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Everybody merges with somebody—The wave of M&As in the energy industry and the EU merger policy

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Abstract

Almost all the main European energy companies have recently shown an unprecedented activism on financial markets and the wave of M&As seems far from being over. A sound understanding of the wave can provide hints on the future developments of the market and the effects on merger policy. These operations are explained by several reasons, ranging from the pan-European players' strategy to the creation of national champions, from the objective to merge gas and electricity businesses (convergence mergers) to the aim of re-building a vertical dimension of the industry after liberalization.

In face of such a broad range of motivations, merger policy has to be applied consistently to each case and case-law is developing to better address energy-specific issues. Still, the characteristics of the energy industry may allow for more economic insight and a longer-term perspective in merger cases, in order to guarantee that energy and merger policy are leading to the same objectives, through different tools.

Keywords: Merger policy; National champions; Remedies

1. The identification of current trends in the energy sector

In the latest years, the energy sector has shown an increasing activism on financial markets, and companies concluded M&As with foreign or national competitors. A recent financial markets report (Price Waterhouse Coopers, 2007) estimates that the value of EU deals, just considering those operations concluded in 2006, increased by 56% in a year, and the number of bids increased by 25%, marking a higher-than-ever level. Just to support the importance of the energy sector in the framework of EU deals we can immediately think of important operations of the latest 18 months, such as Enel/Acciona//Endesa, Dong/Elsam/Energi E2, Gaz de France/Suez, Iberdrola/Scottish Power and the dropped Dutch merger between Essent and Nuon.

Thus, after EU members have introduced liberalization in their energy markets to a certain degree, European companies appear to be reshaping their business strategies accordingly. Above all, they are now interested in managing gas activities together with electricity activities, as witnessed by many of the recent mergers. Then, the geographic scope of M&A shows two different dynamics: a trend towards the creation of pan-European players and an opposite trend towards the establishment of "national champions".

These dynamics were confirmed by a simple statistical analysis of M&As among companies operating in the natural gas or in the electricity industry, and occurred between January 2000 and November 2006. A similar analysis was previously carried out also by Codognet et al. (2003), focused only on merger cases in which electricity companies were involved between 1998 and 2003.

First, our data confirm the existence of the geographic trend, pointing at the increase of cross-border mergers. Looking at Fig. 1 we can appreciate this increase. Fig. 2 also confirms our statement on the product dimension of the mergers. Starting from 2003, gas companies have mostly targeted electricity companies and *vice versa*, preferring inter-industry M&As.

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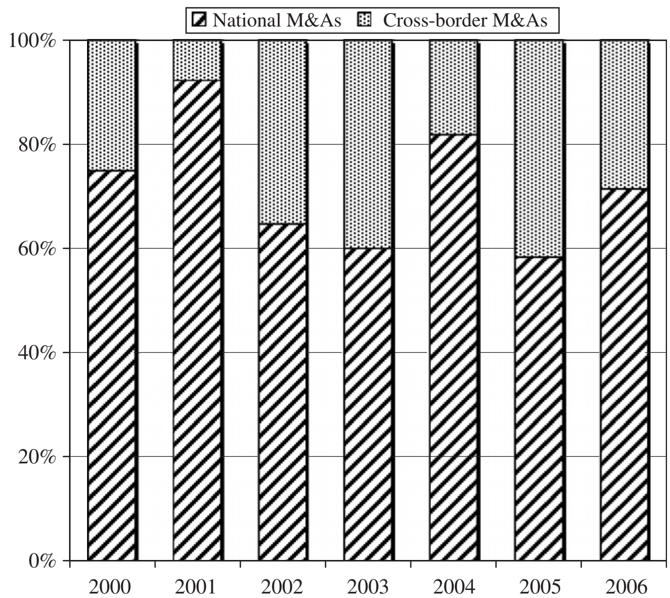

Fig. 1. EU national and cross-borders M&A (2000–2006). *Source*: our elaboration on RIE database.

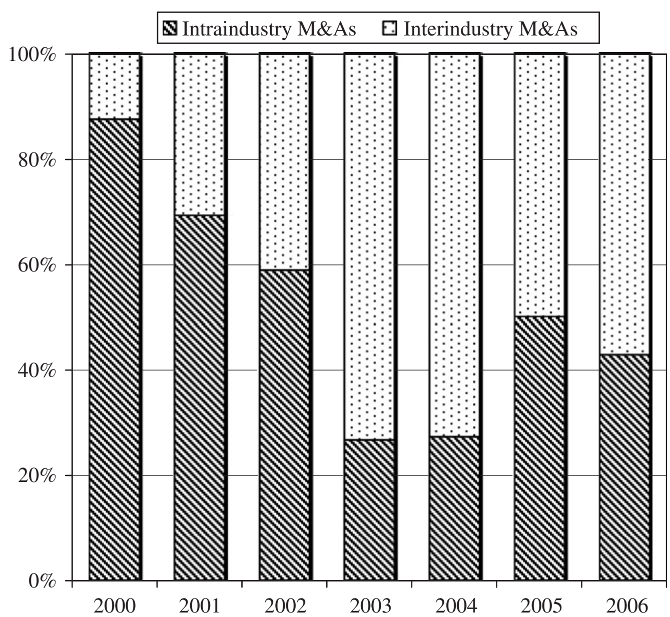

Fig. 2. EU intra-industry and inter-industry M&A (2000–2006). *Source*: our elaboration on RIE database.

This second trend can be explained looking at these reasons, at least:

(1) electricity companies aim to obtain economic advantages and higher security of supply when buying natural gas to run their gas-fired plants;
(2) gas companies aim to obtain access to the electricity market and to increase their "captive" demand, in order to better satisfy take or pay (TOP) clauses in import contracts and face less uncertainty on their demand.

Moving back to a more general discussion of reasons supporting national and cross-border operations, we can analyse rationales for national, cross-borders, horizontal, and vertical mergers, following a matrix scheme as reported in Table 1.

A first explanation for the whole wave of takeovers is found on the increase in cash liquidity of energy companies (Clô, 2005). European companies chose to invest their additional liquidity in M&As, to the detriment of investments in generation, transmission, or even in exploration activities. This strategy followed by the management of companies better copes with the short-term interests of shareholders than to the real needs of the industry and of final customers, motivated by the choice of the lowest-risk and lower-uncertainty strategy. For instance, as far as investments are concerned, electricity companies are mainly investing in combined cycle gas turbines (CCGT) as these are characterized by low capital intensity, short realization time, short time to recoup the investment and a higher likelihood to obtain all necessary authorizations, if compared with coal or nuclear alternatives.

Criticisms on managerial choices moved by the sole "short-terminism" have arisen with reference to other industries as well, but in highly capital-intensive sectors, such as energy, where investments in infrastructures are crucial for the effective and competitive functioning of markets, the problems related to "shareholders' myopia" are emphasized.

Secondly, European companies have decided to broaden their geographic and product range of activities in the period before the complete liberalization of the European

Table 1
Trends exhibited by EU M&A in the energy industry

	Within same sector and "horizontal"	Between sectors and "vertical"
National mergers	• Defensive role against foreign hostile takeovers • Move towards a re-nationalization of the activities • Creation of an entity with sufficient bargaining power to agree favourable terms with strong European suppliers and competitors	• Restore some cost savings resulting from the integration of different steps of the supply chain • National gas + electricity companies = creation of national energy champions
Cross-border mergers	• Expansion of geographic scope of activities of each operator • Strategy to gain important weight at European level before liberalization is fully implemented	• Electricity companies securing gas supply to the gas-fired plants they own • Securing "captive" gas demand, in order to fully respect TOP clauses and reserved import capacity, by merging gas and electricity activities

Source: Our elaboration.

market, in order to be ready for possible broader competition developing in Europe. If the market is completely liberalized and investments in infrastructures allow for the creation of a single market, benefits from having broadened their activities will be twofold: due to a bigger presence in the EU market and by lowering the risks of being taken over by competitors.

In addition, some of the recent mergers can also be interpreted as a shift back to protectionism and policies supporting the creation of national champions. This rationale will be better analysed and deepened later in this paper, when referring to European cases showing a clear interest of national governments in promoting and supporting the creation of energy champions.

Finally, horizontal and vertical integration can also be justified by the existence of scope or scale economies in the electricity and natural gas industry. Recent studies have found some evidence of scale economies and vertical integration cost savings (Fraquelli, 2005), even if the empirical literature has not reached a consensus on this issue yet, because of contradictory results (Gilsdorf, 2004).

After having identified the main reasons explaining the current wave of M&As in the energy industry, we can now find some examples looking at real cases recently addressed by the European Commission.

As to inter-industry mergers, Dong/Elsam/EnergiE2 (European Commission, 2006a) is the first example of integration between the Danish gas incumbent and Danish companies active in the electricity sector, looking to exploit their complementarities. Still, the acquisition of the Hungarian Mol by the German giant E.On could be placed under the same category: the merged entity resulting from this operation widened not only its product activities but also its business geographic scope. Similar reasons pushed E.On to bid for Spanish Endesa's share. This €41 billion deal, would have led to the creation of one of the biggest energy utilities worldwide. As the parties did not show significant activity overlaps, the rationale of the operation, once more, was based on complementarities between their geographic and product markets (European Commission, 2006b).

Similarly, the strategy of geographic expansion finds evidence in many acquisitions of companies active in the EU-10 before and after the enlargement of the Union. E.On acquired the Hungarian Mol (European Commission, 2005b), Endesa merged with the Polish electricity operator Zedo (European Commission, 2006c), and Enel acquired a Slovak one, Slovenske Elektrarne (European Commission, 2005c).

Clearly enough, this wave of M&As is changing the shape and the structure of the European energy market. Some observers expect that the final result will be an oligopoly dominated by pan-European players. If this proves to be the outcome, it is easily conceivable that companies, at this stage, are putting all their efforts in order to expand and to remain on the market, instead of becoming the target of a hostile bid.

2. Convergence between electricity and gas

One of the most interesting trends mentioned in the previous paragraph is the one concerning the convergence between gas and electricity business. Worldwide, in the last two decades, energy industries have undergone major changes in terms of organization and competitiveness. The word "convergence" between natural gas and electricity industries was widely used during the 1990s in the US and has now started to be continuously pronounced in Europe too.

On the other side of the Atlantic, the main drivers of this process were identified and listed as follows (Bergstrom and Callender, 1996; McLaughlin and Mehram, 1995):

- *ongoing deregulation of the gas and electricity markets*: the unbundling of energy businesses facilitated the link between gas supply and electricity chains. Furthermore, regulatory convergence between electricity and gas was introduced at federal and at state levels;
- *upstream link of gas and electricity generation*: advances in technologies allowed a broader use of natural gas as a source for generating electric power, we refer here to the development of the CCGT, gas micro-turbines, and all other type of co-generation;
- *downstream opportunities to avoid useless costs duplications*: following the deregulation of retail activities, an increasing number of utilities linked their gas and electricity marketing activities in order to offer a bundle of services to consumers.

The same phenomena are now taking place in the EU, but are drivers and reasons really the same as in the US?

First, we have to stress that the EU liberalization process[1] is still lagging behind the US experience and this does not facilitate regulatory or business convergence. Thus, while American electric utilities have focussed mainly on midstream and on downstream synergies between gas and electricity, their European counterparts preferred convergence between wholesale and E&P activities. Among the reasons explaining this difference is the use of TOP clauses in natural gas supply contracts. TOP clauses are mandatory in the European Union, in order to avoid some importers reserving capacity they do not need so that they could foreclose import capacity to their competitors. In the US, conversely, such a disposition is not in place. As a result, EU gas companies try to reduce the uncertainty characterizing their demand by integrating their activities with electricity.

[1]See the sector inquiry concluded by the European Commission (2007). A comparison between electricity and natural gas liberalization shows many similarities but also some important differences, as natural gas markets have proved to be more concentrated than electricity markets, inasmuch as natural gas hubs have not developed a sufficient degree of liquidity yet, as entry in the gas market is particularly difficult due to the percentage of import and transmission capacity reserved by incumbents for a long-term period.

Even in terms of competitors, the picture in the EU looks to be quite different from the US. In the US it is possible to count more than 250 potential players able to compete in electricity and gas markets following a dual-fuel paradigm. Conversely, in the EU the number of competitors is lower and confined to the national level, because of technical constraints and market concentration.

In the US, dual-fuel utilities are supported by a precise and defined regulatory framework developed at a state and federal level (see Bailey et al., 2001; Hilke, 2001). In Europe a similar framework has not developed yet and the differences existing between national regulations create further barriers to the development of a single market. At the last Spring Council (March 2007), despite the various debates on the need for a sole body empowered to supervise the energy markets, the issue of an EU regulator was not adopted and only a higher cooperation between national regulators was called for.

In conclusion, the US experience suggests that European utilities react and will react to liberalization by moving back towards the creation of new "energy companies", vertically integrated, operating both in the gas and in the electricity business. Is this trend contradicting the rationale of liberalization itself? We do not believe so. Rather, this trend is one of the consequences of liberalization, as companies' reaction to demand uncertainty and price volatility introduced by liberalized markets.

3. National champions or pan-European players?

Notwithstanding the evolution of the market towards pan-European companies as previously analysed, in late 2005, 2006, and early 2007 an opposite trend has become more and more consistent.

In stark contradiction, some operations were supported by Member States in order to create national champions able to compete when the markets were completely liberalized. This was the case for mergers like Gaz de France/Suez and Gas Natural/Endesa. The striking feature of these operations is the direct and active intervention of the State in order to facilitate the success of the deal, by issuing *ad-hoc* regulations, or by issuing legal dispositions able to frustrate the bid launched by foreign competitors. Of course, this behaviour is in contradiction with the original Treaty of the EU and the principle of free movement of capital (despite the fact that the Court of Justice had recognized the possibility of Member States invoking security reasons against divestiture of strategic assets[2]), and not surprisingly the European Commission opened several investigations on Spanish interventions to sustain Gaz de France's and Gas Natural's deals.

Why did Member States decide to take such an active role in these financial operations? States could choose to defend national players from hostile bids for security reasons, invoking the need for some key plants or key activities to be managed by the national incumbent. At the same time, this choice configures a new form of protectionism, aimed not only to frustrate the entry of competitors, but also to protect the national market and incumbent's profits (Macchiati and Prosperetti, 2006).

It is worth a closer look at the two most famous "mergers sagas" of the last year to understand the degree to which governments intervened in the capital markets. Gas Natural launched a hostile bid on Endesa's shares in September 2005. Endesa requested to refer the decision to the European Commission, invoking the community dimension of the deal, but the Commission had to refer the case back to the Spanish competition authority (Tribunal de Defensa de la Competencia), in accordance with the so-called "two-thirds rule". Consequently, the Spanish authority assessed the merger case and decided to oppose the operation, as it would have resulted in a higher concentration of national gas and electricity markets. It is worth noting that the application of the "two-thirds rule" in industries, where concentration is still high and market integration is lacking, raised some doubts expressed both by Mrs. Kroes, the Commissioner for Competition, and by scholars such as Levèque (2006).

At the end of January 2006, the Spanish government reversed the decision of the national authority, and approved the deal between the two Spanish utilities. The intervention of the government became even more pervasive in the subsequent stages of the Endesa's deal. Indeed, at the end of February E.On launched a bid on the shares of Endesa for a price higher than Gas Natural's price. The risk of a foreign player entering the Spanish energy industry alarmed some national institutions and in the days after the announcement of the takeover, the government issued an *ad-hoc* law conferring new powers to the national energy regulator (Comisiòn Nacional de Energia).

Now the "Endesa's saga" found its conclusion. Gas Natural on 1 February 2007 announced that it would withdraw its bid, while the Spanish company Acciona raised its stock holding and the Italian Enel entered the game, collecting a block of Endesa's shares amounting to 24% on 14 March 2007. In face of a very unlikely positive outcome for its bid, E.On. agreed to withdraw its bid and to leave the floor to Acciona and Enel, now able to bid for the total of Endesa's shares (Table 2).

[2]We refer here to decisions of the European Court of Justice, cases C367/98 *Portugal vs. Commission*, C483/99 *France vs. Commission*, C503/99 *Commission vs. Belgium*. In particular, ECJ decision of case C503/00 concerns two Belgian Royal decrees allowing the Belgian Ministry for energy to hold a golden share in Distrigaz and to impede management decisions or assets sales able to put into danger the security of national natural gas supplies. According to the ECJ the measure adopted by Belgium was proportionate to the risk and damage resulting from a

(*footnote continued*)
shortness of natural gas supply. Consequently, the ECJ reversed the decision by the Commission and it disposed that the two Royal decrees were not in contrast with EU law, more specifically with EU freedom of movement of capitals, as it was the orientation of the Commission.

Table 2
A summary of the Endesa's saga

Date	Event	Date	Event
5/9/05	Gas Natural (GN) launched a bid for all Endesa's shares at a price of €21.3/share	25/9/06	Acciona group purchased 9.9% of Endesa's shares
6/9/05	Endesa's director refused GN's bid, recognized as a hostile operation. Endesa also questioned the notification of the deal to the sole Spanish Antitrust Authority (TDC) and demanded for a procedure of the EU Commission	26/9/06	The European Commission rejected CNE's conditions imposed to E.On's bid and officially demanded Spain for a modification of the Royal decree amending the functions and competences of the electricity and gas regulator
8/11/05	The Comisiòn Nacional de la Energìa (CNE, Spanish regulatory authority) imposes 10 conditions to the approval of GN's bid	26/9/06	E.On increased its bid price to €35/share
15/11/05	The European Commission (DG COMP) decided to refer the case to the Tribunal de Defensa de la Competencia (TDC) as the "two-thirds rule" applies and the deal escapes EU Commission's competence	20/10/06	Acciona communicated to dispose of an additional 9.63% of Endesa's shares (less than 20% as a total)
15/11/05	Commissioner Kroes questioned the "two-thirds rule" in contexts such as the energy market where need for harmonization would require the Commission to decide on mergers capable of creating national champions	4/11/06	The Spanish government authorized E.On's bid without requiring any divestiture
5/1/06	The TDC opposed to the merger between Gas Natural and Endesa, making more concentrated the Spanish energy market and creating a dominant player in the national context	1/2/07	GN's board of directors decided to withdraw its bid on Endesa's shares
3/2/06	The Spanish government authorized the deal between Gas Natural and Endesa, subject to some remedies. The government used its residual role in Spanish merger procedure, to revert the previous decision of TDC	2/2/07	E.On increased its bid to €38.75/share
21/2/06	E.On launched a bid on Endesa's shares, at a purchase price of €27.50/share	12/3/07	Enel, after two purchases, announced to hold 24.98% of Endesa's shares
27/2/06	The Comisiòn Nacional de Valores (Cnmv) authorized Gas Natural's bid	23/3/07	Cnmv announced that the alleged bid by Enel and Acciona on Endesa's will not be possible to launch before autumn 2007 (6 months after E.On's bid termination
23/3/06	Spanish Parliament approved the Royal decree widening CNE's competences. As such, CNE was even empowered to block E.On's deal	26/3/07	E.On raised its bid for Endesa's shares to €40/share. The bid will now expire on 4 April 2007
4/4/06	The European Commission referred Spain to the European Court of Justice for restriction on investments in energy companies	27/3/07	Enel and Acciona presented a proposal for bid at a price of €40/share
21/4/06	The Supreme Spanish Tribunal suspended Gas Natural's bid as a preventive measure	28/3/07	The European Commission referred Spain to the European Court of Justice for continuing to impose unjustified conditions on the bid launched by E.On on Endesa
25/4/06	The European Commission cleared the deal between E.On and Endesa	30/3/07	The Spanish High Court (Audiencia Nacional) rejected the request by E.On to suspend Cnmv decision authorizing Enel and Acciona to launch their joint bid
27/7/06	The CNE approved E.On's bid, but 19 conditions are imposed to the German company, leading to the divestiture of 32% Endesa's assets	2/4/07	E.On agreed with Enel and Acciona to withdraw its bid and to purchase Endesa Italia, Endesa France and Viesgo from the two merging parties. Enel and Acciona can proceed with no delay to the launch of a bid on Endesa's total of shares

Source: Financial Times and European Commission's press releases.

The other debated saga involves Gaz de France and Suez (European Commission, 2006d). The agreement was announced just days after rumours were anticipating a possible hostile bid by Enel on Suez. What is striking in this case is not the deal itself, but the fact that the announcement of the agreement between the two French utilities was made by the French government, clearly underlining the role it played in the operation. The political saga of GdF/Suez is not very different from the Spanish one. Here, the French government supported the creation of a French champion in the natural gas market. Indeed, the merger would lead to the second or third European energy group in terms of stock market capitalization. Further, Suez would avoid the threat of being taken over by a foreign operator like Enel, as a result of the financial dimensions of the new entity. The outcome of this case is still uncertain:

after having passed the scrutiny of the European watchdog for competition, trade unions and workers showed strong opposition to the operation.

Moving back from sagas to theories, how could a State justify its support to national champions? In a speech given by Gerosky (2005), rationales are summarized in three groups:

(1) the globalization process of trade and businesses gives incentives to create bigger players able to survive in a widened and global environment;
(2) the need to reach critical dimensions in order to achieve some efficiencies, economies of scale, i.e. in the R&D activities;
(3) the choice of sensible areas or industries in which the State wants to keep an important weight for the general interest of the nation.

Certainly, globalization is broadening markets and putting more pressure on the players, as competition is now coming from regions that were previously excluded from entering the market. In spite of that, to create a national champion in order to face international competition is probably not sufficient to justify the welfare losses and the redistributive effects coming from this choice. Moreover, the energy sector is not facing a "globalization attack" as other industries do, because of technical constraints impeding the excessive broadening of markets.

As to the critical dimensions to be reached in order to benefit from economies of scale, we have already mentioned that the literature did not find empirical evidence of scale returns. Some studies reported on the limited existence of economies of scale and even of diseconomies after some generation capacity thresholds are overcome (Considine, 2000). In any case, we should not forget that the creation of a national champion would not be the sole way to benefit from these gains and not even the best solution (i.e. "normal" external or internal growth could be preferable).

More likely, the real explanation of States' strategies is the third one in Geroski's speech: the choice of sensible areas in which the State wants to have a significant weight. Following this reasoning, Motta in a presentation given in Brussels in 2006, suggested an interpretation taken from international trade theory and intra-industry trade policies. In this view, the creation of national champions could also be seen as an alternative way for the State to grant aid to its firms. Indeed, under the assumption that the merger among national utilities leads to scale economies and cost savings, it will also guarantee the national merged entity a competitive advantage against its foreign competitors in terms of costs.

4. A developing EU merger policy and the energy industry

The evaluation of advantages and disadvantages coming from national or European champions, from integrated or disintegrated businesses, shifts the discussion to the approach the European Commission should adopt when facing the recent wave of M&As in the EU. Here, the debate is fierce as it was in the case of Gas Natural/Endesa, an acquisition on which two groups of scholars (Barquin et al., 2006; Padilla et al., 2005) compared their positions and called for either a strict or flexible approach to be taken by DG Competition and national competition authorities, according to their evaluation of benefits and costs from the operation.

This discussion is well inserted in a general merger policy context that is undergoing changes and in a market that is also undergoing changes towards a difficult liberalization. Competition policy can play an important role in order to promote liberalization, but for a better result some strictly legal approaches should be modified to take energy economics more into account.

4.1. Substantive test

The new European Community Merger Regulation (ECMR, EC Council Regulation 139/2004) became effective from 1 May 2004 and brought several changes in the domain of mergers from procedural to substantive tests. Under the old Merger Regulation (EC Council regulation 4064/89), the assessment of the Commission was intended to define whether the proposed concentration could "create or strengthen a dominant position" (see Art. 2 (3)). The new ECMR redrafted this substantive test, in order to solve some uncertain situations arising after the adoption of some decisions in which the Commission had stretched the notion of dominance, particularly of "collective dominance". The test laid down in the new ECMR is similar to the SLC test (US test), but it contains a clear reference to the biggest feature of the previous test: dominance. Accordingly, those "concentration[s] which would Significantly Impede Effective Competition (*SIEC test,* emphasis added), in the common market or in a substantial part of it, in particular by the creation or strengthening of a dominant position" are declared incompatible with the EU market. Even if the new discipline did not change the practical assessments of merger cases significantly, it increased the degree of legal certainty in cases where merger law had been previously stretched, for instance in the case of non-coordinated effects (Motta, 2000; Ehlermann et al., 2003; González Diaz, 2004).

As non-coordinated effects are more likely to arise in those markets characterized by a tight oligopoly, the energy sector may be representative of cases in which the new substantive test brought advantages if compared with the difficulty of "stretching" the previous one.

An example is EnBW/EDP/CAJASTUR/HIDROCANTABRICO. The notified concentration provided for the acquisition of Hidroelectrica by EDP (incumbent in the electricity Portuguese market) and EnBW (German operator controlled by EDF). Hidroelectrica was the fourth operator in the Spanish market for electricity and neither

EdF nor EDP operated as producers in this country. Consequently, no horizontal overlaps and no dominant position under the old substantive test were created or reinforced. In spite of that, the Commission decided that the operation would lead to serious anticompetitive effects on the market, as EDF would lose any incentive to export electricity to Spain or invest in interconnection capacity, but the operation was approved after the parties made some commitments.

Indeed, the Spanish electricity market was almost insulated from Europe, because of the scarce capacity of interconnection. Both EDP and EDF were active importers and had an incentive to develop new infrastructures to increase cross-border interconnection capacity. After the acquisition of Hidroelectrica, EDF and EDP would have profited from high prices in the Spanish market by selling electricity produced in Spain and they would have found it profitable to interrupt their investments in the new interconnection capacity. The reasoning followed by the Commission appears to be broader than the old substantive test in place. Here, no "traditional" dominant position is reinforced or created and joint dominance is only based on players' incentives (it could even be disputed whether it is fulfilling the conditions laid down in the *Kali+Salz* case).

Here, the Commission used an "SIEC rule test" well before it was formally adopted and thus the new test can be a useful and more powerful tool to tackle oligopolies in the energy field, moreover in the light of the emergence of a pan-European oligopoly.

4.2. Market definition

In the energy industry, geographically relevant markets are generally defined according to the technological structure of markets, in particular by taking into account interconnection and congestion phenomena. At the national level, markets have been even narrowed down to sub-national markets, reflecting the existence of congestions on national grids (Møllgaard and Nielsen, 2003).

Lack of cross-border interconnection led to define markets as "no wider than national" in almost all the decisions by the EU Commission. This is particularly the case for retail and distribution activities, but wholesale and generation markets may show more interesting insights and may need a different approach.

The current wave of takeovers and mergers is leading to the creation of pan-European players and the assessment that overlaps between merging parties on a state-by-state basis could be detrimental for the sound competitive functioning of liberalized markets and for the liberalization process itself.

Indeed, companies now face an incentive to merge with the activities of competitors located in areas where there are no significant activity overlaps. Acquisitions strategy is becoming a chess game and, as such, game theory may even suggest that companies benefit from a first-move advantage when entering in a market because they can erect barriers to a late entry by competitors in the same national market.

Accordingly, it would be important for the Commission to define geographic markets in a broader way, taking into account expected developments in the liberalization and integration process of the European energy markets, in order to be sure that when market structure will allow for competition on a European basis, main companies will not have built a tight oligopoly by strategically merging while the competitive assessment of mergers were national wide.

On this last point, it is interesting to refer to the case E.On/Endesa, approved by the Commission in May 2006 as the activities' overlaps among merging parties were limited and not significant. In its decision the Commission referred to the possible impact on competition coming from the creation of the eventual biggest player in the continental energy market. In this case no evidence or signs of impediments to competition were found, but it conveyed the idea that a first evaluation of wider than national effects on competition and on market structure was correctly included in the reasoning.

From a product market definition point of view, given the increasing importance to be active both in the electricity industry and in the natural gas industry, the assessment of competitive effects on product markets has to take into consideration the vertical dimension between gas and electricity markets. In this case, the Commission's decisions usually evaluate the importance of foreclosure effects in the different upstream or downstream product markets.

4.3. Merger remedies

Some of the most recent and important energy merger cases have been approved after parties proposed commitments to the Commission. Looking at these remedies, a first distinction has to be made, broadly speaking, between structural and behavioural remedies.

On the one hand, structural remedies require the merging parties to divest part of their capacity and to open the market to new entrants and competitors interested in buying out the divested plants. This solution is irreversible and its success and effectiveness largely depend on the party to which the capacity is permanently divested (see European Commission, 2005a). If the party is able to compete effectively, the additional capacity could reinforce its position and bring pro-competitive effects. Otherwise, negative effects prevail and the benefits in terms of lower concentration of the market are outweighed by the losses in terms of lower scale/scope economies.

On the other hand, we have behavioural remedies. They are generally more flexible but more difficult to be monitored by competition authorities, bringing higher costs for the regulator.

With reference to the energy sector, behavioural commitments have more and more been preferred as a tool, because of the higher flexibility compared with structural commitments. The energy industry is still moving towards a complete liberalization, and thus it is still characterized by dynamism. Consequently, competition authorities preferred to use a flexible tool than a structural one, as it can better match any evolution of the market and it can be redrafted to better cope with prevailing market structures.

In particular, two categories of behavioural remedies have been agreed on in this sector, the first one referring to the electricity market and the second one to the gas market: virtual power plant (VPP) divestitures and gas release programmes (GRPs). In both cases the company is not required to divest indefinitely its capacity, but only to release temporarily part of its production/capacity to its competitors, generally through devices such as auctions or bilateral agreements.

Before becoming a commitment widely used by European and national antitrust authorities, VPP divestitures and GRPs had already been adopted by national regulators to promote liberalization and to open their national markets (Willems, 2006). Indeed, these tools can mitigate the dominance of a player or the concentration in a market, by reducing entry barriers and increasing wholesale markets liquidity.

Examples of recent decisions by the Commission in which gas release programmes were agreed to include E.On/Mol and Dong/Elsam/EnergiE2. Thanks to their flexibility, detailed remedies can be tailored to better fit with the prevailing market structure (i.e. type of auction, duration of the commitment, quantity to be auctioned, maximum price). For instance, if we compare the E.On's merger remedies with Dong's, the gas volume to be sold through the programme ranged from 10% to 14% in the first case and was set around 10% in the second one, or the programme had a length of 8 years versus only 6–7 years.

Similarly, but at a national level, examples of VPP divestiture can be found in the Danish Elsam/NESA case (Pedersen et al., 2004). According to this scheme, Elsam was required to sell 600 MW of its production by means of auctions, essentially the volume that could have been traded by potential competitors in the absence of the merger. Interestingly, the Danish Authority did not set a time limit for this virtual capacity divestiture, while generally other experiences of VPPs showed a limit of 5 or few more years.

5. Conclusions

The current period is proving to be a very important time frame for the energy industry as it moves towards liberalization. A wave of mergers is deeply reshaping the structure of the market and a precise understanding of the reasons and the effects is crucial both to foresee future paths towards liberalization and to draught a coherent and effective energy policy.

Thanks to a simple statistical analysis of recent M&As, it was possible to identify a twofold effect: on the geographic scope of companies and on their business activities as well.

From a geographic perspective, there are two distinct trends to be highlighted in the current merger wave: the creation of pan-European players (E.On/Mol, E.On/Endesa, Iberdrola/Scottish Power) and the return to national champions (GDF/Suez, Endesa/Gas Natural). Governments are trying to preserve their presence in key industries such as the energy sector and some have already attempted to block foreign entry in their national market and to support the creation of energy champions.

As to the effect on core activities of companies, "convergence mergers" is now the keyword. First, investments in infrastructure are hindered by uncertainty and risks prevailing in the markets, and so energy companies prefer to use their returns to carry out new acquisitions. Second, the liberalization process focussed on vertical separation of the supply chain and now energy companies find it profitable to reintegrate vertically, in order to substitute imperfect contracts with internal hierarchy. Third, electricity undertakings need to secure their gas supply as their generation mix is more and more based on natural gas and, similarly, gas companies need to dispose of a strong link with downstream electricity markets as they have to secure their captive demand in order to fully respect TOP obligations in their import contracts with strong extra-EU producers. Finally, electricity and gas retail activities can exhibit scope economies and better quality services to the final consumers, as is the trend emerging in the US from the 1990s to the present.

In spite of benefits the wave of mergers may also result in anticompetitive outcomes (i.e. foreclosure of upstream/downstream markets, increasing market concentration, etc.). As such, the European Commission is called to react firmly and coherently and recent developments in EU case-law and merger policy allow more confidence that a wider approach is being adopted and, as far as legal certainty allows for, a longer-term perspective is going to be taken into account.

First, the ECMR introduced the SIEC test, thus allowing for a more powerful assessment of joint dominance in oligopolies, as in most of the energy markets. Second, the geographic market definition is clearly moving from a national dimension to a regional or even a communitarian one, in order to take into account possible anticompetitive effects on a European base. This shift from "no wider than national" markets to "wider" should even anticipate the real technical existence of a regional or communitarian market, as the Commission should be able to preserve competition in a future liberalized and integrated EU market, beginning now.

Then, merger policy proves to be quite dynamic if we look at merger remedies adopted in the most recent energy deals. Behavioural remedies, imposing virtual divestiture of capacities through auctions (VPPs or gas release programmes) were mostly preferred because of their flexibility and compatibility with dynamic markets, which are slowly moving towards complete liberalization.

All of the above considered, merger policy plays an important role to promote liberalization and integration of energy markets, but has to be developed in order to be more consistent with the specificities of this industry and to take into account its specificities. Issues like the "two-thirds rule" or the scope of geographic relevant markets should be carefully addressed, as they could allow for the creation of national champions or of a pan-European oligopoly after the wave of M&As is over. The move towards a fine-tuned merger policy, coherent with the objectives of energy policy too and giving more insight to energy economics, is highly desirable.

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