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TILEC Discussion Paper

WHAT WENT WRONG: THE EUROPEAN PERSPECTIVE

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This paper will not seek to repeat what was written in its companion paper on what went wrong from the US perspective,¹ especially as regards non-legal factors. Most of these factors have also played a role in Europe, for instance, technical factors such as the delayed onset of convergence and the persistence of high sunk costs, or commercial factors such as lack of sufficient demand for many new services or disregard for revenue prospects.

Rather, the aim of this paper is to look at a number of perhaps more Europe-specific causes for the woes of the telecom sector (II), and in particular at flaws and shortcomings in the EC legal framework which might have contributed to those woes (III). Of course, in so doing, it is difficult not to indulge in the temptation of assessing whether these flaws and shortcoming have been made good in the new EC framework for electronic communications, which is now being implemented in practice.² Before doing so, however, it is appropriate to take a critical look at the basic assumption under which this paper was commissioned, namely that European telecommunications have gone wrong (I).

I. WHAT WENT RIGHT AND WHAT WENT WRONG

It is undeniable that a sense of gloom prevails over the whole European telecommunications sector since 2000, and that it is only slowly receding.

Nevertheless, one should not be drawn to hasty conclusions. In fact, the assessment of the current situation depends in great part upon the eye of the beholder: it is likely that users, policymakers and operators will hold a different view.

A. From a user perspective

From a user perspective, the recent years have generally been positive. An examination of the annual Implementation Reports of the Commission³ produces the following picture:

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¹ See R. Frieden, "The Telecommunications Meltdown in the United States: Reasons and Solutions", also prepared for the Second Conference of the Round Table Expert Group on Telecommunications Law.

² The new framework is made up of the following directives (i) based on Article 95 EC: Directive 2002/19 of 7 March 2002 (Access Directive) [2002] OJ L 108/7, Directive 2002/20 of 7 March 2002 (Authorization Directive) [2002] OJ L 108/21, Directive 2002/21 of 7 March 2002 (Framework Directive) [2002] OJ L 108/33, Directive 2002/22 of 7 March 2002 (Universal Service Directive) [2002] OJ L 108/51 and Directive 2002/58 of 12 July 2002 (Privacy Directive) [2002] OJ L 201/37 and (ii) based on Article 86 EC: Directive 2002/77 of 16 September 2002 on competition in the markets for electronic communications networks and services [2002] OJ L 249/21.

³ See the latest one, "Eighth Report from the Commission on the Implementation of the Telecommunications Regulatory Package" COM (2002) 695 (3 December 2002) at 9-15, which

- Prices have gone down markedly overall since 1998. Not all services have seen their price decrease in the same fashion: the reduction was most notable for certain types of fixed telecommunications (long-distance and international), mobile telecommunications and Internet access. On the other hand, the price of local fixed communications has not decreased much, and the basic fixed line subscription has in some Member States become more expensive as a result of tariff re-balancing. In addition, newcomers generally price their services substantially lower than incumbents, which gives extra opportunities to the customer. Overall, both residential and business customers have seen their telecommunications expenditure decrease markedly over the last 5 years.
- Customers now have a choice of operators for all segments of the telecommunications sector, be it fixed local calls, fixed long-distance and international calls, mobile communications or Internet access. Competitors of the incumbents operate on a variety of bases, using carrier selection, carrier pre-selection or their own facilities (including the unbundled local loop). In line with a current of economic theory, the Commission uses five competitors as the reference figure for a competitive market. On this count, there are still some black spots regarding some sectors (especially at the local level) in some Member States. Five years down the road from full liberalisation, these figures might not be as impressive as some forecasts would have wanted, but nevertheless it appears that competition is taking hold and remaining firm, even in a time of consolidation.

The Commission observes, however, that the market shares of the incumbents on all segments of fixed telecommunications remain fairly high, while mobile communications evidence a much more “balanced” market structure. With respect to fixed local communications, for instance, the incumbents usually still hold more than 90% of the market, and in other segments they tend to remain comfortably above 50%.⁴ Furthermore, as the Commission observes, delays in implementing local loop unbundling have meant that incumbents have built a comfortable headstart in the provision of broadband Internet access.⁵ We will discuss later the extent to which lasting high market shares on the part of the incumbent should be interpreted as a sign of failure of the liberalisation enterprise.⁶

In its reports, the Commission also looks into quality of service, without however reaching conclusions.⁷ Nevertheless, it is common experience that the quality of service has significantly increased in the European telecommunications sector. For instance, the introduction of the latest technological developments (fixed broadband through cable or ADSL, GPRS, UMTS) is taking place ahead of, or at least at the

contains retrospective tables going back to 1998. The following points have been drawn from this Report. It is a reliable source, arising from an extensive data collection and consultation process. The tendency to paint a rosy picture in order to reach a positive conclusion on the outcome of the EC liberalisation process is counterbalanced by the habit of using of the Report to “name and shame” Member States which would be lagging behind and to list the weaker spots where the Commission intends to take action.

⁴ Ibid. at 15-17.

⁵ Ibid. at 29-32.

⁶ *Infra*, II.D.

⁷ The Commission rather looks at whether Member States have put in place sufficient mechanisms to ensure quality of service: see the 8th Implementation Report, *supra*, note 3, Annex II at 57-63.

same time as, the rest of the world. As regards the traditional offerings of fixed voice communications, the improvements have been felt not so much on the technological quality of the service as such, but rather on the ancillary services (ordering, billing, maintenance, added features, etc.), here as well bringing the EU up to world standards. Business customers, in particular, who provided much of the impetus behind the liberalization drive, have been able to obtain services coming much closer to their requirements of seamlessness and uniformity.

B. From a policymaker perspective

Here the situation is somewhat less positive, but by no means tragic. If one looks backwards, it can be seen that the main goals of the 1998 liberalization package (hereinafter ONP 1998),⁸ as they were set out in the main policy documents underlying that package,⁹ were reached to a significant extent:

- The rationale for liberalization and the introduction of competition in the sector was to *increase efficiency*, both productive¹⁰ and allocative.¹¹ The evidence reviewed above would seem to point out to a measure of success in reaching that objective.
- At the same time, social policy aspects, in particular universal service, were to be preserved – even enhanced – in the liberalized era. According to the Commission reports, this goal has been reached.¹²
- Similarly, the European telecommunications sector was to become more innovative, so as to overcome a perceived backwardness in comparison to trading partners. Here as well, the evidence would point towards this goal having been achieved in great part, as mentioned previously.
- Liberalization and the onset of competition were also supposed to strengthen the sector and make it more competitive on the international scene. Following the burst of the dotcom and telecom bubbles, it can be argued that this goal has not been met, especially since it appears that the most healthy firms in the

⁸ The main directives were: (i) based on Article 95 EC: Directive 90/387 of 28 June 1990 (Open Network Provision (ONP) Framework Directive) [1990] OJ L 192/1 (as amended by Directive 97/51 of 6 October 1997 [1997] OJ L 295/23), Directive 92/44 of 5 June 1992 (ONP - Leased Lines) [1992] OJ L 165/27 (as amended by Directive 97/51 of 6 October 1997 [1997] OJ L 295/23), Directive 97/33 of 30 June 1997 (ONP - Interconnection) [1997] OJ L 199/32 (as amended by Directive 98/61 of 24 September 1998 [1998] OJ L 268/37), Directive 98/10 of 26 February 1998 (ONP - Voice Telephony) [1998] OJ L 101/24, Directive 97/13 of 10 April 1997 on a common framework for general authorizations and individual licenses in the field of telecommunications services [1997] OJ L 117/15 and Directive 97/66 of 15 December 1997 concerning the processing of personal data and the protection of privacy in the telecommunications sector [1998] OJ L 24/1 and (ii) based on Article 86 EC: Directive 90/388 of 28 June 1990 on competition in the markets for telecommunications services [1990] OJ L 192/10 (as amended by Directives 94/46 of 13 October 1994 [1994] OJ L 268/15, 95/51 of 18 October 1995 [1995] OJ L 256/49, 96/2 of 16 January 1996 [1996] OJ L 20/59, 96/19 of 13 March 1996 [1996] OJ L 74/13 and 1999/64 of 23 June 1999 [1999] OJ L 175/39).

⁹ See for the Commission, the Green Paper on the liberalization of telecommunications infrastructure and cable television networks, Part I, COM(94)440 (25 October 1994) and Part II, COM(94)682 (25 January 1995), for the Council, the Resolutions of 22 December 1994 [1994] OJ C 379/4 and 18 September 1995 [1995] OJ C 258/1 and for the EP, the Resolutions of 7 April 1995 [1995] OJ C 109/310 and 10 May 1995 [1995] OJ C 151/479.

¹⁰ I.e. the sector would increase its output and reduce its inputs.

¹¹ I.e. producer surplus in a monopoly setting would be transferred to customers, who would benefit from lower prices and increased choice, increasing overall welfare.

¹² See the 8th report, *supra*, note 3 at 42-3.

- European telecommunications sector now are those who took the most conservative approach to the developments in the sector (e.g. Belgacom).
- Finally, the internal market goals were not achieved, and certainly not with respect to telecommunications services, as will be discussed below.

The situation is less satisfactory when looking ahead. The main policy issues of the moment do not appear to be on their way to a successful outcome. For one, the experience with the introduction of third-generation mobile communications (UMTS) shows that the success with GSM is not necessarily replicable – more precisely that the mere fact of coordinating the standard and the frequency bands is not sufficient to guarantee success.¹³ A setback with UMTS could have serious consequences on the health of the European telecommunications sector and on its position as a technological leader. Similarly, the speed and scope of the rollout of broadband services is likely to have a key influence on whether telecommunications continues to be an engine for overall growth and whether it contributes to social cohesion or not. Policymakers remain unsure as to whether this rollout should be left to market forces alone or supported by regulation. A failure in this respect could also change drastically the judgment borne on EC telecommunications policy in the future.

C. From an industry perspective

While the outlook is not so desperate from a user or policymaker perspective, the sense of doom comes out more clearly when things are viewed from an industry perspective.

The industry enjoyed unprecedented prosperity in the 1990s. In the past years, however, the situation was completely reversed. A large proportion of the new entrants who blossomed in the boom years disappeared, either in outright bankruptcies or after acquisitions. Those who are still left are struggling, although as a consequence of consolidation they should be in a better position to compete when the industry begins to recover. The incumbents and the other established players did not fare much better either. They were spared the spectacular and controversial bankruptcies that occurred in the United States (Worldcom, Global Crossing) or in neighbouring sectors (Kirch), but nevertheless most of them are crumbling under mountains of debt. They have seen their share values reduced to a mere fraction of what they were in 2000. They had to abandon ambitious business plans, which in some cases has led to painful repositionings (e.g. de-merger of O₂ from BT).

The industry is facing a number of difficulties:

- The cash flow necessary for large investments in new technologies has dried up. The firms themselves are not generating much cash flow given their debt level, and banks and private investors are now wary of putting money into telecommunications firms.
- Too much capacity was rolled out in the 1990s, thereby accelerating the trend towards commoditization of the sector.
- Any hopes of escaping commoditization by moving up the value chain into “converged services” which would combine content and transmission have proved unwarranted so far. Customers do not appear to be interested in these

¹³ This point is discussed at greater length *infra* under headings II.A. and III.D.

new services – digital pay-TV, third-generation mobile services – or at least not to the extent and under the conditions which business plans were banking upon.

As a consequence of the difficulties of the telecommunications sector, neighbouring sectors have been severely affected. The first attempts at building integrated “converged” firms failed: AOL/TimeWarner is struggling after having posted record losses and Vivendi/Universal is being dismantled. The market for media content also collapsed when the high sums paid to secure premium content (i.e. major sport events) turned out to be unrealistic. Communications equipment manufacturers were caught in the vendor-financing trap and must now also bear some of the losses themselves. Finally, the financial sector overexposed itself to telecommunications (especially with the financing of bids for spectrum licences for third-generation mobile services) and saw its own health jeopardized as well.

Crisply put, the much-touted “Internet time”, which ran faster than for the rest of the economy, has slowed down to a point where it might almost be running behind real time. Reality has re-asserted itself in a brutal fashion.

In the end, therefore, as far as European telecommunications are concerned, an inquiry into “what went wrong” boils down to asking how the industry ended up in such a dire situation, even though from a user or a policymaker perspective, events seem to have unfolded by and large satisfactorily.

II. OVERVIEW OF POSSIBLE CAUSES OF DIFFICULTIES

In this section, a number of possible causes for the industry problems are surveyed. Only causes that might have played a specific role in Europe – over and above the causes identified in the companion paper dealing with the US situation – are discussed. Furthermore, legal causes are left for the following section.

A. The UMTS experiment

During 2000 and 2001, as provided for in Community law,¹⁴ Member States proceeded, each for itself, to assign the rights to use the frequency spectrum reserved for third-generation mobile services (UMTS), through beauty contests or more often auctions.¹⁵ The assumption was that UMTS would prove a comparable success to the second-generation GSM service. At the same time, precisely because of the GSM success story,¹⁶ existing operators were very keen to obtain a license, and a number of other firms were interested in entering the various national markets. Member States also saw the potential for deriving revenue from spectrum auctions, as opposed to the beauty contests held for GSM licenses.

¹⁴ Decision 128/1999 of 14 December 1998 [1999] OJ L 17/1, Art. 3.

¹⁵ A good overview of the UMTS licensing procedures in the various Member States can be found in the report by McKinsey & Co., “Comparative Assessment of the Licensing Regimes for 3G Mobile Communications in the European Union and their impact of the Mobile Communications Sector” (July 2002), available at http://europa.eu.int/information_society/topics/telecoms/radiospec/mobile/studies/index_en.htm (on 2 July 2003).

¹⁶ On this, see J. Pelkmans, “The GSM standard: Explaining a success story”, CEPS Working Document 132 (August 1999).

UMTS therefore gave rise to a large-scale experiment in spectrum assignment methods.¹⁷ This experiment ranks both as a leading cause of the current difficulties and as the epitome of the excesses of the late 1990s.

Put together, all the licensing procedures brought in € 103,9 billion for the public treasuries of the Member States. This overall figure, already fairly impressive, belies a fundamental imbalance, since two of the auctions, held early on at the height of the bubble, account for most of it. The UK auction, in April 2000, earned €38,5 billion, while the German auction, four months later in August 2000, saw bids go up to €50,8 billion. In both cases, this represents more than €100 per inhabitant per license. The amounts spent on acquiring licenses in auctions and other procedures came over and above those which the operators already knew they would have to invest in rolling out, or upgrading to, third-generation networks.¹⁸

The decline of the telecommunications sector began shortly after the German auction. As far as UMTS is concerned, a number of points came to light then. Firstly, the mobile communications market was nearing saturation, so that the growth of UMTS would have to come from customers switching from GSM rather than from new customers. Secondly, the first field tests seemed to show that there was no immediate feature of UMTS (no “killer application”) that would draw customers away from GSM.¹⁹ Thirdly, some alternative technologies were available or appearing, which would offer benefits comparable to UMTS for a fraction of the cost, namely GPRS and other upgrades of the GSM standard (for which an existing GSM license was sufficient),²⁰ and WLAN standards of the IEEE 802.11 series (running on a free spectrum band).²¹

Consequently, the market forecasts that underpinned the bids in the various auctions had to be abandoned, leaving all the winning bidders straddled with debts. With the benefit of hindsight it can be said that the UMTS experiment put all significant players on the European telecommunications market in a dire financial situation, thereby constituting perhaps the main cause of the industry woes.

¹⁷ There was little precedent: no comparable exercise had taken place in Europe before, and the main precedent, the auction of the spectrum for second-generation services in the USA (running under the name “PCS”), had not been entirely satisfactory, as evidenced by the failure of NextWave in the PCS auction.

¹⁸ The precise amount to be invested in third-generation networks depends of course on regulatory factors such as deployment schedules or conditions concerning network-sharing arrangements. At the time, the winning bidders were expecting to be placed under tight rollout schedules and to be prevented from sharing network resources with their competitors, both of which drove up the estimates regarding necessary investments. Even in smaller countries, these estimates ran up in the billions of euros.

¹⁹ The main technological proposition of UMTS was the prospect of higher-rate mobile data communication. However, consumer appetite for mobile data services had been soured by the premature introduction of WAP services running over GSM data, which proved unattractive because of the slow speed.

²⁰ GPRS (General Packet Radio Service) is sometimes presented as generation 2.5 in mobile communications, since it adds packet-switching capacities to the GSM standard. While beneath those of UMTS, the data rates are vastly superior to circuit-switched GSM data. Other alternative but less successful standards include HSCSD (High-Speed Circuit-Switched Data).

²¹ IEEE 802.11a, b and now g, often referred to as Wi-Fi.

B. Misinformed international strategies on the part of the incumbents

The logic of European liberalization forced incumbents to look beyond their borders in a way that they had never done before. Indeed, expansion abroad was seen as perhaps the main means to offset the anticipated loss of market share on the home market.²²

Initially, given their relative inexperience, the incumbents' strategy tended to be unfocussed at the start, in the first half of the 1990s. In a number of cases, foreign participations were undertaken at a relatively high price, and with little prospect of synergies ever arising.²³ All major players also entered into so-called "strategic alliances" with other incumbents.²⁴ These alliances were meant to enable the participants to reach the level of geographical coverage and technical proficiency needed to compete for the business of the leading corporations of the world. Their structure was however too loose – and sometimes too awkward – to enable them to prosper, especially since here also the market forecasts were overly optimistic.²⁵ These strategic alliances were all unwound by 2000.

The larger operators have learnt from their mistakes and in recent years, they have pursued international strategies which appear better attuned and which produce more synergies, including in particular investment in mobile communications. The strategy of Vodafone (admittedly not an incumbent) provides a good example thereof. FT and DT have followed a similar path with the respective acquisitions of Orange and VoiceStream, both of which do seem to rest on a fairly strong business rationale. However, a lot of time, energy and foremost money had first been spent on fruitless efforts, so that the incumbents were already indebted and somewhat late when they improved their international strategies.

C. Supply-side approach to technology

When it comes to the large-scale introduction of new technologies, the track record of the European telecommunications industry is somewhat puzzling:

²² In principle, if the home market grows significantly, the incumbent can lose market share and still maintain modest growth or at least avoid decline. In practice, however, this growth is likely to come mostly from new services where the incumbent faces competition from the outset, so that it would not reach the same market share as on established market. In the end, the incumbent's share of the growth on the new markets is unlikely to compensate for the losses on traditional markets.

²³ Witness for instance the investments of DT in Telekom Indonesia or of FT in Telecom Argentina, to name but two examples.

²⁴ At one point, the line-up was as follows: Concert comprised BT and MCI, GlobalOne rested on DT, FT and Sprint and Unisource/Uniworld brought together Swisscom, KPN, Telia, Telefonica and AT&T. All of these alliances needed some form of clearance under competition law, which gave rise to momentous decisions: see Decision 94/579 of 27 July 1994, *BT/MCI* [1994] OJ L 223/36, Decision 96/546 of 17 July 1996, *Atlas* [1996] OJ L 239/23, Decision 96/547 of 17 July 1996, *Phoenix/GlobalOne* [1996] OJ L 239/57, Decision 97/780 of 29 October 1997, *Unisource* [1997] OJ L 318/1 and Decision 97/781 of 29 October 1997, *Uniworld* [1997] OJ L 381/24. The conditions and obligations attached to those decisions are analysed in P. Larouche, *Competition Law and Regulation in European Telecommunications* (Oxford: Hart Publishing, 2000), especially at 302 ff.

²⁵ Incidentally, the flaws in market projections became clear some years ahead of the general downturn in the sector, perhaps as early as 1998 when the partnerships underlying Concert and GlobalOne unravelled.

- One undeniable success story is the GSM technology. However, it was developed in a monopoly context over a fairly long period of time and was introduced in either a monopoly or duopoly setting at the beginning of the 1990s. The major upsurge in penetration and usage in the second half of the 1990s came through the introduction of pre-paid subscriptions, which were not part of the original concept.
- The Integrated Services Digital Network (ISDN) standard, which was developed over many years and promoted at great expense, only became successful when the Internet boomed. ISDN was then marketed as a means of obtaining a better capacity for data transmission. Yet it had been conceived primarily as a voice telephony standard that would improve over the traditional analogue PSTN offering.
- The great popularity of the Short Message Service (SMS) on GSM networks should not obscure the fact that SMS was not originally conceived for that purpose, but rather to relay messages from the network operator to the user.

The above list does not include any of the outright failures.²⁶

In all the cases mentioned above, the ultimate success of the technology was due in part or in whole to the discovery of unsuspected but popular markets. This discrepancy between the original expectations and the actual outcome reflects a “supply-side” approach to technology, where the perception of the suppliers as to what their customers might want and what should be the next stage of technological evolution seems to play a larger role in the development of technology than the actual customer demands.

In recent times, the Asymmetric Digital Subscriber Line (ADSL) technology for higher-rate data transmission over the local loop provides a counter-example of a technology that succeeds on the very proposition for which it was conceived. On the other hand, the UMTS standard for third-generation mobile communications appears “overspecified”; at the moment, none of the applications envisaged for UMTS appears to generate much customer interest or to answer pent-up demand. As mentioned earlier, the industry is still looking for the “killer application”. It cannot be excluded that the success of UMTS will ultimately rest in an application that was not necessarily specified or originally foreseen.

The cases discussed in the previous paragraphs are undoubtedly disparate; they concern different technologies, located at different places and levels in telecommunications infrastructures and fulfilling different purposes. Nevertheless, they share a number of characteristics: since they are used in a network environment, these technologies require significant investments in order to deploy them over a network. Such deployment also takes time, and often the technology can only be used fully once deployment is complete. Yet it is not possible to begin deployment without

²⁶ For instance, the Wireless Access Protocol (WAP), to enable mobile phone to display Internet content, which floundered commercially because of insufficient capacity for data transmission over traditional GSM networks. It can be speculated that WAP would have experienced a different fate if it had been introduced at the same time as more powerful data transmission standards such as GPRS. Earlier on, a lot of time and money had been invested in the ERMES paging standard (in parallel with the development and introduction of GSM), which became essentially superfluous with the success of GSM. Another notable failure in the neighbouring area of broadcasting is the D2-MAC digital TV standard.

having defined in fairly specific terms what the final outcome will be, hence the need for standardisation. The inherent investment risk is thus compounded by the time lag and the risk that the educated guesses of the developers turn out not to match the actual needs of customers.

One must ask, in the end, whether such outcomes can be avoided in a network industry. Of course, it is possible to conduct the standardisation process in such a way as to leave as much room as possible for unforeseen but popular uses. Relying more on software-based implementation can perhaps reduce the time lag. The presence of large-scale networks will however always require extensive advance work to ensure standardization, compatibility and interoperability. In a multi-layer industry structure, where network operators lie between equipment manufacturers and customers, the economic models developed for simple two-layer structures (producers and customers) do not necessarily work.²⁷ Network operators have little incentive to take part in standard battles, since in most cases they can at most preserve the *status quo* and at worst incur massive losses if they fall on the losing end.²⁸

The track record of the European industry in the past decades, as sketched out above, was not very enviable, and it certainly contributed to putting the industry in the position it finds itself now. In all likelihood, the pressures now arising from increased competition will push the industry to try to minimize the risks attendant to such a supply-side approach to technology, but it is unlikely that this approach will disappear altogether.

D. Persistence of incumbency

As regards fixed communications,²⁹ a number of business plans from the mid-1990s were based on the assumption that the incumbent would be fairly vulnerable and would relatively quickly lose a significant part of its market share. This assumption did not materialize. Incumbents proved much more resilient than originally thought in these business plans, as the figures mentioned earlier demonstrate.³⁰

Stalling tactics and outright anti-competitive practices on the part of the incumbents go some way towards explaining why incumbents retain such a prominent position five years after full liberalization. Still this type of behaviour is officially frowned upon and actively fought by regulatory and competition authorities. Other factors of a more structural nature must also be at work.

As will be further explored below, it could be that the regulatory framework, despite the intent of the lawmakers and regulators, cannot guarantee that newcomers will be able to establishing themselves on the market.

Beyond that, however, it would seem that the incumbent indeed benefits from some type of inertia. Even if switching costs are kept low, customers still hesitate to move away from the incumbent. A fairly large number of customers – residential and

²⁷ These models are well outlined in S.M. Besen and J. Farrell, “Choosing How to Compete: Strategies and Tactics in Standardization” (1994) 8 J Econ Pers 117.

²⁸ See Larouche, *supra*, note 24 at 388-393.

²⁹ This header does not concern mobile communications, where incumbency is much less of a problem.

³⁰ *Supra*, under I.A.

business alike – are in any event not immediately targeted by newcomers and will thus remain with the incumbents. Furthermore, a policy decision was made early on to allow the incumbents to compete with others, even if under heavier regulation. Once the incumbent does not act like a sitting duck and seeks to retain its customers, the pace of decline of the incumbent's market share is bound to be much slower (even if the incumbent were to behave entirely in line with competition law and regulation).

The consequences of the resilience of incumbents are manifold. First of all, many newcomers could not establish themselves as they had foreseen; that as such is not a grave problem, since it is part of life that some business plans turn out to be flawed. Secondly, the continuing presence of a large player means that the whole industry is perhaps not as dynamic as it could be, since competitive forces do not play to their full extent.

More fundamentally, the long-term presence of incumbents with overwhelming market shares – so that dominance is almost a foregone conclusion – casts a shadow not only over optimistic business plans, but also over the bases for regulatory policy. In short, what market structure can realistically be expected? So far, policymakers have often gone out from the assumption that over time, the telecommunication sector – more specifically fixed telecommunications – would become like any other sector of the industry. This assumption explicitly underpins the new electronic communications framework.³¹ Accordingly, at some point a number of players of comparable strength will be competing with each other, thereby ensuring a certain amount of self-policing, so that competition law alone would suffice to keep the sector working efficiently. Regulatory intervention is thus meant to foster the emergence of this industry structure, and to vanish afterwards. The experience of the past years shows that this is unlikely to happen soon, and one has to question whether in fact any amount of regulatory intervention will lead to this ideal vision ever materializing.

If the basic assumptions underlying regulation have to be put in question, a number of alternatives are possible:

- Relying instead on the theory of contestable markets as the underlying assumption, in order to roll back regulation despite the continuing presence of a single dominant player. Contestability, however, has not yet been firmly supported by empirical economic evidence;
- Accepting that the ideal competitive market will not occur and that sector-specific regulation focusing on market power is bound to remain in place in the longer term;
- Pushing the analysis deeper and asking whether the failures observed in the telecommunications sector are truly resulting from dominance in the traditional sense or rather from other specific phenomena which are not necessarily linked with dominance in the traditional sense (e.g. bottlenecks, network effects). In the former case, we are back to the second alternative. In the latter case, there is room for a relaxing of regulation: after all, a number of

³¹ See for instance the opinion voiced by the Commission in *Towards a new framework for Electronic Communications infrastructure and associated services - The 1999 Communications Review* COM(1999)539 (10 November 1999) at 49: "The aim is to create a regulatory regime which can be rolled back as competition strengthens, with the ultimate objective of controlling market power through the application of Community competition law." The EP expressed a similar view in its Resolution of 13 June 2000 [2001] OJ C 67/53 at 54.

markets outside of telecommunications function properly – under the supervision of competition law – despite the presence of one or more dominant players. However, regulation with a narrow focus on the specific phenomena that were identified would remain in place.³² As explained further below, recent developments seem to point towards this alternative.³³

This discussion did not really take place in the last round of review, which resulted in the new EC electronic communications framework. Much like ONP 1998, the new framework appears lacking in terms of policy vision, a point discussed immediately below.³⁴

For the sake of completeness, it should be noted that incumbency often also acts as a burden on the incumbents. Their initial foreign investment plans also foresaw in the longer term that the revenue streams from outside would at least reach the same order of magnitude as those from the home countries themselves. Over time, the incumbent would thus emerge from its national confines to become a true global player. It now appears that few incumbents will ever reach that position. Rather, they are more likely to remain nationally-focussed firms with an international outlook. The long-term perspectives of the incumbent then become less attractive. From a public policy angle, this also implies a heightened risk of counter-productive “scorched-earth” defensive strategies on the part of the incumbents, which also points towards a persisting need for regulation in the long run.

III. THE LEGAL ASPECTS

The previous discussion left aside the possible role of the legal and regulatory framework in the current difficulties of the industry. The main weaknesses of the former regulatory framework (ONP 1998) will now be surveyed to try to ascertain whether, and if so, how large a role they might have played in bringing about the downfall of the industry.

A. The lack of coherent vision in the “ONP 1998” framework

In the 1990s, as ONP 1998 was being put together, the main objective was to introduce competition into the telecommunications sector.³⁵ There was a general consensus that competition offered a remedy to the main ills (inefficiency, lack of innovation, lack of customer focus), so much so that the link between competition and the desirable market outcome was often quickly assumed.³⁶

As a consequence, to the extent that it can be said that ONP 1998 was based on any model, it was a fairly simple model of a competitive market where the incumbent

³² This hypothesis is discussed in greater detail in P. Larouche, “A closer look at some assumptions underlying EC regulation of electronic communications” (2002) 3 *Journal of Network Industries* 129.

³³ *Infra*, under III.B.

³⁴ *Infra*, under III.A.

³⁵ As the very title of the various directives making up ONP 1998, as listed *supra*, note 8, already indicates.

³⁶ See for instance recitals 3-7 of Directive 96/19, *supra*, note 8, where the Commission explains why it is requiring the complete liberalization of the sector. The reasoning is fairly quick, and it relies in great part on the general assumptions underlying the EC Treaty, which calls for a internal market without barriers to trade in services and restrictions of competition.

would be facing newcomers, moving on with time to a competitive market, as discussed previously. The task of the regulatory framework was then to make it possible for these newcomers to compete with the incumbent, ideally on equal terms. And so it purported to do:

- (i) Directive 96/19 removed any remaining monopolies in the sector and Directive 97/13 sought to limit licensing requirements to a minimum, thereby making room for stand-alone (or facilities-based) competition throughout the sector.
- (ii) Given that the provision of infrastructure (network capacity) in and of itself is liberalized, there is no need for incoming service providers to actually roll out their entire infrastructure. They can alternatively lease it from a network operator, be it the incumbent or a competitor.
- (iii) Simply opening the market is generally agreed not to be sufficient, considering that newcomers cannot replicate the network of the incumbent at once, whether on their own or by renting capacity. Furthermore, network effects play against them. It is conceivable, but in an asymmetrical setting unlikely, that the market players would enter into interconnection agreements on their own motion: such agreements enable newcomers to offer a comparable service and cancel out the network effects, but they bring few benefits to the incumbent at the outset. Hence it is sensible to introduce an interconnection regime whereby the incumbent can ultimately be forced to grant interconnection on its network. Directive 96/19 contained the seeds of such an interconnection regime, which was further elaborated in Directive 97/33. Since the incumbent is in a dominant position, this regime will enforce interconnection on transparent and non-discriminatory terms.³⁷

A first problem arises here. In principle, all competitors, whether they rely on their own infrastructure or lease it and however large or small their network is, are asking for the same functionality; in line with a strict view of non-discrimination, the only distinctions that can be made by the incumbent in its terms and conditions for interconnection should be based on objective factors such as the type of interconnection (over 1, 2 or more exchanges) or perhaps the volume of traffic generated.³⁸ Yet at the same time, from a public policy perspective, it might be desirable to “reward” newcomers who invest in infrastructure with more favourable interconnection rates. Directive 97/33 left some room for a break from non-discrimination along those lines, in the provisions concerning the reference interconnection offer.³⁹

A second problem related to pricing. Given the dominance of the incumbent, it was determined that cost-based pricing should be enforced by regulation. Even if Directive 97/33 was not conclusive on this topic, the Commission later

³⁷ Directive 97/33, *supra*, note 8, Art. 6.

³⁸ Although this has little impact on the underlying costs, given that each communication must be completed separately.

³⁹ Directive 97/33, *supra*, note 8, Art. 7(3).

encouraged the use of a FL-LRIC standard for cost assessment.⁴⁰ FL-LRIC is known for its general tendency to result in cost assessments in the low range, thereby leading to low regulated interconnection prices.

- (iv) Finally, in view of the difficulties involved in duplicating local network infrastructure, unbundling of the local loop was also made compulsory with Regulation 2887/2000.⁴¹ Here as well the unbundling regime is designed to make this an attractive option, with cost-oriented prices⁴² preferably determined according to a FL-LRIC method.⁴³

When all of the competitive avenues listed above are put together, a picture emerges of a regulatory framework which seeks to make every competitive strategy possible,⁴⁴ ranging from competing on the basis of one's own infrastructure to merely reselling services obtained from another (usually the incumbent) at wholesale prices, with a number of variations and combinations in between. In the early stages of liberalization, this might not be such a bad policy course, in order to maximize the competitive pressure on the incumbent. Nevertheless, with the passage of time, it becomes clear that this course is self-contradictory: the easier it is to obtain infrastructure and services from the incumbent at low prices, the less competitors will be tempted to invest in their own infrastructure. Short-term strategies, centred on arbitrage between the incumbent's wholesale and retail prices, will therefore tend to be favoured over longer-term strategies, where a firm would rely on an independent platform which gives it control over costs and features, thereby leading to a richer form of competition.⁴⁵

The phenomenon described above has been witnessed in the EU Member States since 1998. Of course, Member States enjoy some discretion in the implementation of EC law, both because EC telecommunications law is couched in directives and because these directives themselves leave some leeway. For instance, as said above, Directive 97/33 allowed Member States to introduce some differentiation in the interconnection regime, so as to favour newcomers who invest in their own infrastructure. A number of Member States (including France) chose to use that possibility and create a two-tiered interconnection regime, but others chose not to do so and implement non-discriminatory interconnection strictly.⁴⁶ This only added extra distortions to the market.

⁴⁰ See Directive 97/33, *ibid*, Art. 7(2). FL-LRIC is envisaged at Recital 10 of Directive 97/33 and strongly advised in Recommendation 98/195 of 8 January 1998 on interconnection pricing [1998] OJ L 73/42. See Larouche, *supra*, note 24 at 246-50.

⁴¹ Regulation 2887/2000 of 18 December 2000 [2000] OJ L 336/4.

⁴² *Ibid*, Art. 3(3).

⁴³ Recommendation 2000/417 of 25 May 2000 [2000] OJ L 156/44, Art. 1(6).

⁴⁴ Not unlike what was attempted with the Telecommunications Act of 1996, Pub.L. No. 104-104, 110 Stat. 56 in the US as well.

⁴⁵ Compare the situation in fixed telecommunications, as outlined in the main text, with that of mobile communications, which ONP 1998 left by and large untouched. Most Member States took advantage of the reshuffling brought about by the introduction of second-generation technology (GSM) to move to a model of competition between networks (with of course additional service providers acting as resellers). As a result, competition in that part of the industry is fairly buoyant, both on price and on non-price aspects (features, billing, etc.).

⁴⁶ See Larouche, *supra*, note 24 at 76-85.

With newcomers mostly adopting a short-term strategy, it comes as no surprise that they found themselves in a difficult position when the incumbent started to move its retail prices down under competitive pressure and squeezed their margins. This led to further regulatory action, usually through a downward revision of wholesale prices (for interconnection and/or unbundled local loop) in the course of regulatory or competition law proceedings.⁴⁷ While such action might be justified, one cannot escape the conclusion that the current competitors are very dependent on the regulatory framework for their survival. In other words, the shape of the market is essentially determined through regulatory decisions. In the longer term, such a situation does not seem very desirable, or at the very least the regulatory framework must then rest on a consistent and well-articulated vision of where regulation should seek to lead the industry.

In this respect, ONP 1998 falls too short: it focuses too much on competition as such, seeking to make every competitive avenue possible and forgetting in the process that competition is only a means to an end, i.e. an efficient and sustainable market. ONP 1998 conceived regulation too much as a process of arbitrating between incumbents and newcomers, most often siding with the latter given their relative weakness. With time, the task of the regulatory authority must go beyond picking sides between incumbents and newcomers, especially as the debate becomes less clear-cut. The authority must then in any event take a more pro-active posture and develop its own vision of where it is heading, if it is to discharge its task adequately. Such vision should preferably be distilled out of the legislative mandate of the authority, but in any event the authority should work on it. Given the inherent uncertainty which prevails in a rapidly evolving industry like telecommunications, the regulatory vision cannot and should not be framed in terms of a clear market structure, i.e. a given number of players for a given number of services working with a given number of platforms and technologies. Rather, there should be a consistent regulatory message running through the various actions of the authority, such as a priority given to innovation, to lower prices, to the rapid introduction of new technologies or to a secure investment climate, to name but a few possibilities.

The new framework for electronic communications does not bring much improvement in this respect. On the positive side, Directive 2002/21 contains a fairly well developed statement of regulatory objectives,⁴⁸ which Member States must assign to their national regulatory authorities (NRAs). The NRAs will therefore receive guidance from their enabling legislation. The list of objectives found in Directive 2002/21, however, looks more like a catalogue than a coherent statement. For instance, NRAs “shall promote competition” by “ensuring that users... derive maximum benefit in terms of choice, price and quality”, “ensuring that there is no distortion or restriction of competition” and also “encouraging efficient investment and promoting innovation”. These various goals, as was seen before in the discussion of the ONP 1998 framework, are not necessarily compatible, so that the new electronic communications framework leaves the door open to a continuation of the

⁴⁷ See for instance the proceedings under Article 82 EC against FT and DT relating to various squeeze tactics on the local access market: “Commission fines DT for charging anti-competitive tariffs for access to its local networks” IP/03/717 (21 May 2003) and “High-speed Internet: the Commission imposes a fine on Wanadoo for abuse of a dominant position” IP/03/1025 (16 July 2003).

⁴⁸ Directive 2002/21, *supra*, note 2, Art. 8.

current policy contradictions.⁴⁹ At the very least, it leaves the possibility that Member States would opt for differing and potentially diverging policy orientations. Furthermore, the relative “agnosticism” of the new framework is to be contrasted with the clear and repeated intent of the European Council, as stated in the conclusions of its spring meetings since the Lisbon Summit of 2000, to make Europe “the most competitive and dynamic knowledge-based economy in the world”.⁵⁰ Normally, such a statement of intent should find its echo in the new framework, for instance through a signal that priority is to be given to innovation and access to communications. Rather, on the face of the new framework, it would be up to the NRAs to heed the conclusions of the European Council when implementing a rather undecided body of EC secondary law.

B. The significance of the conceptual architecture

Another major weakness of ONP 1998 was its conceptual architecture, which was very technically-oriented. By way of example, few observers will lament the demise of the definition of “public voice telephony”, which was used prior to 1998 in order to delineate the scope of the allowable monopoly rights and kept a central role in ONP 1998.⁵¹ It took years to reach a workable understanding of that concept.⁵² ONP 1998 is rife with technical concepts and distinctions between “networks” and “services”, “fixed” and “mobile” communications, “access” and “interconnection”, etc.

In all fairness, it must be pointed out that “significant market power” (SMP), one of the central concepts of ONP 1998,⁵³ was meant to be a non-technical concept, referring instead to the economic notion of market power. The outcome of the discussions held ahead of the legislative process leading to ONP 1998 shows that the institutions agreed that the imposition of asymmetric regulation would be done on the basis of economic analysis, as opposed to incumbency or technical factors.⁵⁴ This legislative intent was stifled, however, by the inclusion of a rule-of-thumb in the actual definition of SMP, whereby an operator with a share 25% or more of the market to be studied would be presumed to have SMP.⁵⁵ Even if ONP 1998 expressly

⁴⁹ The same cataloguing of potentially contradictory objectives can be observed elsewhere as well, for instance in the considerations to be taken into account when ordering that SMP operators provide access to their competitors or when introducing price control and cost accounting obligations for SMP operators: see Directive 2002/19, *supra*, note 2, Art. 12 and 13 respectively.

⁵⁰ See the conclusions of the Lisbon Council (23-24 March 2000), para. 5, reiterated in Stockholm (23-24 March 2001), Barcelona (15-16 March 2002) and Brussels (20-21 March 2003).

⁵¹ See its use in Directive 90/388 (as amended by Directive 96/19), Directive 97/33 and Directive 98/10, *supra*, note 8.

⁵² It took the Commission several pages to set out that understanding: see the Communication of 20 October 1995 on the status and implementation of Directive 90/388 [1995] OJ C 275/2 at 4-8 and Larouche, *supra*, note 24 at 9-14.

⁵³ The SMP concept remains key in the new electronic communications framework, as will be seen below, but its content has been changed radically.

⁵⁴ See the Communication on Present Status and Future Approach for Open Access to Telecommunications Networks and Services (ONP), COM(94)513 final (29 November 1994) and the Council Resolution of 18 September 1995 on the implementation of the future regulatory framework for telecommunications [1995] OJ C 258/1 under 3.c).

⁵⁵ See Directive 97/33, *supra*, note 8, Art. 4(3). The same definition was later taken over in Directive 97/51 (amending Directive 92/44 at Art. 2(3)) and Directive 98/10, *ibid.*, Art. 2(2)(i).

allowed for deviations from this presumption, most NRAs applied the SMP concept quite mechanically.⁵⁶

The conceptual architecture of ONP 1998 was criticized along the following lines:

- (i) *Lack of flexibility*: Too many details were settled in the EC directives themselves and could not easily be modified. For instance, the various directives making up ONP 1998 defined the markets to be studied in the SMP procedure, and also indicated precisely the remedies to be imposed on SMP operators. It was difficult for NRAs to deviate from these provisions on their own motion.⁵⁷
- (ii) *Formalism*: The inquiries mandated by ONP 1998 did not always match reality. Markets were defined without paying attention to the actual functioning of the sector. To name but one, the “interconnection market” that had to be studied pursuant to Directive 97/33 was a fairly artificial construct, to say the least.⁵⁸ Similarly, because the 25% rule-of-thumb just discussed, SMP assessment became a relatively formalistic exercise.
- (iii) *Lack of legal certainty*: It may seem paradoxical to argue that ONP 1998 is also deficient as regards legal certainty, if it is otherwise inflexible and formal. Many market players nonetheless did, on the grounds that ONP 1998 allowed for too much divergence in the respective national implementations, so that it was difficult to foresee in which direction the NRA in a given Member State would be heading.

The above grievances were certainly justified, and it can be ventured without too much doubt that the conceptual architecture of ONP 1998 hampered the realization of its objectives. It did not take too long for this regulatory framework to appear outdated or at least unable to cope with upcoming developments.

Here as well, it is interesting to see if the conceptual architecture of the new electronic communications framework marks an improvement over ONP 1998. As is by now well known, the problems described above were addressed mostly by aligning the substance of the new regulatory framework with that of EC competition law.⁵⁹ The theory is that competition law concepts are inherently flexible and allow for a better fit with reality (based as they are on economic analysis); furthermore, given the accumulation of case-law over the years, these general concepts have by now been sufficiently well mapped to provide legal certainty to the parties concerned. As a consequence, the revamped SMP procedure under the electronic communications framework relies heavily on competition law concepts:

⁵⁶ To their discharge, it must be said that in most cases, especially as regards fixed telecommunications, the outcome of the inquiry was quite clear, even without in-depth analysis.

⁵⁷ As the ECJ pointed out in its judgment of 13 December 2001, Case C-79/00, *Telefónica de España v. Administración General del Estado* [2001] ECJ I-10075 at para. 29, Directive 97/33 is not a full harmonization directive, and Member States are free to be more severe with SMP operators, provided that they do not contradict EC law in so doing. The argument is probably valid for the other ONP 1998 directives as well. Accordingly, on the assumption that national law enabled NRAs to go beyond what was provided for in ONP 1998 and provided the NRA action did not otherwise contradict EC law, NRAs could for instance assess SMP in markets other than those defined in EC legislation.

⁵⁸ Directive 97/33, *supra*, note 8, Art. 7(2). See the Commission Communication “Determination of Organisations with Significant Market Power (SMP) for implementation of the ONP Directives” (1 March 1999), available at <<http://europa.eu.int/ISPO/infosoc/telecompolicy/en/comm-en.htm>>.

⁵⁹ See Larouche, *supra*, note 32.

- It is divided in three stages, market definition, market analysis and remedies, in line with the main steps of competition law proceedings;⁶⁰
- At the market definition stage, NRAs are meant to follow competition law methodology.⁶¹ In practice, the Commission takes a leading role with its Recommendation on relevant product and service markets, which the NRAs are expected to follow.⁶²
- Market analysis comes down to assessing whether one or more players have SMP on the relevant market. In the new framework, SMP is defined as “a position equivalent to dominance”,⁶³ and the Commission Guidelines emphasize further the link with competition law.⁶⁴
- A less obvious but no less consequential link is made at the remedies stage, where the NRA enjoys a choice among a set of remedies that all bear close resemblance to what could be imposed under competition law.⁶⁵ Little room has been left for more “sector-specific” remedies where changes would be made to the technological environment (standardization, etc.) in order to enhance efficiency.⁶⁶

At the same time, it must be acknowledged that competition law cannot solve every regulatory problem. The track record of competition law analysis on bottleneck-type problems, for instance, remains modest: both the “essential facilities doctrine” and the approach based on a “market for access to facilities”⁶⁷ appear very contrived and have not produced outstanding results so far.⁶⁸

It is equally mistaken to believe that regulation founded on solid economic analysis is only possible within the framework of competition law. Competition law is but one way of using economic analysis for regulatory purposes.

⁶⁰ Directive 2002/21. *supra*, note 2, Art. 15-16.

⁶¹ *Ibid.*, Art. 15(3). See the Commission Guidelines on market analysis and the assessment of significant market power [2002] OJ C 165/6 at para. 33ff.

⁶² *Ibid.*, Art. 15(1). See the first recommendation, Recommendation 2003/311 of 11 February 2003 [2003] OJ L 114/45. The binding effect on the NRAs arises out of the procedure of Art. 7 of Directive 2002/21, which gives the Commission the power to block NRA decisions if the NRA plans to stray from the Recommendation and the Commission finds that this could infringe EC law.

⁶³ *Ibid.*, Art. 14(2).

⁶⁴ Commission Guidelines, *supra*, note 61 at para. 70ff.

⁶⁵ See under Directive 2002/19, *supra*, note 2, for the wholesale level, Art. 9 (transparency), 10 (non-discrimination), 11 (accounting separation), 12 (access to facilities) and 13 (price control and accounting) and under Directive 2002/22, *supra*, note 2, for the retail level, Art. 17 (pricing obligations, non-discrimination, unbundling).

⁶⁶ For instance, in the current discussion surrounding allegedly excessive prices for call termination on mobile networks, all signs point towards the imposition of the heaviest possible regulatory remedy, namely price control (to be covered by Directive 2002/19, *ibid.*, Art. 13, in cases decided under the new framework). Such regulatory intervention is likely to beget further intervention (or collusive behaviour) to offset its impact. At the same time, it could have been possible at limited cost to change the technological model underlying mobile communications by making subscribers “visible” to competing networks for the purposes of call termination, thereby introducing an element of competition without interfering too deeply with the freedom of firms to plan their business. This type of remedy, however, does not fit within the idealized competition-law-type remedies of Directive 2002/19.

⁶⁷ This was the approach put forward by the Commission in the Notice of 22 August 1998 on the application of the competition rules to access agreements in the telecommunications sector [1998] OJ C 265/2 in order to avoid using the essential facilities doctrine, which was already facing criticism.

⁶⁸ The essential facilities doctrine was put in an evidentiary straitjacket by the ECJ in its judgment of 26 November 1998, Case C-7/97, *Oscar Bronner GmbH & Co. KG v. Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co. KG* [1998] ECJ I-7791.

Indeed, now that the new framework for electronic communications must be operationalized, it is already moving away from complete alignment with competition law towards a more original form of economic analysis. The Commission Recommendation on the Relevant Product and Services Markets illustrates this point very well.⁶⁹ The three-step model outlined above (market definition, analysis and remedies) sticks very closely to competition law, but it hides one important step which lies at the core of the Recommendation, namely “market selection”. In other words, it is not sufficient simply to define a market and find a dominant position for intervention to be justified, whether *ex ante* or *ex post*. In competition policy, the triggering factor is to be found in specific conduct (abuse) or a change in market structure (merger). In the new regulatory framework, this triggering factor comes at this “market selection” stage, where some relevant markets are singled out for the SMP procedure. In its Recommendation, the Commission sets out three conditions for a market to be selected:⁷⁰

- the presence of high and non-transitory entry barriers whether of structural, legal or regulatory nature;
- a market structure which does not tend towards effective competition within the relevant time horizon; and
- inadequacy of competition law alone to address the market failure(s) concerned.

Furthermore, when elaborating on the first condition, the Commission adds that persistent entry barriers of a structural nature arise because of (i) a combination of economies of scale/scope and high sunk costs or (ii) the need to obtain a network component that cannot technically or economically be duplicated (bottleneck).⁷¹ These two phenomena are typical of telecommunications, as a specific form of network industry.⁷² The Commission Recommendation testifies to an original approach which takes into account the specific economic realities of the sector while paying lip-service to the principle of alignment with competition law.

With the new SMP procedure as it is now unfolding, the new electronic communications framework is therefore already moving from a quasi-ideological principle of alignment with competition law towards a more sector-specific analytical method relying on economic and functional criteria, which appears to be the optimal conceptual architecture. If this approach retains currency, then it could also signal a shift in the underlying regulatory assumptions away from the ideal of the perfect competitive market policed with competition law, and towards the long-term presence of well-targeted regulation alongside competition law.⁷³

⁶⁹ *Supra*, note 62.

⁷⁰ *Ibid*, recital 9.

⁷¹ In my view, the Commission could have added to the list the presence of network effects which tilt the balance against new entrants, although in most cases these network effects will be coupled with economies of scale/scope and sunk costs. By the same token, it is quite likely that the bottleneck cases will also be cases where economies of scale/scope are coupled with high sunk costs, save where technical reasons render duplication impossible. On the other hand, “bottlenecks” and “network effects” are more precise categories than “economies of scale/scope coupled with high sunk costs”, which do not necessarily distinguish telecommunications from other parts of the economy.

⁷² See the comparison between different network industries in the Green Paper on Services of General Interest, COM(2003)270 (21 May 2003) at para. 70-2 and para. 29-33 of the Annex.

⁷³ See *supra* under II.D.

C. The lack of self-enforcement incentives

It was pointed out in the companion paper on the US perspective that the US Telecommunications Act of 1996 contained a regulatory bargain that was meant to convince the players who would bear most of the burden of new regulation, namely the Baby Bells, to make efforts to comply with it. In short, in return for their compliance with a regulatory check-list designed to ensure that competitors can enter local markets, the Baby Bells could request permission from the FCC to enter the long-distance market within their respective areas of local operations.⁷⁴ This regulatory bargain apparently became far less attractive when the long-distance market lost much of its appeal, having been reduced to a commodity market, but at least it was built in the new legislation.

There was no comparable trade-off built in ONP 1998. Of course, the respective incumbents could envisage expanding in other Member States in order to offset the impact of liberalization in their home territory, as outlined previously. This was however more of a readily available competitive strategy resulting from ONP 1998 than an explicit component thereof. Furthermore, it is in the nature of a regime based on directives, such as ONP 1998, that implementation will result in some legitimate divergences between Member States (leaving aside cases of incomplete or incorrect implementation, which are bound to arise as well). Accordingly, even if there had been a regulatory bargain at EC level, it could not have been a very attractive one, given the uncertainty introduced by the implementation process.

Consequently, ONP 1998 depended entirely for its success on proper “exogenous” enforcement, coming from public authorities. At Member State level, the resolve of public authorities was undermined by inherent conflicts of interest. While the NRA (with the support of the national competition authority (NCA) and national courts) might have desired to apply and enforce ONP 1998 adequately, other parts of the State were probably less inclined to do so. The latter include the department holding the State interest in the incumbent (still present in most Member States) and even the central political authority, since in many Member States the incumbent’s shares are widely held and any downturn in the incumbent’s fortunes is bound to be felt by a large swathe of individual shareholders.

In the end, only the EC itself stood firm behind its own regulatory framework, with the Commission as the main enforcing authority against reluctant Member States (via infringement proceedings under Article 226 EC) and even directly against firms (via competition law).⁷⁵ Under these circumstances, it is difficult to assess whether enforcement was defective. When assessed against the deadlines set in the various instruments making up ONP 1998, the compliance record of Member States and firms lies below reasonable expectations: even when the formal implementation deadlines were met, there often remained problems in substance. For one, in most Member States it took a number of years to agree and put in place an accounting system and costing standards which allowed for interconnection pricing to be assessed in line with Directive 97/33. Another example is the unbundling of the local loop, where the

⁷⁴ See the Telecommunications Act of 1996, 47 USC § 271.

⁷⁵ The overlap between ONP 1998 and EC competition law, both in substance and institutionally, are reviewed in detail in Larouche, *supram*, note 24, especially at pages 283-316.

Commission began with a softer measure, a Recommendation.⁷⁶ In view of the lack of movement on the part of Member States, the Commission then moved to have a Regulation adopted.⁷⁷ Even then, two years later, the situation is still unsatisfactory.⁷⁸

At the same time, in the absence of a regulatory bargain which could entice self-compliance and in view of conflicts of interest at Member State level, it is part and parcel of the regulatory process that compliance deadlines bordering on the unrealistic would be set, in order to increase pressure on the various actors. If the deadlines are left aside, the compliance record is less disappointing. Considering that a mere six years elapsed since the main components of ONP 1998 were adopted, progress is impressive, especially when one considers that often the only incentive for compliance was the threat of action from the Commission.

Accordingly, it is difficult to blame the problems of the sector on a large-scale failure to ensure substantive compliance with ONP 1998 according to the set deadlines. However, ONP 1998 could perhaps have been better designed to create more incentives for compliance than the mere threat of enforcement measures.

The new electronic communications framework arrives in a different context. Over the years, resistance at Member State level has abated somewhat. Since the new framework does not require any further major policy shifts (liberalization being “acquired” at the policy and legal level), it can be expected that enforcement at Member State level will be more forthcoming. Furthermore, the new framework gives NRAs more discretion at the remedial stage, and the heaviest remedies (access, price control) allow for a careful balancing of interests between the various parties involved, so that everyone can be put in a winning position.⁷⁹ It is therefore quite conceivable that compliance will be ensured more smoothly than under ONP 1998.

D. Losing sight of the Internal Market

Within EC law, ONP 1998 constitutes an interesting and rare example of harmonization⁸⁰ driven not so much by the need to realize the Internal Market as by the will to introduce or strengthen competition in the harmonized field.⁸¹ ONP 1998 suffered from significant shortcomings with respect to the Internal Market.

The UMTS experiment, discussed previously, highlights these shortcomings. Relevant EC law can be found in Decision 128/1999, which obliged Member States to issue UMTS licenses within a coordinated timeframe, for harmonized frequency

⁷⁶ Recommendation 2000/417, *supra*, note 43.

⁷⁷ Regulation 2887/2000, *supra*, note 41.

⁷⁸ See the 8th Implementation Report, *supra*, note 3 at 24-32

⁷⁹ See the list of relevant factors for consideration listed in Directive 2002/19, *supra*, note 2, at Art. 12(2) as regards access obligations and Art. 13(1) and (2) as regards price control and accounting obligations.

⁸⁰ With instruments based on Article 95 EC.

⁸¹ At a glance, one could argue that this was bound to follow from the parallel use of Articles 86 and 95 EC as legal bases, the first one giving an unmistakable bent in the direction of competition as opposed to the internal market. However, it is argued in Larouche, *supra*, note 24 at 37-70 that the difference between the two legal bases is less considerable than is commonly assumed, and that the choice of legal basis was influenced primarily by political rather than substantive factors.

bands and according to agreed standards.⁸² Beyond that, Directive 97/13 imposed few constraints on the freedom of Member States to choose the assignment method.⁸³

At the time, it was widely believed in the industry that UMTS was the key to future growth, and accordingly that a UMTS license was essential; without one, a mobile communications firm would more or less be left to manage its decline. Moreover, in most Member States, licenses were issued under the following conditions: all of the available frequencies were assigned at once (now-or-never), and license holders would not be allowed to share their networks or to engage into secondary trading of their licenses. Under these circumstances, it is hardly surprising that the British and German auctions led to such high bids.

But there is also a European dimension to the story. The main players involved in the licensing procedure tended to be the same from one Member State to the other (whether alone or with local partners): Vodafone, Orange, T-Mobile, BT (now O₂), and to a lesser extent Telefonía and Telecom Italia. These firms were pursuing pan-European strategies and were seeking a license in each Member State, or at least in each major one. Similarly, the equipment manufacturers operate on a pan-European basis, given standardization. A large number of customers also desire true pan-European services (as opposed to merely national services with roaming). Yet the licensing procedures remained fundamentally national. Accordingly, when a large country such as the UK went first, it can be ventured that all the main players entered very high bids since they knew that their pan-European plans hinged on obtaining a license in the UK. Then came the largest country, Germany, which was also crucial. Here as well bids went very high. Afterwards, the pan-European plans of players who failed in the UK and Germany were shattered. One could suggest that this led to a loss of interest in subsequent licensing procedures, or at least to a revision of valuation models for the losing players.

It is striking that only the public authorities adopted a national perspective, while the operators, the equipment vendors and a significant part of the customers took a pan-European view. The authorities therefore helped to perpetuate the division of the Internal Market into national markets at a time when other actors were moving in the opposite direction. There should have been a more efficient way to reflect this pan-European view in the UMTS licensing procedures. The total amount spent on UMTS licenses might not have been much different, but the procedure might have delivered a more efficient outcome.

The UMTS experiment demonstrates once more that the outcome of ONP 1998 was a set of 18 liberalized markets⁸⁴ and not a single market in telecommunications. The national divisions in European telecommunications are far more entrenched than local or regional divisions in the US.⁸⁵ Member States are also very adamant about their

⁸² Decision 128/1999, *supra*, note 14, Art. 3.

⁸³ Directive 97/13, *supra*, note 8, Art. 10-11. Essentially, Member States had to respect basic procedural rights and conduct the assignment in an objective, non-discriminatory, detailed, transparent and proportionate fashion.

⁸⁴ Counting the three EEA countries.

⁸⁵ The US market also evolved in a fragmented fashion at first, with a multitude of local operators at the end of the 19th century. Through various maneuvers, most of these operators were amalgamated into AT&T in the early 20th century. The breakup of AT&T in 1984 resulted in the reappearance of local entities, this time of a very large scale, the RBOCs or Baby Bells. Nevertheless, long-distance and

competence to police their respective telecommunications markets. EC telecommunications policy should attempt to counteract these centrifugal tendencies, which can give rise to suboptimal outcomes⁸⁶ and tend to be self-perpetuating.⁸⁷

ONP 1998 suffered from major gaps with respect to the internal market:

- In the run-up to Directive 97/13 on licensing, the Commission abandoned its hopes of introducing a single-license regime⁸⁸ and instead settled for a regime where each Member State would remain competent to require and issue licenses for firms operating on its territory. Directive 97/13 was meant to foster the internal market by preventing Member States from extending licensing requirements beyond what is strictly necessary, but it was not very successful in this respect.⁸⁹ Furthermore, the one-stop-shopping procedure provided for in Directive 97/13 was never put in practice.⁹⁰
- ONP 1998 did not achieve much either as regards the management of scarce resources (frequencies, numbers) in the light of the internal market. Any suggestions of a European-level management system were promptly dismissed. At the very least, one would have expected some coordination framework to ensure that the actions of national authorities do not affect the functioning of the internal market. Instead, the practice of limited *ad hoc* coordination continued (with the results discussed above in the case of UMTS).

The shortcomings of ONP 1998 as regards the internal market are all the more glaring when telecommunications is compared with neighbouring sectors, such as television broadcasting or e-commerce, where the EC managed to introduce a harmonized regulatory framework based on home-country control and mutual recognition.⁹¹ Seen in that light, it becomes difficult to understand why ONP 1998 did not realize the internal market objectives better. Furthermore, the close proximity of the three areas covered by ONP 1998 (telecommunications services and networks), Directive 89/552 (broadcasting) and Directive 2000/31 (so-called “Information Society services”) gives

international communications remained structured on a national scale. Following the Telecommunications Act of 1996, the natural trend towards concentration at national level has re-appeared, through mergers between RBOCs (from seven to only three now) and expansion into other regions.

⁸⁶ For instance, the failure to satisfy demand from the class of customers which is more pan-European than nationally oriented, or the failure to achieve economies of scale and scope in network operation and service provision.

⁸⁷ As mentioned *supra*, under I.L.D., given that the starting point is a set of national markets, each of which is mostly in the hands of respective incumbent, there is a fair chance that the incumbent will not immediately succeed in rebalancing its operations away from its home base, with the attendant risk of defensive strategies on the home market.

⁸⁸ Where firms could operate throughout the internal market on the basis of a single license. That license could be issued either at the European level (a very unpopular option) or at national level, with a home-country control and mutual recognition system.

⁸⁹ While Art. 7(1) of Directive 97/13, *supra*, note 8, was a fairly good provision which limited the ambit of individual licenses to the cases where they were indeed necessary, it was unfortunately combined with Art. 7(2), which allowed Member States to require individual licenses for the provision of public networks and publicly available services. As a consequence of Art. 7(2), almost every newcomer had to obtain a license, since from a business perspective it is hardly sustainable to enter the market while avoiding to provide public networks and publicly available services (as defined in ONP 1998). Article 7(2) deprives 7(1) of any restrictive effect. See Larouche, *supra*, note 24 at 86-89.

⁹⁰ Directive 97/13, *ibid.*, Art. 13.

⁹¹ See Directive 89/552 of 3 October 1989 (Television Without Frontiers) [1989] OJ L 298/23 and Directive 2000/31 of 8 June 2000 (e-commerce) [2000] OJ L 178/1.

rise to practical conflicts, however careful the EC was in avoiding overlap in its definitional constructions. Firms active in all of these areas might have to operate under a home-country control framework for part of their business (broadcasting and e-commerce) and a country-by-country framework for another part (telecommunications).

By the way, it is noteworthy that even within the law itself, strong centrifugal forces were at work which ONP 1998 could not overcome. Of course, ONP 1998 is part of EC law, and it is a harmonized framework applicable throughout the EU. Nevertheless, as soon as ONP 1998 was adopted, telecommunications law became national again. The national implementations did nothing to enhance the European dimension of telecommunications law, quite to the contrary. They served as screens, so that already in 1998 one spoke not so much of European, but rather of French, UK, German, etc. telecommunications law. Further developments at Member State level, through ancillary enactments, regulatory decision-making or case law, seemed to pay only limited attention to the European dimension of telecommunications law.

The new electronic communications framework should alleviate that last problem. Through Commission recommendations and guidelines in the SMP procedure,⁹² the EC remains involved in the day-to-day activities of NRAs. Furthermore, with the consultation and review mechanism set up in Directive 2002/21,⁹³ NRAs will be more inclined to pay attention to developments in other Member States. Chances are that the work of European regulator fori such as the IRG and the new ERG will gain in significance.

With respect to the internal market in telecommunications, the new framework marks a progress, but there is still some way to go. The policy line of Directive 97/13 for licensing (no home-country approach but rather a limitation of the use of individual licenses) is followed and brought one step further: Directive 2002/20 eliminates individual licenses altogether, but leaves open the possibility of requiring operators to obtain “rights of use” for scarce resources.⁹⁴ Nevertheless, market players will continue to have to devote resources to complying with the regulatory framework of every Member State where they operate, even if the compliance burden is becoming lighter. As for scarce resources, the new framework also compels Member States to pay more attention to the European dimension.⁹⁵ Moreover, the seeds of a European spectrum policy are sown with the Radio Spectrum Decision.⁹⁶

E. Institutional quagmire

The institutional structure of ONP 1998 was never simple, and it was probably never meant to be simple:

⁹² See *supra*, notes 61 and 62.

⁹³ Directive 2002/21, *supra*, note 2, Art. 7. This mechanism provides that each NRA must send its decisions concerning SMP in draft form to the Commission and the other NRAs, which can then comment upon the draft. The NRA must take utmost account of these comments. On certain points (market definition deviating from the Commission Recommendation, designation of SMP operators), the Commission can even require that the draft be withdrawn.

⁹⁴ Directive 2002/20, *supra*, note 2.

⁹⁵ Directive 2002/21, *supra*, note 2, Art. 9 and 10.

⁹⁶ Decision 676/2002 of 7 March 2002 [2002] OJ L 108/1.

- The main institution under ONP 1998 was the National Regulatory Authority (NRA).⁹⁷ Under ONP 1998, the NRA accomplished a number of specific tasks, listed in Directives 92/44, 97/13, 97/33 and 98/10. These tasks are usually defined in a narrow fashion. National courts also had a role to play with the judicial review of NRA decisions.
- At the same time, the various competition authorities, namely the Commission, NCAs and national courts – whether applying EC or national competition law – retained their powers under competition law. Given the substantive overlap between ONP 1998 and competition law,⁹⁸ these authorities could also intervene in most regulatory disputes between market players.

Here as well, such a multitude of authorities can be useful at the outset to put pressure on the incumbent. Newcomers and other interested parties can then choose what they think is the most appropriate forum for their claims against the incumbent.

In the long run, however, the downsides of such a structure are likely to prevail. First of all, the various authorities might hold diverging views on certain issues, which can lead to policy impasses. Secondly, given the financial and commercial interests at stake, it is a safe bet that almost every dispute will be litigated extensively. In that case, the availability of many parallel avenues for litigation can drive dispute costs beyond an acceptable level.

In addition to these structural difficulties, the implementation of the institutional part of ONP 1998 was not always optimal, in particular as regards the NRA. On its face, ONP 1998 does not contain much on the NRA setup: it requires independence from the market players as well as structural separation within the administration when the State otherwise holds a significant participation in the incumbent.⁹⁹ It has taken some time for the Commission to be satisfied that all Member States respected these two requirements: separation from the rest of the State administration (when applicable), in particular, proved difficult.¹⁰⁰

Beyond compliance with the explicit requirements of Directive 90/387, however, there were other points where the institutional implications of ONP 1998 were not always fully drawn. First of all, even though ONP 1998 only assigns a series of small tasks to the NRA, it will not work properly if the NRA is not broadly and solidly established as the point of reference for regulation of the telecommunications sector, with the requisite powers. In the Anglo-American administrative law tradition, the NRA could without too many difficulties be given a strong position.¹⁰¹ On the Continent, a number of national legal systems do not readily admit that independent authorities be given broad discretionary powers, usually for reasons of a constitutional

⁹⁷ According to Directive 90/387, *supra*, note 8, Art. 5a(1) (as added by Directive 97/51), the tasks assigned to the NRA under ONP 1998 could be entrusted to more than one body. Most Member States chose to leave them with a single body.

⁹⁸ *Supra*, note 75.

⁹⁹ Directive 90/387 (as amended by Directive 97/51), *supra*, note 8, Art. 5a(2).

¹⁰⁰ See the 8th Implementation Report, *supra*, note 3 at 18, where the Commission only mentions a remaining concern with respect to Belgium, which is set to be solved in 2003.

¹⁰¹ The American FCC is the quintessential regulatory authority for telecommunications, with a broad mandate and broad powers, perhaps even too broad in some respects. In the UK, the cross-sectoral liberalization process of the 1980s typically led to the creation of strong sectoral authorities, of which Oftel (now Ofcom) is but one example.

order, namely the primacy of politics (i.e. the principle that major decisions must be made by, or under the responsibility of, elected officials). The implementation of ONP 1998 left the NRA with a patchwork of limited competences, giving rise to challenges to NRA decisions that centred on competence issues rather than going to the merits of the case. Secondly, it was seen above that the thrust of ONP 1998, in theory at least, was to introduce economic analysis in the regulatory process, certainly for SMP assessment. The 25% rule-of-thumb included in the definition of SMP might have proven too attractive and hampered deeper economic analysis, but at the same time the fact that the 25% rule-of-thumb acquired such pre-eminence also shows that the NRAs were sometimes lacking in their capacity to conduct in-depth economic analysis.

In the end, the institutional structure of ONP 1998 did not help to correct the substantive flaws pointed out earlier; quite to the contrary, it tended to exacerbate them, since there was no strong and able voice at the application and enforcement stage which could try to make up for the weakness of the underlying legislation.

Once more, it is interesting to see whether the new electronic communications framework addressed these issues. On the institutional side, the two main elements of the new framework are a strengthening of the position of the NRA, coupled with closer control on how the NRA exercises its powers. As regards the first element, the NRA is given a central place in the Framework Directive, with new provisions concerning transparency,¹⁰² links with other authorities,¹⁰³ procedure,¹⁰⁴ appeals,¹⁰⁵ information gathering,¹⁰⁶ etc. What is more, the policy objectives of the NRA are clearly set out, and Member States are required to “ensure that... [NRAs] take all reasonable measures which are aimed at achieving [these] objectives”.¹⁰⁷ It would be inconsistent with the spirit, if not the letter, of the Framework Directive if the NRA continued to be entrusted only with limited competences. Rather, the NRA must receive a sufficiently strong and broad mandate from the legislature, so that it can carry out its duties without fear of constant litigation on its competence. The new framework will not lead to the perceived excesses of the FCC, which is often criticized for being out-of-tune with politics, if not out-of-control. Whereas the FCC’s mandate very often only refers to the “public interest”, the provisions of the Framework Directive and of the other directives contain much more detail on how the NRA is meant to exercise its powers (procedure, consultation, principles to be followed, elements to be considered). In the end, it will always be possible to conduct judicial review on the merits with a sufficient amount of legislative guidance as to what should be reviewed.

As regards the second element, the NRA is subject to closer control. First of all, the Commission exerts some form of control on the substance of the work of the NRAs. It can in effect tell the NRAs what to do through the Recommendation on the relevant market¹⁰⁸ and the Guidelines on market definition and SMP analysis.¹⁰⁹ Secondly, the

¹⁰² Directive 2002/21, *supra*, note 2, Art. 3(3), 3(4), 6.

¹⁰³ *Ibid.*, Art. 3(4), 3(5), 7(2).

¹⁰⁴ *Ibid.*, Art. 5(5), 6.

¹⁰⁵ *Ibid.*, Art. 4.

¹⁰⁶ *Ibid.*, Art. 5.

¹⁰⁷ *Ibid.*, Art. 8.

¹⁰⁸ *Supra*, note 62.

Commission also controls the individual actions of the NRAs in the SMP procedure through the review mechanism of the Framework Directive.¹¹⁰ Thirdly, NRA decisions must be appealable to national courts.¹¹¹ Fourthly, the NRA must cooperate and coordinate its actions with those of the NCA.¹¹² Fifthly, the NRA is also required to work with its counterparts in other Member States.¹¹³ All in all, the NRAs are encouraged to behave as if they were part of a greater group of European economic regulators, with the Commission, NCAs and other NRAs. This adds a new dimension to the duties of national administrative authorities under EC law:¹¹⁴ whereas previously they could be content with keeping an eye on the Commission, they now have to pay attention to what is happening in other authorities and in other Member States as well.

In the light of these changes, it can be concluded the complex institutional structure of telecommunications regulation has not been simplified: the multiple authorities remain active in the sector, without their competence being curtailed. However, the lines are more clearly drawn, in that the NRA is supposed to play the leading role. At the same time, this should contribute to overcoming the resistance of some Continental systems to making the NRA a broad-based regulatory authority. As for the competence of NRAs to carry out complex economic analysis, however, the tighter control mechanisms might prevent mishaps and lapses, but they provide no guarantee that the NRAs in general will improve their performance in this respect. It must be said, however, that the kind of economic analysis required under telecommunications regulation is particularly difficult for any authority – under competition law or regulation – to organize and carry out.

IV. CONCLUSION

At the end of this survey of the less glamorous aspects of the recent past in European telecommunications, it remains to be seen whether the various shortcomings or outright failures identified above played a determinant role in the current situation of the European telecommunications industry.

The assessment of causality is always rife with difficulties. Of course, if none of the mistakes discussed above had been made, European telecommunications would in all likelihood be in a better position now. But this does not suffice to warrant apportioning the blame on all of them.

Overall, it seems difficult to escape the conclusion that the European telecommunications industry in great part dug its own grave. The industry made so many assumptions which in hindsight seem overoptimistic. This paper discussed only the more specifically European miscalculations, among which the UMTS experiment ranks first by a margin. If the industry had spent say €30 billion instead of over €100

¹⁰⁹ *Supra*, note 61.

¹¹⁰ Directive 2002/21, *supra*, note 2, Art. 7.

¹¹¹ *Ibid.*, Art. 4.

¹¹² *Ibid.*, Art. 3(4). In any event, the NRA is not allowed to contradict EC competition law through its actions.

¹¹³ *Ibid.*, Art. 7 and Recitals 36-37. The European Regulators Group has been created by Decision 2002/627 of 29 July 2002 [2002] OJ L 200/38.

¹¹⁴ Arising out of Article 10 EC in the absence of any more specific source.

billion on these licenses, the current situation would be drastically different, all other things being equal. The deeper causes of overspending on UMTS lie of course in part on regulatory faults, as mentioned earlier. Nevertheless, the industry had on its very own inflated the prospects of the technology, assumed the demand would simply appear by virtue of technological progress alone, and ignored the bottom-line by looking at turnover only and forgetting costs.¹¹⁵ Other aggravating factors in Europe, besides UMTS, include misinformed international strategies by the incumbents in the early years of liberalization, a supply-side approach to technology and the unplanned for (but not unforeseeable) resilience of incumbents.

Viewed against this background, it is doubtful that the many flaws of ONP 1998 – including a lack of coherent vision, a rigid conceptual architecture, excessive reliance on hard-headed enforcement to ensure compliance, neglect of the internal market and institutional confusion – in and of themselves played a significant role in bringing down the industry.

All the darker spots in ONP 1998 certainly did not help, however, which is why it should be expected that the new electronic communications framework would remedy or at least alleviate them. As was seen above, the outcome is mitigated: there is some progress, but the quality of the regulatory framework can still be improved.

In the end, however, it must not be forgotten that while the European telecommunications industry suffered a significant downturn, the overall results of the first few years of liberalization have not been negative for everyone: the customers have generally benefitted from the course of events, and the policymakers have – leaving aside design flaws in the legal framework, which should not detract from the underlying policy – seen their choices in significant part vindicated. It remains to be seen whether the same can still be said in another five years.

¹¹⁵ As mentioned at the outset, a number of these problems were not specific to European telecommunications and were already discussed in the companion piece on the US perspective, *supra*, note 1.