foreign companies. The evolution of the industry structure of the electricity sector in the UK was shaped by an initial wave of US bidders followed by a second wave of continental European acquirers. The ultimate outcome is that the "industry is now dominated by a handful of mainly foreign-owned integrated generators/retailers with no incentive to compete against each other" (Thomas, 2006b: 8).

B. The Reform of the Electricity Sector in Spain

Electricity was first produced for public consumption in Spain in Barcelona in 1875. Numerous small companies centred in the major towns developed from that time until the end of the 19th century. During the twentieth century the economics of the industry led to the formation of larger companies (See Table 5). At the beginning of the 1980s, the electricity sector was formed principally by ten vertically integrated (generation, distribution and retailing), regionally based companies (involving substantial holdings by the banks), and Endesa (*Empresa Nacional de Electricidad)* -- the large state-owned company formed in 1944. Endesa was initially only involved in generation. Private companies were obliged to buy all of the electricity that Endesa generated (Salmon, 1995: 153).

Reorganisation of the electricity industry became necessary in the 1980s as the result of two factors: the fragmented pattern of production that arose from the historical evolution of the industry; and the serious financial problems facing the industry in the early 1980s. Policy-makers sponsored a series of mergers and asset swaps (including interests in power generations) between firms in the sector. For example, the three largest companies (Endesa, Hidrola and Iberduero) agreed in 1984 to take over smaller loss-making companies in exchange for government assistance. Fecsa (*Fuerzas Eléctricas de Cataluña*), one of the companies in most serious financial difficulties, was forced to sell some of its interests in property and minerals as well as in electricity. The process continued through the 1980s and into the 1990s.

The government's explicit support strengthened the incentives of firms to merge with other Spanish companies. Both Endesa – still a public company at that time – and Iberduero (the predecessor of Iberdrola) embarked on an aggressive policy of acquisitions and takeovers of their small competitors. (Crampes and Fabra, 2004; Arocena *et al,* 1999; Régibeau, 1999 and Salmon, 1995) By the end of 1993, Endesa had acquired a myriad of regional electricity companies (ENHER, Unelco, GESA, ERZ, Electra de Viesgo, Saltos del Nansa, and Sevillana de Electricidad). Endesa also owned the coal mining company Encasur and the coal trading company Carboex (in conjunction with Repsol). In 1992 Iberduero merged with Hidrola that, in turn, led to the creation of Iberdrola. By 1994 the only two companies outside these two groups were Hidrocantábrico and Unión Eléctrica-Fenosa.

The result was that the structure of the electricity sector was fundamentally transformed through a series of mergers and asset consolidation in anticipation of the future liberalisation of the market (See Table 6). By 1997, the electricity companies had clustered into four groups all vertical integrated between generation and distribution.

Out of these consolidations Endesa and Iberdrola emerged as the dominant firms in the industry, with Endesa becoming integrated in both distributions and generation activities. In 1995, as part of its plans to liberalise the industry, the Partido Popular (PP) government decided to privatise Endesa completely without any restructuration.[4] Endesa reinforced its predominant position in the domestic market and became one of the biggest European companies after these series of acquisitions. By then, the electricity companies had clustered into five groups that are all vertically integrated in both generation and distribution activities – in sharp contrast to the case of England when the privatisation started in this country.[5] Out of these consolidations, Endesa and Iberdrola emerged as the dominant firms in the industry, with the former transitioning from a pure generation company to fully vertically integrated (generation and supply) company.

This consolidation gave the new Endesa group a market share in generation of 50 per cent – thereby increasing the share of the two dominant entities to 82.6 per cent. Thus, it seems fair to characterise this market structure as a duopoly. This suggests that in the absence of significant entry into generation, the liberalisation of the market for power was unlikely to yield prices that were close to competitive levels (Arocena *et al.*, 2002). Moreover, the type of generation capacity varied greatly across the companies (See Table 7). ENDESA owned 54 per cent of fossil fuel fired plants whereas Iberdrola had the control of 50 of the total hydro capacity. Thus, the Spanish case is characterised by a high degree of horizontal concentration in generation, as well as a high degree of vertical integration between generation, distribution, and retailing (See Table 8**).** These features stand in sharp contrast to the case of England. The process of mergers, acquisitions, and alliances did not end after the change in the regulatory regime. In fact, successive Spanish governments have advocated since the early 1980s the creation of large Spanish groups in order to compete with large international rivals (Arocena, 2003).[6]

[4] Endesa's Privatisation was conducted in different stages and with the priority of obtaining revenues. See Trillas (2000).

[5] Endesa Group, Iberdrola, Unión Fenosa, Hidrocantábrico and Electra de Viesgo.

[6] For instance, the government has attempted to integrate the private oil companies further in order to establish another private Spanish grouping in addition to Repsol (Correljé, 1994) and, through the merger of Hidroeléctrica del Cantábrico and Unión Fenosa, to create a 'third electrical leg' alongside ENDESA and Iberdrola. The Government, following the reports by the Energy Commission and the Competition Court, could not approve the take-over, arguing that it would weaken competition (See Arocena, 2003: 7 and Crampes and Fabra, 2004: 14)

3. National Institutions of Corporate Governance

The previous section documented the different patterns of the transformation of the industrial profile of the electricity sector in England and Spain in the wake of the privatisation and liberalisation policies. The structure of private property of the electricity sector in England was characterised by an evolution from a substantial number of firms (17) with domestic majority ownership to the current situation where the entire sector is comprised of subsidiaries of foreign companies. The evolution of the structure of the Spanish electricity sector, in contrast, was marked by the consolidation of the market power of the established companies with a substantial control by domestic players. The argument presented in this section is that the institutional arrangements of corporate governance of the two countries largely account for the differences in the transformation of the industrial profile of their electricity sector. We identify three central dimensions of the national institutional arrangements of corporate governance: ownership structure of companies, system of corporate law and voting rights, and the process of approval of mergers and acquisitions.

First, the ownership structure of companies constitutes the primary dimension of national systems of corporate governance. The opposition is traditionally been mark by a contrast between Anglo-Saxon economies where ownership is diffused (i.e. no single or groups of shareholders owning a substantial percentage of equity capital) and the main owners are institutional investors versus that of continental Europe and Japan where ownership is concentrated in the hands of a small number of "strategic" players -- family, banks, or non-financial corporations. (Shleifer and Vishny 1997). The ownership structure of English and Spanish electricity companies conform to this dichotomy (See Tables 9-12). The privatisation process of the electricity sector in England led to the creation of several firms all characterised by ownership diffusion whereby no shareholders own a high percentage of the firm of the equity capital. Moreover, the largest shareholders were institutional investors, such as pension and mutual funds.[7]

[7]Analysis by substantial shareholdings (four largest shareholders). Eastern Electricity (1991-1995): 12%; East Electricity; East Midland Electricity (1991-1996): 7%; London Electricity (1993-1995): 14%; Manweb (1991-1995): 10%; Midlands Electricity (1991-1995): 12%; Northern Electricity (1991-1995): 13%; Norweb (1992-1996): 19%; Seeboard (1992-1995): 17%; Southern Electricity (1991-1998): 10%; South Wales Electricity (1991-1995): 23%; Sweb Electricity (1991-1995): 17%; Yorkshire Electricity (1991-1996): 12%; National Power (1991-1999): 6%; Powergen (1991-2001): 14%; Scottish Power

The importance of the ownership structures of companies manifests themselves through their influence in shaping the preferences of the key shareholders (Mayer, 1998; Mayer, 2000; Vitols 2001). Institutional investors in Anglo-Saxon economies take a portfolio approach to risk management that, in turn, translates in their reluctance to become central players in the decision-making process of firms. Instead, their preferences lie in seeing portfolio companies achieving high rates of returns in their shares. This sometimes led them to become active in pressuring firms to pursue strategies that would result in increased share price, but with a purely shareholder value maximisation concerns. Mutual and pension funds do not seek to substitute themselves as the managers for portfolio companies. By contrast, shareholders in concentrated ownership systems of corporate governance possess strategic and often multiple goals. For one thing, ownership is often embedded in a larger pattern of cross-share holdings whereby firms hold stocks in each other as part of a strategy to protect themselves against unwanted hostile takeover bids that would affect the capacities of managers to develop the strategy of the firm with a long-term perspective. Another motivation is that banks often view their equity stakes as a mechanism to maintain business relationships and protect their loans. A final motivation of large owners could be to extract private benefits from their control of the corporation at the expense of minority shareholders (Zingales 1998).

Moreover, the ownership structure of companies shapes the importance taken by takeovers in their adjustment and rationalisation processes. In countries characterised by ownership concentration, the occurrence of hostile (or unwanted) takeovers is a rarity (Franks and Mayer 1997). The acquisition of a firm would requite a potential bidder to secure the approval of the largest shareholder – or convince the members of the shareholder group to sell their stakes. By contrast, the absence of ownership concentration entails the possibility of unwanted takeover bids. Managers possess serious incentives to pursue strategies that will increase the stock market capitalization of the firm and, in turn, make it more prohibitive for a potential bidder to acquire the company. Finally, it is interesting to note the links between preferences and takeovers. Empirical research on the effects of takeovers have shown a substantial gains for the

(1991-2004): 9%; Scottish Hydro (1991-2004): 6%. Source: Own calculations from annual reports and other investor information from companies in the UK.

shareholders of the targeted firm – the impact on the shareholders of the bidding firm being more ambiguous (Brickley, Jarrell and Netter 1988). Thus, institutional investors are unlikely to constitute serious opponents to takeovers in Anglo-Saxon economies.

The ownership structure of companies in England and Spain constitutes the first dimension of the institutional arrangements of corporate governance that was influential in the respective transformation of the industrial profile of the electricity sector. Ownership diffusion in England was conducive to takeover bids and the presence of institutional investors interested in market capitalisation gains reinforced this process. The presence of ownership concentration and of friendly, long-term shareholders in Spain made it more unlikely that a restructuring of the sector would take place through unwanted takeovers. However, the ownership structure of companies only constitutes a first-cut approach to account for the differences in the transformation of the sector in the two countries. For one thing, managers can enact panoply of anti-takeover measures to protect themselves against unwanted takeover bids in ownership diffused systems of corporate governance. In addition, the degree of ownership concentration in the electricity sector in Spain is important (10-20% of outstanding shares) but not insurmountable.[8] A committed bidder can focus on the acquisition of the remaining free floats (80 to 90%).

The second crucial institutional arrangement of corporate governance that differentiates England and Spain is their system of corporate law and its associated voting rights for minority shareholders. The overall point is that managers can protect themselves against unwanted takeover bids through anti-takeover measures and deviations from the one-share, one vote principle. A comparison with the United States is useful as a starting point. The 1980s was a decade characterised by the widespread use of hostile takeovers as a mean of firm restructuring. By contrast, the great majority of takeovers in the United States since the early 1990s have been friendly in nature. What happened? For one thing, we can discard the role of the ownership structure as an explanation of this shift. The presence of ownership dispersion has been a constant feature of corporate governance in the United States for the last 25 years. A contributing

[8] Analysis by substantial shareholdings (four largest shareholders). Endesa (2000-2005): 17%; Iberdrola (2000-2005): 32%; Unión Fenosa: 26%. Source: Own calculation from annual reports and other investor information from companies in Spain.

factor to this change lies in the proliferation of anti-takeover devices. Managers, who were the first victims of hostile takeovers, lobbied state legislatures to enable them to enact anti-takeover measures (Bebchuck and Ferell 1999). State legislatures proved to be very receptive to the demands of managers since targeted companies often experienced employment loss within the borders of the state. Thus, ownership diffusion does not entail that unwanted takeovers will prevail in the restructuring process of companies.

Managers in the United Kingdom, however, were not able to use anti-takeover devices as a means to compensate for the ownership diffusion of companies in their protection against unwanted takeover bids. The UK system of corporate law is unitary in contrast to the federal nature of the American system (Miller 2000). British managers cannot put administrative regions in competition with each other as incorporation rules are centralised in the central government. The unitary system of corporate law in the UK is an important feature of its system of corporate governance that enabled foreign firms to bid for domestic electricity companies. But the differences in the transformation of the electricity sector between England and Spain cannot by themselves be accounted for the unitary system of corporate law in the former. The system of corporate law in Spain is also unitary.

A second component of the corporate law dimension is that of the voting rights of companies. The issue of voting rights is related to the process by which equity holders, especially institutional investors as minority shareholders, translate their equity stake into voting power. Minority shareholders prefer systems of corporate governance with the fewest deviations from the one-share, one-vote standard. This standard is one of the best means by which minority investors can collectively achieve influence proportional to their stakes. Managers, in contrast, might prefer to stabilise the ownership structure of the company by giving more power to some shareholders, especially long-term owners.

There are two main deviations to the one-share, one-vote principle. The first one falls under the category of unequal voting rights. The most common form of unequal voting rights is the award of multiple voting rights to certain shares by companies. Multiple voting rights are often justified by the desire of firms to reward long-term investors, thereby cultivating a loyal base of shareholders. But unequal voting rights can also be used by managers as a tool to provide hard core shareholders with a disproportionate voting influence in comparison to their equity stakes. The second deviation to the one-share, one-vote principle is that of voting rights ceiling that caps the amount of votes any investor may cast regardless of the total number of stocks held. Voting rights ceilings may be used by managers to protect themselves against the potential rise of a large investor in firms with no loyal group of hard core shareholders.

The use of deviations from the one-share, one-vote standards is permitted in both Spain and the United Kingdom. However, the frequency of their use exhibits sharp divergence. For example, only one of firm part of the UK FT 100 index had ownership ceilings and none of them had unequal voting rights in 2002 (Davis Global Advisors 2002: 68). For the specific case of the electricity sector, golden shares were initially introduced by the government. The golden share scheme acted as an impediment on takeovers since no shareholder was allowed to control to control more than 15% of outstanding shares (Oxera, 2005).[9] The first attempted takeover of a privatised electricity company took place in December 1994 shortly before the expiration of the golden share scheme in March 1995. Moreover, it is also worth noting that none of the privatised electricity had any mechanisms of protection in the form of deviations from the one-share, one-vote standard other than the golden share scheme resulting in a surge of takeover activities after March 1995. All but three of the companies had been acquired within two years of the redemption of the golden share scheme (James, Ghobadian and Viney 1997).

By contrast, the use of deviations from the one-share, one-vote standard is widespread in the electricity sector in Spain. First, the three major electricity companies (Endesa, Iberdrola, and Union Fenosa) are issuing two classes of stocks: voting and non-voting shares. The latter are being used to raise capital without affecting the company's control structure since the holder is entitled to dividends but does not possess any voting rights. Second, the voting rights at the largest two firms (annual reports of Endesa and Iberdrola, various years) exhibit a substantial deviation from the one-share, one-vote standard through the use of voting caps. No shareholder may cast a

[9] The public was concerned that key services would be taken over by foreign companies with no commitment to provide reliable services (Thomas 2001: 18). The electricity companies were privatised with a golden share scheme that gave the government a veto right over any proposed takeovers.

number of votes higher than that corresponding to 10 percent of the total outstanding shares. This deviation significantly increases the influence of loyal, long-term shareholders. Examples drawing from the ownership structure of the two companies will illustrate this point.

The main shareholders of Endesa in 2003 were two large saving banks, Caja Madrid and La Caixa, each owning a little bit above 5% of the equity capital. However, their influence extends beyond their formal equity stake. For the same year, the quorum at the annual general meeting of Endesa was 37.5%. Thus, these two saving banks were able to each cast a vote corresponding to 10% of the total outstanding shares since more than half of the equity capital of Endesa was not represented at its annual general meeting. The combined voting power of Caja Madrid and La Caixa was 20% of the total shares present at the annual general meeting. This is highly significant since most important decisions have to be approved by a supra majority of 2/3. In other words, the combined voting power of the two saving banks is very close to the veto power threshold (33.3%) needed to block important voting decisions. A similar logic applies to Iberdrola.

The main shareholders of Iberdrola in 2005 were two large Basque banks, BBK and BBVA. Their equity stakes in Iberdrola were respectively 7.5 and 5.4%. For the same year, the quorum at the annual general meeting of was 52%. Thus, these two banks were able to each cast a vote corresponding to 10% of the total outstanding shares since 48% of the equity capital of Iberdrola was not present. The combined voting power of these two loyal shareholders was 20% of the total shares present at the annual general meeting, the same figure as in Endesa. Moreover, important corporate decisions at Iberdrola also required a supra majority of 2/3 – thereby providing the two Basque banks with a quasi-veto power over important issues.

We make a final comment on the question of corporate law and voting rights for the respective transformation of the industrial profile of the electricity sector in the two countries. Managers of privatised electricity companies in England were not able to compensate for the dispersed ownership structure through deviations from the one-share, one-vote principle with the resulting outcome that their high exposure to capital market pressures ultimately paved the way for their acquisition by foreign firms.

Managers of Spanish electricity companies, in contrast, were able to build on their already significant structure of ownership concentration through the use of voting right ceilings as a mechanism to protect themselves against unwanted takeover bids. We argue that this difference does not result from the process of regulation on the issue of voting rights since it is self-enforcing in the two countries. It is instead the identity of shareholders that best explain differences in voting rights in the two countries.

The United Kingdom has been on the forefront on the reforms of corporate governance for the last 20 years with an overall aim to increase the protection of minority shareholders. Several committees (Cadbury, Greenbury, Hampel) were established to investigate financial scandals and to propose solutions to better monitor management. The main issues covered by these committees were those that dealt with the operation of the board of directors, executive compensation, and the monitoring of the CEO. The policy outputs of these committees were codes of good governance. But these codes, like amendments and reforms of the national system of corporate law, took the form of self regulation and voluntary acceptance rather than regulatory change. Listed companies do not have to adopt the recommendations contain in the various good governance codes, but they have to explain the reasons for their non-compliance in their annual report. Similarly, the regulation framework on voting rights in the United Kingdom possesses strong elements of self-regulation and stringent disclosure requirements. For example, the use of deviations from the one-share, one vote standard during a takeover bid is governed by the City code – a self-regulatory body without statutory powers.[10]

The governance of corporate law and of voting rights in Spanish corporate governance, interestingly enough, also contains several elements of self-regulation. Corporate law in Spain, as in many civil law and continental European countries, has traditionally been a typical case of weak protection for minority shareholders with low transparency and limited monitoring of executives and large owners (LaPorta *et al.,* 1998 and 2000). Reforms to increase the degree of protection of minority shareholders have been enacted since the late 1990s in order to increase both the competitiveness of the Spanish financial markets and the ability of companies to attract capital from foreign

[10] A discussion of the City code is provided below.

investors. These reforms were modelled on the UK Cadbury report. In particular, the Spanish stock market approved in 1998 the Olivencia code as a mechanism to govern the workings of the boards of directors of listed companies. As in the United Kingdom, moreover, the code is voluntary and firms are required to disclose in their annual reports the reasons for non-compliance if any (Aguilera 2005: 202). Finally, the more specific case of corporate law has been marked by the enactment of a Transparency law was passes enacted in July 2003 to increase the transparency of the takeover process by regulating the use of recourse to deviations from the one-share, one-vote standard. The shortcoming is that this statutory change in Spanish corporate law fells short of the standard of protection enjoyed by minority shareholders in the self-enforcing UK regime.

The previous discussion on the patterns of regulation of corporate law in England and Spain highlights two important issues. First, the overall absence of deviations from the one-share, one-vote standard in the United Kingdom cannot be attributed to the enactment of compulsory statutory regulations. The regulatory reform processes in the areas of corporate governance and company law has exhibited strong elements of self-regulation. Second, the process of self-regulation in itself cannot be a guarantee of high protection for minority shareholders as the cases of England and Spain testify. The same institutional arrangement that is embedded in a different overall framework would produce different consequences (Hall and Franseze 1998).The process of self-regulation in the United Kingdom results in higher degree of protection for minority shareholders because of the predominance of institutional investors with a primary concern about shareholder value. In particular, the governing of voting rights through the City code during takeover bids has been a central element in the high degree of protection granted to minority shareholders. The ability of the City of London to regulate itself derives from its homogenous character with its accepted traditions and standards of business conduct as well as its consensus on shareholder value through adequate treatment of minority investors (Kenyon-Slade 2004: 505). In the case of Spain, reforms of corporate governance were not driven by a concern to bring about greater shareholder value but by a desire to “modernise” business practices (Aguilera 2005: 202). The Spanish case is also interesting as it reveals that the sets of firms that are more likely to implement shareholder value friendly practices are those with a more dispersed ownership structure and higher rates of foreign ownership (Ibid: 203).

Dispersed ownership structure and the predominance of institutional investors constitute necessary conditions for a process of self-regulation to result in high degrees of protection for minority investors.

The third crucial institutional arrangement of corporate governance that differentiates England and Spain is the process of approval of mergers and acquisitions. This institutional feature stands as the last stage in the protection of firms from takeovers. The first stage is the ownership structure – ownership concentration making it difficult for a bidder to acquire the company without prior approval while ownership diffusion exposes the firm to financial market speculations. The second stage is the system of corporate law and its associated voting rights for minority shareholders. Even a diffused ownership structure does not imply a flurry of hostile takeover bids if voting rights deviate from the one-share, one-vote standard. The last stage of protection against takeover bids is that of the approval process by the regulatory authorities. A diffused ownership structure and a system of equal voting rights for shareholders can be overcome if the relevant authorities veto the acquisition of the firm by a rival. The electricity sector is characterised by the presence of two regulatory bodies which consider aspects of a proposed takeover bids. Takeover proposals can be rejected on the grounds of their effects on competition. This function is performed by the Competition Commission (formerly Monopolies and Mergers or MMC) and Ofgen in the United Kingdom and by the National Energy Commission (CNE) and the Court for Defence of Competition (TDC) in Spain. Takeovers can be also rejected (or accepted) in regard to the types of issues of corporate governance that are raised. This function is fulfilled by the City code in the United Kingdom and by the National Securities Market Commission in Spain.

The dominant characteristic of takeover regulation in the United Kingdom is the central role of the Panel on Takeovers and Mergers, a self-regulatory institution which administers the City code.[11] The origin of the City code lies in the wave of abuses of minority shareholders in the 1960s, particularly in the area of mergers and acquisitions. The panel is composed of six members appointed by the Governor of the Bank of England from the ranks of the business, legal, and investment communities. Its main

[11] An exhaustive and informative discussion of the City code can be found in Kenyon-Slade (2004).

guiding principle is that all shareholders must be treated equally by an offeror. The principle of equal treatment entails three regulatory components. First, the price per share offered by the acquiring firm must be the same for all categories of shareholders. This measure is to prevent an acquirer paying higher price for a sufficient (and minimal) block of shares that would provide him with control over the strategy of the targeted firm. Second, the City code obliges a bidder that has acquired 30% or more of the voting rights in a company to make a formal offer for its entire stock capital (i.e. squeezing out clause). The assumption is that the acquisition of 30% of the voting rights of a corporation provides the acquirer with a de facto control. Minority shareholders should be free to leave the company if a new investor takes control. Third, the City code imposes significant fiduciary on directors in addition to those found in the body of corporate law. The City code seriously restricts the ability of managers to enact anti-takeover devices if they believe that an offer is imminent. Moreover, the enactment of anti-takeover devices must be approved by shareholders in a general meeting.

The Spanish counterpart to the City code, Comisión Nacional Del Mercado de Valores or National Securities Market Commission, is also highly supportive of the rights of minority shareholders (CNMV, 2004; Freshfields Bruckhaus Deringer, 2003). First, a mandatory takeover bid must be triggered where a shareholder has the intention of acquiring – or has acquired – more than 25% of the target's equity capital. Second, all target shareholders must be treated equally and given similar information regarding the conditions of the takeover bid. This provision entails that all target shareholders of the same equity class must receive a similar financial offer from the bidder. Separate deals with target shareholders holding a significant number of shares are not allowed. Third, members of the board of directors must act in the interests of all shareholders once a takeover bid has been launched. In particular, the issue of takeover defences must be authorised by majority voting in a general shareholders' meeting.

The National Energy Commission or Comisión Nacional de Energía (CNE), in contrast, has not been protective of minority shareholders.[12] Although the CNE is formally considered independent, the system provides for a large role to be played by

[12] Regulation is shared by the ministry responsible for energy, an independent body – national Energy Commission (CNE) and the body responsible for competition, the Court for Defense of Competition (TDC). CNE advise to ministry on regulatory issues , mergers and acquisitions and as referee for dispute resolutions. TDC may apply directly antitrust law.

the government (Curien and Matheu 2001). The existence of a regulatory authority does not imply that it is the dominant regulatory authority. The centrality of an independent regulatory authority is better captured by the nature of its powers, its attributions and its structural position in the nexus of interactions in the network of actors comprising the regulatory framework (Genoud 2003). For the Spanish case, the CNE acts as an advisory body for the sponsoring ministry – the latter monopolising most of the regulatory functions. As argued by Ocaña (2003: 22), the CNE is one of "these kinds of agencies which provide advice to the ministry and are responsible for monitoring and arbitration, but have no definitive regulatory powers. In accordance with their advisory roles, the areas of activities of these organisations are broadly defined to include most regulatory issues. Governance and decision-making structures and independent safeguards are similar to those adopted by independent regulatory agencies". Thus, the institutional arrangements between the government and the regulatory authorities and the question of independence that characterise it constitute one of the main critical issues of the regulatory process in Spain. The current takeover bid of E.ON for Endesa is currently stuck at this stage. The Zapatero government has instructed the CNE to find ways the block E.ON's bid without failing foul of EU regulation. The result was the imposition of a series of conditions that made the merger less attractive (*Financial Times,* July 14, 2006: 23).

4. National Institutions and Sector-Specific Regulation: The Specification of the Interaction

The different processes of the transformation of the industrial profile of the electricity sector in England and Spain testifies to the importance of diversity in modern capitalism. Important studies have highlighted the central role of national institutions in creating and sustaining this diversity across capitalist economies (Amable 2003; Hall and Soskice 2001). The evidence and argument presented in the previous sections is certainly compatible, if not fully supportive, of these sets of arguments. We demonstrate how the differences in the transformation of the industrial profile of the electricity sector are largely accounted by the national institutions of corporate governance of England and Spain.

The transformation of the industrial profile of the electricity sector can be conceptualised as a series of institutional stages in which managers seek protection from unwanted takeover bids. The first set of institutions is that of the ownership structure of the company. The presence of ownership concentration implies that takeovers are negotiated. A dispersed ownership structure, by contrast, leaves the firm open to unwanted takeover bids. The second set of institutions is related to the national system of corporate law and its associated rules governing voting rights. National systems of corporate governance that protect the voting rights of minority shareholders are more likely to experience a flurry of takeovers acting as a restructuring mechanism. By contrast, national systems of corporate governance that enable management to implement substantial deviations from the one-share, one-vote standard imply a reduced role for financial market pressures in the process of adjustment of firms. The third set of institutions deals with the process of regulatory approval of mergers and acquisitions. The presence of independent institutions that are self-regulated by a business community that privileges the rights of minority shareholders will further expose managers to the pressures of financial markets.

The national institutional arrangements of corporate governance in England and Spain exhibit strong variation on these three dimensions that, in turn, shape the transformation of the industrial profile of their domestic electricity sector. The importance of national level institutional arrangements suggests the potential explanatory value of institutional based comparative approach (such as the VoC) for the study of the transformation of the electricity sector in this paper. We adopted a one-sector, two-nation research design whereby variation on the institutional arrangements of corporate governance of the two countries (IV) is matched with variation on the transformation of the industrial profile of the electricity sector (DV).

The importance of the national institutions of corporate governance in the transformation of the electricity in England and Spain should not be denied. However, the central role of national institutions in explaining cross-country variation does not necessarily imply the irrelevance of sector-specific approaches on regulation. As Levi-Faur (2006) noted, cross-national variations can also be accompanied by sector-based variations. The cases of the electricity sector in England and Spain provide ample examples and instances of sector-based differences that are not driven by the national institutions of corporate governance. The British model is characterised by the establishment of new regulatory bodies with substantial degree of autonomy and discretion, and transparency in the decision-making process (Coen 2005). Policy-makers constrained themselves on their future course of potential actions by providing independent regulatory authorities with substantial powers. Moreover, the English case became an example for a de-integrated model with competitive generation and retail activities. The political authorities have limited the reconfiguration of the electricity industry through strong policy against vertical integration and by the breaking-up of the sector into many smaller companies (Thomas 2003). The transformation of the Spanish electricity, by contrast, has displayed diametrically opposite characteristics: the absence of strongly independent regulatory institutions; the integration of generation, distribution, and retail activities; and the consolidation of the sector in a few numbers of large companies (Arocena 2003; Regibeau 1999; Salmon 1995).

Thus, the task consists in specifying the context in which the importance of one set of variation matters for outcomes. This requirement follows from the presence of variations on both national institutions and sector – England and Spain being characterised by differences in both the national institutions of corporate governance and on the sector-specific regulatory framework for electricity. For the rest of this section, we demonstrate how sector-based regulation provides the conditions by which the national institutional arrangements of corporate governance came to play such a prominent role in the evolution of the electricity sector in the two countries. In other words, the impact of the national institutions of is mediated by their interaction with the framework in which they are embedded. In particular, it is with their interaction with regulatory policies that the institutions of corporate governance matter, not by themselves.

We present two arguments that highlight the importance of sectoral regulation in the transformation of the industrial profile of the electricity sector in England and Spain. First, institutional-based explanations such as those presented in VoC often fail to capture the origins and political foundations of institutional frameworks. Institutions could be set up as the rational solution to some coordination problems, but they could also be the products of political agenda and actions that emerge from conflict between societal groups (Morgan 2005). Institutional frameworks can also be designed by policymakers with an eye of securing re-election at the ballot box. In other words, the choice of an institutional framework represents the choice of policymakers that exhibit motivational multiplicity across and within national settings. Second, the impact of institutions on outcomes can change over time while being themselves resistant to change. We emphasise in this section the latent character of institutions. The importance of structurally stable institutions can take place in response to shifts in the broader socioeconomic context (Thelen and Steinmo 1992: 18-20). In particular, processes of privatisation and processes of re-regulation can often transform the importance taken by specific institutions. This is not to deny the importance of national institutions, but to highlight the inability of most institutional-based comparative political economy approaches to account for the shift in importance of structurally stable institutions over time. The role of regulatory policies and choices of policy-makers is also prominent for the issue of latency since the choice of policy-makers in the two countries has contributed to an evolution in the degree of influence of specific institutions over time.

A. The critical importance of policy-makers' choices

National institutions of corporate governance in England and Spain have been highly important in the transformation of the industrial profile of the electricity sector in the two countries. But their centrality should not be interpreted as a rejection of scholars working from the perspective of re-regulation. The importance of the national institutions of corporate governance is only felt when combined with patterns of re-regulation. Even scholars working with an institutional-based comparative political economy perspective highlight that the impact of a single institution is mediated by the wider framework in which it is located (Hall and Franseze 1998). We go further in this paper by emphasising the importance of regulation as a key variable that affects the impact of firm behaviour. The regulatory style of public authorities in the political economy - command and control regulations or regulatory co-operation - influences the strategic interactions among economic actors (Gouldson 2002). Thus, the choices of policy-makers constitute a central element in the study of regulation and of institutional analysis.

The issue of regulation is seen as important for some scholars working with an institutional-base comparative political economy framework. For example, Hall and

Soskice (2001) recognise the importance of regulation in sustaining modes of economic coordination. For the case of a coordinated market economy like Germany, rigid labour markets and compulsory training requirements constitute key elements in the ability of firms to succeed in the areas of incremental innovation. Unconstrained managers might be tempted to rely on dismissals to adjust to market fluctuations that, in turn, could seriously deter employees to develop firm-specific skills. Similarly, the workings of the American liberal market economy require the strong protection of minority shareholders if firms are to raise funds from multiple sources. The role of regulation is seen as one that supports the persistence of these key institutional arrangements.

However, the focus of theoretical perspectives highlighting the importance of national institutional frameworks is on economic coordination – not regulation. The latter is often seen as playing a subservient role to the issue of the coordination of the activities of the firm. This conceptualisation of regulation might obscure two important questions. First, advanced capitalist economies have experienced a flurry of rapid regulatory changes in the last two decades (Braithwaite 2000; Jordana and Levi-Faur 2004b, 2005; Loughin and Scott 1997; Moran 2003; Muller and Wright 1994). The liberalisation of electricity markets at the European level has destroyed the old order of publicly-owned monopolies. There is a potential mismatch between the numerous changes that took place in the regulatory sphere and the apparent stability of mode of economic coordination. The task becomes one of identifying which types of regulatory changes that sustain the mode of coordination of firms from those that undermine it (Hall and Thelen 2005). Second, the issue of regulatory choices raises the salience of political dimension of institutional arrangements in capitalist economies (Howell 2003; Morgan 2005). The analysis of institutional formation and complementarity is not simply about increased economic returns, but are also the products of political agenda and actions that emerge from conflict between societal groups. Institutional-based comparative political economy scholars recognise the importance of history and contingency (Hall 1986, Hall and Taylor 1996; Pierson 2000). But in their focus on economic coordination, they tend to underplay the motivational multiplicity of policy-makers pursuing more than one goal – or conceptualising a similar goal through different means. The incorporation of the role of politics in regulation choices provides the basis for a comparison between England and Spain in the analysis of the evolution of the electricity sector: the policy of market 'deregulation' without attempts by the state to promote the emergence of large domestic firms versus the policy of building national champions.

Throughout the 1980s and 1990s, the set of policies known as privatisation, liberalisation, and deregulation constituted the hallmarks of the 'British Model' and dominated the political agenda for electricity utilities (Thomas, 2001). At the heart of these reforms was a desire to transform the electricity industry from a monopoly into a competitive market so that electricity could be bought and sold like other commodities and products. The process of privatisation constitutes the starting point of the transformation of the electricity sector in England since deregulation preceded European directives. As in many other countries, privatisation was motivated by the desire of policymakers to increase government revenues. However, the story of the privatisation of the British economy is not simply one of generating revenues. Many countries proceeded to privatise large firms without the introduction of full-scale deregulation. Other dimensions characterised the process of privatisation under the administrations of Thatcher and Major. The Thatcher's government pursued the goal of encouraging wider share of ownership or the so-called 'popular capitalism' (Veljanovski, 1987; Vickers and Yarrow, 1991). The public flotation of utility companies such as British Telecom (1984) and British Gas (1986) included sale of significant proportion of the shares to the general public rather than financial to friendly other companies that could act as long-term shareholders.

Another consideration inherent in the process of privatisation in England was the war on organised labour. A series of new industrial relations legislation enabled the Thatcher's government to triumph over the National Union of Miners in 1984-1985 and, more generally, to reduce the powers of militant trade unions (Davies and Freedland 1993; Longstreth, 1988; MacInnes, 1987; Taylor, 1993). In Britain, much of the power of the trade union movement laid in public owned utilities. Since these had monopoly powers over important public services, any strike action would quickly have a powerful impact on the general public and the national economy. The process of privatisation under Thatcher, which invariably involved the breaking up of these large companies and the introduction of competition, was bound to have an impact on trade union power. In these sense, trade unions militancy that could harm a company operating in a competitive market would be more difficult to gain than if the firm was operating as a monopoly. The break-up of companies upon privatisation, moreover, would further fragment union power. The consequence of breaking up appealed to Thatcher, and complemented her distrust of large corporate entities and of neo-corporatist bargaining. According to Helm (2003: 89), "breaking union power was her priority: competition and markets were one means amongst many, including nuclear power and the break-up of monopolies, to create smaller companies and hence reduce the chance of national strikes".

Thus, the privatisation of the electricity sector not only involved a transfer of ownership from the public to the private sector, but was also accompanied by the dispersion of ownership and the fragmentation of the sector in many smaller firms. The position of two influential scholars in the process of privatisation in England – Michael Beesley and Stephen Littlechild – is highly illustrative. These scholars were sceptical about the need for extensive regulation of competitive markets. Nevertheless, they recommended that a highly fragmented market be created rather than waiting for the market to develop by itself. There was little suggestion that once established, markets would need regulatory oversight:

> Competition is the most important mechanism for maximizing consumer benefits, and for limiting monopoly power. Its essence is rivalry and the freedom to enter a market. What counts is the existence of competitive threats, from potential as well as existing competitors. The aim is not so-called 'perfect' competition…Where there are very few existing outside competitors, or not at all, the starting structure should be designed to create effective competition. When in doubts, smaller rather than larger successor companies should be created (Beesley and Littlechild, 1983: 19).

The implication of Beesley and Littlechild's prescriptions on competition, namely that the priority was to provide a structure that allowed free entry to the market, was that takeovers and mergers played a prominent role in the evolution of the industrial profile of the sector since they were interpreted as the exertion of a healthy sign of market discipline in competitive markets. The British electricity sector has experienced a huge amount of restructuring since its privatisation in 1990, especially in the distribution and retail supply, and takeovers were of little concern as long the entry barriers were low enough to maintain a realistic threat of competition (Finon and Midttun, 2004; Thomas, 2001 and 2005). But the pressures of competition as a mechanism for increasing the competitiveness of domestic firm never materialised. As pointed out by Thomas (2003: 339), "the electricity companies in Britain were victims of the political and regulatory desire to be seen to be creating a competitive industry". The evolution of the UK energy industry is noteworthy for the study of regulation since companies were split up both horizontally and vertically by political design. The political authorities limited its reconfiguration for quite some time through strong policy against vertical integration. [13]

The reforms of the Spanish electricity sector, in contrast, have developed in a policy context where industrial policies and the security of supplies have played a prominent role. The process of privatisation in Spain, as in other countries, was motivated by the desire of policymakers to generate revenues. But in contrast to the Thatcher experiment, the privatisation programme also reflects the government's goal of procuring as large a financial contribution as possible to the budget at the expense of market restructuring and, consequently, of a more rapid and effective liberalisation of the market. Indeed, more money can be extracted from a sale if the prospects of market rivalry are low and entry difficult, since these would translate into higher profit expectations. This decision stood in sharp contrast to practices and policies adopted in the United Kingdom. According to the privatisation consulting commission, the *Consejo Consultivo de Privatizaciones* (CCP), the state raised a total of 45 per cent of its total profits from the partial sales of the capital of the energy sector companies during the 1996-2005 period (*La Razón,* 22 April 2006).

Another consideration of Spanish policymakers is related to the claims that in a time of "globalisation" firms have to be large in order to effectively compete on world markets. The notion of economies of scale stands paramount in this logic of size under globalisation. The claim that generators have to be large at a national level to be viable competitors in global markets has often been complemented by the argument that such national concentration would not lead to an increase in market power. In particular, it has been argued that Spanish electricity generators will compete in a larger European market. In other words, the argument from governments reluctant to break up their

[13] It is interesting to note that the logic of competition embody in the works of Beesley and Littlechild meant that UK regulatory authorities vetoed the attempts of National Power and PowerGen, England's largest two electricity firms, to acquire smaller regional companies at the same time at they were approving takeover bids from foreign firms.

national champions is that Europe must increasingly be seen as one market and the relevant measure is not how many companies are active in their national market, but how many companies are active in the European market (Thomas 2003).

This preference for building national champions able to compete on European markets led policymakers repeatedly declared their desire to see that privatised firms should remain in Spanish hands (Cano 1998). They used two mechanisms to achieve this goal.[14] First, the Spanish electricity sector, under the guidance and regulatory powers of the state, was consolidated into ten vertically integrated (generation, distribution and retailing), regionally based companies with substantial holdings by the banking sector (Salmon 1995: 153). The aim of this consolidation was to eliminate smaller companies who were seen as being unable to compete in the liberalised European electricity markets. More important perhaps was the reform of the activities of Endesa, the largest Spanish electricity company that was under state control from its creation in 1944 to its privatisation in 1995. Endesa had been originally involved in generation activities – and the rest of the sector has to buy all of the electricity that it generated. The rationale of this policy approach made less sense with the liberalisation of the sector and was able seen an impediment in the development of Endesa. Spanish policymakers allowed Endesa to become a fully integrated company in both generation and distribution upon its privatisation.

Moreover, Spanish policymakers provide strong incentives for companies to merge in order to grow in size. Both Endesa – still a public company at that time – and Iberduero (the predecessor of Iberdrola) embarked on an aggressive policy of acquisitions and takeovers of their small competitors in the late 1980s and early 1990s (Crampes and Fabra 2004; Arocena *et als.* 1999; Régibeau 1999; and Salmon 1995) By the end of 1993, Endesa had acquired a myriad of regional electricity companies

[14] A third mechanism was also used until recently by Spanish policymakers to keep privatised companies in domestic hands and enable them to become major players on the European scene, namely that of the golden share scheme. As in the case of the United Kingdom, the golden share scheme allowed Spanish political authorities to veto the sale of stakes of more than 10% in privatized companies. The Zapatero's government abolished this scheme in November 2005 in part due to pressures from the European Commission. However, the removal of the golden share scheme entails different consequences than in the UK since the voting rights of a substantial number of listed firms is characterised by the presence of deviations from the one-share, one-vote standard. The removal of the golden share scheme in the United Kingdom, by contrast, exposed privatized companies to the pressures of financial markets since their ownership structure tended to be diffused and they their voting rights conformed to the one-share, one-vote standard.

(ENHER, Unelco, GESA, ERZ, Electra de Viesgo, Saltos del Nansa, and Sevillana de Electricidad). It also owned the coal mining company Encasur and the coal trading company Carboex (in conjunction with Repsol). In 1992 Iberduero merged with Hidrola which, in turn, led to the creation of Iberdrola. By 1994 the only two companies outside these two groups were Hidrocantábrico and Unión Eléctrica-Fenosa. The Spanish electricity industry is therefore characterised by a high degree of horizontal concentration in generation, as well as a high degree of vertical integration between generation, distribution and retailing. The process of mergers, acquisitions, and alliances did not end after the change in the regulatory regime. In fact, successive Spanish governments have advocated since the early 1980s the creation of large Spanish groups in order to compete with large international rivals (Arocena 2003).

In addition, the privatisation process of Spanish companies, in electricity and in other sectors, involved the use of cross-shareholdings as a mechanism to provide management with a concentrated ownership structure that would enable them to take a long-term view (See Figure 1 and 2). The Ministry of Industry issued guidelines to encourage the investment of Spanish capital in the utilities sector. This strategy was facilitated by the historical links between banks and electricity companies. As a result, the privatisation of Endesa expanded the complex network of cross-participation between financial and industrial groups, resulting in an enormous concentration of power in a few hands. This extensive cross-ownership network between Endesa, banks and other non-financial corporations generated a web of common interests that, in turn, led to concerns about their ability to distort entry and competition (Arocena, 2003). This strategy succeeded in preventing any of these firms from being taken over by major international player in these sectors. Moreover, it is also interesting to note that as part of its plans to liberalise the industry, the Partido Popular (PP) government decided in 1995 to privatise Endesa completely without any restructuration. In fact, it allowed and encouraged Endesa to acquire smaller domestic companies. As mentioned by Régibeau, "privatisation could have been used to break up the firm into a number of smaller competitors in order to increase competition in the future liberalised market. Instead, the government opted for 'strengthening' Endesa prior to the sale by allowing it to acquire both Sevillana and Fecsa". (1999: 165). This consolidation gave the new Endesa group a market share of 50% in generation – thereby increasing the share of the two largest firms to 82.6%.

B. Institutional Latency

The role and importance of national institutions in accounting for the transformation of the industrial profile of the electricity sector should also be qualified since it does not fully capture the dynamics of institutional change. Significant changes have characterised the strategy of electricity firms in England and Spain in the last two decades. At the same time, however, significant continuities are still characterising the institutional environment faced by companies in the two countries. For example, the City code has been pretty much in its current shape by 1985. The deviations from the one-share, one-vote standards have been used by Spanish companies since the late 1970s. In other words, the changes experienced by electricity companies in England and Spain have often taken place in a stable institutional environment. This last point illustrates some of the shortcomings of most of the institutional-based comparative political economy perspectives on institutional change. As Thelen and Steinmo (1992: 18) argue, "institutions themselves may be resistant to change, but their impact on political outcomes can change over time in subtle ways in response to shifts in the broader socioeconomic or political context".

Institutional perspectives posit that significant outcomes are shaped to a significant extent by the domestic institutional configuration faced by important actors. Institutions shape the preferences of actors and structure the nature of the power relations among them by privileging some types of actions. But most of the institional-based comparative political economy approaches are unable to account for the changing influence of institution (s) over time despite their formal stability. For one thing, institutions can be stable over time but perform different functions (Thelen 2003). For another, a stable institution performing a similar function might become less influential on the behaviour of actors due to overall changes in the broader socioeconomic environment (Thelen and Steinmo 1992: 18-20). Important changes can occur without the presence of institutional shifts.

The concept of latency captures quite well the influence of the national institutions of corporate governance in England and Spain. The importance of structurally stable institutions can take place within a context of liberalisation and re-

regulation. This is not to deny the importance of national institutions, but to highlight the inability of institutional-based approaches to account for the shift in importance of structurally stable institutions over time. The prominence of the City code in the transformation of the profile of the electricity sector in England came after the privatisation process and the decision of policy-makers to remove unconditionally the golden shares schemes. The diffused ownership structure of companies and the influence of institutional investors in corporate law become key constraining features for managers in this context. Similarly, the presence of deviations from the one-share, one vote standards in Spain was originally motivated by the desire of large shareholders to extract some private benefits of control at the expense of minority investors. Its current role in offering some degree of protection from unwanted takeover bids resulted from both the liberalisation of the sector and the decisions of Spanish policy-makers to encourage companies to develop a hard core shareholder group that represents between 10 and 20% of outstanding shares.

The role of regulatory is important in this context. It is the (different) choices of policy-makers in England and Spain that have contributed to the changing importance of specific institutions of corporate governance. Regulatory choices provided the foundations for their current degree of importance in the transformation of the industrial profile of the electricity sector in the two countries. The City code would not have acquired its central status if policy-makers had chosen a highly concentrated ownership structure for privatised companies. The Spanish case, moreover, illustrates quite well the changing degree of influence as well as the changing purposes associated with institutional arrangements. The decision of Spanish policy-makers to encourage the development of ownership concentration varying between 10 and 20% for electricity forced managers to rely even more on deviations from the one-share, one vote standards – although not necessarily to extract private benefits from minority shareholders but to serve as a protection device against unwanted takeover bids.

Conclusion

The advent of liberalisation has neither induced convergence between national models of capitalism nor eliminated sectoral regulation. The analysis of the cases of the English and Spanish electricity sector performed in this paper illustrates quite well the prominence of national institutions of corporate governance and the centrality of patterns of re-regulation. But these two streams of literature on the issue of the impact of liberalisation have not been fully integrated. The current state of the literature is best characterised by an element of substitutability: X1 (Varieties of Capitalism) or X2 (literature on re-regulation) produces Y (absence of an economic environment characterized solely by deregulation) (see Ragin 1987 for a discussion of the concept of substitutability). But how could we better integrate these two sets of literature? Are these two theoretical perspectives characterised by the absence of interaction among them?

We argue in this paper for the need for a better dialogue between different theoretical perspectives that share great scepticism on the notion that liberalisation results in a race toward the bottom of the lowest standards. Institutional frameworks mediate liberalising forces. The Varieties of Capitalism (VoC) literature has provided interesting insights for understanding the viability of economic divergence in an age of greater economic integration. The coordination of the activities of the firm requires the presence of regulation – even in liberal market economies where market signals constitute primary mechanisms of signalling and of adjustment. The transformation of the industrial profile of the electricity sector in England and Spain are largely accounted by the national differences in the institutional frameworks of corporate governance. But the insights provided by the VoC theoretical perspective need to be complemented with perspectives that stress the importance of patterns of re-regulation – and the role of policy-makers in this processes.

This study of corporate governance highlights the shortcomings of institutional frameworks in capturing the cross-national differences in the processes of change in the electricity sector in Britain and Spain. The institutions of corporate governance are mediated by their interaction with the wider institutional framework in which they are embedded. In particular, it is within their interaction with national regulatory policies that the institutions of corporate governance matter, not by themselves. Regulatory policies contribute to our understanding of the origins of the national institutions from which firms draw to coordinate their activities.

We do not want to argue that VoC and other institutional-based comparative political economy approached are devoid of a political dimension. We want to stress that in the strive to develop a firm-centred account of contemporary political economy, one can marginalise the importance of public policy to the bundle of institutional complementarities that characterise both the Liberal Market Economies (LMEs) - where relations between firms and other actors are coordinated primarily by competitive markets - and Coordinated Market Economies (CMEs) - where firms engage in more strategic interaction with trade unions, suppliers of finance and other actors. National patterns of regulation can significantly shape the contours of the national model of capitalism.

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Table 1: Ownership of generating capacity: 1990-2005

1990 (Capacity GW)		%	2005 (Capacity GW)		%
National Power	30.0	(44)	British Energy (nuclear)	11.6	(16)
Powergen	20.0	(29)	*Scottish & Southern	8.6*	(12)
Nuclear Electric	8.0	(12)	*Powergen (E.ON)	8.0	(11)
Scottish Nuclear	2.3	(3)	*Innogy (RWE)	8.0	(11)
Other Scottish	7.7	(11)	*Scottish Power	5.9	(8)
Total	68.0		*EDF	4.8	(7)
			International Power	3.7	(5)
			*Centrica	2.9	(4)
			BNFL(nuclear)	2.7	(4)
			Plant for Sale	9.4	(13)
			Other	6.3	
			Total	71.9	

Source: Thomas (2006a)

Notes: Companies with generation and retail supply are marked *.

Table 3: Ownership of distribution businesses: 1990-2005

1990	2005
1. London	1. EDF (London (1998), Eastern (2002), Seeboard (2002))+
2. Eastern*	2. PPL (SWEB (1998), SWALEC (2000)+
3. Seeboard	3. Scottish Power (South Scotland, Manweb (1995)
4. SWEB*	4. Scottish & Southern (North Scotland, Southern (1998))
5. SWALEC*	5. Mid-American Energy Holding (Northern (1998), Yorkshire (2001))+
6. South Scotland	6. United Utilities (Norweb (1995)
7. Manweb	7. Powergen/E.ON (Esat Midlands (1998), Midlands (2003))+
8. North Scotland	
9. Southern Electric	
10.Northern*	
11.Yorkshire*	
12.Norweb*	
13. East Midlands	
14. Midlands*	

Source: Thomas (2005)

Notes
1. Distribution companies that have split from the retail business are marked*
2. Companies marked + own adjoining distribution regions.
3. PPL took a 25 per cent stake in SWEB in 1996, raising it to 51 per cent in 1998 and acquiring the rest in 2002.

Table 4: Ownership of retail supply businesses: 1990-2005

1990	2005
1. London	1. EDF (London (1998), SWEB (1998), Seeboard (2002))
2. SWEB	2.Powergen/E.ON (Eastern (2002), Norweb (2002), East Midlands (1998))
3. Seeboard	3. Scottish Power (South Scotland, Manweb (1995)
4. Eastern	4. Scottish & Southern (North Scotland, Southern (1998), SWALEC (2000))
5. Norweb	5. NPower/RWE (Yorkshire (2001), Midlands (1998), Northern (2001))
6. East Midlands	
7. South Scotland	
8. Manweb	
9. North Scotland	
10. SWALEC	
11. Southern Electric	
12. Yorkshire	
13. Midlands	
14. Northern	

Source: Thomas (2005)

Table 5: Largest Electricity Producers, * 1930

	Power Generation Capacity Thousands of HP
Barcelona Traction Group **a**	400.5
Hidroeléctrica Española **b**	150.4
Hidroeléctrica Ibérica **b**	120.4
Coperativa de Fluído Eléctrico	85.6
Saltos del Alberche	77.1
Eléctrica de Viesgo **b**	69.0
Compañía Sevillana de Electricidad	65.5
Total Largest firms	968.5
All firms	1488.3

*Firms with more than 50000 HP of power capacity

a Ebro Irrigation and Power, Barcelonesa de Electricidad, Energía Eléctrica de Cataluña and Productora de Fuerzas Motrices

b Banco de Vizcaya Group

Source: Sintes and Vidal (1993); Maluquer de Motes (1985)

Table 6: Sector Shares of Spanish Electricity Companies (1996)

	Capacity Share	Generation Share	Distribution Share
Endesa Group	44.8	50	42.7
Endesa	17.7	30.1	----
Fecsa	9.5	7.9	11.1
Sevillan	9	6.3	15.4
Enher	4	2.6	7.2
Viesgo	2	1.1	2.1
Hecsa	1.8	0.9	3.5
Erz	0.7	0.7	3.2
Iberdrola	37.6	32.6	40.5
Unión Fenosa	12.1	12	14
H. Cantábrico	4	5	2.8
Others	1.5	0.7	

Source: REE (1997) Explotación del Sistema Eléctrico. Informe 1996. Red Eléctrica de España. Madrid

Table 7: Available Capacity Shares by Fuel Type and Firm in 1996

	Endesa	Iberdrola	Unión Fenosa	H. Cantábrico	Total
Hydro	13.8	19.5	4	0.9	38.7
Nuclear	8	7.5	1.7	0.4	17.6
Coal	14.6	3.4	4.7	2.7	25.4
Oil + Gas	9.2	7.7	1.9	----	18.8
Total	45.6	38.1	12.3	4	100

Source: Adapted from CSEN (1996)

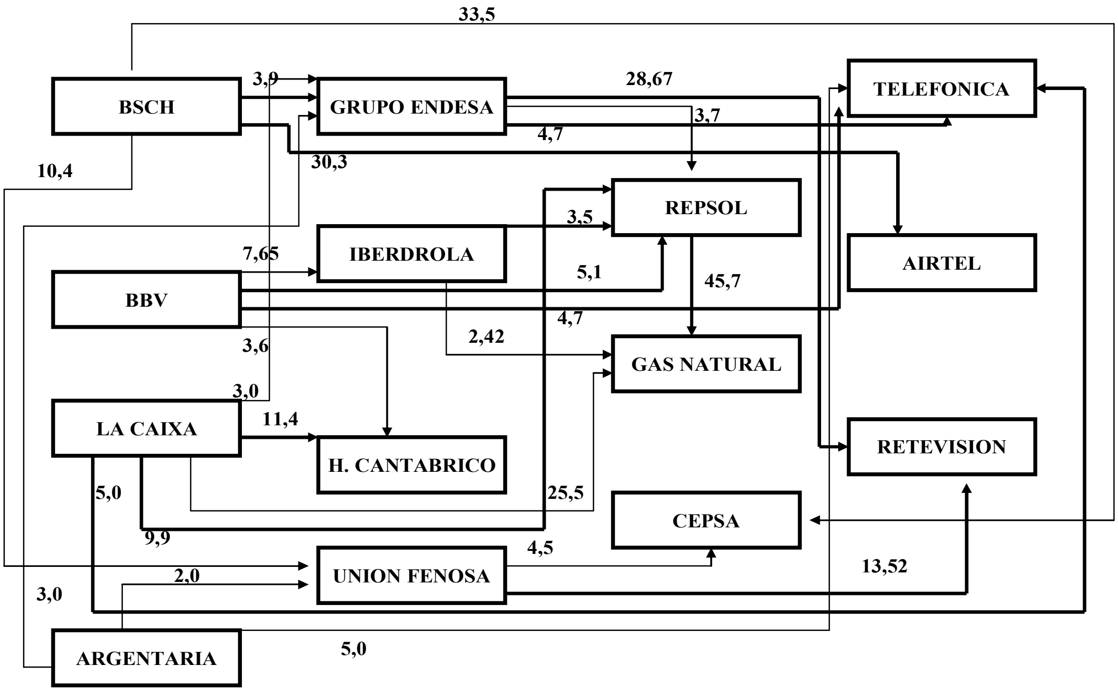
CSEN.1996. Información Básica del Sector Eléctrico Nacional. Madrid.

Table 8: Market Shares in Generation, Distribution and Retail Supply in Spain, 2005

Company	Generation Share	Distribution Share	Retail Share
Endesa Group	39.8%	38.5%	39.7
Iberdrola	27.7%	40.9%	36.4
Unión Fenosa	13.8%	15.1%	4.4
Hidrocantábrico	7.6%	2.7%	0.2
Electra de Viesgo	3.8%	2.1%	0.2
Gas Natural	3.7%	0.0%	18.6
Other Groups	3.6%	0.7%	0.5

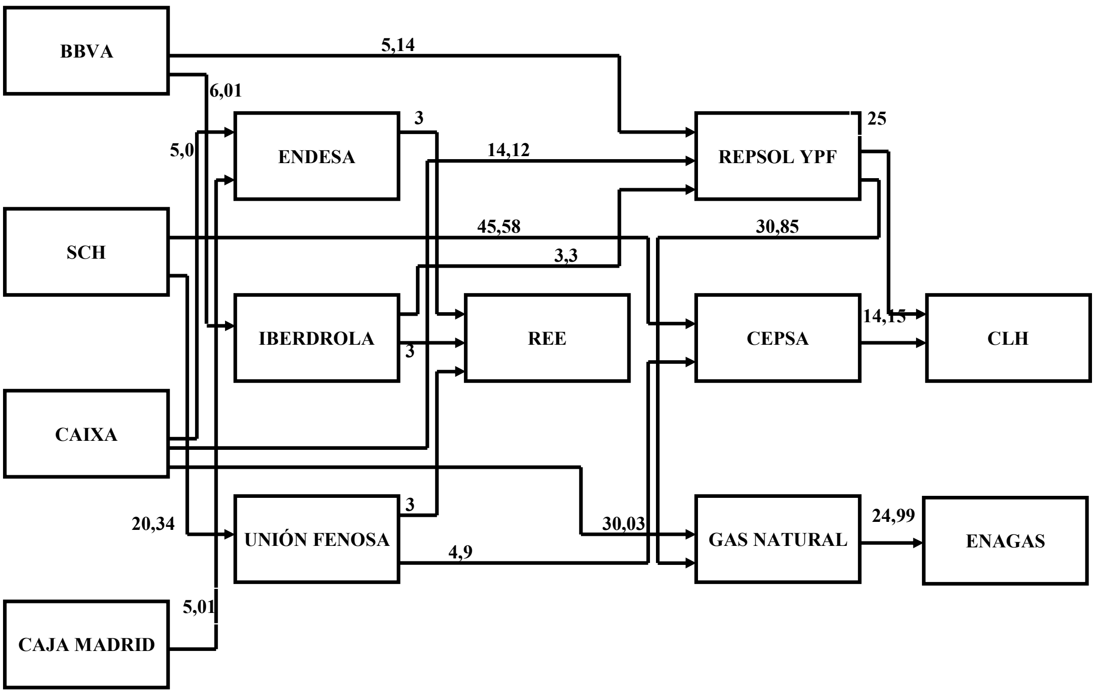
Source: Informe de la CNE sobre el Proyecto de la Concentración Consistente en la Adquisición del Control de Endesa, S.A por Parte de Gas Natural SDG, S.A. Mediante Oferta Pública de Adquisición de Acciones., 20 December 2005.

FIGURE 1: Ownership Relations affecting the Spanish Electricity Sector at the beginning of the liberalisation process (percentage)



(*) Source: Adapted from CNMV. September 1999.

FIGURE 2: Ownership Relations affecting the Spanish Electricity Sector (Percentage)



(*) Source: CNMV. April 2005.

TABLE 2: British Electricity Companies

Take-overs and mergers for the REC (Regional Electricity company) Source: Annual Reports and other investor information from companies

	1995	1996	1997	1998	1999	2000	2001	2002	Trade name	2005
National Power							Innogy	RWE	Innogy	RWE
Powergen								E.ON	Powergen	Powergen
ScottishPower									ScottishPower	Scottish Power
Scottish Hydro				SSE					SSE	SSE
National Grid								N Grid Tra	N Grid Transco	National Grid
Eastern distrib	Hanson Trust		Energy Group	Texas Utils (Pacificorp)				EDF	24Seven	EDF
Eastern supply	Hanson Trust		Energy Group	Texas Utils (Pacificorp)				E.ON	Powergen	Powergen
EMidlanddistrib		Dominion		Powergen				E.ON	E Midlands Elec	EMidlandsElec
EMidlandsupply		Dominion		Powergen				E.ON	Powergen	Powergen
London distrib		Entergy		EDF					24Seven	EDF
London supply		Entergy		EDF					London Electric	EDF
Manweb distrib	ScottishPower								SP Manweb	SPManweb
Manweb supply	ScottishPower								ScottishPower	ScottishPower
Midlands distrib		Avon Energy			GPU			Aquila	Aquila	EON
Midlands supply		Avon Energy		National Power			Innogy	RWE	NPower	RWE
Northern distrib		CalEnergy							Northern Electric	CEElectric
Northern supply		CalEnergy					Innogy		NPower	RWE
Norweb distrib	NW Water								United Utilities	UUitilities
Norweb supply	NW Water					Texas Utils (Pacificorp)		E.ON	Powergen	Powergen
Seeboard distrib	C&SW Corp					AEP		EDF	24Seven	EDF
Seeboard supply	C&SW Corp					AEP		EDF	Seeboard Energy	EDF
Southern distrib				SSE					SSE Power Dist	SSE
Southern supply				SSE					Southern Electric	SSE
SWALEC distrib	Welsh Water					WPD			WPD	WPD
SWALEC supply	Welsh Water				British Energy	SSE			Swalec Electric	SSE
SWEB distrib	Southern Co				WPD				WPD	WPD
SWEB supply	Southern Co				EDF				SWEB	EDF
Yorkshiredistrib			Y'shire Holding				MidAmerican Energy		Y'E' Distrib	CEElectric
Yorkshiresupply			Y-shire Holding				Innogy	RWE	NPower	RWE

Source: Own Elaboration based on data from annual reports and other investor information from companies in the UK, USA.

Table 9: Ownership Structure: Analysis by Type of Shareholders in Britain (years) %

	Average Years	Institutional Investors	Private Investors	Foreign Investors	Government	Others
Eastern Electricity	(1991-95)	75.6	23.1		1.3	
East Midland Electricity	(1991-96)	67.7	17.2			15.1
London Electricity	(1993-95)	56.7	25.8	11.9		5.6
Midlands Electricity	(1991-95)	68.9	18.3		0.9	11.9
Northern Electricity	(1991-95)	79.6	19.4		1	
Norweb	(1992-96)	66.2	16.9			16.9
Seeboard	(1992-95)	57.7	25.3			17
Southern Electricity	(1991-98)	73.7	18.1			8.2
South Wales Electricity	(1991-95)	76.9	21.2			1.9
National Power	(1991-99)	73.6	21.3			5.1
Scottish Hydro-Electric (SSE)	(1991-2005)	60.2	24.1	5		10.7
Scottish Power	(1991-2005)	59.2	28.1		1.2	11.5

Source: Own Elaboration based on data from annual reports and other investor information from companies in the UK.

Table 10: Ownership Structure: Analysis by Type of Shareholders in Spain (years) %

	Average Years	Spanish Financial	Institutional Investors	Private Investors	Foreign Investors
Endesa	(2000-2005)	17.3	13.8	24.5	44.4
Iberdrola	(2000-2005)	25.9	7	33	34.1
Unión Fenosa	(1996-2005)	33.9	7.1	29.7	29.3

Source: Own Elaboration based on data from annual reports and other investor information from companies in Spain.

Table 11: Substantial Shareholdings Groups in Britain

Non Financial Firms	Insurance Companies	Mutual Funds	Foreign Banks	Domestic Banks	Public Utilities	Government
B.A.T Industries plc	Prudential Corporation	Robert Fleming Holding	National Bank of Abu Dhabi	Barclays bank	Welsh Water plc	
Rockleigh Corporation	Standard Life Assurance	Henderson Administration Group	Bank of New York	National Westminster Bank	National Power	
CIN Management Ltd	Norwich Union Life Insurance Society	Fleming Investment Management	Swiss Bank Corporation	HSBC Investment Bank	Norweb ESOP Ltd	
	Sun Life Investment Management Services	Gartmore Investment	Deutsche Bank AG London			
	Legal & General Investment Mgt	Robert Fleming Holdings				
	Friends Provident Life Office	The Capital Group Company				
	Provident Mutual Life	Chase Nominees Ltd				
		Franklin Resources Inc				
		British Rail Pension Trustee Company				
		Morgan Grenfell Group				
		AMP Asset Management plc				
		The Nomura Securities Co. Ltd				
		Brandes Investment Partners				
		Schroder Investment Management				
		FMR Corp and Fidelity International				
		Capital Research & Mg				
		Putman Investment				
		HSBC, The Olayan Group				
		Credit Suisse First Boston Equities Ltd				

Source: Own Elaboration based on data from annual reports and other investor information from companies in the UK.

Table 12: Substantial Shareholdings Groups in Spain

Non Financial Firms	Insurance Companies	Mutual Funds	Saving Regional Banks	Domestic Banks	Public Utilities
Ferroatlántica[15]	Caser	Chase Manhattan Bank[16]	Caja de Asturias	Banco Central Hispano	EdP
		Franklin Resources	Caixa de Galicia	Banco Santander Central Hispano	EnBW
		Compañía de Cartera e Inversiones	Caixanova	Banco Pastor	
			Caja de Ahorros del Mediterráneo	Banco Bilbao Vizcaya Argentaria	E.ON[17]
			Caja de Madrid	Banco Bizcaia Kutsa	Endesa

Source: Own Elaboration based on data from annual reports and other investor information from companies in Spain.

[15] Spanish Group for the production of ferroalloys
[16] Chase Manhattan Bank acts as nominee

[17] German Energy Company formed in June 2000 by the merger of VEBA and VIAG