Sector-specific regulation in European electronic communications – meant to disappear?

Daniel Berhin, Frédéric Godart, Maya Jollès and Paul Nihoul

Daniel Berhin is Global R&I Manager for Global Knowledge Services, Frédéric Godart and Maya Jollès are Research Analysts, all at McKinsey & Co., Louvain-la-Neuve, Belgium. Paul Nihoul is Jean Monnet Professor of the European Information Society at the Université Catholique de Louvain, Louvain-la-Neuve, Belgium

Abstract

Purpose – *This paper aims to question the disappearance of sector-specific regulation in European electronic communications markets.*

Design/methodology/approach – *To show that sector-specific regulation will remain, five arguments are developed based on different disciplines: law, economics, political science and sociology.*

Findings – *It is found that sector-specific regulation has already been in place for 15 years and there is no concrete indication that it will end soon. Competition law has intrinsic limitations, which, arguably, do not make it possible for authorities to resort only to that body of the law to ensure a smooth functioning of the electronic communications markets. The balance of power in the EU leads to sector-specific regulation being maintained in the years ahead as the ideal way for European institutions to intervene in electronic communications markets. The electronic communications market requires regulation going beyond competition law in order to ensure the realization of non-economic purposes. The implementation of sector-specific regulation might contribute to concentrating the electronic communications markets.*

Practical implications – *Contrary to the claims of the European institutions that sector-specific regulation in the electronic communication markets will lose its relevance, this paper argues that it is likely to remain for the foreseeable future.*

Originality/value – *The paper shows that deregulating a sector is not an easy task and that* ex ante *regulation is a key legal instrument for the proper functioning of a market.*

Keywords *European law, Communication technologies, Telecommunications, Regulation*

Paper type *Viewpoint*

A multidisciplinary approach focusing on the European regulatory framework

A multidisciplinary approach is necessary to tackle regulation

Multidisciplinarity is ambitious since it aims at examining one single object from different perspectives. This can create the impression of a scattered analysis and a lack of unity. However, we firmly believe in this exercise, and we accept its limitations as well as its strengths. The electronic communications legal framework has legal, technical, political and economic roots. Therefore, trying to understand why one type of regulation is to prevail can hardly be achieved without bringing together a legal, technical, political, and economic perspective. Also, it is in the interest of the electronic communications industry to link different point of views to reflect on its complex evolution.

Focus on the European regulatory framework

In this paper, we will focus on current European Union (EU) regulation, which we will hereafter call ''sector-specific regulation''. As a result, we will not discuss the regulatory regimes in place outside of the EU, for instance in the USA or Japan, or consider national regulation in the EU member states. Only the rules currently in force at the European level are analyzed. Our analysis will also be limited to electronic communications markets within the European Union. Throughout this paper, we will refrain from generalizing and submitting that sector-specific regulation is bound to exist forever in all markets, whatever their nature. Our purpose is more restricted. It is to submit that the European regulatory framework is based on an assumption that is not necessarily correct. That assumption is that sector-specific

We are grateful to Victoria Gerus and Sallie Honeychurch for their comments. We are solely responsible for the final document.

regulation is meant to disappear in European electronic communications markets. We are not sure that that assumption will prove correct, and would like to put forward arguments to sustain our position.

From monopoly to competition

Former market organization

Throughout the twentieth century, most telecommunications markets were organized around state-owned monopolies with a direct control of national governments over the market. This specific organization was based on three main rationales:

1. Telecommunications were, and still are, of strategic importance for national governments. As a matter of fact, they were seen as a condition for coherent public action, in time of peace as well as in periods of war.
2. Telecommunications were seen as an important tool of national development and social cohesion. Telecommunications made it possible to establish, develop and maintain contact between citizens and firms across the national territory, in spite of distance and, sometimes, of difficult access to certain regions.
3. When the question of organizing the telecommunications markets emerged, policy makers realized that these markets were characterized by imperfections, called ‘‘market failures’’ by economists[1]. The existence of these market failures justified governmental regulation. This idea of regulation clearing up market failures is known as the ‘‘public interest’’ approach to regulation[2].

The introduction of competition

At the end of the twentieth century, this market organization based on state-owned monopolies regulated by governmental authorities has been cast aside in a majority of countries. It started in the USA, where the judiciary decided in the early 1980s that the American telecom monopolist AT&T should be dismantled. The said judiciary also decided that the markets for long distance communications should be opened to competition. This decision was then followed up by regulatory reforms. In the course of those reforms, the American legislator decided that the markets for local communications should also be opened to competition. It was further decided, as part of the reforms, that the separation which had existed between the telecommunications and the media markets for a long time could be abolished, thereby making it possible for actors of both industries to carry out mixed activities.

Competition was thereafter introduced in the European Union. The UK was the first to act. In 1984, the British Government decided that UK Telecom should be privatized. A second measure taken by that Government was to open the British telecommunications markets to competition. The example was followed at the European level, where the European Commission abolished the traditional monopolistic structure.

If one looks at the impact of European regulation on market structure, four successive eras can be distinguished in European telecommunications industry regulation (Figure 1):

1. During the first era (pre-1988), the pre-liberalization era, markets were dominated by monopolies and direct governmental regulation at a national level.
2. In the second era (1988-2000), the liberalization and harmonization era, regulators devised laws that would abolish exclusive rights. Most nations followed European Commission guidance and abolished exclusive rights of incumbents. Market entry and competition grew fast.
3. The third era (2000-2004), an era of ‘‘shakeout’’[3] for the entire telecommunications sector, challenged the idea that competition was to be the permanent state of the electronic communications markets.

Figure 1 Electronic communication in Europe – from monopoly to competition

	Pre-1998	1988-Mid 2000	Mid 2000 to present	What's next?	Future
Era	• Pre-liberalization	• Progressive liberalization and harmonization	• Shakeout		• Consolidation or business as usual?
Market structure	• Regulation-driven monopolies	• Introduction of competition	• Competition		• Market-driven monopoly/ oligopoly or competition?
Regulation	• Direct governmental regulation at a national level	• 1988: liberalization of terminals • 1989: liberalization of services • 1998: introduction of competition for equipment, services and networks	• 2000: Commission proposed five directives to replace the twenty-five instruments • Mar-2002: New regulatory framework for electronic communications, networks and services • 25-Jul-2003: New regulatory framework enter into force		• Sector-specific regulation disappears or remains?

Source: McKinsey

4. In the future, there are many paths the market structure might follow. Whether we are heading towards a competitive or concentrated market is still not clear. The direction towards the persistence or disappearance of sector-specific regulation is to be examined.

The EU institutions assume that for all these different markets dealing with electronic communications, sector-specific regulation should and will disappear. The assumption is that we are heading to an era in which sector-specific regulation for electronic communications is withdrawn gradually as ''effective competition'' becomes established. It implies that the market structure for electronic communications is going to be characterized by a higher degree of competition. We believe that this is just one of many possible scenarios. However, before arguing and looking at the possible scenarios, we need to explain more precisely what electronic communication is and which markets it refers to.

Defining the electronic communications market

What electronic communications currently refers to is complex. From an economic point of view, the market for electronic communications is the organized exchange between buyers and sellers of communication services that take an electronic form. We therefore need to clarify what exactly is being exchanged and in what forms it is exchanged. As analyzed from a legal point of view by Nihoul and Rodford (2004), the Framework Directive[4] provides a definition for electronic communications based on two intertwined elements:

1. The content of what is transmitted and routed is referred to as ''signals''.
2. The way it is exchanged is understood as the activity of routing and transmitting. It takes an electronic form that is different from a transmission that would have a more physical form.

The term ''signal'' comprises three different forms of signals that are to be sent and received: sounds, images and data. The form of the objects transmitted through electronic communications change during the transmission. They are transformed and conveyed through networks. They reach their receiver, and they are converted back into their first form.

From a business point of view, we can assume that the markets are precisely the vehicles or mediums through which these signals are sent, i.e. the channels. And the same services can now be delivered through a variety of channels and be received on a wide range of terminal devices. One of the major policy objectives of the new regulatory framework was to take into account the increasing integration of electronic communication markets. To illustrate the complexity and the convergence trends of these markets, we make a distinction between the voice and the data types of content (Figure 2). Historically, technologies transmitting voice and data through mobiles were different from technologies transmitting voice and data through fixed lines. Nowadays, the differences become more and more blurred. Voice over Internet Protocol (IP), portables, broadband and mobile over IP are to convey all types of electronic communication, either voice, data or image.

The European regulatory framework aims to increasingly diminish sector-specific regulation for electronic communications markets

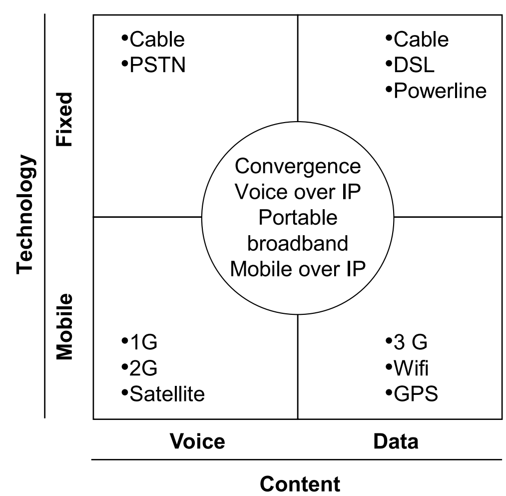
A tension between two forces

When designing a regulatory framework, policy makers face a tension between two forces: on the one hand, market failures push them to reduce free competition, but on the other hand government failures[5] push them to reduce regulation (Figure 3). The European regulatory framework does not completely deny the need for regulation, but heads more and more towards non-sector-specific regulation. These hypotheses generally aim to end, limit or lighten regulations, and tend to focus on competition law. This tension between the need to create or lighten regulations is analyzed under several perspectives. This chapter further develops market and government failure issues, the conundrums between the promotion of market-based competition as well as that of generalized access to electronic communications, and the position of the EU with regard to these questions.

Market and government failures

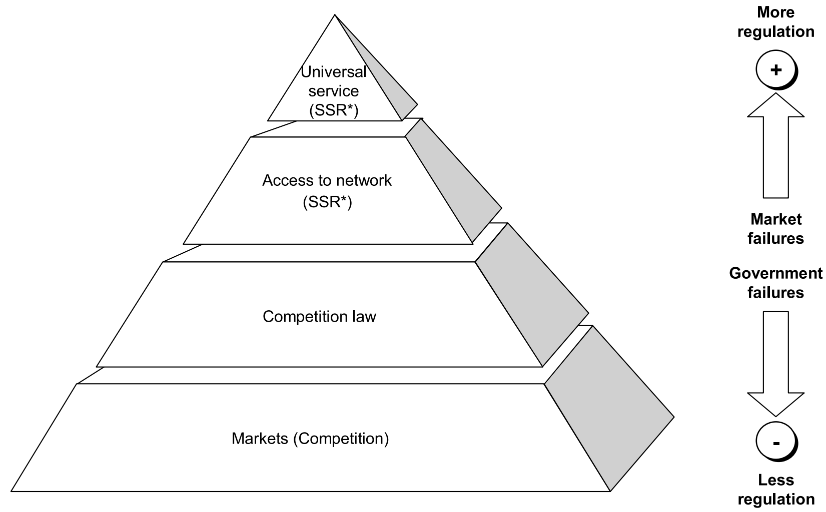
Regulators do not necessarily follow the public interest in all circumstances. In reality, pressure from the parties involved are commonly biasing the draft and the content of regulation. The capture theory states that regulation is just another market in which certain actors, such as an industry or a government, can see their interests favored. Stigler (1971) mentions that regulation can be captured by an industry, so that they are ‘‘designed and operated primarily for its benefit’’. In the case of electronic communications markets,

Figure 2 Convergence and integration of electronic communications markets



Source: McKinsey

Figure 3 Policy makers face a tension between market and government failures when defining the level of regulation



* SSR : Sector-Specific regulation

Source: McKinsey

different actors may be willing to capture the regulatory process: the companies including the operators and incumbents; the government; and the regulatory agencies:

- The incumbents want to keep their high market shares. Many new entrants in EU countries are insistent about the claim that the competitive process is currently manipulated in favor of the incumbent. It can also be said that operators and incumbents in place benefit from an advantageous position.
- In certain countries, the government sometimes still holds shares in the incumbent and acts in a biased way. Certain governments, for example, tried to raise money when they delivered the 3 G licenses. The licensing regimes were very different in the different EU member States and, as a consequence, modified the positions of the mobile communication markets (McKinsey Report, 2002). Many governments acted in their own interest. They also sometimes acted in the interest of the incumbent.
- The independence of national regulators has always been a concern of the regulators at EU level. It is not uncommon that national regulators set the political agenda. Even though today most of the European national regulation agencies are supposedly independent, we can assume they can be influenced by lobbyists and groups of interests when drafting the regulation. Indeed, the transposition of EU legislation varies according to the countries and to the institutions prevailing in these countries (Finger and Voets, 2003). This accumulation of risks of captures reinforces the concerns against *ex ante* sector-specific regulation.

Underlying hypotheses

The European Union (EU) rules are based on a number of underlying hypotheses. These hypotheses are examined below. Subsequently, we will show to what extent they are relevant for the object of this paper:

- *Competition*. The first hypothesis is that competition is an ideal mechanism for the organization of electronic communications markets within the European Union and, on the other hand, an ideal state of this market. The EU promotes a market-driven economy in order to guarantee effective competition within the common market. Through competition, operators provide consumers with the best goods and services at the best conditions. It is thought that, as a result of competition, resources are allocated in an optimal manner. Therefore, following this reasoning, no regulation is needed. However, market failures may occur, and then a second best solution is to act and interfere with the market mechanisms.

- *Competition law*. The second hypothesis is that competition law is necessary. In certain circumstances, the mechanisms provided by competition may not work properly. Undertakings acquire market power – alone or collectively. Once such a situation has occurred, authorities must intervene. The purpose of the intervention is to restore the markets in their original state, where market power does not exist and/or is not used in an unacceptable manner. For instance, mergers and acquisitions are prohibited, among other circumstances, where they create a situation where market power is acquired, or reinforced, by the merging firms and/or the market participants (Merger Regulation). Similarly, agreements are prohibited where they harm competition without providing counterbalancing economic advantages (Article 81 EC). Authorities prohibit practices whereby dominant undertakings abuse the market power they have acquired (Article 82 EC). In the end, competition policy is supposed to re-establish better conditions to favor the entry of new competitors and finally offer the consumers a higher quality, increased choice, and lower tariffs of services.
- *Access to the network*. In principle, competition, with the assistance of competition law, ensures the best allocation of resources. An optimal allocation, however, is not the only objective pursued by authorities as they also have social or political motives. When these goals are not reached through the competitive interaction of markets, authorities may take action.
- *Universal service*. In the regulatory framework on electronic communications, action takes place as part of the universal service. Under the universal service, authorities may ensure that services are available at reasonable conditions for people who would otherwise not have access to them. More generally, control may be carried out on retail tariffs. Geographical objectives may also be addressed, through the imposition of lower tariffs for regions where economic development has been declared necessary by national authorities. To achieve these universal service goals, competition law is not enough. Additional regulation is needed.

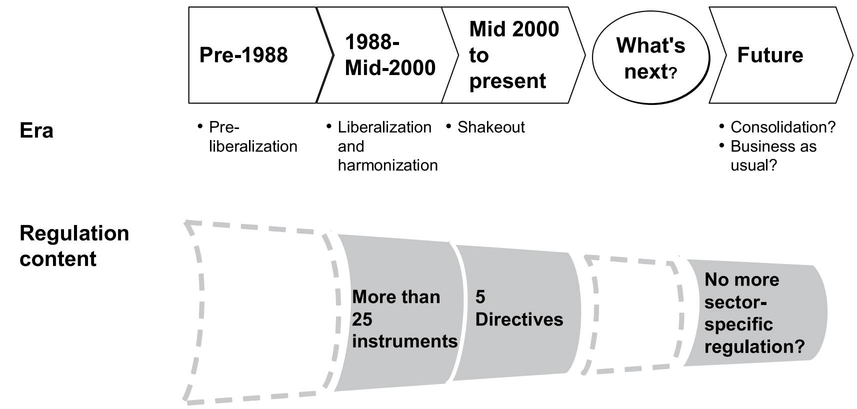
Better governance

Implementing EU Regulation at a national level is a complex task, irrespective of the activity or sector involved. For the last ten years, the European institutions have been willing to better regulate (Radaelli, 2003) in order to see an improved match between the implementation and the objectives of regulation. An improvement in the regulation process is indeed considered a key component of better governance. In the context of electronic communications, the decision to liberalize the telecommunication market and increase competition led to the so-called ''packages''. When looking at the regulatory evolution displayed on Figure 2, and focusing more precisely on the amount of regulatory content as shown on Figure 4, it appears that EU legislation on electronic communications is increasingly lessening. Many legal instruments were used in the first phases of liberalization. Nowadays, the legal framework has been simplified to concentrate the binding legislation in only five directives. Through the different ''Reports on the Implementation of the EU Electronic Communications Regulatory Package'', the Commission aims to analyze, check and put a constraint at the national level to make sure that regulation is correctly applied. Indeed, it takes a lot of effort to transpose the electronic communications directives. Furthermore, it is difficult to predict in advance and monitor precisely the effects of the implementation.

The end of sector-specific regulation is an underlying assumption

The hypotheses outlined above are at the heart of the regulatory framework adopted by the European Institutions (Parliament, Council and Commission). They form the basis upon

Figure 4 Better electronic communications regulation induces less regulation as of December 2003



Source: Europe online: "Legal documents in the field of Telecommunications"

which electronic communications activities should unfold in Europe in the long term. In the position adopted by these institutions, transitory measures are necessary however. In the regulatory framework, the European Institutions have deemed it necessary to adopt another category of rules, the so-called sector-specific regulation, which is meant to complement, in the short term, the action of competition law. Their analysis is that this third category of rules is necessary during the transition from the monopolistic era to the competition-based structure.

The main reason for sector-specific regulation to be introduced is that competition law only intervenes *ex post facto*, i.e. when anticompetitive behavior has already been adopted. This *ex post facto* character does not allow effective intervention on the markets in all circumstances. For instance, it is not reasonable to expect from authorities that they should wait for access to a network to be unduly refused before intervening. It seems more appropriate for them to intervene before access is denied. That sort of intervention may consist of imposing, ex-ante, clear and precise obligations on dominant operators, obligations that ensure effective access to networks.

Only during the transition, only under certain conditions

The Parliament, the Council and the Commission have insisted, in their documents, that sector-specific regulation was transitory in nature and limited to very specific situations. According to the recent Commission Recommendation on relevant product and service markets within the electronic communications sector (European Commission, 2003b), the existence of sector-specific regulation in electronic communications markets has to be decided by National Regulation Authorities according to three principal criteria: high, non-transitory barriers to entry; the absence of a tendency towards effective competition; and competition law cannot redress the perceived market failures. The first condition validates the idea that markets are to be contestable. It means that even if the number of players in the market is low, new entrants can easily enter, challenge the incumbents, and even leave without enduring considerable sunk costs.

As stated by Competition EU Commissioner, Mario Monti: ''Regulation remains the exception, antitrust rules remain the rule''[6]. Regulation was introduced to facilitate the development of competition. There were doubts that, in the absence of specific rules, competition would develop by itself, and with the assistance of general competition law, to a sufficient degree. Sector-specific regulation, it is said, only meant to stay in force for a few years, though, because competition is expected to develop promptly, and competition law will then be sufficient to ensure a proper functioning of the markets.

A challenge to the expected end of sector-specific regulation

So far, we have analyzed the historical evolution of electronic communications (illustrated by Figure 1), and have defined the notion of electronic communications. This notion is an evolving notion and depends on technological progress. We now want to discuss the assumption that electronic communications can only be regulated from an ex-post competition policy approach in the long run. The liberalization process of the electronic communications markets does not necessarily need to be coupled with a strong deregulation process. The EU position on these questions needs to be discussed. We propose to do so, with five arguments.

Sector-specific regulation is necessary for the European electronic communications market

First argument: sector-specific regulation is a ''lasting transition''

It has been stated, and repeated, that sector-specific regulation was only temporary in nature. The idea that sector-specific regulation is limited in time was submitted for the first time, more than 15 years ago, in the documents adopted by the European institutions to prepare the reform in European telecommunications. More than a decade has now passed – and sector-specific regulation does not appear to have lost any of its relevance. It is, on the contrary, particularly vivid, as the new regulatory framework mainly consists of sector-specific regulation. To date, no deadline has been fixed for that body of the law to be dismantled.

Expressed in plain words, the first argument is that the transition phase has already lasted 15 years, and there is no reason why it would stop shortly. There is no objection against a transitory period being long. However, at this stage, there is no indication that the transition may soon, or even at all, end.

Second argument: competition law is characterized by some intrinsic limitations

A second argument is that, in its current stage of development, general competition law does not appear to provide adequate tools to ensure by itself a proper functioning of electronic communications markets.

Indeed, the increase of competition is limited for technical and viability reasons. In the recent recommendation on relevant product and service markets (European Commission, 2003b), the Commission assumes that true competition in network infrastructures will become possible in the future: ''Competing network infrastructures are essential for achieving sustainable competition in networks and services in the long term.'' That assumption minimizes some fundamental questions that will still be relevant in the future for certain electronic communications markets: Can the networks be replicated? Can the sunk costs of building and maintaining the networks be covered by the players in charge of it?

As long as these questions remain unanswered, supervision is needed. The questions of economies of scale, of scope and of high fixed costs will most probably remain inherent to the electronic communications sector. Technical and economic concerns about the access to the market make it difficult to state that sector-specific regulation will disappear. These concerns refer to the high costs implied by the maintaining and renewing of the infrastructures on the one hand and to the asymmetries of information benefiting the companies responsible for the infrastructure offering access to it on the other hand. This issue is obviously not specific to electronic communications, but it is inherent to it. As highlighted in an analysis by the World Bank (2000), the end of a legal monopoly is not tantamount to the end of price regulation. Incumbents keep their high market share for a considerable amount of time following the entrance of new competitors in the market.

A good example of an area where an independent supervisor will still have a role is accountancy. The transition from a monopolistic organization to a competitive structure implies that prices must progressively be based on costs. That progressive orientation towards costs must be monitored. For such a control to be possible, and effective, it is important that companies are compelled to hold accounts based on costs. No systematic obligation of that nature has been imposed so far on the basis of general competition law. Another source of law was thus necessary – hence so far the decision to introduce sector-specific rules on this point.

The example given based on accountancy may be expressed in more abstract terms, by stating that general competition law lacks the technical tools necessary to by itself closely monitor and organize the European electronic communications markets. Specific rules are to be adopted, because the general standards provided by general competition law are too vague to allow a careful intervention by public authorities.

Third argument: the balance of power in the EU leads to a sector-specific regulation

The Commission. An additional argument may be taken from the balance of power within the European institutional order. In the realm of competition law, the division of power is organized by the EC Treaty.

Under that Treaty, the Commission may claim competence to apply the rules of competition to the electronic communications sector of the economy (Article 86 EC). Under Article 86(3) EC, the Commission may adopt decisions or directives, as need may be, to apply competition rules to the undertakings concerned, as well as other relevant rules mentioned in the Treaty. That provision has been used by the Commission as the legal basis for the directives whereby the telecommunications markets were liberalized more than 15 years ago. The possibility for the Commission to use that legal basis to adopt liberalization directives has been confirmed by the Court of Justice in two judgments issued in the early nineties. However, there has always been an intense debate, with the Member States as well as with the other European institutions, about the political adequacy of a unilateral action, by the Commission, based on that provision.

The Council and the Parliament. The adoption of rules to specify the competition law principles contained in Articles 81 and 82 EC[7] normally belongs to the Council of Ministers (''Council''). The measure must be prepared (drafted) by the Commission. The Parliament must be consulted. That division of power between the European institutions is explicitly organized in Article 83 EC mentioned above. It corresponds to the balance of power that existed in the Community in its first years of existence. However, that division of power has changed considerably with each year passing:

1. The Parliament has been granted increasing legislative powers. Consultation has been replaced by cooperation, which in turn has changed into co-decision. Under the co-decision mechanism, the Parliament and the Council have equal power to adopt new rules. Given the political weight of the electronic communications sector, there is no doubt that the Parliament would not consider it appropriate, from a political point of view, that the Council would regulate it on a unilateral basis, using general competition law. For this sector, it does not appear acceptable to the Parliament, that directives or regulations could be adopted by the Council without the assembly directly representing the people of the Union having more than a consultative role in it. A unilateral intervention by the Council only appears to be tolerated where the sectors concerned are limited in amplitude and the rules are technical in nature. That is the case, for instance, for the regulation of technology transfer, or the organization of business relations between vehicle manufacturers and their distributors. By contrast, the European Parliament does not appear ready to accept that a sector such as electronic communications could be regulated without its co-intervention. The reason for this is the high importance of the sector from an economic point of view. Good, and affordable communications are indispensable in a productive society. They are also necessary for the organization, and cohesion, of society.

2. The increasing importance taken by the Commission in the design and implementation of competition policy within the European Union. The Treaty originally provided that the Commission would apply competition rules in concrete cases. It also entrusted the Commission with the power to draft general measures and address them to the Council for possible adoption. In that system, the Council was vested with legislative power, i.e. the power to adopt rules of a general nature in a given sector of the economy or across various economic sectors. Progressively, that situation has changed into a system where the Commission holds the legislative power as far as competition law is concerned. That modification has occurred progressively along the following lines:

   - The actions taken by the Commission in concrete cases have been given a general scope. Typically, the Commission would solve several cases encompassing the same type of problem. It would then issue a communication, or a notice, stating its official position, and announcing which position it would adopt in the future in all cases presenting similar characteristics. Through such instruments, undertakings were advised in a general manner that interventions would be mandated if the identified types of behavior were adopted. These documents remained deprived of any legal effect. In practice, however, they had a substantial effect as they indicated the obligations, which, according to the Commission, undertakings would have to comply with – or face action.
   - A second tool for the Commission to increase its powers in the field of competition has been the delegation of power. Dossiers overburden the Council where action is needed. It was easy for the Commission to propose, and easy for the Council to accept, that the Commission could be delegated the power to adopt the ''technical rules'' involved in the application of competition rules, even if these technical aspects encompass political deliberations.
   - A third, related, mechanism has been the technical expertise developed by the Commission. As was mentioned, the Council is the legislative body, under the Treaty, in the field of competition law. However, it lacks the expertise to carry out substantial assessments on the proposals submitted by the Commission. The consequence is that, often, the Council accepts the ideas put forward by the Commission. Behind the technical choices proposed by the Commission are the economic and political choices, which have been made by that latter institution.

Even though the Commission has acquired substantial power in the design and the implementation of competition policy, neither the Parliament nor the Council would accept that it could adopt rules, on the basis of general competition law, in the electronic communications sector. As for the Commission, it would not accept a change in the balance of power regarding the field of competition, as such a change would inevitably go towards giving more power to the Parliament – to the detriment of the Commission. The result is that, if technical rules are necessary in electronic communications, they will still be adopted, in the future, in the form of sector-specific regulation, introduced by directives coming from the Parliament and the Council. As such technical rules are inevitable, sector-specific regulation is bound to remain the key legal body for public intervention in these markets.

Fourth argument: the electronic communications market may require regulation going beyond competition law

A fourth argument is that, in certain cases, electronic communications authorities may deem it necessary to impose on electronic communications operators and providers obligations that go beyond the set of obligations which could be based on general competition law. A good example is access to networks. In general competition law, there exists an uncertainty as to whether a general obligation of access may be imposed on an undertaking controlling an essential facility. This uncertainty is not appropriate in the context of electronic communications, where access to networks and other essential facilities must be facilitated to ensure the development of services and technology. For that reason, a possibility has been created in the regulatory framework for national regulatory authorities to impose access related obligations on operators and providers where the need for such an obligation can be established.

Fifth argument: electronic communications markets are likely to concentrate further in the future

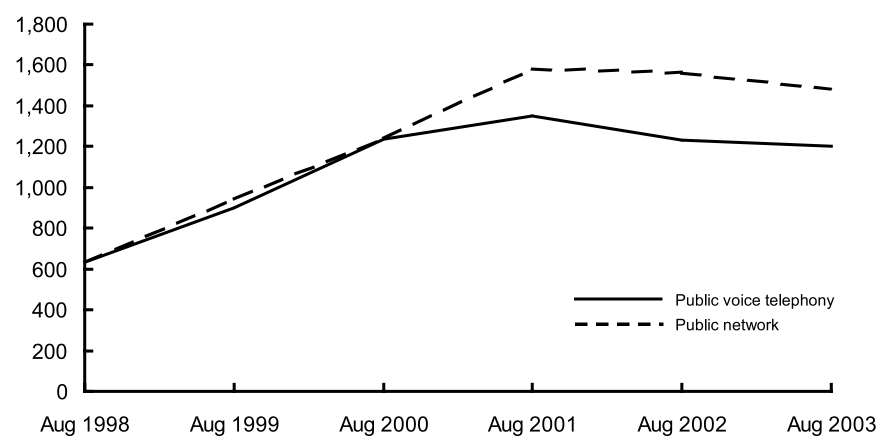
Another argument is that, with time passing, competition will not necessarily increase in the European electronic communications sector, thereby making sector-specific regulation redundant. Sector-specific regulation is often presented as transitory as, in the eyes of the European institutions, it will cause competition to develop. Once competition is developed, the reasoning goes, sector-specific regulation will disappear, and the markets will function properly through a combination of their own mechanisms and the application of general competition law.

In the reasoning of the EU institutions, the underlying assumption is that competition will increase as a result of the application of sector-specific regulation. In our judgment this assumption may be overly optimistic. According to our analysis, it does not appear reasonable to make any decisive predictions as to the development of the electronic communications markets for the years, or decades, to come. It seems more appropriate to work with various scenarios, which may or may not materialize depending on circumstances and (often unpredictable) events:

- One scenario could be that competition will develop with sector-specific regulation, thereby making the latter body of law irrelevant. That scenario would conform to the provision made by the European institutions. We do not consider that this scenario is the likeliest, but deem it necessary to take it into account for the sake of completeness.
- Another possible scenario is that, in some markets, the degree of competition encouraged by sector-specific regulation may place heavy burdens on operators and providers, forcing them to cut costs to overcome difficulties. A traditional way to cut costs is to restructure, and concentrate. In that scenario, the degree of competition introduced by sector-specific regulation would constrain operators and providers in their concentration efforts – thereby diminishing the degree of existing competition. As part of our analysis, we have examined the number of authorized fixed operators in the EU: as illustrated in Figure 5, we clearly notice a peak in 2001 followed by a decrease of the number of competitors in the fixed market.

Experiences from other sectors show that a deregulated market without sector-specific regulation, after a period of increasing competition, circles back to an oligopoly structure.

Figure 5 Number of authorised fixed operators in EU



Source: "European Electronic Communications Regulation and Markets 2003 Report on the Implementation of the EU Electronic Communications Regulatory Package"; McKinsey

This phenomenon is based on the following dynamics: when the market is deregulated, many new competitors enter the market. In the US airline industry, for example, 215 new entrants appeared between 1978 and 1993, but none in the 40 previous years when the market was regulated. This leads to excess capacity and a price war because new entrants generally have a better cost structure based on new business models they try to impose. This cost advantage is typically between 40 and 50 percent. However, these new entrants cannot resist the price war and the ''shakeout'' period leads to a reconsolidation of the industry through mergers and acquisitions. A few remaining players can finally restore their profitability through a constant differentiation and a price increase. Figure 6 shows the evolution of regulation in the US airlines industry (Mahini and Turcq, 1993, p. 146).

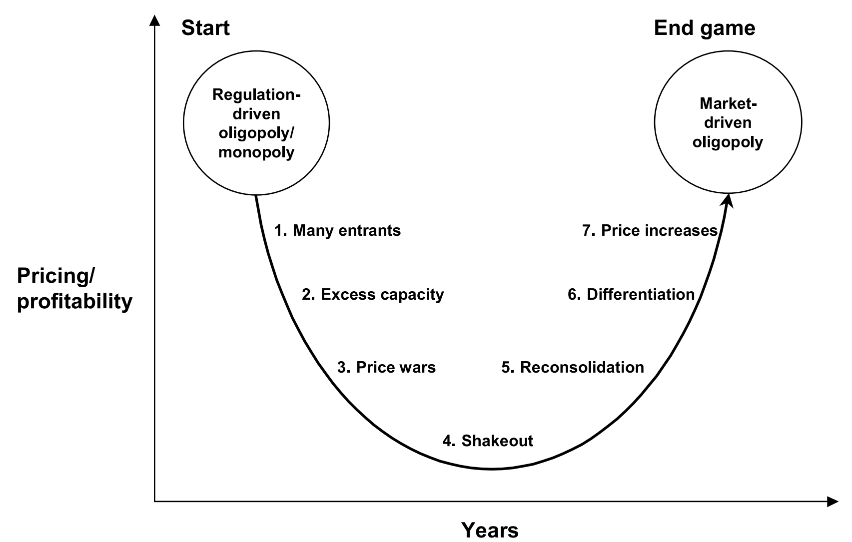
From a business point of view, the maturity of a market commonly comes with a re-consolidation process. Today's situation of the electronic communications markets in Europe is diverse. If we take a look at three sub-markets of the electronic communications market, their current status illustrates the difficulty to favor optimistic competition-based scenarios. We use three different markets: the infrastructure market, the fixed market and the mobile market.

Infrastructure market

In order to introduce competition in the network markets, the Commission has sought to encourage other network operators to use their infrastructure for the transmission of electronic communications. The operators concerned were those with an infrastructure for radio and television broadcasting. Technically, these networks can be used for electronic communications purposes. However, expensive technical adaptations are necessary – which makes operators reluctant to move. In these circumstances, sector-specific regulation do not appear to have facilitated the development of competition.

Suppose, however, that development would occur. There would then be two networks allowing the transmission of electronic communications – former telecommunications, radio or TV programs, a combination of these data – on both types of networks. This would not imply that competition effectively exist in the markets concerned. The operators of the networks would indeed be placed in a situation that is typical of a collective dominant position. Yet, it is clearly asserted in the new regulatory framework that oligopoly situations

Figure 6 Evolution of deregulation – US airlines industry example



Source: Mahini A.,Turcq D., (1993), "The three faces of European Deregulation", *McKinsey Quarterly* do not lead to optimal situations and that measures must be taken by authorities, based on sector-specific regulation, to ensure that these markets, where competition is impaired as a result of the existence of an oligopoly, still produce good economic outcome.

A last effort made by authorities has been to unbundle the local loop. Through unbundling, the local loop may be used by several operators. This means that the network operator grants other undertakings the right to use its network at the best possible conditions. Local loop unbundling may be compared to a physical division of a network, whereby two networks exist and between which competition may start. Thus, Local loop unbundling gives rise to several operators being in mutual competition. The number of competitors however remains limited, thereby giving rise to an oligopoly situation where effective competition ceases to exist as a result of the structure of the market. Furthermore, local loop unbundling implies that one operator accepts to grant other operators a right of access. Competition depends, in such a scenario, upon one operator accepting to allow competition to develop. Such a situation does not occur spontaneously. It is the result of an intervention by public authorities. Therefore, local loop unbundling does by nature not provide a long-term answer to a lack of competition. It is bound to disappear as soon as the authority will cease to impose it and monitor how unbundling occurs in practice. In such a scenario, sector-specific regulation may not disappear. They must on the contrary remain in place – firmly – to allow competition to exist.

Services provided through a fixed infrastructure

A number of fixed service markets originally reserved for former monopolies have been opened to competition, as a result of liberalization directives adopted by the Commission and of sector-specific regulation coming from the Parliament and the Council. The difficulty remains that the primary markets for infrastructure are still dominated by the former incumbents. The fact that the infrastructure is managed by them has helped these incumbents to keep a competitive advantage compared to other operators when they offer fixed market services. Efforts have been made in two directions to alleviate that difficulty:

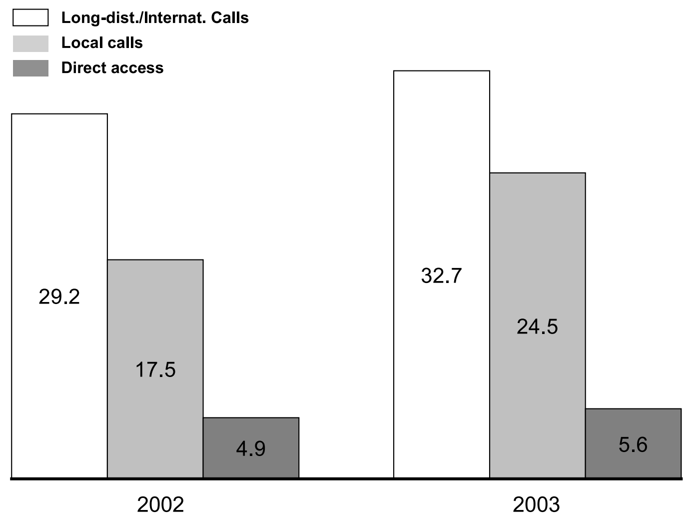
1. Obligations have been imposed on dominant network operators to ensure that their dominance on the market for networks does not translate into a better competitive position for them on derived markets for services. With these measures, it is hoped that competition will not decrease, but will, on the contrary, continue to increase in fixed markets.
2. Tariffs for access to infrastructure have been subject to control. In this case, the purpose is not to avoid the fact that dominant network operators may favor allies in derived markets by proposing preferential tariffs to them. It is, rather, to ensure that networks are made available to all interested service providers at reasonable conditions.

These measures have not proven entirely successful, as a number of fixed service markets indeed remain dominated by incumbents. As part of our enquiry, we looked at the markets for fixed voice telephony in the European Union (European Commission, 2003a). In that survey, we found that only a limited proportion of customers have switched to an alternative provider. The proportion is higher for long distance and international calls. In that specific market, the share still held by incumbents amounts, in average, to about 70 percent. According to European competition law standards, such a market share is still conducive to a dominant position, whereby the operator is in a position to influence the conditions proposed by other firms to the customers. The proportion if switching clients is even lower for local calls and direct access. The survey shows that, in these markets, the operators maintain an overwhelming dominance (see Figure 7).

Mobile markets

Similar phenomena can be observed on the markets for mobile services. This market was previously reserved to national monopolies. As a result of liberalization, they have been opened to competition. UMTS licences have been granted to several operators in all Member States, with a minimum of two in France and a maximum of six in Germany and Austria. Observation shows that these operators are now constrained in their concentration

Figure 7 Subscribers using an alternative provider for fixed voice telephony



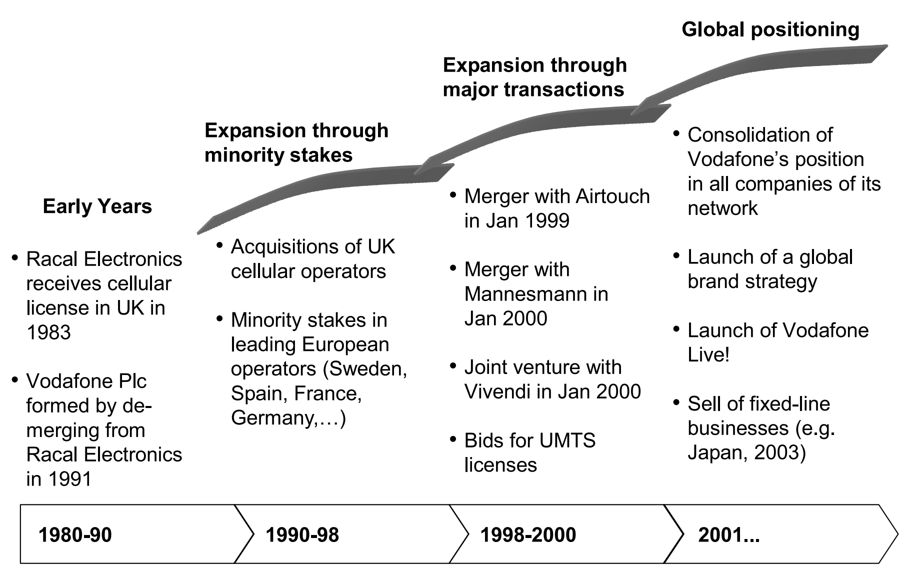
Note: In %

Source: European Commission

efforts after having paid heavy fees, mainly because the demand for third generation mobile technology is still uncertain. As a consequence, the number of mobile operators has started to diminish in the Member States, thereby decreasing the level of existing competition. Another trend in the mobile sector is the apparition of features associated with a collective dominant position. As mobile operators and providers are not many, the conditions for the development of oligopolies slowly tend to emerge.

Figure 8 show how a player such as Vodafone not only consolidates at national level, but also at European level. After having expanded through minority stakes and major transactions,

Figure 8 Vodafone's Europeanization illustrates the process of consolidation



Source: McKinsey

this mobile operator tends to reconsolidate and to differentiate to become a major player. The business evolution of the electronic communications players therefore puts at stake the theoretical idea that, once the conditions for competition are in place, competition really strengthens.

Conclusion

The position of the European institutions on electronic communications markets regulation is that *ex ante* sector-specific regulation will eventually disappear: *ex post* general competitive law is considered as being sufficient to correct the market failures that inevitably happen in the concerned markets. In this paper, we have sought to challenge this idea after providing our analysis of the evolution undergone in the last years by the European electronic communications markets. Our position is that, when it comes to the development of regulation in the future, several scenarios are possible. The electronic communications markets are constantly evolving, making it even more difficult to predict one unique regulation outcome. The scenario taken into account by the European institutions is not necessarily the likeliest. Our analysis was based on five arguments.

Notes

1. These ''market failures'' are manifold for the telecommunications market. For instance, the mobile telecommunications industry is based on the use of radio frequencies. These frequencies are scarce and public goods (their number is not infinite and there is no clear owner) that create negative externalities (interferences). See, for example, Curien (2000).
2. In his seminal work, James Landis (1938) defines regulation as a ''Fourth power'' superseding Montesquieu's traditional separation of powers between the legislative, executive, and judicial powers.
3. A ''shakeout'' period is characterized by a reconsolidation of the industry through many mergers and acquisitions
4. European Parliament and Council Directive (EC) 2002/21 on a common regulatory framework for electronic communications networks and services. [2002] OJ L 108/33.
5. If market failures focus on the imperfections of competition, government failures focus on the imperfection of regulation, such as the capture of the regulatory agencies by governmental bodies.
6. 14 February 2003, news conference announcing the recent Commission Recommendation on relevant product and service markets, quoted above.
7. Article 81 EC prohibits anticompetitive cartels, whereas Article 82 EC prohibits unilateral or multilateral abuses of dominant positions.

References

Curien, N. (2000), *Economie des réseaux*, La Découverte, Paris.

European Commission (2003a), *European Electronic Communications Regulation and Markets 2003: Report on the Implementation of the EU Electronic Communications Regulatory Package*, Communication from the Commission to the Council of the European Parliament, The European Economic and Social Committee and the Committee of Regions, European Commission, Brussels, 19 November.

European Commission (2003b), *Recommendation on Relevant Product and Service Markets within the Electronic Communications Sector Susceptible to* ex ante *Regulation in Accordance with Directive 2002/21/EC of the European Parliament and of the Council on a Common Regulatory Framework for Electronic Communication Networks and Services*, OJ L 114/45, European Commission, Brussels, 11 February.

Finger, M. and Voets, A. (2003), *Comparative Study on the Effectiveness of Telecommunications Regulator*, Ecole Polytechnique Fédérale de Lausanne, Lausanne.

Landis, J. (1938), *The Administrative Process*, Yale University Press, New Haven, CT.

McKinsey Report (2002), *Comparative Assessment of the Licensing Regimes for 3G Mobile Communications in the EU and Their Impact on the Mobile Communications Sector*, European Commission, Brussels.

Mahini, A. and Turcq, D. (1993), ''The three faces of European deregulation'', *McKinsey Quarterly*, No. 3, pp. 142-58.

Nihoul, P. and Rodford, P. (2004), *EU Electronic Communications Law Competition and Regulation in the European Telecommunications Market*, Oxford University Press, Oxford.

Radaelli, C. (2003), ''Background report'', presented at the EU Conference on Impact Assessment in the EU: Innovations, Quality and Good Regulatory Governance, European Commission, Brussels, 3 December.

Stigler, G. (1971), ''The theory of economic regulation'', *Bell Journal of Economics and Management Science*, Vol. 2 No. 1, pp. 3-21.

World Bank (2000), *Telecommunication Regulation Handbook*, McCarthy Tetrault, Toronto.

Further reading

European Commission (2001), *Report of the Working Group 2b on ''Better Regulation''*, Co-pilots: Pantelouri A. and Binns S.; Rapporteurs: Cotter C. and Fabregas M., European Commission, Brussels.

European Commission (2002), *Decision Establishing the European Regulators Group for Electronic Communications Networks and Services*, European Commission, Brussels, 29 July.

Lewin, D. and Rogerson, D. (2003), *Barriers to Competition in the Supply of Electronic Communications Networks and Services: A Final Report to the European Commission*, European Commission, Brussels.

Mensching, J. (2003), ''Competition policy: commercial and consumer paybacks. The European dimension'', speech given at The International Institute of Communications 34th Annual Conference in association with the Royal Institute of International Affairs, London, 30 September-1 October.

OECD (2003), *OECD Communications Outlook*, OECD, Paris.

OECD (2004), *Access Pricing in Telecommunications*, OECD, Paris.