0. Introduction
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Liberalisation of the energy industries in Europe and the introduction of new and more homogenous regulatory frameworks have for the last decade been part of the vision of an integrated internal market economy in Europe. The liberalization process has modified, and altered the traditional regulatory systems, which have historically been built around monopolies, ministerial regulation of dominantly publicly owned companies.

The pole model for the new liberal order spelled out by EU’s electricity and gas directives was taken from the Anglo-Saxon neo-liberal regulatory approach with a transparent rules of third party access to network, clear unbundling, vertical and horizontal de-integration and specialized regulatory authorities at arm’s length distance from government, with a mandate to enforce competition in the network industries unfamiliar with competitive forms of trade.

However, the actual functioning of an integrated liberal European energy market after the first waves of reforms is still in the making. The European internal market vision is up against strong historical path-dependency, and the EU gas- and electricity directives have been transposed into national law and national regulatory practice in several forms, depending on the variety of historical institutional environment and the previous organisation of the electricity and gas industries. Protected by regulatory monopolies, the energy systems have traditionally been used for the pursuit of redistributive public service objectives, the realisation of environmental- and national industrial policies that are persistently hard to give up and to adapt to the new market environment.

Differences in regulation systems and “national styles” influence both the development of the markets and the business strategies. This creates differences in regulatory efficiency, in effectiveness of competition, in entries barriers and maintains asymmetries in market-rules and industrial organisations between countries, which hinder cross-border competition and integration of the markets.

But asymmetries are also an effective driver for institutional convergence and market integration. They legitimate a sequential rule-making at the European level to mandate harmonised rules of networks and interconnexion access. They trigger commercial arbitrage and create a basis for super profits and for cross-national strategies legitimated by the European Union’s liberal initiatives. Given a minimum
of opportunities, therefore, commercial processes themselves may become important instruments for liberalisation and market integration.

On the basis of these preliminary observations, this book explores the extent and sense in which we are moving towards Europeanisation of energy systems,—i.e. a shift from purely national towards European regulation and markets with firms enlarging their geographic scope in parallel—and functional as well as geographic integration of energy markets. It is precisely focused on the historical periods of the first wave reforms from 1995 to 2003, year of the second directive on gas and electricity markets which mandates a converging deepening of the reforms. Furthermore, the book explores to what extent and in what sense the energy systems are really becoming more liberalised/competitively exposed during this period.

Given the complexity of the energy-systems, and of the issues involved, we choose to analyse these issues from several analytical perspectives, including a regulatory perspective, a market perspective and a business perspective. The book therefore contains three major sections, where the analysis of liberalisation and Europeanisation of energy industry is analysed from the point of view of each perspective. A final section discusses the interplay between regulatory development, market evolution and business strategic adaptation in a synthetic, integrative analysis.

Under the assumption that the vision of European de-regulation and market-integration is consistent and implementable, the question of Europeanisation and liberalisation is primarily one of policy implementation. However, to the degree that this vision itself contains inherent challenges, the question of fulfilling it might also need further analytical clarification. The final chapter therefore also discusses some of the problems and challenges inherent in the pan-European liberal model.

1. THE REGULATION PERSPECTIVE

The regulation section, basically views the Europeanisation and liberalisation of energy markets from a public policy perspective, with a focus on general welfare goals in terms of efficiency and equity, and on regulatory instruments and regulatory action.

Reflecting the general focus of the book, the regulation section focuses on how and to which degree the liberalization process has modified, or altered the traditional (i.e., pre-liberalization) regulatory systems, which historically, were built around monopolies and the domination of public-owned operators. Another central theme is whether it is possible to observe general patterns in the design and implementation of the post-liberalization regulatory frameworks in the electricity and gas sectors that reflect European integration and/or liberalisation. These questions are addressed with respect to regulatory functions, with respect to regulatory institutions, and with respect to regulatory processes in both gas and electricity sectors.

The section also discusses the main conflicts and political issues around the new regulatory frameworks with a focus on the main “regulation games” that are played within the different national regulatory frameworks both in terms of institutions (e.g., the pace of liberalisation, TPA regulation, regulatory institutions) and substance (e.g., the definition of public service obligations (PSO), the implementation of public policies).

A central analytical idea in the regulation section is the distinction between economic and political regulation on the one hand and the distinction between general and more specific regulation on the other. We are thus left with four core regulatory functions, which can be organized as shown in table 2.
Table 0.1. Core regulatory functions

<table>
<thead>
<tr>
<th>Economic (1st order) regulation</th>
<th>Political (2nd order) regulation</th>
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<tbody>
<tr>
<td>Creation and maintenance of a competitive market</td>
<td>Enforcement of public service obligations and implementation of public policies</td>
</tr>
<tr>
<td>=&gt; Competition regulation</td>
<td>=&gt; Public service regulation</td>
</tr>
<tr>
<td>Supervision and regulation of natural monopoly elements and production processes</td>
<td>Management of public investments and public ownership</td>
</tr>
<tr>
<td>=&gt; Sectoral regulation</td>
<td>=&gt; Public ownership regulation</td>
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</tbody>
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These distinctions highlight the complexity in evaluating the liberalisation and integration/Europeanisation of energy markets which may now refer to both a political and economic sphere and to both general orientations and institutions (as the competition law) and more specific organisations and procedures (as the sectoral regulation).

At the most general level, the section discusses the sectoral legal framework design including both the liberalization of the regulatory framework and the regulatory institution design. At this level the focus is on the adoption of the liberalization acts and set up the regulatory procedures and institutions, which is the exclusive responsibility of government and political parties. At a more detailed level the section discusses the regulation of natural monopoly elements and sectoral regulation, which are usually in the hands of specialised agencies to enforce the market-rules. This function covers activities ranging from Third Party Access (TPA), pricing, and control to grid management supervision through price control and code of conducts setting and enforcement and also to some extent covers competition and antitrust regulation.

Institutional path-dependency, anterior industrial organisation and influence of interest groups (incumbents in particular) generate variety of regulatory frameworks. Some countries indeed stayed at the minimal level mandated by the European directive, whereas other countries developed more advanced regulatory positions which all could be explained by the typical national interest portfolio between competition oriented regulation, public service oriented regulation and national industry oriented regulation. All of them have specific equilibriums between these different characters which are evolving towards more common features.

The section is focused also on the regulatory dynamics of convergence. The main driver of which is the European harmonisation process. As pointed by Majone (1996), the expansion of the Commission’s powers mainly takes place with reference to the core mandate of market expansion. So this process of harmonisation is dealt by the European Commission under its legal powers to identify obstacles to cross-border trade to favour market integration and to erase them by ediction of “règlements” and vote of new directives. But other drivers are at work, in particular the endogenous market-rules adjustment to make competition work, even in contexts of incumbents’ dominant positions, which result in particular from the regulatory authorities’ and new market players’ learning and familiarization with competitive trade and supply.
2. THE MARKET PERSPECTIVE

The market section views Europeanisation and liberalisation through the lenses of market rules and institutions, market structures and price formation. As a point of departure the section acknowledges that liberalisation and Europeanisation are in direct conflict with the previous market integration principles, in the gas sector by loose coordination between former national supply monopolies by cooperation in international purchases and long-hauled transit from large remote producers and in the electricity sector for the supply of reliability.

Against this background it analyses the current market development with the concepts of market attractiveness and market accessibility as core analytical elements (table 0.2). The concept of "attractiveness" describes the relative attraction of the national electricity markets compared with one another, which would determine the companies and the traders’ selection of foreign markets for entries. The attractiveness of member States' electricity markets is defined as their business potential in static terms (market size) and dynamic terms (market growth; price differentials). The concept of market accessibility focuses on barriers to entry, including technical barriers (interconnexion capacity, number of entry points), regulatory barriers (deterring rules of access), commercial and industrial barriers (in particular the positions of incumbents, the potential opportunities to acquire firms). This analysis uses elements of the regulation section to characterize the market accessibility by the performances of regulatory frameworks. However, whereas the regulation section is primarily focused on the regulatory approach as such, and its motivation, the market section focuses on the effects upon the market and considers regulatory authorities’ powers in their function of market-rules enforcement and, by that, a parameter of the accessibility of the markets.

<table>
<thead>
<tr>
<th>Attractiveness</th>
<th>Accessibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>Overall size, segment size</td>
</tr>
<tr>
<td>Growth</td>
<td>By segments: industrial, commercial, power generation, etc.</td>
</tr>
<tr>
<td>Profitability</td>
<td>Price level</td>
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| Industrial and capital-market accessibility | Horizontal integration, Vertical integration (Production/import-supply), Regime of ownership |

The assumption is that on the one hand the market developments will depend on business potential in each national market, resulting from market size, market growth, especially in non-mature markets and in some active market segments such as power generation, and price differences reflecting existing profits on a number of national
markets. On the other hand, the market developments interplay with the opportunities opened to applicants for entry by the accessibility of each market either for contractual sales or for company acquisition, or conversely by the possibilities offered to incumbents for preserving their dominant position and deterring entries. Besides the regulatory framework, the accessibility of the markets is partly conditioned by the incumbents’ position: a high level of market power among existing generation and supply companies which is generally associated with a lack of liquidity of wholesale markets, or an absence of marketplace, clearly impedes new entrants.

Electricity and gas markets are also analysed in their market integration potentialities in the next future. These potentialities appear to lie in the results of the various European rule-making processes (European Commission, respective coordination of regulators and system operators), in the suppression of interconnexion bottlenecks and in the game of market forces. The creation of marketplaces in electricity and (with some delay) in gas industries, the traders’ arbitrage between national wholesale markets, the foreign companies’s entries by acquisitions or by supply development in accessible markets comfort the picture of a dynamic move towards greater integration.

Recognising inherent differences between the electricity and gas markets, in part due to the specific endowment of gas resources and remote location of gas resource, the section starts out with a two-level market perspective on the gas market, while the electricity market is discussed in a more traditional one-level analysis in the national framework. The two levels refer to the trade and distribution of gas domestically at the national level, and the two-sided oligopolies that balanced between the major producers and major national companies at the international level, with strong geopolitical overtones.

3. THE BUSINESS STRATEGY PERSPECTIVE

The business strategy section basically views Europeanisation and liberalisation of energy markets from a business strategy perspective, with a focus on value maximisation and on the firm’s strategic positioning in the energy markets. The section examines various business models, ranging from mono-sectoral functional specialisation to multi-sectoral vertically integrated models (figure 1.1)

![Figure 0.1. Four Ideal Type Configurations](image)
In the numerous combinations possible, the business strategy section distinguishes between four ideal types: the mono-sectoral functional specialists, the vertically integrated mono-sectoral, the vertically integrated pluri-sectoral and the multi-sectoral functional specialists (figure 0.1), each representing combinations of sectoral and functional combinations.

The section discusses their distribution across the European energy markets and the theoretical motivation that this variety might have in a competitive market context. Taking the core economics repertoire as a point of departure, the section focuses on drivers such as the production cost and transaction cost as well as the strategic positioning, inherent in oligopoly theory. Then, from an organisation theory perspective, the section discusses drivers for strategic configuration inside the firm, including drivers such as firm capabilities and learning. A broad institutionalist literature stresses national institutional contexts and business styles as major shapers of strategic configuration. Finally, a pragmatically motivated industry perspective argues for industry-specific factors driving strategic configuration.

This juxtaposition of several theoretical approaches indicates the ambiguity of interpretation of the European development business strategy development. Whereas a strict production cost and transaction cost analysis would lead us to expect homogeneisation of business models across national boundaries in response to Europeanisation and liberalisation, the national style, path dependency and capability perspectives suggest maintenance of configurational diversity even under a level competitive playing field. The business strategy analysis therefore, as far as the core questions of Europeanisation and liberalisation are concerned, sees the development as shaped by the dynamic interactions with the regulatory and market context. The changing rules on market access and the novelty of industrial accessibility to assets, for instance create opportunities for new business strategies.

4. THE INTEGRATIVE ANALYSIS

While Europeanisation, liberalisation and functional integration of gas and electricity markets may be discussed from specific regulatory, market-structural and business strategy perspectives, there are obvious interaction effects between the three domains/perspectives of fundamental importance.

Since the launch of the European energy market, deregulation policy in the late 1990s has evolved through a dynamic interplay between regulatory initiatives, business strategies and market structure. In a situation with limited European consensus on strong deregulation policy and extensive national subsidiarity in their implementation, the policy-impact may be highly dependent on its ability to shape markets and trigger business strategies. The core question around Europeanisation, liberalisation and integration of European energy industry therefore obviously needs to be discussed in a broad and comprehensive way. Having discussed them partially, as related to deregulation, markets and business strategies, the final chapter moves on to an analysis across the three sections.

The first focus is on Europeanisation, contrasted against the continuation of national governance, as a counterposition. The discussion here links the Europeanisation issue up to the national style versus globalisation debate, arguing for more nuanced and relevant interpretation of the two counterpoles based on evolutionary theory. This allows us, for instance, to explore various mixes of European and national styles, where variation in industrial strategies based on national/specific
resources, competencies and traditions play together with a more Europeanised market selection mechanism. Retention at the institutional level may again have national peculiarities in form, but not necessarily in function. The second focus is on Europeanisation and liberalisation. The focus is here on how market based European integration may come about both in a competitive and in various non-competitive modes, notably through oligopolisation. Based on the joint evidence from the analyses of regulation, markets and business strategies, it is argued that non-competitive integration represents a possible outcome of the European energy deregulation exercise. This theme is pursued further in the final part of the chapter on the challenges of oligopolisation.

As a summing up of both previous foci, the chapter presents the current European energy industry as an interplay between multiple political economies, where business strategies, market structure and institutional contexts co-evolve.

A brief discussion on the dynamic interplay between regulation, markets and business strategies is also included, indicating that the sequencing of politics, markets and business responses are central to outcomes both as far as Europeanisation and liberalisation is concerned, and that the reform results have to be judged over considerable time.

5. CHALLENGES

After a decade or more of deregulation (in pioneering markets) and half a decade for the rest of the EU area, European industry and policy makers are discovering the possibilities but also the challenges of the new market order which jointly question economic and political regulation. Still focusing on the broader issue of the interplay between economic and political factors, the final chapter ends with a discussion of central challenges including:

Firstly, a central challenge coming out of the market system itself. It notes that European energy industry has been exploiting its new freedom of international market-configuration to scale up in concentration - in some cases - to a level where the competitiveness of the market itself could be affected in question in its new oligoplistic configuration. The question raised is if European competition policy can follow suit.

Secondly, the chapter points out that the reforms have been conceived at a stage of overcapacity situations with a focusing on market design and in some cases on industrial structures. Against this background it discusses the challenge of securing new investment as the dynamic capability of the market system is put on trial. It also points out that the balancing of the power market in the long run is not only a question of a market equilibrium, but also of a social equilibrium, and the possibility-space for these two equilibria may not coincide.

Finally, the chapter focuses on challenges arising as the energy sectors face extensive environmental demands as ambitious climate and renewables policies are targeting these industries. Major issues in focus here are the management of collective responsibilities across national boundaries, but also the management of the interface between the environmental policy field and the core energy markets. The chapter discusses how, while the core markets are increasingly operated under a commercial/competitive mode, with increasing European standardisation, the environmental policies tend to have stronger national designs. Complex interaction effects between energy and environmental markets and policy instruments in both fields are also seen to constitute a challenge to future management of energy industry.