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## **Integrating regulated network markets in Europe**

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## Integrating regulated network markets in Europe\*

Jordi Gual\*\*

### Abstract:

This paper assesses the integration strategy of the European Union in regulated network markets. The paper argues that in these markets integration should not be an end in itself. In regulated markets the conventional gains from trade or freedom of establishment may be outweighed by significant welfare losses if integration involves the choice of a misguided deregulation model. Moreover, the design of the integration process will affect the distribution of the gains from integration, and this may be unacceptable to some of the countries and/or social groups involved, leading to the failure of the process. The integration strategy should carefully balance several potentially conflicting interests, with priorities that may not be the same across industries.

The paper provides a comparative analysis of the cases of banking, telecoms and electricity. It suggests that the design of the *deregulation cum integration* process should ensure the maintenance of a level playing field and the preservation of country-specific strategic interests to varying degrees, depending on the industry under consideration. A reasonable equilibrium of this sort is illustrated in the case of banking, but it has not yet been achieved in electricity. In other instances, for example telecoms, the key goal may be very different, with a focus on avoiding excessive regulatory rigidity. Altogether, this implies that integration strategies should combine strong harmonization of some regulations with a large degree of freedom at the Member State level in other domains.

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## 1. Introduction

The process of creating a single European Union (EU) market for goods and services has gone through several stages, from the early removal of tariff barriers to trade in merchandises, to an increasingly complex period of integration in services provision. The integration of services provided over networks is probably one of the last and most sophisticated phases in the long journey towards the integration of the European market.

This paper argues that in regulated network markets, integration should not be an end in itself. The conventional gains from trade or freedom of establishment, which are at the root of the traditional case for economic integration, may be outweighed by significant welfare losses in regulated markets, if integration involves the choice of a misguided deregulation model. Moreover, the design of the integration process will affect the distribution of the gains from integration, and this may be unacceptable to some of the countries and/or social groups involved.

The paper suggests that depending on the industry under consideration, the design of the deregulation cum integration process should ensure the maintenance of a level playing field and the protection of country-specific strategic interests, to varying degrees. This may lead to the use of a variety of integration tools, combining sometimes strong harmonization of some regulations with a large degree of freedom at the Member State level in other domains.

The paper is organized as follows. Section 2 reviews the ways in which product and service markets may be integrated and considers the experience of EU integration regarding product markets and unregulated services markets. Section 3 highlights the distinctive features of network markets and discusses how those peculiarities affect both the evaluation of the gains from integration and the choice of the most appropriate integration strategy. This general discussion is illustrated in section 4 with a brief analysis of the experience so far in the integration of three key network markets: banking, telecoms and electricity. Based upon this industry-specific analysis, section 5 concludes with recommendations for the strategy of the EU in the integration of this type of service industries.

## 2. Strategies for market integration

The achievement of a single market, beyond the simple formal elimination of trade barriers and the impediments to the establishment of foreign providers, requires that the authorities decide upon the general rules that will be applied to the products or services exchanged in the marketplace and to the firms that provide them. This is the case even in lightly-regulated product and service markets for two reasons. First, because even for the less regulated goods, there may be technical or safety standards that have to be satisfied for the general acceptance of a good in trade. And second, because the existence of these minimal regulations may in fact be used by countries as protectionist devices. That is, as artificial obstacles to trade that maintain market segmentation.

These basic regulations or standards may be of two types: product and process standards. Product standards refer to conditions imposed on final goods, say for reasons of safety or technical compatibility. In services, these standards may refer to the quality of the service being provided, for example. Process standards, on the other hand, deal with the conditions that have to be satisfied within the firm, for example in terms of taxes, environmental controls or the use of some types of inputs (labour).

### 2.1. Strategies

The creation of a single market may be achieved by a **full harmonization** of all these rules. This is, of course, the most stringent type of integration strategy. It guarantees the free flow of goods and services and the subsequent gains from the increased possibilities of exchange, but it imposes substantial costs in the countries engaged in integration to the extent that some of them will have to sacrifice local regulations and adapt to the regulations of other countries. If existing rules (for example in terms of safety standards) reflect local preferences, this is a real welfare cost. Obviously, the rules may also be pure artificial restrictions to competition imposed by local providers or other pressure groups.

A less demanding type of integration strategy is the **mutual recognition** of regulatory regimes. This integration method implies that countries engaged in the integration process accept each other's regulatory framework. That is to say, the country receiving a foreign product or firm, the host country, recognizes the validity of the regulations imposed on the firm by its home country. This is a very powerful integration method<sup>1</sup>, short of the harmonization of rules. It requires a large degree of mutual confidence between the countries involved and a strong political willingness to integrate because mutual recognition may trigger a process of competitive deregulation. If foreign firms are subject to a regulatory regime that diminishes costs, mutual recognition is likely to increase the pressure for deregulation in the host country.

Finally, another strategy of market integration is the use of the **host country rule**. This method implies that the host country need not alter its product and process standards, but,

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1. Using a simulation model, Kox and Lejour (2005) show that the use of mutual recognition could dramatically increase trade in services within the EU. However, as highlighted by Ilzkovitz *et al.* (2007, pages 61-62) mutual recognition is hampered by legal uncertainty in practice and further legislation may be needed so that regulatory risk is reduced. This seems to be one of the goals of the recent initiative of the Commission (see European Commission, 2007).



in the spirit of the well-known “national treatment principle” of trade, it is obliged not to discriminate between foreign and domestic providers. Obviously, this strategy leads to a lesser degree of integration to the extent that the rules of the host country may remain intact and foreign providers have to comply with them.

## 2.2. Products and services markets

Within the European Union the process of integration of product and lightly-regulated service markets has been based upon the use of a variety of integration strategies.

In product markets, integration requires free trade and freedom of establishment without restrictions. Public policy goals, such as the preservation of consumer safety and environmental protection, have been achieved for high-risk products by harmonization of product standards. For the rest of products mutual recognition is the dominant rule. The existing degree of political and institutional integration within Europe allows the mutual recognition of regulations for low-risk products, as well as the mutual acceptance of (moderately different) process standards (for example in terms of tax and social costs).

Things are slightly different for services, even if we talk about lightly-regulated services, as shown by the complex political process lived in the EU for the approval of the directive which sets the basis for integration (the so-called Services Directive<sup>2</sup>). First, the legislation has excluded a large number of activities (such as audiovisual and private security) even though it is hard to claim that these sectors are as heavily regulated as network services. Second, even if mutual recognition has been accepted as the method of integration for service standards, host country rule has been maintained for the key process standards. That is to say, countries are obliged to accept foreign providers of services, but they may require from them the compliance with key domestic process regulations, and in particular with labour conditions and other items that affect social costs. The high labour content of services makes this provision highly restrictive in practice. Moreover, countries are allowed to maintain other local regulations on service providers (ie. economic needs tests, fixed tariffs, restrictions on the number of outlets) which further restrict integration. The goal of the directive, however, is that these local regulations should be subject to a process of mutual evaluation, whereby best practice regulation is promoted and unnecessary restrictions are lifted. All in all, however, it is clear that host country rules dominate and that, due to domestic preferences and/or the pressure of local groups, the integration of lightly-regulated services with this institutional basis is not likely to advance very far.

For both, products and lightly-regulated services, the process of integration is expected to yield substantial economic gains. These have been well researched and documented in the literature<sup>3</sup>. Apart from the comparative advantage gains, they include those arising from increased competition (lower prices, larger number of varieties and increased consumer welfare) and from the achievement of a larger market (increased exploitation of scale economies, both statically and dynamically). Most importantly, however, the integration

2. European Commission (2006).

3. For a recent review of the gains from economic integration see Ilzkovitz *et al.* (2007) and the references therein.

process in products (and to a lesser degree lightly-regulated services) is likely to have limited adverse effects which may thwart its political viability. The process of integration is mostly market driven and its distributional effects are likely to be moderate with a relatively disperse impact on different social groups. Moreover, if the product and process standards are guaranteed in the key high-risk markets, the potential adverse effects on quality, variety and social conditions at large, are also –in principle– moderate. As we have seen for the case of services, the integration strategy is substantially more difficult when the areas involved (East and Western Europe) and the markets to be integrated (services which are intensive in unskilled labour) are perceived to lead to significant impacts in terms of the geographical distribution of the gains and losses of integration.

### 3. What is different about network services?

Economic services provided over networks share some economic and socio-political features which make them distinctive in terms of the analysis of the conditions for and the consequences of market integration. Achieving a single market for network services (such as electricity, gas, water, telecoms, transport and retail banking) involves much more than the simple introduction of rules that liberalize entry or restrict discriminatory behaviour by domestic authorities.

#### 3.1. Market characteristics

The list of economic features of network service industries that lead to complex market structures, almost always oligopolistic, and pervasive government intervention is long and starts with the network concept itself. Network industries often involve direct network externalities whereby the value of the service to a client depends on the overall number of users of the network (telecoms, automatic teller machines, credit cards) or the number of connections (transport networks). These externalities affect the pricing of companies and very often lead to concentrated market structures. Network industries involve sometimes the use of physical distribution networks, and this implies a cost structure that again favours size and makes marginal cost pricing difficult if at all possible, due to large scale economies and huge sunk costs (well known examples are the copper networks in telecoms, the distribution grid in electricity and gas, and the networks used for credit card transactions). Needless to say, these networks pose other difficult problems of coordination and the management of congestion in some cases (electricity, transport). Finally, two additional features figure prominently: the peculiar structure of the value chain and, for certain industries, the rapid pace of technological change. The value chain is important to the extent that, in many industries, infrastructure and service provision may have totally different “natural” market structures; moreover, the value chain will often include important bottlenecks at the infrastructure level, which affect the nature of competition at the service level (the local loop in telecoms, access to the network level in credit cards, access to pipelines in gas, etcetera). Technology is important because network industries are capital intensive and rapid technological change may create problems in terms of the incentives to pay for the new infrastructure that will substitute the old. Technological change is important in industries such as telecoms and banking, but less so in electricity, gas and water.

On top of the economic features, network services have peculiarities from a social and political perspective. Most of these services are considered services of general interest and as a consequence their supply is subject to restrictions in terms of coverage and affordability (regulations on universal pricing and its funding) and to an on-going debate about the definition and scope of the basic service, particularly in fast changing industries such as telecoms. Similarly, these services are also considered as strategic by governments, in the (limited) sense of the word strategic that focuses on the need to guarantee uninterrupted supply, due to the general systemic consequences of a serious disruption in the provision of the service (obviously, banking is again similar due to the potential systemic risks arising from banking defaults).

These social and political features of network industries, together with the natural monopoly features emphasized above, have always led to a complex regulatory framework that has been put in place by the state. It leads also very often to the direct intervention of the government, either by direct provision of the services (state-owned companies) or through the financial support of regulated private firms that satisfy political goals (state aid or favourable regulatory conditions).

It must be obvious at this stage that the integration of this kind of very complex services is not at all simple. How should it be done? The answer to this question may benefit from a preliminary discussion of something that we take for granted in goods and lightly-regulated services, but is not that obvious in regulated network markets. Why should we integrate those markets at all? Are we sure that integration in these markets leads to an overall welfare gain, with limited adverse effects in terms of distribution?

A positive answer to this more fundamental question is not obvious in regulated industries which are in the process of being deregulated. For example, some of the gains come from increased competition, but do we know how large are they? And, more importantly, do we know which is the proper target for the degree of competition? Both from a static and a dynamic perspective, these are industries where the ideal of perfect competition need not be desirable, and may not even be attainable. The same problems arise in terms of the potential gains from static and dynamic efficiency (innovation and learning by doing). There is much uncertainty both on what type of deregulation triggers a more effective increase in competition and on the market structure which is more conducive to the achievement of dynamic efficiency gains<sup>4</sup>.

Two additional characteristics of network services complicate the assessment of the net gains from integration. First, these are industries where consumer surplus is determined not only by final prices but also by quality measures; and industries where the total absence of regulation is in many cases still very far away. Clearly, under these conditions the specific deregulation road and the final regulatory framework are key determinants of the welfare gains. Second, it is not at all clear that the distributional effects of achieving the single market can be neglected in network services as we often do in goods markets. This is so because in network services integration may involve the adoption of completely different regulatory frameworks and the appearance of totally different and concentrated market structures at the EU level. These changes are likely to have strong distributional consequences, particularly across borders (the control of the remaining companies may remain in a few centers across the EU), and they may jeopardize the political viability of the integration process.

### 3.2. Integration

I would argue, therefore, that the gains from integration in regulated network services are less clear-cut than in other more conventional markets. More importantly, the previous remarks highlight the need to be extremely careful in the integration process, and the importance of adopting an integration method or strategy that appropriately balances all the conflicting issues that arise. These issues may be easily summarized. It is clear that if policy-makers wish to integrate these services, they will need to ensure access and interconnection to guarantee cross border provision and free entry, but this immediately begs the question of the regulatory conditions faced by the different competitors in their home country. This is, in the end, a question of product and process standards in a rather complex setting. Even if competitors face similar (non-discriminatory) conditions in the host market, the key question often revolves around the (regulated process) conditions faced in the home market, which is far more important and ends up determining the overall cost competitiveness of the companies.

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4. On these issues see, for example, Sutton (2006) and Armstrong and Sappington (2005).

The question of the level playing field is complex for several reasons. First because, as hinted above, we face considerable uncertainty as to the optimal path of deregulation, and countries may (reasonably) disagree on that choice. Secondly, due to the fact that countries may be tempted to use (favourable) regulatory conditions as a strategic tool to place their domestic competitor in an internationally advantageous position. And it will often be impossible to classify this support as state aid. Finally, because deregulation is intrinsically multidimensional and the extent of deregulation varies across countries –both in intensity and form– due to a variety of reasons, such as legal history, the preferences of electorates and the lobbying of affected parties.

Apart from guaranteeing a level playing field, two other issues appear as critical in the process of integrating network markets. The first, is the choice of the proper regulatory framework for the integrated market (and the associated deregulation path). And, in fact, given the long-lasting impact of regulatory decisions on business, the degree of flexibility of this deregulation process. The second, given the strong social and political underpinnings of these industries, is the choice of an integration process that takes due account of the diversity of local preferences and strikes an adequate balance between the progress of the integration and its gains, and the preservation of vital domestic interests. In the absence of appropriate compensation mechanisms, the political viability of integration hinges upon the satisfaction of these restrictions.

Indeed, I will argue that the integration strategy for network industries should be based upon a combination of methods (ranging from harmonization to host country rule) which may be different across network services, but which will depend on the relative importance of these key goals in the integration process: the preservation of the level playing field, the flexibility of the deregulation path, and the guarantee of respect for local preferences.

The discussion of the alternative integration methods in section 2 and the preceding description of the conflicting goals of the integration process make it clear that each goal is most suitably achieved by some integration methods, while others may be totally inappropriate. Table 3.1 summarizes these relations between goals and integration strategies. The table is self explanatory and just a few remarks are in order. Harmonization does a good job at levelling the playing field, but note that this can also be achieved through mutual recognition, although this could lead to the disappearance of regulation altogether. Regulatory flexibility is achieved clearly by host country rules, but this comes at the cost of sacrificing integration. Finally, ensuring the respect of local preferences (including the supervision of foreign providers for strategic reasons – such as financial stability and energy security) requires host country rules, unless the degree of political integration is already very high. In general, the choice of integration method will depend upon the importance of each key goal for each industry.

**Table 3.1 Integration strategies and the (conflicting) goals of integration**

		INTEGRATION STRATEGIES		
		Host country rule	Mutual recognition	Harmonization
KEY GOALS IN THE INTEGRATION PROCESS	Preventing regulatory rigidity	✓	✓	✗
	Levelling the playing field	✗	✓	✓
	Ensuring respect for local preferences	✓	✗	✗

#### 4. The integration strategy in specific network services: banking, electricity and telecoms

The examination of the integration strategies adopted by the EU in the landmark cases of banking, electricity and telecoms and the divergent degrees of integration achieved in these markets provide an interesting background for the examination of why the most appropriate route to integration need not be the same across industries and need not coincide with the route taken so far.

As argued above, there are many dimensions to regulatory intervention. For the purposes of our analysis of the comparative integration strategy followed by the EU in different EU network service industries, I have classified them in two broad categories and eight types of regulations, as shown in Table 4.1.

Table 4.1 follows the tradition of industrial organization. It distinguishes between regulations that affect the behaviour of companies, and those that affect the structural conditions of the market. What is novel is the introduction, under conduct regulation, of the interconnection conditions that affect cross border services provision.

Regulatory divergences matter even if, as it is the norm in the EU, there is no discrimination between domestic and foreign providers. They matter both for the cross-border provision of services and for the provision through the establishment of foreign affiliates. This is so because favourable home country regulations may provide companies with a competitive advantage when facing other companies in third markets. As we will see next, it is the willingness to tackle regulatory divergences in these areas that is at the basis of the achievement of different degrees of integration across industries.

**Table 4.1 The key dimensions of regulatory intervention**

CONDUCT REGULATION	EXAMPLES
Technical and other product standards or regulations	Standards of safety, information, etc. that have to be satisfied by the product or service. General controls on prices, bundling of services, spending on advertising, etc.
Market power	Limits on dominant companies
Cross-border interconnection	Feasibility and conditions of interconnection
STRUCTURE REGULATION	
Entry	Limits on entry (minimum size of new companies or other restrictions)
Vertical restrictions	Limits or restrictions on vertical integration
Line of business restrictions	Limits or restrictions on ownership of horizontally related business units (ie. Banking and insurance, fixed and mobile, etc.)
Access to infrastructure	Conditions of access and interconnection, including organization of wholesale markets
Mergers and state aid	Restrictions on mergers and state aid

Tables 4.2 to 4.4 provide a broad assessment of the way in which the EU has advanced in the process of integration of the markets for banking, telecoms and electricity. For each market and each type of regulation, the key integration method is highlighted in the tables, although in many cases it is necessary to comment and qualify the general characterization. The tables are self-explanatory, and from them it is possible to extract a general perspective on the integration strategy followed in each market.

#### 4.1. Banking

In banking, the general principle of integration has been that of mutual recognition<sup>5</sup>. However, the danger of a race to the bottom on crucial issues, such as the rules on prudential matters, has led to the establishment of harmonized rules in this dimension. Similarly, even if the general principle is that of mutual recognition, the rule of host countries has remained prevalent on sensitive issues that relate to local preferences (rules on consumer information) or the stability of the domestic financial market (the supervision of foreign providers for monetary policy reasons). The banking industry in fact provides an example of the simultaneous use of two integration methods: mutual recognition and host country rules, for the same type of business, the local provision of financial services. This provision can be undertaken by means of a subsidiary or by a branch, and only in the second instance the more advanced integration method of mutual recognition (the so-called single passport which implies that home regulations apply with the exceptions on monetary policy and consumer protection highlighted above) is used.

**Table 4.2 Regulatory dimensions and integration method in banking**

	INTEGRATION METHOD	COMMENTS
CONDUCT REGULATION		
Technical and other product standards or regulations	Host country rule	Rules on information and consumer protection
Market power	Mutual recognition	Of competition policies
Cross-border interconnection	Host country rule	Only recently harmonization for international transfers
STRUCTURE REGULATION		
Entry	Partial harmonization and mutual recognition	Minimum requirements for prudential objectives
Vertical restrictions	Mutual recognition	Countries free to choose the degree of integration
Line of business restrictions	Mutual recognition	Countries free to choose any restrictions
Access to infrastructure	Host country rule	Access to ATM network and settlement systems
Mergers and state aid	Mutual recognition	Through the mutual recognition of competition policies, even if these are not fully equivalent (exc. Italy and Portugal)

5. See Gual (2004) and Barros *et al.* (2005) for a detailed discussion.



Overall, the extent of integration in retail banking across the EU has been substantial. It is clearly the case that more could be done. For example, the mutual recognition of competition policies has been shown to be insufficient, since some countries have used local regulations as protectionist devices. Similarly, the host country regulations that apply to teller networks and settlement systems could be also mechanisms that prevent integration. But the same could be argued with regards to the rules on consumer information and protection. The harmonization of these rules and systems would certainly allow a fuller exploitation of scale economies across the EU, both in terms of the design of financial products and in terms of the efficiency of cross border financial transactions. Nevertheless, these gains have to be balanced with the potential losses, in terms of the welfare of specific countries with idiosyncratic payment systems or preferences regarding the protection of consumers.

This trade-off is exemplified by the proposal of the Directive on Consumer Credit Loans (IP/07/687, 21 May 2007). The new Directive would go beyond the current minimum requirements, which “de facto” have led to a host country rule regime (a patchwork of different rules across the EU), to a partially harmonized framework whereby all EU countries would require from credit providers comparable terms with regards to key issues such as advertising, the calculation of the annual percentage rate of charge, the right to withdraw from a contract within a limited time period, and the terms of compensation to creditors for early repayment.

In terms of Table 4.2, this implies moving from host country rule to partial harmonization. As argued, this is fine to the extent that different domestic rules are being used as protectionist devices and do not reflect genuine local preferences. As a general rule, however, domestic regulations that protect consumers should be respected if it can be shown that they do not imply the “de facto” discrimination of foreign providers, and that no equivalent protection is guaranteed by the home country regulations imposed to those providers. Finally, it is worth stressing that the extent of integration itself need not be the same in all markets even when all barriers to integration have been removed. Some markets, such as retail banking, are likely to remain geographically segmented because the basic economics of the industry (asymmetric information) lead to a fragmented market structure on a regional basis. In this type of markets, policies that artificially promote market integration beyond its natural level are probably ill-advised (for example, in markets such as mortgage credit or pension funds, where contracts and product information and regulations are closely related to local commercial and tax law, and the overall structure of the social security system)<sup>6</sup>.

## 4.2. Telecoms

The telecoms industry (see Table 4.3) provides an example of an industry where the EU has used an alternative approach to integration, but with results that have been fairly limited so far. The basic integration strategy used in this industry has been the establishment of limits to the rules introduced by the domestic regulators. Following our taxonomy, we refer to this as “host country rules within limits”. The EU ‘deregulation

6. Alternatively, there is potential for integration in markets such as point-of-sale consumer credit or in saving products. Nevertheless, in this last instance it is not obvious whether the integration will take place directly (through cross-border sales) or indirectly (through the local provision of saving products that invest in EU-wide assets).



**Table 4.3 Regulatory dimensions and integration method in *telecoms***

	INTEGRATION METHOD	COMMENTS
CONDUCT REGULATION		
Technical and other product standards or regulations	Host country rules (within some limits)	Limits on controls that may be imposed by national authorities
Market power	Host country rules (within some limits)	Limits on how abuse of market power is defined and what remedies are applied
Cross-border interconnection	Host country rules for mobile. Harmonization for fixed telephony.	In mobile, the GSM standard facilitates interconnection, but spectrum is allocated on a national basis
STRUCTURE REGULATION		
Entry	Host country rules (within some limits for certain segments)	Service provision to be subject to authorization instead of licensing. No limits on domestic rules on entry conditions for mobile operators
Vertical restrictions	Host country rules	No common rules on, for example, virtual mobile network operators, or fixed network unbundling
Line of business restrictions	Host country rules	No common rules on cross-ownership of, say, cable and ADSL
Access to infrastructure	Host country rules (within some limits)	The EU establishes limits on the Member State rules on access pricing
Mergers and state aid	Mutual recognition	Of national competition policies

cum integration' strategy in telecoms was set up in the framework directives back in 2003 and is currently in the process of being revised. The basic tenet of the strategy is the gradual liberalization of the industry, by way of establishing competition benchmarks which allow, in a consistent manner, the removal of regulatory restrictions and the use of general competition policy to assess market problems.

Obviously, a full fledged discussion of this regulatory strategy is beyond the scope of this paper, but a few general remarks are needed<sup>7</sup>. First, the strategy has led to a substantial amount of guidance on the key issue of the deregulation strategy for fixed telephony and wireline broadband, while leaving lots of leeway in other dimensions which are in practice of no less importance (ie. the regulation of alternative networks). Indeed, the guidance provided in broadband has possibly reduced potentially useful regulatory experimentation, and the lack of stronger market integration rules in mobile (the integration of spectrum) has artificially thwarted the cross-border growth of this market. On the positive side, the regulatory framework and the increased coordination of domestic regulatory bodies has gradually ensured that (within the domains contemplated by the framework) the application of the rules across borders has been quite consistent, thus limiting to a reasonable degree potential problems of uneven competitive conditions faced by the different competitors.

7. See Bergman *et al.* (1998) and Gual (2002).

### 4.3. Electricity

Finally, the electricity market (see Table 4.4) provides an example of yet another integration strategy, based upon a loosely shared deregulation framework, but without significant limits on the regulations that may be established by local authorities. This last feature, together with the limited efforts undertaken in the achievement of physical interconnection facilities, explain the very limited degree of integration achieved in this market. In particular, the large room for manoeuvre left to national authorities has led to substantial differences in terms of the regulatory conditions faced by domestic competitors, and thus placed some of them in a clear competitive advantage in the European market for corporate control.

As with telecoms, the ‘deregulation cum integration’ strategy in electricity has involved a fairly definite choice of a regulatory path: in this case based upon the idea of the gradual opening of wholesale markets, depending on client size, and a second stage where competition reaches the residential consumer<sup>8</sup>. The deregulation strategy is to be implemented across all the EU member states, with mutual opening to foreign providers to the extent that each market has advanced in the route towards liberalization. The choice of a fairly rigid deregulation path applies to countries with very different sources of primary energy and previous regulatory setups. It is, therefore, not at all clear that such a strategy will favour the adoption of liberalization measures, particularly in an industry where political and strategic concerns are crucial.

**Table 4.4** Regulatory dimensions and integration method in *electricity*

ELECTRICITY	INTEGRATION METHOD	COMMENTS
CONDUCT REGULATION		
Technical and other product standards or regulations	Host country rules (within some limits)	Restrictions (time limits) on the rhythm of liberalization
Market power	Host country rules	
Cross-border-interconnection	(Limited) Harmonization	And limited physical connections
STRUCTURE REGULATION		
Entry	Host country rules	
Vertical restrictions	Host country rules (within some limits)	Some limits on vertical restrictions (at least accounting separation but no common rules on ownership)
Line of business restrictions	Host country rules	Subject to common competition policy, no restrictions on ownership of gas and electricity assets
Access to infrastructure	Host country rules (within some limits)	Loose limits on third-party access and the reorganization of wholesale markets
Mergers and state aid	Mutual recognition (with many exceptions)	State aid to public companies, and golden shares

8. See Newbery (2004). On the international experience in this area see Wolak (2005).

## 5. Concluding remarks

The analysis of the integration strategy followed by the EU in key network services such as banking, telecoms and electricity makes it clear that the differences in the approach to integration and the progress made thus far are not only the result of institutional and political restrictions. They also stem from a lack of clear priorities in terms of the key integration goals to be achieved in each market. This paper has argued that the goals may be quite different across industries.

In an industry as dynamic as telecoms, probably the overriding concern should be the prevention of excess regulatory rigidity, since the costs of implementing an inadequate framework may be particularly high when technology changes fast. Worries about differential competitive conditions should be a second-order concern. Similarly, with the increased variety of telecommunications services and their increased competitive supply, the risk that the more competitive and homogeneous market impacts negatively on local preferences appears to be secondary.

In banking and electricity, however, the concern about the level playing field and local preferences is critical. This implies that the choice of a deregulation cum integration strategy should be based on well-known processes which guarantee that no competitor enjoys unfair competitive advantage and that the stability of national banking and electricity systems is guaranteed, both in terms of systemic issues and of the information and guarantees offered to consumers. Technology in these industries changes relatively slowly compared to the fundamentals of the service provided to users, and the integration process should never put in jeopardy the broader social goals that banking and energy systems satisfy.

The recognition of these differences in goals and the evaluation of the most proper integration method for each industry should be used in any revision of the integration strategy for network markets. In this regard, the new policy approach unveiled by the European Commission in February 2007 provides new instruments that would be useful in the pursuit of a more nuanced and differentiated integration strategy. In particular, the 2007 Commission Communication (European Commission) refers to the right balance between harmonization and mutual recognition. As argued in this paper, this balance is key in network services. For example, in electricity there is probably a need for further harmonization, but mutual recognition appears to be a better instrument in telecommunications. The Communication includes also useful tools such as the exchange of best practices, self and co-regulation, the pro-active enforcement of competition policies and EU law, and cooperation mechanisms for the compatibility of national legislations.

In banking the strategy used so far has been based on the joint implementation of partial harmonization and mutual recognition. This approach has built upon a long tradition in international banking regulation and requires a fair amount of mutual confidence between regulatory bodies and policy makers across the single market. The process has proved successful and the scope for improvement seems to be limited, at least in retail banking, which is a business naturally confined to regional markets. Improvements could be obtained by a more systematic treatment of competition policy rules across Member States, and also

by a permanent assessment of host country rules for consumer protection, ensuring that they are not used as protectionist devices.

In telecoms the EU approach has been very much determined by the inertia of old regulatory regimes and the disparities across countries in terms of regulatory agencies and governments with different competencies and degrees of involvement in the industry. A broad overall assessment, would lead us to conclude that there is probably increased room for the use of the mutual recognition principle (or the single licence), which would trigger more competitive deregulation and the spread of best regulatory practices. In some areas (mobile telephony) additional policy steps should be taken to promote the integration of spectrum.

Finally, electricity is probably the market, among those examined in this paper, where the integration strategy pursued by the EU has been less effective. Apart from the obvious importance of political economy and national security considerations, it is clear that the EU approach has not been pro-active. Rather, we can see it as the EU level reaction to a piecemeal process of deregulation that has taken place all over Europe, as a follow-up of the early deregulation experiences in the Anglo-Saxon countries. The EU integration approach has been an attempt to cope with these deregulation processes and make them compatible with a gradual elimination of barriers to the cross-border provision of services. Looking ahead, the integration approach in electricity should combine the increased harmonization of key regulatory cost drivers, which today are loosely controlled and where basically the rules are set by the home country (ie. very loose limits on vertical ownership) with the maintenance of host country rules with few limits in very sensitive market segments (retail customers). At the same time, since in the electricity markets most of the benefits from integration arise at the wholesale level, the previous strategy could be combined with a more aggressive integration policy at that level, with increased interconnection facilities and competition enforcement for the generation market and the distribution to large industrial customers.

In sum, it should be emphasized that each network service market is different, and even if conceptually there are relevant general rules that proper regulation should take into account (see Armstrong and Sappington, 2005) the choice of the deregulation cum integration strategy should be industry-specific. This paper has attempted to provide a general framework that specifies the integration parameters that have to be chosen and highlights the key trade-offs. The main message, however, is that not only there is no single path towards deregulation and integration, but also that integration should never be an end in itself, since –given the nature of these industries– economic and social welfare is going to depend also, and crucially, on getting the deregulation process right.

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## Resum executiu

Aquest estudi examina l'estratègia d'integració dels mercats de xarxes duta a terme per la Unió Europea. Les característiques econòmiques i tecnològiques d'aquests serveis (per exemple, telecomunicacions, electricitat, aigua, banca, gas, etc.) fan que es tracti de serveis molt regulats. Per aquest motiu, l'assoliment d'un mercat europeu únic no és fàcil, llevat que es procedeixi a una integració física de les xarxes i a una harmonització completa de les regulacions.

Ara com ara, aquesta alternativa no és només poc plausible, sinó que tampoc no és necessàriament desitjable. Aquest treball argumenta que, en aquests mercats, la integració no hauria de ser un fi en si mateix, atès que els guanys de benestar derivats de la lliure circulació de serveis i del lliure establiment poden ser inferiors a les pèrdues que pot generar la tria de models de desregulació incorrectes. A més a més, l'elecció d'un mecanisme concret de regulació i d'integració té efectes molt directes sobre la distribució dels beneficis i sobre els costos del procés, de manera que pot ser bloquejada pels països o pels grups socials que pateixin un efecte net negatiu.

El treball proporciona un examen comparatiu de l'estratègia d'integració utilitzada en tres indústries de xarxa concretes: la banca, les telecomunicacions i el sector elèctric. L'anàlisi suggereix que, per a cada indústria concreta, els objectius bàsics poden ser diferents. En uns casos, serà primordial garantir un terreny de joc equilibrat i la preservació dels interessos estratègics dels països involucrats (seria el cas de la banca i del sector elèctric), mentre que, en altres (les telecomunicacions), aquestes consideracions tenen menys rellevància i, en canvi, atesa la vitalitat tecnològica del sector, és fonamental permetre una certa experimentació reguladora dels diversos països implicats.

Això significa que, per a cada indústria, serà necessari escollir una estratègia d'integració específica que combini, en diversos graus, l'harmonització gairebé completa d'algunes

qüestions amb amplis graus de llibertat de regulació per als Estats en altres temes.

En banca, per exemple, l'estratègia utilitzada fins ara ha consistit en la combinació de l'harmonització en qüestions clau de regulació prudencial amb el reconeixement mutu d'una àmplia gamma de regulacions. Aquesta combinació ha estat un èxit, i només sembla necessari assegurar que la política de competència s'aplica de manera homogènia a tota la Unió i que les mesures locals de protecció del consumidor no són utilitzades com a mecanismes de defensa dels competidors locals.

En telecomunicacions, l'enfocament utilitzat és el resultat, sobretot, de compatibilitzar la inèrcia del règim regulador històric i les grans diferències entre els marcs reguladors nacionals, en un intent de liberalització gradual del sector sota unes directrius centralitzades. En aquest sector, probablement es podria avançar més de pressa donant més marge de llibertat als marcs reguladors nacionals, però garantint (gràcies al reconeixement mutu de regulacions o a mecanismes de llicència única) que la disparitat reglamentària no és utilitzada per protegir les empreses locals. Aquest enfocament facilitaria la competència entre reguladors i l'aprenentatge de les millors pràctiques reguladores.

Finalment, al sector elèctric, l'estratègia ha constituït, fonamentalment, un intent de canalitzar el procés desregulador cap a l'eliminació de barreres a la lliure prestació de serveis transfronterers. Aquest procés, amb diferents intensitats i formes, s'ha dut a terme, a la majoria dels Estats membres, en el context d'una liberalització generalitzada del sector elèctric als mercats mundials. Mirant cap al futur, probablement el marc d'integració hauria de combinar l'harmonització de les regulacions clau en termes de costos (costos de connexió, mercat a l'engròs, integració vertical) amb el manteniment de regulacions locals als segments de mercat d'alta sensibilitat política (per exemple, el segment de distribució a particulars).

## Resumen ejecutivo

Este estudio examina la estrategia de integración de los mercados de redes que ha llevado a cabo la Unión Europea. Las características económicas y tecnológicas de estos servicios (por ejemplo, telecomunicaciones, electricidad, agua, banca, gas, etcétera) comportan que se trate de servicios altamente regulados. Por ello, la consecución de un mercado europeo único no es fácil, a menos que se proceda a una integración física de las redes y a una armonización completa de las regulaciones.

Esta alternativa no es tan sólo hoy por hoy poco plausible, sino que tampoco es necesariamente deseable. Este trabajo argumenta que, en estos mercados, la integración no debiera ser un fin en sí mismo, dado que las ganancias de bienestar derivadas de la libre circulación de servicios y del libre establecimiento pueden ser inferiores a las pérdidas que puede generar la elección de modelos de desregulación incorrectos. Además, la elección de un mecanismo concreto de regulación e integración tiene efectos muy directos sobre la distribución de los beneficios y los costes del proceso y, por tanto, puede ser bloqueada por los países o grupos sociales que sufran un efecto neto negativo.

El trabajo proporciona un examen comparativo de la estrategia de integración utilizada en tres industrias de red concretas: la banca, las telecomunicaciones y el sector eléctrico. El análisis sugiere que para cada industria concreta los objetivos básicos pueden ser diferentes. En unos casos será primordial garantizar un terreno de juego equilibrado y la preservación de intereses estratégicos de los países involucrados (sería el caso de la banca y el sector eléctrico), mientras que en otros (las telecomunicaciones) estas consideraciones tienen menor relevancia y, por el contrario, dada la vitalidad tecnológica del sector es fundamental permitir una cierta experimentación regulatoria de los diversos países implicados.

Ello significa que para cada industria será preciso escoger una estrategia de integración específica que combine, en diversos grados, la armonización casi completa de algunas cues-

tiones con amplios grados de libertad de regulación para los Estados en otros temas.

En banca, por ejemplo, la estrategia usada hasta hoy ha consistido en la combinación de la armonización en cuestiones clave de regulación prudencial con el reconocimiento mutuo de una amplia gama de regulaciones. Esta combinación ha sido exitosa y únicamente parece necesario asegurar que la política de competencia se aplica de manera homogénea en toda la Unión, y que las medidas locales de protección del consumidor no son utilizadas como mecanismos de defensa de los competidores locales.

En telecomunicaciones, el enfoque utilizado es el resultado, en gran medida, de compatibilizar la inercia del régimen regulador histórico y las grandes diferencias entre los marcos regulatorios nacionales, con un intento de liberalización gradual del sector bajo unas directrices centralizadas. En este sector probablemente se podría avanzar más rápido permitiendo mayores dosis de libertad en los marcos reguladores nacionales pero garantizando (gracias al reconocimiento mutuo de regulaciones o a mecanismos de licencia única) que la disparidad reglamentaria no se utiliza para proteger a las empresas locales. Este enfoque facilitaría la competencia entre reguladores y el aprendizaje de las mejores prácticas regulatorias.

Finalmente, en el sector eléctrico, la estrategia ha constituido fundamentalmente un intento de canalizar el proceso desregulador hacia la eliminación de barreras a la libre prestación de servicios transfronterizos. Tal proceso, con diferentes intensidades y formas, se ha llevado a cabo en la mayoría de Estados miembros en el contexto de una liberalización generalizada del sector eléctrico en los mercados mundiales. Mirando hacia el futuro, probablemente el marco de integración debiera combinar la armonización de las regulaciones clave en términos de costes (costes de conexión, mercado mayorista, integración vertical) con el mantenimiento de regulaciones locales en los segmentos de mercado de alta sensibilidad política (por ejemplo, el segmento de distribución a particulares).





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