

# MAKING EU NETWORK MARKETS COMPETITIVE

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*Since the late 1980s the EU has made great strides in the liberalization of network markets. This article assumes a horizontal perspective, juxtaposing different network markets while focusing solely on the rules and policies at EU level. A six-step checklist is applied to facilitate a comparative analysis of EU regulatory liberalization in gas, electricity, telecoms, postal services, and rail and air transport. Competition policy is discussed with respect to: the relation between regulation and competition policy; the role of the EC Court; the 'essential facility' doctrine; defining relevant markets; and merger control in network industries. Finally, the question is addressed as to whether these network industries operate in an EC internal market. The answer is no. Policy recommendations: the EU defines a well-considered overall strategy for network market liberalization; the issue of the internal market with common regulators, at least where a subsidiarity test is passed, should be squarely addressed.*

## I. INTRODUCTION

The tortuous move towards (more) competitive network markets in western Europe is a very complicated process, with shifting insights and research emphases over time. It is only recently that two more general approaches have begun to be systematically addressed: the *horizontal* perspective, juxtaposing different network markets, and the overall framework of *European* integration. The present article combines the two in attempting to understand the roles the European Union (EU) has gradually assumed and is likely to play in realizing competitive network markets. The reader should be aware that,

here, no attention is paid to *national* policies of liberalization and privatization. When they preceded EU proposals, it is likely that the latter have been helped by the former. The significance of EU-level liberalization is that the laggards are to join such efforts, and that EU competition policy and the internal market rules can be effectively and coherently applied to network industries. Presumably, this should also promote the economic performance of EU member states which is a 'common concern' under the EC's economic coordination article, 99.

The paper begins with the fundamentals of EU economic integration, namely the internal market, its

proper functioning (through undistorted competition), and the overall aim the latter is supposed to serve. For some three decades the Community adhered to the view that network industries, called public utilities (or their analogues in other EC languages), were justifiably carved out of the internal market. Nowadays, the Community embraces pretty much the opposite view, although the core article on which these two views are based (Article 86) has never been changed. This is followed by a brief reminder of the nature of network liberalization in the Union, being recent, gradual, uneven, and complex. Section III stylizes a step-wise approach of how to introduce competition in network industries, which have ‘enjoyed’ exclusive rights up to recently. We recognize the limitations of employing a uniform scheme of steps for network markets with quite distinct properties, but use it as a tool to facilitate a comparative analysis of the regulatory approach to liberalization. This framework is applied, in section IV, to six EU network industries: telecoms, postal services, scheduled air transport, rail, gas, and electricity. Section V consists of a brief excursion to EC competition policy, illustrating the difficulties of proper application in a comparative perspective across sectors. Section VI asks the questions of whether and to what extent the EC has accomplished an internal market for these network industries. Section VII concludes.

## II. NETWORK MARKETS AND EUROPEAN INTEGRATION

### (i) From Exclusion to a Pro-competitive Approach

Until far into the 1980s it seemed as if public utilities were not part of economic integration in the Community. Presumably reflecting widespread policy convictions, a few early challenges of national exclusive rights<sup>1</sup> were rejected by the EC Court on the basis of Article 86 (then Article 90). This impression was strengthened by the strict neutrality of the treaty with respect to private or state ownership of companies, including utilities. Thus, neither privatization nor liberalization of network industries

seemed to be influenced by basic provisions of the EC treaty. And this was upheld despite the EC treaty’s core provisions on the cross-border freedoms to provide goods and services and the freedom of establishment as well as a system ensuring effective competition.

An elementary appreciation of the problem can be had when focusing on two relevant EC articles relating to network industries (though not exclusively to them): Article 86, about exclusive rights, and Article 31, about distribution monopolies. The latter relates to goods only, as it is found in the section on the free movement of goods. Such distribution monopolies are not forbidden but must not discriminate in procurement or sales. In the 1960s and 1970s endless legal battles took place to impose this non-discrimination rigorously upon the few remaining such monopolies (e.g. tobacco products in Italy), yet *no* action was taken against downstream distribution monopolies in, for instance, gas or electricity, or against prevailing import and export prohibitions in distribution contracts in these sectors.

Article 86 (then 90) is a compromise article balancing the Community interest (integration, as expressed in basic treaty provisions) and the member state’s interest (as expressed in the motives behind the granting of an exclusive right). Such a compromise is, on the face of it, a curious balancing act, because exclusive rights *preclude* the hard-core provisions of market integration: free movement, free establishment, and effective competition. Indeed, a literal reading of Article 86/1 says that, with respect to undertakings having been granted exclusive rights, ‘Member States shall neither enact nor maintain in force any measure contrary to the rules in this Treaty, in particular to those rules provided for in article 12 [discrimination as to nationality] and Articles 81 to 89 [rules of competition].’ Taken literally and in isolation from Article 86/2, this quotation is a liberalization clause. The mere existence of a legal monopoly *must* undermine the single market and competition in it, hence infringe the treaty (unless explicit derogation is found in the treaty, e.g. national security in Article 296). But

<sup>1</sup> Notably *Costa vs Enel* (1964) (case 6/64; 1964 ECR 585) (in which ENEL’s electricity monopoly was *de facto* supported as legal) and *Sacchi* (case 155/73; 1974 ECR 409) (the public interest of a non-economic nature justified RAI’s broadcasting monopoly, including cable transmissions, and the exclusive right could even be extended to Sacchi’s public-display TV sets).

read in combination with Article 86/2 the conclusion may be the opposite one. It says that, if undertakings have been entrusted with ‘services of general economic interest’, the subjection to treaty rules is conditional. This applies to network industries and a few other special cases.<sup>2</sup> The derogation protects the public-service function, by stating that the treaty rules apply ‘insofar as the application of such rules does not obstruct the performance, in law or in fact, of the particular tasks assigned to them’. For three decades it was simply taken for granted that the traditional public utilities needed exclusive rights for the ‘performance . . . of the particular tasks assigned to them’. Even if the *existence* of such legal monopolies seemed beyond challenge, it was possible to complain about or discipline the *exercise* of exclusive rights—for instance, because of discrimination or excessive prices.<sup>3</sup> However, this occurred only very rarely and did not cause any fundamental change in markets.

Nowadays, the approach based on Article 86 is quite different and the upshot is, more often than not, the opposite of the post-Sacchi period.<sup>4</sup> A convenient summary for economists (though for lawyers somewhat crude) is as follows. First, a *necessity test* has been introduced since the Corbeau case (1993) about the boundaries of the Belgian postal monopoly. The test is strict: what public service obligations would the utility be unable to meet, without the legal monopoly? This is familiar ground for economists. Indeed, in Corbeau<sup>5</sup> the crux of the case did not turn around the violation of the postal monopoly *per se*—value-added services not part of universal service were viewed by the EC Court as in the competitive domain, hence allowed—but about the possible undermining of the financial equilibrium of the Belgian post. In other words, the obligation of uniform tariffs for the items under the universal service, and the cream-skimming that value-added services might imply, were at issue. Thus, the exclusive right was upheld in case of competitive entry of value-added services only to the extent that the latter could cause the Belgian

post to become a loss-maker. Clearly, this necessity test opens the door for more fundamental queries, such as the necessity of the exclusive right for the universal service itself, with or without uniformity of tariffs. Are there not less restrictive, pro-competitive solutions that do not compartmentalize the internal market and do not reduce competition to a trickle? Inspired by economic analysis and early liberalization examples at national level or outside the Community, these queries were promptly posed. Later on, liberalization in one network industry at EU level led to a closer scrutiny of the scope for pro-competitive options in another network sector. One could even go further and ask whether these alternative options could not be demonstrated to serve the treaty objectives, such as the ‘raising of the standard of living and the quality of life’, a ‘high degree of competitiveness’, and ‘sustainable and non-inflationary growth’, better than rigid exclusive rights, without in any way negatively affecting universal service (presumably reflected in treaty objectives such as ‘harmonious, balanced and sustainable development of economic activities’ and ‘economic and social cohesion’).<sup>6</sup> This is where at least the rhetoric of the Union arrived at the Lisbon European Council of March 2000. Second, *the burden of proof* for the justification of the exclusive right is on the member state(s). Again, this is a radical change from the past, when the existence of a legal monopoly was seen as legal if motivated by a public service. Third, the combination of the necessity test and the reversed burden of proof forces member states—and the Commission in its role as guardian of the treaty—to identify far more precisely than in the past what ‘particular tasks’ fall under exclusive rights and why. If not for the welfare benefits and for reasons of regulatory emulation of early liberalizers, the U-turn in Community law forced national policy-makers into a functional reconsideration process about the rationale of utilities regulation.

All this does not mean that a few high judges in Luxembourg can and do alter interpretations of vital

<sup>2</sup> Like the Finnish monopoly of slot machines, upheld by the EC Court on grounds of public morality, justifying the exclusive right (Läära, C-124/97, ruling in 1999).

<sup>3</sup> In conjunction with Article 82, where abuse of dominance is prohibited.

<sup>4</sup> The EC Court first took the opposite view with two telecoms cases, one on goods (telecoms terminal equipment) and one on services, in 1991 and 1992 respectively.

<sup>5</sup> Case C-320/91, in ECR (1993) I - 2533.

<sup>6</sup> The formulation of the objectives is quoted from the Amsterdam version of the EC treaty (in force since 1999).

EC articles at will. In Community practice, actual observations of the network markets, trendsetting at the national level, and reasoned proposals from the Commission all play a role. The Court tends to allow margins of discretion to member states which can be considerable. As Blum (2000, p. 70) notes:

The more complex the economic issues and the more political they are in the sense that they involve national policy choices, the lower the chances that the Court will be able to rule on whether the necessity test is met. It is submitted that it can only do so where the market pressure is such that the market itself has changed and it becomes obvious that an exclusive right is no longer necessary to provide goods or services to customers—as the telecoms cases illustrate.

The consequence may be that it is unlikely that a Court judgement could result in the full dismantling of a monopoly over a network industry. Conversely, it might be easier to prove, as in *Corbeau*, that monopolies cannot be maintained as they are and that their scope should be reduced.

Most of the actual progress has therefore been made, on the front of *agreed* liberalization and approximation (sometimes called harmonization). Such a regulatory approach is based on directives that have to be adopted by the Council and the European Parliament. However, with the Commission initially more often than not in the role of front-runner, it risked encountering staunch opposition from captured ministers in the Council and/or majorities in the European Parliament for ideological reasons or for fear of the protests of well-organized public-service unions. Therefore the Commission used the unique instrument of a Commission (so, *not* a Council and European Parliament) Directive, the only instance of which happens to be found precisely in Article 86/3. In the telecoms sector of the early 1990s, these directives acted like crowbars. The backing by the EC Court, reversing the *Sacchi* doctrine much to the surprise of many lawyers, did a lot to alter the regulatory climate and to bolster the Commission's determination to pursue the course of network liberalization where sensible. Although most of this liberalization-cum-approximation is done on

the basis of directives adopted jointly by Council and Parliament, the mere option of Commission directives, and the precedent of the backing by the EC Court, create significant leverage of power against delays and watering-down by Council and Parliament.

## (ii) EU Liberalization: Recent, Gradual, Uneven, Complex

It is good to remember how *recent* the liberalization of network markets at EU level is. The famous EC-1992 White Paper of 1985<sup>7</sup> does not speak about it at all, except for a rehearsal of the 1984 Green Paper on a common market for broadcasting and vague words about 'the information market'.<sup>8</sup> In air transport, renewed stress is laid on the adoption of (what later became known as) the first liberalization package in 1987, proposed in 1984. This weak proposal did not have any noticeable economic impact.<sup>9</sup> No word on rail, gas, electricity, or postal services.

But that would soon change. The first proposals for a common gas and electricity market date from 1988, in 1989 the broadcasting sector was liberalized in the TV-without-frontiers directive, in 1990 telecoms liberalization cautiously began, in 1991 the first rail 'liberalization' directive was adopted, in 1992 the final air transport liberalization package was agreed, and in 1994 the Council solemnly declared that the postal sector would be subjected to a 'gradual and controlled' liberalization process.

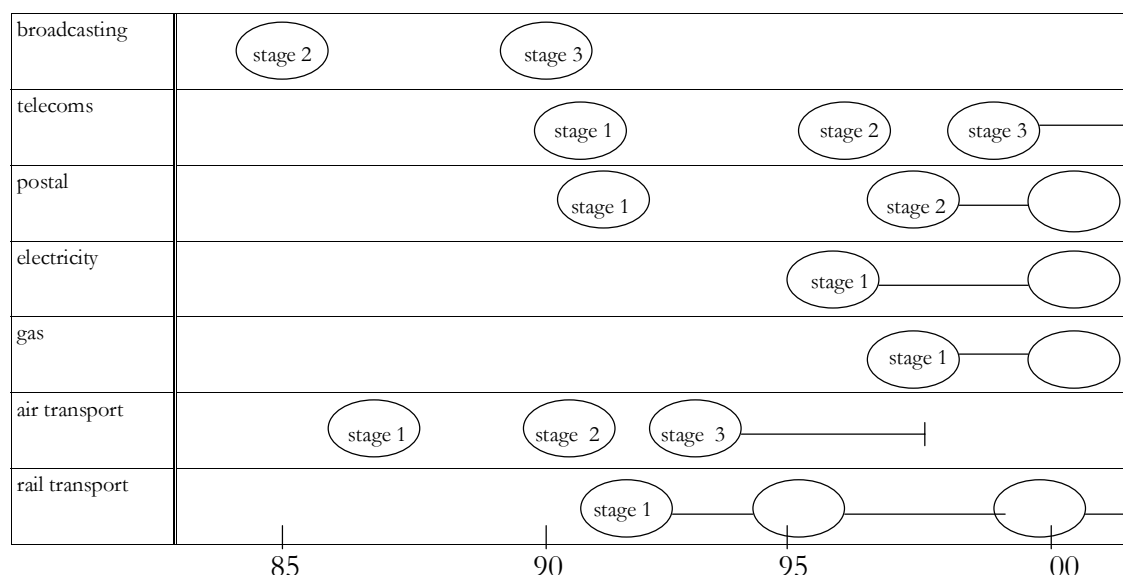
This outburst of liberalization activities at EU level was not the result of an overall plan or of a fundamental discussion paper about the economic or other advantages of liberalization, or its adjustment costs, for that matter, the appropriate regulation that should be in place, the nature and implications of competition policy when applied to these sectors, or the optimal assignment of regulatory and competition policy powers between the EU and national governments. It very much looked like an *ad-hoc* approach, on a sector-by-sector basis, and—in the

<sup>7</sup> COM(85)314 of June 1985, 'Completing the Internal Market'.

<sup>8</sup> Note that, in 1985, the Commission still held an industrial policy, rather than a liberalization, view on telecoms. The only sentence on telecoms speaks about the necessity 'of appropriate telecommunications networks with common standards'. See also Schneider *et al.* (1994).

<sup>9</sup> Its significance is probably that competition policy, including an initially very wide exemption which could be narrowed over time, was firmly introduced into the sector.

**Figure 1**  
**EU Liberalization: Recent, Gradual, Uneven, Complex**



absence of overall political guidance—driven by the Competition Directorate-General.<sup>10</sup> This prompted a lot of anxiety, ranging from the perception of sneaky liberalization through the backdoor (by Eurocrats rather than elected decision-makers), to an ideological drive claiming the destruction of the culture and merits of public service for all by unfettered market forces with adverse redistributional effects. The ground-swell led to targeted lobbying to amend Article 86 and/or to insert other articles or phrases in the treaty of Amsterdam, that would have robbed the Commission of the power to issue its ‘own’ directives, or would have come close to restore the Sacchi doctrine by inserting a clause in the treaty.<sup>11</sup> However, helped by the first-ever Commission paper of a horizontal nature on network industries with public-service obligations,<sup>12</sup> stressing a balance between shared values (e.g. social cohesion, solidarity) on the one hand, and flexibility and dynamism on the other, while adhering to subsidiarity, this option was pre-empted. The 1997 Amsterdam treaty comprises a new Article 16 which reflects the essence of this Commission paper, without in any way adding to or changing the legal framework of the treaty.<sup>13</sup>

That the EU approach is gradual and uneven can be read from Figure 1 which provides a highly stylized picture of the stages of liberalization over the last 15 years for a range of network markets. Stage 1 is defined as the first EU measure (be it a directive or a competition decision) in the sector with at least some liberalizing effect, e.g. a reduction of exclusive rights. Stage 2 combines remaining elements of (network) monopoly or essential facilities with regulation about access, wholesale and retail price setting, public-service obligations, given actual or potential entry. Stage 3 is that of competitive network markets, combining regulation and competition policy, but with an emphasis on the latter in the light of existing rivalry in services and perhaps even in infrastructure. That the process is *gradual* can be seen with one glance at the figure. In fact, it was more gradual still, since the actual policy debates preceding stage 1 measures move us back into the 1980s, or before, in every one of these seven sectors.

The process is also *uneven*. In 2001 only three sectors have reached stage 3. Yet, even this should not be considered as ‘final’. In broadcasting, the

<sup>10</sup> Note that Article 86 is in the section of the treaty on competition rules, and that the autonomous Commission directives were drafted and advocated in the Competition Directorate-General.

<sup>11</sup> See Pelkmans and Olsen (1996, pp. 53–7 and ch. 9) for details. See also Rodriguez (1998).

<sup>12</sup> COM(96)443 of 11 September 1996, Services of General Interest in Europe. A follow-up paper with more sectoral detail was produced on the request of the Lisbon European Council as COM(2000)580 of 20 September 2000 (same title).

<sup>13</sup> An accompanying Declaration specified the ‘full respect for the jurisprudence of the Court of Justice’.

separation between content and transport services has assumed a new meaning because of convergence in electronic communications. Thus, the telecoms proposals of 2000 aim for technological neutrality of 'transport' (e.g. fixed copper wire, optical fibre, radio-frequencies-based (mobile or satellites), cable) and hence apply to broadcasting, too. In air transport, the full liberalization in the EU cannot lead to the contestability one might perhaps otherwise expect, owing to the mercantilist system of bilaterals governing intercontinental scheduled air services.<sup>14</sup>

Finally, the process is extremely *complex*. To begin with, one should never focus merely on the regulatory route of EU liberalization, without having regard to competition policy. With respect to the latter, it would be inappropriate to zoom in only on dominance and collusion, because *de-facto* merger control has had and will continue to have a significant impact on the effectiveness of liberalization; *mutatis mutandis*, this is true for state aids supervision as well. Beyond these two central pillars, there are several other domains that tend to receive relatively little attention from economists in the field but in the EU context have been or still are crucial. The three main issues are competitive procurement (of equipment for the infrastructure or the services), network compatibility standards, and the vexed question of EU agencies (for the last, see section VII). In telecoms and rail, procurement was not only not competitive until the 1980s, but strictly national, with deleterious effects upon unit cost and innovation.<sup>15</sup> Network compatibility standards are sometimes important for liberalization in that incompatibilities in the European installed base may render the actual take-up of competitive (cross-border) services under liberalization unduly costly. Conversely, the emergence of competition may render the adoption of network compatibility standards more difficult than under monopoly. The former case can be witnessed in conventional rail, where only recently and under great pressure rail standardization has begun to move ahead—typically, in high-speed rail,

where smooth cross-border services are vital for the return on investment, standard setting occurred relatively quickly. The latter case is illustrated by the elaborate Global System for Mobile Communications (GSM) standard, which was largely developed (at high cost) under monopoly, yet once firmly on the market, has greatly spurred EU competition and growth in mobile (Pelkmans, 2001).

### III. A SIMPLE FRAMEWORK FOR COMPARING NETWORK LIBERALIZATION

It is convenient to start from the assumption that, before EU liberalization, national network markets were monopolized by law and that the incumbent was state-owned, often even as part of a ministry. Such a uniform picture would not do justice to some exceptions, be it the energy markets in Germany (often regional), privately owned entrants in express mail, broadcasting, or (e.g. regional) airlines, the absence of exclusive rights for postal services in Sweden, and countries which privatized 'early' (such as the UK). However, the assumption would usually be fulfilled in many member states, and hence would determine the respective steps to be taken at EU level.

The fundamental idea behind liberalization is that public policy should pursue every means to improve the incentives for network industries to perform optimally in terms of the (European) public interest. In turn, this idea emerges from the severe difficulties in (monopolistic) network industries of preventing or minimizing regulatory failure. If network industries are part of the ordinary government machinery, including politicization in the parliament and political appointees by the government, regulation and supervision of the monopoly will be heavily influenced by the 'regulatee'. Indeed, the formulation of the public interest is likely to be 'captured' by those having a direct interest (workers, managers, political parties) and performance may well suffer

<sup>14</sup> Since the 1944 Chicago Convention scheduled air transport has developed in the framework of bilateral agreements on landing rights, conditional on highly restrictive provisions. Liberalization in air transport outside the EU means that the bilaterals become less restrictive. For EU member states, however, all air transport with countries outside the EU (and a few other European countries) is still governed by these restrictive bilaterals.

<sup>15</sup> The (*ex-ante*) Cecchini and (*ex-post*) Monti reports provide telling examples and large orders of magnitude of welfare gains of the introduction of competitive procurement in telecoms equipment and railway rolling stock by the EC-1992 process. See *European Economy*, March 1988 and December 1996, as well as Monti (1996).

greatly. Typically, in such an environment, performance indicators will be vague and hard to verify, let alone verify independently, and the internal organization, cost revelation, and management will not be exposed to effective pressures. Incorporation (outside ministries) may improve incentives and transparency, but it will be of little avail if it is not placed at arm's length, and subjected to independent scrutiny. Even if this is done, the fundamental principal/agent problem with asymmetric information will remain. More important still, why would the monopolist not suffer from (severe) static and dynamic X-inefficiencies? What incentives would exist to be responsive to users and consumers?

Liberalization seeks to break through this by the introduction of competition, or, if this is not possible because of (overall) natural monopoly, by the application of methods which reduce information asymmetries and enhance incentives to perform.

This logic is no different at EU than at national level. But the method of liberalization at EU level is founded on a special legal basis and different intermediate objectives than national liberalization. First, there is an existence vs exercise dichotomy, with respect to *ownership*. The Union has no formal position about privatization, whereas this is a major issue for member states, and sometimes for their regions or municipalities. State-owned companies, including network industries, cannot, however, behave any differently from private ones—the exercise of ownership rights is the same under EC law. In addition, three caveats ought to be noted: there were strong EU pressures for ‘incorporation’ of utilities formerly working as departments of the public administration—mainly for reasons of proper and verifiable cost accounting; privatization should not be conducted in ways providing hidden state aids or an artificial initial competitive advantage;<sup>16</sup> in the recent ‘open coordination’ approach promoting regulatory reform by the member states (the so-called Cardiff process)<sup>17</sup> the Commission has at times come close to advocating privatization as a means to improve incentives for dynamic performance.

Second, it is the establishment of the internal market and its proper functioning (i.e. effective competition across intra-EU borders and, where relevant, within national borders) which must drive EU-level liberalization. However, before one arrives at an internal market for network goods and services, a series of steps are required, several of which are similar to national liberalization.

With these basic points in mind, Table 1 provides a checklist for network liberalization. One can see it as a basic framework to understand the progress and hiccups of network liberalization—it should not be understood, however, as a blueprint issued by EU institutions, since this does not exist.

Step 1 asks first whether the network sector is characterized by natural monopoly. Nowadays, it has become clear that few network industries are complete natural monopolies. Water supply and sewerage is probably the archetypical example. For such sectors, the incentives cannot come from introducing competition because this would *reduce* technical efficiency. What can be considered is competition *for* the market, via bidding for (*x* years) franchise (concession), as this would (*a*) create strong incentives for potential entrants to show how the sector could perform better, and (*b*) amount to a permanent incentive during the franchise period to pre-empt later entry by showing high performance. One might also consider yardstick competition or benchmarking as incentives to pursue good performance. Apart from non-discrimination, the EU is not involved in such matters. For instance, in a sector such as water, cross-border trade hardly exists, so that EU powers hardly matter.

The EU framework does matter once natural monopoly is incomplete or absent (competition *in* the market). Step 2 then immediately poses the issue of potential free movement, which is blocked. Article 86, EC demands that the member state(s) justify exclusive rights, as it is a measure eliminating cross-border economic intercourse and competition. The universal or public service obligation, traditionally

<sup>16</sup> For a thorough analysis, see Harbord and Yarrow (1999).

<sup>17</sup> This is based on Articles 98 and 99. The annual conclusions of the scrutiny of national regulatory reform end up in the Broad Economic Guidelines, with a view to improving the performance of the EU's economic union, and so facilitating the functioning of monetary union. See, for example, ‘The 2000 Broad Economic Policy Guidelines’, in *European Economy*, No. 70, 2000.

**Table 1**  
**A Checklist for EU Network Liberalization**

Regulatory issue	Regulatory option(s)
1. Competition	<i>In or for</i> the market?
2. Unbundling	Independent regulator Reserved and competitive activities separated (separate accounts; Chinese walls; separate business units; separate companies; separate ownership); no cross-subsidization
3. Public-service obligation (PSO) Universal-service obligation (USO)	USO (and quality aspects) PSO
4. Financing USO/PSO	Via USO funds or taxes or access charges
5. EU access rules	Open access regulation (capacity limited or not; non-discriminatory/objective/fair; third party; common carrier; etc.)
Interconnection obligations for incumbents	
6. Cross-border trade (intra-EU)	Removal of special, distorted cross-border prices (e.g. 'accounting rates'; 'terminal dues')
EU-wide quality standards	
Technical compatibilities	

taken for granted as a justification, is nowadays only accepted if it can be shown convincingly that competition would hinder or make more costly the attainment of public-service objectives. Experience in several network industries and economic analysis have clarified that exclusive rights tend to be second- or third-best ('disproportionate', in EU language) and will thus not easily pass the 'necessity' test. Once the natural monopoly element is viewed as an 'essential facility' or bottleneck, entry could be allowed upstream and/or downstream and access to that facility ought to be carefully regulated. As far as the public-service element is concerned, some formula should be agreed, in regulation, leading new entrants to assume their share of the burden, in provision or in money. Alternatively, suppliers/providers can compete in a contest or auction to ensure the non-profitable elements of the public service for a minimum subsidy (see step 4).

Yet, in order to introduce such competitive entry, network industries must first be put on equal footing throughout the internal market, i.e. incorporated outside ministries and restructured so as to focus purely and only on the business—and not on the implicit regulatory, pricing, and certification—tasks.

In order to level the playing field and to create a degree of confidence for new entrants, a regulator should be appointed, independent from the government (i.e. executing a well-specified law, equally for all, rather than letting the politics of the day prevail) and independent from the incumbent. The regulator should be subject to rules of accountability and transparency. Unbundling will then split the network industry into the 'reserved' (natural monopoly) and the competitive elements, and the exclusive rights for the latter are abolished. Since the incumbent will be allowed to compete outside the 'reserved' activities, competitors should be guaranteed that no cross-subsidization between the reserved and competitive business of the incumbent takes place. The credible solution is to split up the incumbent into separate businesses. However, when Council is under pressure (capture?), weaker solutions are also accepted—for example, separate accounting for divisions within the incumbent, and sometimes a prohibition of, for example, data flows between them (so-called Chinese walls: no information about competitors using the essential facility, or about their clients).

Step 3 defines the universal-service obligations (USO) or public-service obligations (PSO) in the



network industry. The liberalization experience in Europe has revealed how sloppily USOs and PSOs have been formulated in the past. Politically this was no point of concern because parliamentary and bureaucratic interference in public utilities used to be routine. Economically, vague and arbitrary obligations, as well as a never-ending flux of interventions, cannot possibly lead to a high level of efficiency; it also renders the measurement of performance illusory, which was tactically useful for the incumbent *vis-à-vis* consumers and business customers. Under competition, obligations have to be properly identified and subject to independent verification. This provides consumers with a new opportunity to obtain a constant set of services of agreed quality, in addition to the hoped-for benefits of competition. It also disciplines parliaments which have to face, for the first time seriously, the cost of USOs and PSOs. Finally, because PSOs and USOs are discussed, measured, and compared EU-wide, a healthy element of benchmarking and yardstick competition is introduced, which should have a positive impact on performance.

Step 4 regulates the financing of the USOs/PSOs. As is well known, there are three methods and they do not have identical economic effects. The financial problem of a USO is the net cost which a fully commercial operator in fierce competition would not be willing to take on. These net costs consist of the costs which could be avoided and subtracting the revenues which would be lost if uneconomic USOs were not provided. Clearly, with competition these costs will have to be covered via any of three methods, or, alternatively, by tenders for ‘super-peripheral areas’, separate enough (e.g. islands) to be split off. The general tax route is the neutral one but typically avoided by finance ministers. Access charges risk having anti-competitive effects; allowing them should be coupled with strict (EU) rules for cost calculation and hands-on supervision. When distance-based pricing matters, and is allowed, the likelihood that USOs can be provided at (virtually) no net costs increases and the EU directive could then impose justification before allowing restrictive national solutions. If *uniform* tariffs are part of the USO (e.g. postal services), distance-based pricing may be strongly resisted, rendering the net-cost issue more sensitive. The Commission claims that

postal services USOs have a net cost of 5 per cent of turnover in the EU.

Step 5 defines access rules. Three very different situations should be distinguished here. First, the initial situation when the incumbent is the (only) network-holder, calls for pro-competitive (and non-discriminatory) access rules in such a way that all new entrants have equal opportunities, equal to each other and equal to the (separated, competitive) ones of the incumbent. This is neither simple nor innocuous. The overwhelming dominance of the incumbent may cause entrants to plead for ‘asymmetric’ regulation so as to ‘level’ effective opportunities; that is, special privileges for entrants for a period (practised in some member states in telecoms, and in EU regional air transport in the 1980s, for example). Beyond the initial stage, the fundamental choice is between network and service competition. To the extent that natural monopoly does not exist, networks (or parts of them) can be multiplied. Service competition can take place on a single network (subject to capacity constraints) and on several networks. Once there are several (parts of) networks, regulation might recede and competition policy or a regulator might only have to ‘supervise’ access negotiations. However, negotiated access is a strategic game and may yield sub-optimal results (cf. Laffont *et al.*, 1997). More generally, access and interconnection pricing—possibly set by the regulator after deadlocked negotiations—may be decisive regarding whether or not entrants choose to invest in new networks or seek to go for service competition. High access charges raise the incentives for entrants to build their own networks, but the economic impact on competition can only be expected much later. Although the Union has never assumed an articulated position, leaving this regulatory choice to the member states, the Commission has more than once attempted to facilitate service competition via a tough ‘essential facilities doctrine’ (see section V) and via proposed regulation (e.g. local-loop unbundling—see Doyle, 2000).<sup>18</sup>

A third situation can be envisaged where unbundling is pushed so far that infrastructure and services are completely separate businesses, possibly having different owners. This could apply to electricity transmission (high-voltage grids). In rail it is at

<sup>18</sup> See also Cave and Prosperetti, in the present issue of the *Review*.

present the case in the UK for Railtrack. Although such unbundling would seem to be ideal from a historical and competition point of view (entrants have full confidence that no conflict of interest with an incumbent might arise), it may lead to serious incentive deficits. How can one design incentives for cost minimization, rather than using cost-plus rules? What is the optimal level of maintenance and service and how can this be ensured? What are effective incentives for upgrading and new investment (given capacity constraints)? For actual or potential cross-border services (e.g. electricity and gas interconnectors, international rail freight routes) these issues require an EU-framework.

The other obligation worth recalling in step 5 is that incumbents must 'interconnect'. Apart from standards and other compatibility issues, this is mainly a question of price. When opting for services competition (on a single network), must the incumbent honour his obligation at any price? The Commission accepts that interconnection (or interlining in air transport) should never have to be loss-making, but beyond that the issue has to do with proper costing models and this has turned out to be an extremely cumbersome and as yet unresolved issue at EU level. Yet, the national regulators cannot wait, and have to act. As a result, the disparities in the EU are significant, although *ad-hoc* solutions (see further) have reduced their potential impact.

Finally, step 6 is concerned with cross-border issues in the EU. When the old public utilities were engaged in cross-border services, highly inefficient and distortive practices were condoned under the guise of international cooperation. Introduction of free movement, free establishment, and competition in the internal market requires the removal of these agreements and practices inside the EU. Telecoms operators in the International Telecommunication Union agreed on very high 'accounting rates' for bilateral calls, postal utilities in the World Postal Union used 'terminal dues' which seemed erratic and bore little or no relation to cost, and the tariffs charged for international trains (and traction over the domestic part of the route) were much higher than for domestic ones. Of course, these practices make a mockery of the internal market.

#### IV. THE EU APPROACH IN A SECTORAL COMPARISON

In Table 2 the EU approach, as applied thus far, is set out for six sectors, namely gas and electricity, telecoms and postal services, and air and rail. A brief commentary is provided. It should be noted that, in focusing on a horizontal comparison at EU level, two limitations have to be taken into account. First, for a full understanding of the implications of such liberalization for market players and, ultimately, consumers, much more detail is required. Some of these specifications are sector-specific, too. In the space allotted to this article it is not possible to enter into such details; they are the subjects of specialized sectoral papers. Second, in studying the *EU approach* as laid down in directives, one might lose sight of the diversity and laboratory functions of the Union. Frequently, some *member states* allow more or full liberalization; if successful, this may spread to other member states and may eventually prompt liberal amendments or an overhaul of the approach. This wider mechanism has played a role prior to 1998 in telecoms, and is currently relevant for electricity, gas, and postal services, where the directives form a common framework but specify no more than the minimum liberalization.

Lest it be forgotten, the regulation-based table should always be read in conjunction with national and EU competition policies (see section V).

Due to the experimental nature of liberalization in the beginning as well as to the—sometimes fierce—resistance by the sector (gas and electricity, at first, airlines back in the 1980s) or the labour unions in particular (e.g. postal services and rail), liberalization has proceeded, and still does, in stages. The differences between sectors in Table 2 are due, in part, to the different stages the various sectors find themselves in today. The first stage usually looks symbolic but invariably appears to have salutary effects on management (including better costing of goods, services, and intermediate supplies) and the familiarization of decision-makers with the nature and further requirements of the process. Crucially, too, time is bought during which a steady adjustment can

Table 2

The EU Liberalization Method for Network Industries

	Gas	Electricity	Telecoms	Postal	Air transport	Rail
Competition	'In' the market (but restricted; subject to PSOs); infrastructure competition possible; for natural monopolies (transmission, distribution, storage), no transmission system operator (TSO)	'In' the market (as for gas); infrastructure competition possible; TSO for high-voltage grid (natural monopoly) and distribution system operator (DSO) for distribution networks (natural monopoly)	'In' the market; infrastructure competition possible; licensing (general and individual)	'In' the market, for 'non-reserved' services (up to now a tiny share), licensing	'In' the market; network competition	'In' the market for 'non-reserved' services (all cross-border); licensing; railway infrastructures seen as natural monopolies; infrastructure managers, plus independent charging body
Unbundling	Independent regulator or member state; dispute settlement by independent authority; separate accounts and Chinese walls (no management unbundling)	Independent regulator or member state; dispute settlement (see gas); separate accounts	Independent regulator; separate companies (until 1998)	Independent regulator; separate accounts	Independent regulator or member state;	Independent regulator or member state; separate accounts (services vs infrastructure); detailed provisions about rail services' independence from the state
PSOs, USOs	PSO only generally defined at EU level; system obligation for the natural monopolies (including liquefied natural gas companies); uniform tariff USOs permitted	PSO (see gas); system obligations for TSO; uniform tariff USOs permitted	USOs defined in some detail	Basic USO defined; uniform tariffs allowed (yet, prices must be geared to costs')	National PSOs only in some cases, and open licensing for such city-pair routes	PSO recognized, without any specification; special rights permitted (note: for cross-border freight or international passenger services, of little relevance)
Financing PSO/USO	Regulated distribution tariffs allowed; no detail (note: at EU level, distribution to consumers not yet liberalized)	Regulated distribution tariffs (see gas)	USO fund or access charges (after 1998)	USO fund allowed; licensed operators for non-reserved services, yet within the USO, can be forced to pay to the fund	Subsidy possible (strict rules)	No detail

Table 2 continued

	Gas	Electricity	Telecoms	Postal	Air transport	Rail
EU access rules	Third-party access, negotiated or regulated; only for large industrial buyers and gas-fired power plants; three steps up to 33 per cent in 2009	Third-party access, negotiated or regulated, the 'single buyer' model; only for industrial buyers; three steps up to 33 per cent in 2003; reciprocity between member states	Negotiated interconnection with operators with 'significant market power', which must make a public reference offer; cost-oriented interconnect tariffs; supervision/arbitrage	No detail (yet); transparent and non-discriminatory access; follow-up legislation if need is established	Interlining freely negotiable (subject to competition policy); conservative rules on slot allocation (no auctions/no trading)	Approximation of rules for infrastructure managers (and/or charging bodies) e.g. network statements, charging framework (including peak-load pricing), capacity allocation schemes, etc.; few details on methodology; reciprocity for obligations beyond EU; interoperability requirements for high-speed and conventional rail, including standards
Cross-border trade (intra-EU)	Transit (with negotiations); exclusive import/export rights abolished	See gas	Removal of frontier prices ('accounting rates')	Remove distortions in 'terminal dues' (cost related); 1998 Reims II agreement	Free (including cabotage)	No specifics

*Sources:* For gas: Directive 98/30 EC (in OJEC of 27 July 1998, L 204); for electricity, directive 96/92 of 19 December 1996 (OJEC of 30 January 1997, L 27); for the 1998 telecoms package and all references, see Pelkmans and Young (1998); for postal services, directive 97/67 in OJ EC of 21 January 1998—the Reims II agreement between (most) postal incumbents, see notification to and approval by the Commission in OJ EC C 371 of 1 December 1998; on air transport, EEC regulations 2408/92 on market access, 2409/92 on fares and rates and 2407/92 on licensing, as well as regulation 95/93 on slot allocation; on rail, directive 2001/12 of EP & Council (amending directive 91/440, on, for example, unbundling), directive 2001/13 (amending directive 95/18 on licensing) and directive 2001/14 (on the allocation of railway infrastructure capacity, charges, and safety certificates), all of 26 February 2001 and published in OJ EC L 75 of 15 March 2001. See also the inter-operability directive 96/48 and the draft for conventional rail, on the table early in 2001.

be initiated, but without social strife. These early experiments were not infrequently accompanied by Commission infringement cases, or Court cases, heightening the sector's awareness that matters were changing.

In combining the checklist of Table 1 with Figure 1, the liberalization dynamics at EU level can be better understood. In airlines three packages were adopted between 1987 and 1992, the latter not allowing full cabotage until 1997. In telecoms and postal services, services were at first divided into 'reserved' and competitive ones. In telecoms, the period between 1992 and 1998 was used gradually to reduce the size of the reserved segment, with free movement and full competition introduced in 1998. In postal services, the same idea is pursued, but progress is very slow indeed. Currently, the competitive segment consists merely of special express mail—not counting courier services of parcels—and letters above 350 grams, some 2 per cent of turnover. New proposals<sup>19</sup> to widen the competitive segment to 16 per cent have run into staunch opposition in Council and Parliament. However, at the member states level, progress is a good deal faster, though disparate. It is tempting to suggest that the crucial driving force in telecoms is technology, which is lacking in postal services. It should not be forgotten, however, that *competition* in postal services has emerged due to technology: fax, e-mail, broadcasting, and the Internet (the last competes with direct mail). In electricity the reluctance to go for full liberalization is waning in Europe (half of the member states already (plan to) do it soon); in gas this may well happen, too. In rail, finally, the first step (in 1991) consisted in a symbolic reduction of exclusive rights by allowing access for certain railway services from other member states. It forced much-needed restructuring and some weak unbundling, as well as a new regulatory package for access and inter-operability, adopted in early 2001 and 1996, respectively.

The enormous progress in this field can be observed from the fact that, in all six sectors, competition is now allowed *in* the market, something not only

resisted but described as impossible by many in the 1980s.

Although principles such as non-discrimination and transparency have become well accepted, and 'regulators' should not suffer from conflicts of interest,<sup>20</sup> regulators are independent from the sector *and* the government only in telecoms. In other sectors, an 'independent' regulator should have no conflict of interest in providing services or in capacity allocation (but note that, in rail, capacity was at first allocated by the incumbent), but the independence from government is less clear. In these instances, actual independence is better achieved by their need to be credible and via judicial review.

Public (or universal) service issues are dominating in postal services, and to a lesser extent, telecoms, but hardly play a controversial role (as yet) in electricity (since consumers are still captive), in rail (as domestic passenger services are not liberalized), or in air (because they exist only in special cases, e.g. permanent service to the Greek islands). As a corollary, the co-funding of the net costs of the PSO, potentially so problematic in postal services (and, until 2000, in telecoms), plays virtually no role as yet in EC rules for other sectors.

In electricity and, somewhat later, in gas, this is bound to change soon. Although at European Council (i.e. prime-ministers') level, the political consensus for the Commission to prepare full liberalization proposals for electricity has not yet been accomplished, more and more member states accelerate towards full liberalization. In such a setting, let alone with a fully liberalized internal market, the universal or public service aspects will have to be carefully regulated so as to minimize adverse effects on free movement and competition while allowing member states a reasonable discretion for these objectives. The EU is moving towards a common framework now.<sup>21</sup>

Access rules and pricing is the crux of the success of network industry liberalization, although this may not be so crucial for postal services and airlines

<sup>19</sup> See COM (2000) 319 of 30 May 2000.

<sup>20</sup> Moreover, they are always subject to judicial review based on EC law.

<sup>21</sup> Communications by the Commission on public service in electricity and in gas are expected in the course of the autumn 2001. A considerable amount of detail about PSOs in electricity, currently applied by the member states, can be found in a Commission Working Paper on the common energy market, SEC (2001)438 of 12 March 2001.

(where networks are not physical but logistical). The heavy-handedness of regulation and/or supervision is a function of natural monopoly—the question to ask remains: is infrastructure competition economically sensible at all? If not, like in gas or electricity transmission and distribution as well as in rail, except for dedicated pipelines or lines, access regulation and supervision are a prerequisite for competition to emerge in the first place.

As Table 2 indicates, the 1996 Electricity Directive gave member states the choice between negotiated or price-regulated (and published) third-party access (TPA), or the ‘single buyer’. For reasons of non-discrimination between market players, as well as predictability (about tariffs) when buying electricity without the threat of renegotiations, regulated TPA is often preferred—indeed, 14 out of 15 member states have opted for it.<sup>22</sup> In the 1998 Gas Directive the single-buyer option does not exist. No member state has opted for a purely negotiated TPA. Instead, eight chose regulated TPA and the other seven various mixtures of regulated and negotiated, but always with a form of regulatory supervision.

In electricity, not in gas, the EC directive contains a reciprocity clause. The political background of this provision is the monopoly of Electricité de France (EdF), a fully integrated company, also fully state-owned. The sensitivity in electricity is higher than in gas (with Gaz de France, also integrated and nearly as dominant at home) because the calendar for liberalization in electricity is much shorter and the high share of nuclear energy of EdF poses a major problem of proper cost price calculation. The sheer size of EdF (the biggest electricity company in Europe) creates anxiety, too. The reciprocity clause follows from the disparate progress in electricity liberalization among the member states: with a range of countries going faster than the EU calendar, hence going beyond the 33 per cent before 2003, the fear was that some countries, but in particular France, would stick to the minimum obligations, and otherwise exploit the many loopholes<sup>23</sup>

in the 1996 directives. When the French parliament was too late with implementation into national law in 1999, it induced howls of protest from a chorus of national energy ministers. However, EdF went around the trade restrictions implied by reciprocity via a systematic acquisition strategy in neighbouring Germany, Spain, and Italy. Since it dominated the French market and had stakes in all cross-border transmission, it would result in asymmetric liberalization and distorted competition. When France, both in the Lisbon (2000) and the Gothenburg European Council (2001) summits, refused to commit to further opening up, the incentives of the reciprocity clause were proved to be illusory. Italy and Spain swiftly adopted *ad-hoc* legislation of a dubious nature (under EC law) and EdF reduced its stakes to small minority shares when faced with loud political and business protests. The Commission was in a difficult position because, with the evasion of the directive, all it could rely on was competition policy (see further).

Even when infrastructure competition is possible, and does take place, as in telecoms (both fixed-wire and mobile), a firm regulatory framework and prompt intervention by national regulators in case of delaying tactics or excessive interconnect tariffs is shown, by experience, to be indispensable. By August 2000 some 1,362 fixed/fixed and fixed/mobile interconnection agreements had entered into force in the EU,<sup>24</sup> clearly some measure of success of ‘telecoms-98’. Yet, new entrants in many member states continued to experience difficulties, such as high tariffs, price squeeze (the combination of high interconnect tariffs, particularly at local level, with low end-user tariffs by the incumbent, ‘squeezing’ the entrant’s margin, while the incumbent earns from the interconnect tariff), delaying tactics, reluctance of national regulators to intervene (for example, because the cost accounting systems had not been implemented, pre-empting a careful judgement of ‘cost orientation’), a lack of freedom about the level (in the network hierarchy) of interconnection, (excessive) requirements to have many interconnection points (e.g. Spain, Germany), etc.

<sup>22</sup> Germany has negotiated TPA, with published (but non-binding) prices. There is no supervisory approval. The ‘single buyer’ (insisted on by France) has not been chosen by any member state, not even by France itself.

<sup>23</sup> See, for example, Hancher (2000a,b) and the Commission proposals of May 2001 refining the 1996 directive (see COM, 2001, 125).

<sup>24</sup> Sixth Telecoms Implementation report, COM(2000)814 of 7 December 2000 (p. 16).

In air transport, access/interconnection has different connotations. A kind of dichotomy is emerging between network-based and point-to-point airlines. Network-based airlines include (many) flights which *de facto* are largely point-to-point, but on the whole intra-network transfers and interlining with other network airlines are of considerable importance. Economies of scope via hub-and-spoke, loyalty schemes, as well as high frequency in a network with many connections, together cause network effects not to be exhausted before a very large size is reached. Point-to-point airlines, on the other hand, do not 'interline' (as a rule) and do not develop their own networks. *Inside* the EU (and a few neighbouring countries) this is not due to the bilaterals because, among these countries the bilaterals no longer apply. It is true, however, that the mercantilistic bilaterals between member states and non-European *third* countries severely restrain the options for any serious network development by new entrants. In section V we briefly discuss the strategic alliances (of network-based alliances) which pose difficult choices for competition authorities.

In rail it is too early to assess the new access regime. It is useful to realize, however, that the 'iron' assumption of the absence of infrastructure competition is rusting away, once one considers long-haul dedicated lines. It now appears that investment in long-haul dedicated freight lines, next to existing track, is feasible. If dedicated, double track freight corridors could be exploited through the EU plus Switzerland, much like the TGV, very high capacity utilization rates could be achieved, without many coordination and logistical problems (this would assume efficient terminals, also intermodal). Ongoing feasibility studies suggest that private ownership of such corridors (if located immediately beside existing track) and pay-back periods of less than 15 years are entirely possible! The European freight

'freeways' system initiated in 1998 is not yet successful because access and its pricing are not well regulated, there is no single regulator, and the access tariffs are said to be very high, yet cost (let alone efficiency) verification does not have a solid accounting basis. Moreover, apart from complex logistical coordination with passenger rail traffic, which raises costs compared to dedicated lines, today's rail monopolists run around 50 per cent of their freight wagons empty, because of lack of cabotage<sup>25</sup> or simply a lack of commercial interest. This combination of X-inefficiency and regulatory constraints make it exceedingly difficult to assess what 'competitive' access tariffs should be for the freeways, not to speak of the cost reductions envisaged when exploiting dedicated long-haul corridors.

Finally, the intermediate objective of the EU in liberalization should be the establishment and proper functioning of the internal market. The problem with the various measures in Table 2 is that they are necessary but not often sufficient. In section VI we briefly address the internal market question.

## V. EC COMPETITION POLICY

EC competition policy is exceedingly hard to isolate as a stand-alone policy when applied to network industries. If and in so far as one attempts to do so, inevitably regulatory or quasi-regulatory aspects will have to be taken into account, or competition policy itself deviates from traditions in assuming quasi-regulatory functions.

In a survey paper as broad as this one, all we can hope to do is to guide the reader through a few important corridors of what is rapidly becoming a large labyrinth. The following aspects<sup>26</sup> are briefly touched upon:

<sup>25</sup> However, on the (now four) trans-EU freight freeways, cabotage rights exist.

<sup>26</sup> There are many other questions one could address. Three examples provide no more than an illustration. First, has EC competition policy had to engage in assessing the comparative merits of costing models (LRIC-plus; fully distributed costs; historical vs current; or, as in today's electricity debate, transaction/distance-based costing vs the 'lake' model)? Since these costing models are up to the discretion of the national regulators, does it mean that distortions of competition in the internal market or, for that matter, a 'too high' access tariff as an abuse of dominance, cannot be tackled? Second, how should competition policy be applied, if at all, to often highly restrictive long-term gas contracts before competition becomes effective, as they could frustrate access-to-grids for decades? (Note, in recent cases the Commission accepted 15 years duration, see Slot (2000).) Third, as Hancher (2000a) notes, the decentralization of EC policy with respect to Article 81 (widely resisted anyway) would seem to be particularly unwelcome for gas and electricity, given the many access and other issues coming up (see also Albers, 2000).

- the general relation between EC competition policy and EC regulation in network industries;
- the thrust of the rulings of the European Court of Justice on network industries;
- the ‘essential facilities’ doctrine (EFD) as an alternative to regulation;
- the problem of defining ‘relevant markets’;
- is EC merger and alliances control tantamount to network market regulation?

### (i) Competition Policy and Regulation

The traditional distinction between competition policy as *ex post* and regulation as *ex ante* is blurred in EU network markets. On the one hand, regulation can take the place of competition policy if rigid *ex-ante* definitions of who is dominant and in what (relevant) market, and hence who is burdened with special obligations to pre-empt anti-competitive behaviour against new entrants, are inserted in EC directives. In telecoms this was done under the heading of companies with ‘significant market power’. To do this under competition policy, via ‘abuse of dominance’, is bound to be very slow and costly, and perhaps not easily predictable. This would frustrate the effectiveness of the liberalization as entrants will not be prepared to invest or seriously challenge the incumbent. Even after the first few years, regulation might well be preferable to competition policy, in some cases. Take call termination from fixed to mobile, where very high interconnect tariffs were discovered in the EU in 1996–8. Today, under EC directives, national regulators simply declare the two or three leading companies to enjoy significant market power (SMP),<sup>27</sup> which obliges these market leaders to charge cost-oriented interconnect tariffs. As a result, tariffs for call termination on mobile networks in the EU fell dramatically in 1999.

On the other hand, EC competition policy in network markets has often had a quasi-regulatory flavour.

Telecoms remains the leading example because in this field the Commission employed Commission directives (on the basis of Article 86/3) as ‘crow-bars’ in 1989 and 1990, and the European Court of Justice sided with the Commission in 1991 and 1992. But the interested reader could also verify the Full Competition directive (96/16 of 13 March 1996), the numerous introductory recitals of which cover everything then under regulatory preparation. In fact, the directive refers to a host of procedures, with deadlines (at the latest, 31 December 1997), which are all meant to lead to regulatory directives. In the last few years several Notices and Guidelines have been published by the Commission (e.g. on criteria for costing schemes, access, etc.) which come close to *ex-ante* rules rather than *ex-post* policy. Again, under the new telecoms package,<sup>28</sup> there is an explicit attempt to give EC competition policy a ‘regulatory’ role. The proposals turn SMP into what, under competition policy, would be ‘dominance’. However, this is to be employed in an *ex-ante* fashion, namely, to be able to designate a company as having SMP, with a legal basis for regulatory obligations. In a detailed Working Document<sup>29</sup> the Commission has surveyed Commission practice and the Court’s case law, and in so doing offered guidance to national regulators for the new application of SMP. This is an obvious hybrid, employing dominance without ‘abuse’, and market analysis which is not a-priori case-by-case (as in competition law).

In electricity, however, the crowbar strategy of the Commission has never been used. Given the low degree of technological upheaval in this sector, compared to telecoms, and the remaining natural monopolies in transmission and distribution, a cumbersome and slow regulatory approach in stages has been chosen. Competition policy has been little involved thus far, except via mergers (see further). In airlines, where neither USOs nor natural monopoly were an issue, the crowbar tactics were obviated by a stronger reliance on the Single Act’s definition of the internal market<sup>30</sup> in combination with a block exemption based on Article 81/3 (inter-

<sup>27</sup> Such a company should have 25 per cent market share or higher.

<sup>28</sup> A common regulatory framework for electronic communications networks and services, draft directive, COM(2000)393 of 12 July 2000; and draft directives on access, user rights, licensing, and data protection (all issued on 12 July, COM numbers respectively, 384, 392, 386, and 385).

<sup>29</sup> Draft guidelines on market analysis and the calculation of significant market power (COM (2001)175 of 28 March 2001).

<sup>30</sup> The internal market in the Single Act (now Article 14) is defined as an ‘area without frontiers’ (i.e. also for services) in which ‘free movement . . . of services . . . is ensured’. This is far stronger language than in the Rome treaty.



firm cooperation) which was sharpened over time, along with the next steps of liberalization.

The relation between competition policy and regulation is often discussed in terms of the latter giving way to the former over time. This assumes that effective competition has developed and that remaining market failures can be addressed by competition policy. For many networks markets these two assumptions are not easily fulfilled.

The best example of ‘waning’ regulation, combined with increasing prominence of competition policy, is scheduled air transport. The only piece of regulation which still restricts intra-EU competition (not counting the external bilaterals discussed before) is the 1993 slot allocation one, which grandfathers existing slots, if they are used, and forbids trading.<sup>31</sup> For the rest, air transport is a matter of competition policy. The exemption to Article 81/3 has once again a quasi-regulatory character because of the nature of cooperation in the airline business (e.g. interlining and its tariffs; ground-handling; etc.) Also guidelines, an ex-ante approach with a threat of ‘interim measures’ (a very swift Commission intervention), on predatory price and non-price moves were published as early as 1991. The latter is remarkable, because very few Article 82 predatory action cases have been pursued in ‘ordinary’ markets. A justification of such ‘regulatory competition policy’ is the great vulnerability of new entrants in the airline business. Non-price predation in the form of (re)scheduling departure times to a few minutes before those of the entrant, while selectively offering deep-discount seats may kill the competition before it has a chance to take off.

Other competition policy aspects in airlines relate to state aids and alliances.

## (ii) Court Rulings on Network Industries

Despite the potentially significant powers under Article 86/3 (Commission instead of Council/Euro-

pean Parliament directives) and despite some potentially far-reaching rulings of the European Court of Justice (ECJ) (and the Court of First Instance), in actual practice, the Court’s judgements have had a relatively limited impact (see Blum (2000) for detailed analysis). One crucial reason for this outcome is that it has turned out that the ‘necessity test’ (see section II(i)) is notoriously difficult to apply. Typically, in cases which reach the ECJ, strong (and uncontested) empirical evidence against the maintenance of an exclusive right might not be available, and if this is so, the Court would tend to allow the member states a considerable margin of discretion (as noted before). Moreover, in the landmark gas and electricity cases<sup>32</sup> the Court widened the necessity test. This makes it more difficult for the Commission to use its special powers for, for example, electricity, as it did so successfully in telecoms.

In sectoral terms the ECJ has probably had the greatest impact on telecoms and broadcasting. In postal services Corbeau has limited the scope of monopolies on express mail services. In gas and electricity, openings exist to challenge the validity of network monopolies, but the burden of proof is with the Commission and empirical. In rail, where it might perhaps be less easy to challenge certain monopolies, the Court has considerably reduced the Commission’s discretion to impose an ‘essential facility’ doctrine and in so doing force third-party access.

## (iii) Essential Facilities, Competition Policy, or Regulation?

The transposition of the notion of ‘essential facility’ from the USA to Europe (both at EU level, and in the competition law of some member states, e.g. Germany) has caused a lot of confusion.<sup>33</sup> First, even in the US the Supreme Court has never embraced the ‘essential facility doctrine’ (EFD). Second, the EC has a well-developed ‘classical’ case law on ‘refusals to deal’ based on Article 82 (in contrast to the greater reluctance in the USA), so that an EFD should be narrowly constructed. In the

<sup>31</sup> A proposal by the Commission, in June 2001, to liberalize slot allocation somewhat and, conditionally, allow slot trading, is said (by the former flag carriers) to lead to greater entry by American and Asian airlines, not the no-frill competitors. This may be correct if slots become costly, an outcome which (for the relevant periods of the day) is not improbable.

<sup>32</sup> About export/import monopolies of Spain, France, the Netherlands, and Italy, cases C-157(to 161)94; ruling in 1997, see ECR I-5699 and further.

<sup>33</sup> The literature on the EFD is large. See Larouche (2000a, pp. 165–217) for a rich and illuminating survey. This section draws from his work. See also Temple Lang (2000)

1990s, however, this is not what the Commission did. Quite the contrary, it made a number of attempts to use the EFD to impose obligations on companies owning the ‘essential facility’, usually in a vertical relationship, and, more often than not, those were in network industries. In terms of classical competition law, the EFD is frowned upon because the routine requirements of proper market definition and the assessment of dominance are dropped and ‘replaced’ by a test of ‘essentiality’ of a facility. In doing so, it turned out that one (the Commission) risks making serious mistakes, as in European Night Services (passenger rail, cross-border) and Bronner (a national newspaper insisting on ‘access’ to the home distribution system of a local newspaper, as this would be an essential facility).<sup>34</sup> EC case law now requires a double test: the lack of third-party access to the facility should engender negative effects on competition in the downstream, end-user market, so that a structural measure based on EFD would generate benefits to end-users; in addition, there should be no (economically) viable alternative for an ‘objective’ competitor (in other words, not necessarily the applicant, who could be a free rider). There is general agreement that, since Bronner, the EFD is subject to such strict conditions that its application will be rare and problems might be better tackled with sector-specific regulation based on careful cost–benefit analysis.<sup>35</sup>

#### (iv) The Problem of Defining Relevant Markets

The difficulties in defining relevant markets would seem to be greater in network markets than in ‘ordinary’ markets. Of course, one could argue that the classical opposition between the Commission favouring ‘narrow’ and (most of) industry favouring ‘wide’ definitions is simply replicated. Although this is undoubtedly so, the underlying economics of

demarcations seem to be less than clear. Two examples are airlines and telecoms (the following draws from Larouche, 2000b).

The basic idea of a relevant market definition in (EU) competition law is, as the Commission puts it aptly, ‘to identify in a systematic way the competitive constraints that the undertakings involved face’.<sup>36</sup> For the product market the key criterion is demand substitutability, with a limited secondary role for supply substitutability. Potential competition is, of course, taken into account—not at the relevant market definition stage, but at the (later) competitive assessment stage in that relevant market. In fact, the same applies to the relevant geographical market, although—certainly in network markets—regulatory constraints may cause fragmentation. Here, we are not concerned with the standard economics of relevant markets,<sup>37</sup> but rather with the special features caused by network markets.

In airlines the Commission has gradually moved from an individual-route approach to a more differentiated approach. What is different from ‘ordinary’ goods markets is that some geographical element is (inevitably) part of the product definition and that network effects are taken into account. What is similar, on the face of it, is that demand preferences (e.g. time-sensitive travellers vs non-time-sensitive but price-sensitive ones) may lead to distinct relevant markets, even though they pertain to consumers finding themselves in the same plane after they have bought their tickets.

In other words, the relevant market will be made up of all routes that are considered equivalent by the consumers. It is the network effects that the Commission has only recently begun to recognize—competition can develop between networks or hubs of airlines. The hesitation on the part of the Commission<sup>38</sup>

<sup>34</sup> CFI Judgement of 15 September 1998, Cases T-374, T-375, T-384, and T-388/94, *European Night Services vs Commission*; ECJ judgement of 26 November 1998 Case C-7/97 *Bronner vs Mediaprint*.

<sup>35</sup> Nevertheless, there are important (EFD) cases, all prior to the 1998 Bronner ruling in rail (combined transport, including rail, Deutsche Bahn fined for discriminatory tariffs; combined rail transport with containers, a French/UK joint venture ACI was instructed to provide rail services to others (even though no others requested or signalled this at any time) on a non-discriminatory basis) and telecoms (e.g. access to the SWIFT banking telecoms network for LaPoste; Atlas and GlobalOne, two telecoms alliances from the mid-1990s—but not, as Larouche (2000a, p. 188), points out, on a similar alliance, namely Unisource, where the ‘classical’ Article 82 approach is employed).

<sup>36</sup> Relevant Market Notice, in OJ EC C 372 of 9 December 1997.

<sup>37</sup> See, for instance, Church and Ware (2000, ch. 19).

<sup>38</sup> See, for instance, KLM/Alitalia, Decision of 11 August 1999, in OJ EC C 96 of 2000.

has everything to do with its indecision about airline alliances and the 'efficiency test' applicable to them (see further under mergers).

This notion of further differentiation among relevant markets in the light of (sufficient) differentiation of customer preferences, while allowing an inevitable geographical element in the product market definition, is harder to apply in telecoms. First, with rapidly increasing customer orientation of providers/operators and the highly specific preferences of multinationals, it becomes increasingly difficult to define the relevant product market(s) in the telecoms sector. Second, the network weighs far more heavily in telecoms than in airlines. For packet-switched services (such as the Internet) tariffs are independent from distance and destination, so route-based choices are irrelevant. The latter have some relevance for circuit-switched service (e.g. voice telephony) but the competitive overall tariff package (which is a bundle of services combining distance and location) will be designed so as to keep the large bulk of customers 'in' the network. Depending on how demanding coverage and quality needs are (see Larouche (2000*b*) for elaboration), the geographical aspects of relevant markets may differ, too. The 'death of distance', moreover, may render the actual routing of the electronic services irrelevant, as long as price and quality requirements are met.

All of this means that the classical textbook approach of identifying a geographical market as an area where conditions of competition are homogeneous no longer applies (except for regulatory barriers); the product and geographical analysis overlap in (these) networks markets. There is good reason to be concerned about the market definition problem in the light of the new telecoms package, to be adopted late 2001 or early 2002. In the draft framework directive for telecoms (cf. COM(2000)393 of 12 July 2000), a kind of *ex-ante* market analysis is proposed, but, by definition, not based on the specific offering of the firms in a specific case, and the demand substitutability at stake in such a case.

Beyond the examples of telecoms and airlines, matters are still hazy or untested. One could argue that 'electricity' is no longer a homogeneous good in so far as customer preferences are concerned. Indeed, if the relevant product market is made up of all goods which are equivalent in the eyes of the customer, then different relevant product markets for electricity could be distinguished when peak-load contracts, switch-off contracts, and back-up contracts are widely used. For gas, back-up contracts have also emerged; furthermore, gas contracts are more often separating gas supply (or purchase) and storage obligations. Unlike telecoms and airlines, however, the blurring between geographical and product aspects of relevant markets does not seem to occur. The geographical market in electricity and gas is likely to remain national for a while because of a series of obstacles to cross-border trade (see also section VI, below).<sup>39</sup> Indeed, the recent Commission approval of Fiat's acquisition of Montedison, with a tiny stake of EdF, solely focused on the Italian energy market.<sup>40</sup>

In the postal sector, new services are emerging. Moreover, as alluded to before, (non-parcel) postal services are subjected to sharp competition from fax, e-mail, and the Internet, for example. This prompts the question of what the relevant product market is, in terms of substitutability. Particularly for large business mailing (including direct mail), the degree of substitutability could be such that the relevant market would be defined much more widely. However, the Postal Notice<sup>41</sup> does not seem to discuss this issue. Given the fact that, nowadays, the reserved postal services are still defined rather broadly, the inclination will be first to verify whether new services fall outside the scope of monopoly or universal service. Indeed, in the Corbeau case, the services at stake were clearly of the value-added type (e.g. collection at the premises of the client) but otherwise traditional. In hybrid mail, however, postal items are generated electronically. In a recent case against Italy,<sup>42</sup> a decree had reserved these activities entirely for the incumbent operator. The crux is that this hybrid mail carries the guarantee that the

<sup>39</sup> See Slot (2000) for similar considerations about the relevant markets in energy. Note that a recent survey by a Commission official—in his personal capacity—does not even mention the problem of defining relevant markets in energy (Albers, 2000).

<sup>40</sup> See Press Review IP/01/1229 of 28 August 2001, European Commission.

<sup>41</sup> Commission Notice on the application of the competition rules to the postal sector, OJ EC C39 of 6 February 1998.

<sup>42</sup> See 30th Report on Competition Policy 2000, EC (2001) 694 of 7 May 2001, under item 2.4.5 (pp. 46/7).

delivery will be completed at a pre-determined date or time. This feature means, according to the Commission, that it is a separate market, very different from traditional delivery services.

Finally, as to rail, it is too early to discern any 'policy' at EU level. In high-speed rail services and (long-haul) freight services, competition 'on track' is desirable. In high-speed rail, given the distinctions in business vs economy (or 'tourist') and peak/off-peak, pretty much as in airlines, slot trading could eventually lead to distinct relevant markets, with a blend of product and geographical characteristics. There is both complementarity with all airlines services (as feeders to airports) and some degree of substitutability with point-to-point short-haul air services. In freight, competition on track would probably require 'on-line' trading of slots and capacity allocation on alternative routes, and currently these conditions may be too demanding.<sup>43</sup>

#### **(v) Regulation via Merger and Alliances Control?**

Merger control has rapidly become the most important tool of EC competition policy. Cases of abuse of dominance are rare, anyway, at EU level. And Article 81 cases may total perhaps around 500 or so ever since the EEC began, whereas for the first decade of EC merger control (since 1990) the order of magnitude is around 1,000, with annual notifications nowadays running at more than 250 a year. In network markets the introduction of competition at EC level, even if very partial, often gives rise to repositioning via mergers, as well as to new commercial formulae often via alliances. It can be shown that merger control is used by the Commission to promote competition and access in network markets.

First, although mergers and alliances should be analysed on their (anti-)competitive aspects as the EC Merger Regulation prescribes, and subject to given regulatory constraints, in several network sectors there would seem to have been cases where (national) liberalization has been spurred to facilitate

merger approval. An early and clear example is the domestic acquisitions of Air France (of Air Inter and UTA) in 1991, accepted by the Commission only on condition of faster deregulation and sufficient access to Paris airports. In 1999, the Commission prohibited a joint venture between EdF and Dreyfus to do business in France (the business here is electricity trading), because French eligible customers suffered from a lack of choice. Only after sufficient French liberalization will this prohibition be lifted. Conversely, the highly limited (or strictly national) progress in liberalization may hinder the positioning of forerunners, anticipating the new competition (e.g. early takeovers by KLM which has hardly any home market to 'give access' to). Second, the customer-based relevant market definition, gradually emerging from airlines and telecoms cases, might begin to be applied to postal services and rail, later in the liberalization process.

Third, mergers and alliances have been 'used' by the Commission to impose certain degrees of 'unbundling' and/or otherwise 'create' access or entry for third parties. In pay-TV and media/telecoms cases the approach has been dictated by a search for separation of content and networks, for example by legal/accounting separation requirements. Both the networks and the content should be open(ed) in specified ways. This overall approach is in line with the new telecoms package, based on the same distinction.<sup>44</sup> In airlines, the issue is about alliances, in particular the recent 'deeper' ones. Such alliances are likely to generate benefits such as higher network advantages for long-haul and sometimes short-haul passengers, in addition to better service (e.g. frequency, wider reach with more viable connections) and cost reduction. However, they raise barriers to entry in congested airports and boost market power via the greater advantages of frequent-flyer programmes. Airport slots become an even greater problem because member airlines in an alliance will 'internalize' slot swapping in major airports—allocation is improved among the members only. As to 'thin' routes (e.g. to the Baltic countries), the so-called competition between a few airlines flying there (from western Europe) reduces

<sup>43</sup> I am grateful to Loris di Pietrantonio for insightful discussion.

<sup>44</sup> In the absence of sector-specific regulation and any comparable precedent, especially the merger of Vivendi/Canal+/Seagram proved to be extremely demanding for the Commission. Many relevant product markets were identified, and the problematic ones in terms of competitive concerns all had to do with the strength of the (joined) parties in content, which could be leveraged at the network level. See Larouche (2001) for a critical assessment.

to a trickle once alliance membership spreads to several of those airlines. Therefore, alliances have been subjected to a range of commitments, including the freeing of slots and, in a few cases, access to frequent-flyer programmes for passengers from competitive feeders or new entrants. A problem has however emerged for transatlantic flights, a key issue for the activities of new alliances. All scheduled airlines except Virgin are network-based operators—and Virgin survives probably in part because of the persistence of very high fares on the London–USA routes (owing to congestion in Heathrow and the absence of an open-sky agreement). Once network benefits of alliances are recognized in full, the efficiency test might well lead to rather favourable terms of approval (typically supported by the Directorate-General for Energy and Transport in the Commission and the flag carriers, as well as, broadly, by the USA); if the relevant market for time-insensitive travellers, and perhaps even for a part of time-sensitive ones, does not include one-stop (hub-network-based) flights via (e.g.) Amsterdam or Paris, merger control will become very restrictive (typically supported by the Directorate-General for Competition and the UK competition authorities).<sup>45</sup> For the proposed alliance (OneWorld) between American Airlines and British Airways, the Commission would impose a significant release of slots, something the Commission could neither do in the case of a fully fledged merger (for those slots would be assets, sold for a price) nor on the basis of EC regulation.

In electricity, the Commission views cooperation agreements between suppliers as pro-competitive if they allow the respective companies to enter new electricity markets for trading at exchanges of network services, or if they enter new geographic markets (see Albers (2000, p. 279) for many examples). Multi-energy mergers may well be anti-competitive, for instance, as in the cases of Tractebel/Distrigaz and Nesti/IVO, when a dominant electricity supplier gains control over a (dominant) gas supplier or wholesaler; these cases were approved only after divestiture of the bulk gas sales business. VEBA/VIAG was the first merger between incum-

bents which had to be assessed by the Commission. Following two simultaneous mergers (VEBA/VIAG and RWE/VEW by the German Kartellamt) a duopoly controlling well over 80 per cent of the German market for electricity delivered from the interconnected grid would emerge. Given a host of factors,<sup>46</sup> the Commission found a case of collective dominance, conducive to coordinated effects. Approval followed upon a range of divestments as well as an improvement of the basic rules governing transmission through the network operated by the two leading interconnected entities.

The quasi-regulatory function of merger control became even more prominent after a series of announced takeovers by EdF in Germany, Italy, and Spain. EdF being still *de facto* a vertically integrated monopolist, fully state-owned, and operating in the least-opened-up national market, posed a great challenge to EC merger control. Despite the enormous political pressures exercised on the Commission, EC merger control alone cannot and should not substitute for the failure to achieve legislative progress on further opening up at EU level. Hence, the political tension in the Gothenburg summit of June 2001 when France did not (yet) budge under the pressure of the Commission and most other prime-ministers. The ‘solution’ in the Italian case illustrates the difficulties. Italy hastily adopted Decree No. 192 on 25 May 2001, severely limiting the voting right of incumbents from other EU countries in Italian (gas and) electricity companies. Thus, EdF’s participation (via a Fiat-led consortium, called Italennergia) was reduced to a mere 2 per cent when taking over Montedison, the second-largest electricity generation company in Italy (though far behind ENEL). Given this new configuration, the Commission was of the view that EdF does not have any controlling position, and hence the (considerable) exports of EdF to Italy do not have to be taken into account. This constrained ‘solution’ was probably inevitable. However, it is unsatisfactory for at least three reasons. First, if anything, reciprocity now works the wrong way: rather than serving as an incentive for further liberalization it has now given rise to major restrictions. Second, the Italian Decree

<sup>45</sup> In Brueckner (2000), an empirical analysis shows that intra-network fares compare highly favourably with the fares of identical trips based on interlining. The case at hand was the Star-Alliance. See also Ryan (2000) for a critical assessment of the Commission’s remedies for airlines alliances.

<sup>46</sup> See Press Review IP/00/613 of 13 June 2000 or 30th Report (op. cit.), item 26.

**Table 3**  
**Why No Internal Market for Network Industries?**

Broadcasting	Cable/commercial stations remain national/regional Pay-TV national Public broadcasting national/regional; via discs or (optional) cable cross-border reception possible
Telecoms	Licensing is still too discretionary No European licences No mutual recognition (Hope) (mobile?) companies may create virtual Euro- pean networks
Postal services	Large part still reserved, including all cross-border Reims II, quality up, prices converge, yet no removal of frontiers
Air	Air traffic control, absurd splintering Congested airports; slot 'rights' grandfathered Distortions in the internal market owing to bilaterals
Rail	Only beginning in high-speed passenger Freight limited to freeways (with distortions) Inter-operability problems huge Severe capacity constraints
Electricity	Capacity constraints for interconnectors (built for security of supply in EU, not for free trade) Access and transmission fee issues Investment incentives are lacking
Gas	As for electricity Inter-operability and gas quality problems

is likely to be incompatible with EC law under the free movement of capital and the right of establishment. Third, if the decree is withdrawn or found incompatible, EDF's voting rights may increase to a controlling position. In that event the Commission requires re-notification under the merger regulation.

## VI. INTERNAL MARKET

For all the progress and benefits EU-level network liberalization has accomplished since the late 1980s, none of the network industries is operating in a genuine internal market, as yet. This failure is essentially due to two factors. First, as noted at the outset, network industries were not part of the EC-1992 programme as first conceived in 1985; they were an afterthought. As a result, an ad-hoc approach emerged, initially driven by the Competition

Directorate-General of the Commission, not the Internal Market one. Some broad, target-setting strategies have attempted to incorporate the liberalization of network markets, but in a far too rhetorical and general fashion. This was true for Delors's White Paper of December 1993 on growth, employment, and competitiveness and, again, with the ambitions of the 2000 Lisbon summit. The consequence is that, time and again, sectoral battles have to be fought which enhance the influence of sector lobbies, including labour unions. Second, national governments and their civil servants in sectoral committees in the EU circuits often take ambivalent views on the liberalization process. While there is nowadays a much wider and more forceful support of liberalization, for the sake of economic performance, the implication that, under fundamental EC principles, this must be pursued in an internal market framework is (purposefully?) ignored.

Table 3 provides a bird's-eye view on restrictions or barriers in seven network industries, which prevent the internal market from coming into being.

Some of the listed obstacles form major restraints for the liberalization process and its potential welfare benefits. One example consists in the distortions of the internal market owing to the bilaterals in air transport with third countries. Suppose a European no-frills airline finds that competitive entry in selected inter-continental routes from (say) Italy or Germany is profitable. This challenge is almost certainly prohibited by the respective bilaterals with the relevant third countries. In fact, this also applies to the incumbents. Though there is free movement of services and free establishment, even if (say) KLM would create an Italian subsidiary, it would almost certainly not be allowed to compete on such routes from Rome or Milan unless special permission (from the third countries) is obtained. Member states have thus far not been keen to 'Europeanize' the bilaterals from the EU end (which, admittedly, would require renegotiation), although the Chicago Convention formally allows it. Without a breakthrough agreement with the USA (the proposed Transatlantic Common Aviation Area), there is no hope for the other bilaterals. In electricity, one among a range of problems consists of the investment incentives for cross-border grid inter-connectors—when the incumbents own the present ones, would they invest aggressively, only to see competition become more fierce as a result? Of course, these incentives also depend on the (future) decisions about cross-border transmission fees.

The negative feedback of the failure to establish an internal market for network industries is considerable. More competitive challenge, more infra-structural investment, and greater variety and choice would be generated by a vigorous pursuit of a single market, exactly the kind of benefits the EU leaders promised the Union would deliver in the period up to 2010 according to the seductive rhetoric of the Lisbon summit.

## VII. CONCLUSIONS

Since the late 1980s the European Union has made great strides in the liberalization of network industries. In part this was prompted by early national

initiatives and regulatory emulation by a few EU member states. But also when concentrating solely on EU-level regulatory liberalization as well competition policy in these sectors, the progress is appreciable. The contrast with three decades of maintaining a taboo on addressing national exclusive rights for utilities as if they were carved out of the internal market is striking.

The present article assumes a horizontal perspective, juxtaposing different network markets while focusing on the rules and policies at EU level only. All major network industries except water and sewerage (because there is no cross-border trade) are now subject to processes of liberalization and minimum regulation. Also EC competition policy is actively applied.

Despite the panoramic approach of this article, which precludes detailed analysis on the many technical questions involved, a few more general conclusions can be drawn.

First, the EU should come down from the high-handed rhetoric of the Lisbon European Council (March 2000) and formulate a well-considered strategy for network industries. The strategy ought to make the economic case for liberalization, taking account of adjustment costs (but not as an argument of—temporary—losers to block progress) in the medium run. While it is undeniable that sectoral specifics render a simplistic horizontal liberalization approach impossible, this does not mean that a common overall framework with clear goals and calendars should not be developed at EU level. Firm commitments backed up by a sense of urgency comparable to that of the EC-1992 programme or, nowadays, of the further liberalization of financial services and capital markets (a tight calendar up to 2005) should greatly help to remove the inhibitions to restructure, to improve business performance and consumer satisfaction, and to invest in cross-border and other bottleneck infrastructure. At the moment, apart from the vague generalizations of the Lisbon summit, the only horizontal 'forum' is the Cardiff process, based on a so-called 'open coordination' method. However, the great weakness of this process is that it lacks a coherent analytical and strategic framework against which the multitude of issues can be assessed. For network industries such a framework should be developed. The socio-political

underpinning has been agreed since the Amsterdam treaty (cf. Article 16, EC) but clear aims, means, and credible calendars are lacking.

Second, a renewed commitment to establish an internal market for goods and services (if not capital and technology) of network industries is essential for such a strategy. Today's inconsistencies, omissions, and distortions hinder the fully fledged development of competition and, in causing uncertainty, inhibit especially the infrastructural investment required. Besides the reasons discussed above, the establishment and proper functioning of the internal market in network industries is also made very difficult by the vexed question of 'independent agencies' under the treaty. The 1958 Meroni doctrine prohibits the establishment of independent agencies at EU level, except via ratified treaty amendment. The underlying, purely legal logic is that the treaty does not allow the EU institutions to delegate more than 'executive' power—the EU institutions ought to be able to keep control. Today in network markets this can be counterproductive because it always precludes the option of an EC regulator. In particular, member states want to have it both ways: they refuse (thus far) to include a simple provision in the treaty that independent regulators (agencies) can be established, say, under unanimity but without treaty amendment; at the same time, they refuse to create efficient and effective coordination mechanisms at the national/EC interface which would be reasonable alternatives for a Community regulator, given that the Commission remains the guardian of the treaty and

can use competition policy, too. While member states have regulators, the internal market has complex, incomplete, and slow mechanisms; while the USA has federal regulators for its internal market, the EU does not, although the nature and frequency of the problems are often the same.<sup>47</sup>

Beyond these strategic policy issues, what this paper hopes to show is that a horizontal perspective on EU network markets may help to clarify how the weaknesses and omissions in the slow-moving sectors might be overcome and how good solutions in one industry may, *mutatis mutandis*, be used in another industry. A further refinement of Table 2 would be helpful in this respect. In principle, this is also true for the application of EC competition policy to network industries. However, the problems here are considerable, not least because it is difficult to conclude what the optimal 'quasi-regulatory' posture of competition policy should be. For one thing, this also depends on the stage of the liberalization process. For another, in the EU context, without central regulators and with recalcitrant member states, it is tempting to employ the crowbar of special powers under Article 86/3 or a wide interpretation of essential facilities, or to stretch the discretion under merger control. In the final analysis, these matters can best be resolved in an unambiguous internal market context, with clear regulation about remaining market failures and appropriate mechanisms to supervise actual or potential cross-border activities. It underscores once again the paramount importance of a long-run strategy for Europe's network industry liberalization.

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<sup>47</sup> An independent regulator should only be established when a careful subsidiarity test is met. For the application of this test to telecoms, see Pelkmans (1998).



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