The Necessity of Sector Specific Regulation in Electronic Communications Law

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Abstract. The model, which evolved in practice as the most appropriate for the regulation of the electronic communications sector, is based on the combination of sector specific regulation and competition law, put into effect by entities independent of states or market players. As many markets are evolving towards a state of effective competition, concerns are raised over whether sector-specific regulation is still necessary and whether general competition law could guarantee effective regulation of its own accord. This paper questions the capacity of generic competition law to efficiently regulate the electronic communications sector and concludes instead in favour of the continuance of sector-specific regulation, oriented towards competition law principles, and independent regulatory agencies.

1. Prologue

The telecommunications industry plays a prominent role in today's economies and societies, as it provides the means for the dissemination of information[1], which can be regarded as the most important asset of our time. During the last 25 years, great technological and structural changes have revolutionised this crucial sector of the economy. The phenomenon of information and communication technologies convergence and the rapid liberalisation of the sector have launched an unprecedented change in business and law.

In search for the ideal regulatory environment to accommodate progress and innovation in the now converging e-communications sector [2] policy makers have made the strategic choice of deregulation, in an effort to unleash the dynamics of the market. The model, which evolved in practice as the most appropriate for the regulation of the sector, is based on the combination of sector specific regulation and competition law, put into effect by entities independent of states or market players[3]. The former field of law intervenes ex ante while the latter ex post facto. As the market is evolving towards a state of effective competition, concerns are raised over whether sector-specific regulation is still necessary and whether general competition law could guarantee effective regulation of its own accord.

This paper questions the capacity of generic competition law to efficiently regulate the electronic communications sector and concludes instead in favour of the continuance of sector-specific regulation, oriented towards competition law principles and independent regulatory agencies that will adequately correspond to the phenomenon of convergence. Section one examines the technological and structural changes that have impacted upon the ICT industry worldwide. An analysis follows on the internationally prevalent electronic communications regulatory model with focus on the European Union case. Finally, arguments are offered for and against the abolishment of sector–specific regulation and a proposition is made in favour of its conditional sustenance in future electronic communications.

2. Changes in the Electronic Communications Sector

The continuing reliance of e–communications regulation on a three-pillared system of sector–specific laws and generic competition law administered by an independent regulatory body is the outcome of an evolutionary process in the industry. In particular, due to the bounding progress of information and communication technologies, the defining lines between neighbouring sectors are gradually disintegrating and the traditional telecommunications industry is tending towards convergence with the broadcasting, information technology and content industries. Concomitantly, the telecommunications sector is in the process of extensive liberalisation, moving from a state of monopoly to a state of effective competition. All these structural changes observed in the

[1] The importance of information rests upon its function as the gateway to knowledge and culture. Whilst it has of course always had a crucial role in the functioning of human societies, modern technology has immensely facilitated the transformation of information into knowledge and culture and has leveraged its importance in our era.
[2] The term electronic communications aptly replaces the word telecommunications in law, since it is deemed to be more broad and technology neutral, and thus more adequate to correspond to the phenomenon of converging markets and services.
[3] This particular model is referred to throughout the paper as the three–pillared regulatory model.

market inevitably have a great effect upon law and regulation, pushing towards less and yet still effective legal intervention.

2.1 The Phenomenon of Convergence

In order to adequately examine the phenomenon of convergence and its additional impact upon regulation, it is first essential that its nature be adequately analysed. The term 'convergence' describes the merging of different networks into a unified, open, global network of networks [4], with the capacity to convey data regardless of its kind. This convergence is primarily technological, implying the unification of network platforms by exploiting the merits of packet–based technology[5], and the homogenisation of all kinds of information, either voice, video or data, by the use of digital technology. But the technological convergence has a further impact on the market, where what were previously clearly delineated sectors of the economy, i.e. the telecommunications, broadcasting, information technology and content industries, are now coming together, forcing businesses to change their models in an attempt to fully exploit the potential of the new trends. The phenomenon also leads to a merging of services that were once deemed distinct from one another but can now be delivered by the same infrastructures, as well as a merging of products, thus having a profound influence on the everyday life of consumers. In summation, it may be said that the phenomenon of convergence, issuing from technology, has an extensive impact on the economy and society as a whole, an impact that has not left policies and legal frameworks untouched.

2.2 Convergence & the Three-Pillared Regulatory system

Convergence poses serious challenges for policy–makers. A balance must be struck between the need to establish fair competition and the aim to encourage innovation. The ideal regulatory framework ought to be on the one hand technology neutral, in order to facilitate the provision of different services via different platforms. On the other hand, it should be flexible enough to accommodate new trends in the market. In addition, public intervention should be limited and the market should be left alone to fully exploit the potential of technological progress spurred on by the merits of competition. Such technology neutrality, legal flexibility and market competitiveness can only be achieved through a deregulatory approach based on competition law principles, applied through the combination of generic competition law and sector–specific regulation.

2.3 The Process of Liberalisation

Along with the phenomenon of convergence, another kind of sweeping reform has significantly altered the market structure of the telecommunications industry to a worldwide extent. In the 1980s states began to recognise the importance of telecommunications for economic growth and the need for liberalisation in order to achieve progress. Since then, the shift from state or private monopolies towards market competition has seemingly revolutionised the e-communications market and laid the basis for a fully competitive business environment. In the first phase of the reform, countries privatised their national operators, state or private owned. Secondly, new services, such as mobile telephone technology, which were not controlled by the incumbent operators, were introduced into the market. At the last phase, the state of exclusivity was being phased out in the direction of full competition. Legal intervention was deemed essential in the new environment to attain and later sustain effective competition.

2.4 Liberalisation and the Three-Pillared Regulatory System

The process of liberalisation in electronic communications gave birth to a threefold regulatory system of sector – specific regulation combined with generic competition law and supervised by an independent regulatory authority. This system is considered to be the most appropriate to guarantee effective competition in the liberalised e-communications market. It combines ex ante sector-specific regulation of the market and ex post regulation by competition law, where ex ante regulation fails or lacks the ability to prevent anti–competitive practices. In the context of liberalisation, an analogy exists between regulatory intervention and market maturity. As the process of liberalisation evolves towards a fully competitive e-communications market, it has been claimed that the need for regulation will be more limited, thus relying solely on competition law. The nature of this regulatory model and its application in practice will reveal whether or not the aforementioned position is accurate, and whether such

4 Generally referred to as "next generation network(s)".
5 With the most prominent being the TCP/IP protocol suite.

regulation is merely a contemporary convention during a transitory period or a paradigm serving far deeper needs in the e-communications sector.

3. The Three-Pillared Regulatory Model

3.1 Introduction

In most states nowadays, the e-communications sector is liberalised or heading towards liberalisation. The effect of convergence enhances competition in the various layers of the sector and creates a highly innovative, fluid and unpredictable market. The model employed to address the regulation of such a complex market has three pillars. These are sector–specific regulation and generic competition law, which complement each other and provide a robust legal framework, and in the centre of the regulatory model, an independent regulatory authority with the task of applying the legal framework and supervising the sector.

3.1.1 The Underlying Hypotheses

The aforementioned model of regulation is based on certain underlying hypotheses, which define its nature. The first hypothesis is the strategic policy choice of competition as the most appropriate mechanism for establishing progress in e–communications. The change in mentality is tremendous as far as policies in the pre–liberalised telecommunications markets of the 20th century are concerned, where telecommunications were under the complete control of the state due to their strategic importance in society. Secondly, unregulated competition is regarded as an instigator of market failures and therefore competition law becomes necessary as the guarantor of the wellbeing of the market. Thirdly, the particular nature of e-communications calls for sectoral legal intervention, in order to guarantee access to networks and infrastructure, to allocate scarce resources [6] and to promote certain social policy goals[7].

3.1.2 The Sector-Specific Regulation Pillar

The first pillar of the aforementioned model is regulation applied specifically to the sector. It can be divided into three parts according to its nature and aims, i.e. technical (e.g. spectrum and numbering allocation, types and standards setting), social (e.g. universal service, data privacy and consumer protection) and economic regulation (e.g. access/interconnection, authorisation, and price regulation). While regulation in technical and social issues pertains to the particular needs of the sector, economic rules deal with market regulation. This part of sector–specific regulation is based on competition principles and functions ex ante. It is a corollary of the liberalisation process, when markets were still clogged and competition was still being introduced. It may be argued that sector–specific regulation and especially its economic facet will wither and finally cease to exist, as the liberalisation process leads to market maturity.

3.1.3 The Generic Competition Law Pillar

Generic competition law is the second pillar of the regulatory model. It is an invaluable regulatory tool in a market with a natural tendency towards monopolisation[8]. Its general scope covers all aspects of anti–competitive behaviour in the market, which is not the case with sector–specific regulation. Furthermore, the implementation of its basic principles in the sector–specific framework makes generic competition law and jurisprudence an instrument for its interpretation. Finally, competition law effectively regulates cases of anti–competitive behaviour where the sectoral framework has proven unsuccessful. However, a holistic approach towards the regulation of e-communications based solely on competition law inadequately addresses the complexities of this "sui generis" sector of the economy.

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[6] Despite the fact that technology is rapidly progressing and surpassing previously insurmountable barriers, numbers and spectrum are still regarded as scarce resources.

[7] Taking into account the importance of electronic communications for contemporary society, basic telecommunications services should essentially be available and affordable to all members of society, in order to avoid informational and social marginalisation. Universal service has evolved to meet these objectives.

[8] The electronic communications market has certain peculiarities that seemingly justify such a characterisation. Incumbent operators own networks and infrastructure, which are essential facilities for the provision of communications services, while the cost of establishing self–owned facilities is prohibitive for other market players. Moreover, operators can easily leverage their market power from a primary to a secondary market due to their technical interconnection.

3.1.4 The Regulatory Authority Pillar

Independent regulatory authorities are appointed with the task of supervising the whole sector and enforcing regulation. The justification for their establishment is that the complex technical, social, economic and competition issues arising in the e-communications sector demand regulation by a specialised body. Although there are exceptions[9], the establishment of sector–specific regulatory authorities tends to be the worldwide rule and demonstrates their historical necessity in the highly complex and perpetually moving e–communications market of today. Of course, the emergent problem is then the jurisdictional division of power between these and economy–wide competition authorities or relevant institutions and, additionally, the need for their existence in a mature and effectively competitive e–communications market of the future. Another problem, often met in practice due to lack of reform, is the inadequacy of such sector specific regulatory authorities to address the phenomenon of convergence and regulate the now converging telecommunications, broadcasting, information technology and content industries as one sector.

3.2 The Three-Pillared Model in Practice - the EU

Based on a deregulatory approach, relying primarily on competition law principles and following a market–based rather than service–based approach, in order to address the converging environment of e-communications, the current EU regulatory framework may be the most sophisticated and modern paradigm for examining the three–pillared model in practice. At the heart of the EU framework lies the argument that sector–specific regulation is bound to disappear, as the market is gradually moving towards a state of effective competition[10].

3.2.1 History

The liberalisation process in the European Union commenced almost two decades ago with the adoption of a long series of directives and the gradual introduction of competition. Until then, telecommunications was an industrial sector monopolised by states and largely seen as an instrument for the execution of public policy. The initial legal framework was successful in fully liberalising the market and harmonising regulation throughout the EU. In 2002 the market was deemed mature enough to correspond to the second wave of regulation, known as the New Regulatory Framework (NRF)[11], which replaced the former legislation and is currently in force.

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[9] e.g. the New Zealand case, where an independent regulatory authority in the electronic communications industry is absent and matters of the sector are dealt with by the Ministry of Economic Development and the independent competition authority (Commerce Commission).

[10] See Communication of the Commission of 10 November 1999, The 1999 Communications Review, COM(1999) 623, at 49, Resolution of the European Parliament of 13 June 2000 on the 1999 Communications Review of the Commission A5-0145/2000, O.J. [2001] C 67/53, Point A, Statement of Reasons of the Council Common Position 38/2001 of 17 September 2001 on the Framework Directive, O.J. [2001] C 337/51, para II.1, Recital 27 of Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive).

[11] Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive), OJ L 108, 33–50, Directive 2002/19/EC of the European Parliament and of the Council of 7 March 2002 on access to, and interconnection of, electronic communications networks and associated facilities (Access Directive), OJ L 108 7–20, Directive 2002/20/EC of the European Parliament and of the Council of 7 March 2002 on the authorization of electronic communications networks and services (Authorization Directive), OJ L 108, 21–32, Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive), OJ L 108, 51–77, Directive 2002/58/EC of the European Parliament and of the Council of 12 March 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic communications), OJ L 201, 37–47, Commission Directive 2002/77/EC of 16 September 2002 on competition in the markets for electronic communications networks and services (Liberalisation Directive), OJ L 249, 21–26, Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for the electronic communications networks and services, OJ (2002) C 165 6–31, Commission Notice on the application of the competition rules to access agreements in the telecommunications sector, OJ 1998/C265/2 Commission Recommendation of 11 February 2003 on Relevant Product and Service Markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services Commission of the European Communities (Brussels) C(2003), 497. Commission Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services, Commission of the European Communities (Brussels) C(2007) (5406).

3.2.2. Relationship

The NRF as sector–specific regulation, EU competition law, and the regulatory agencies of the individual member states are the three pillars of the EU model. In applying the framework, a certain relationship is formed between sector–specific and competition rules, with the latter complementing or, when necessary, standing in for the former. Specifically, sectoral rules are applied first, whereas generic competition law and jurisprudence is taken into account in a second stage. Competition law may be used under three circumstances – in order to cover lacunae of the NRF, to act as an instrument of interpretation of the NRF [12] or even possibly to function as an alternative, when there is not adequate support for a case under the NRF. Previous application of the NRF in EC legal practice is justified by its specificity, which makes it more appropriate for addressing the needs of the e–communications market than the generality of competition law. The two have a reciprocal role in pursuing certain objectives through ex ante market regulation. Even though this is an area of primary relevance to the NRF, competition law and specifically ex ante merger control regulation[13] has been repeatedly used for achieving regulatory goals in e–communications by imposing conditions on concentration clearances[14].

3.2.3 Interaction

Aside from their aforementioned interaction, the NRF and its economic rules in particular are seemingly oriented towards competition law principles. The main areas in which the two fields of law meet and interact are in the concepts of significant market power (SMP) and market definition, matters of access to essential facilities, interconnection charges and tariffs.

Under the framework, NRAs are appointed the task of imposing regulatory obligations on communications operators with SMP. They follow a three–stage procedure, where relevant markets are first selected and defined, and the possible existence of operators with SMP is identified before finally proceeding to the imposition of certain obligations. The concepts of SMP and joint SMP utilised in the procedure, coincide with the well–established EU competition law concepts of dominance and joint dominance as articulated in Art. 82 of the EC Treaty [15.] Accordingly, the definition of e–communications markets under the NRF basically follows generic competition law principles[16.] In the context of access to networks and infrastructure of dominant operators, the NRF approach is analogous to the "essential facilities" doctrine developed by the Commission and the ECJ in competition cases. EU competition law and sector–specific regulation also interact in the weighted matter of interconnection charges, where the NRF is perceived to be fully aligned with discrimination principles arising from the abuse of the dominant position concept of Art. 82 EC[17]. Finally, tariff regulation in the NRF follows traditional competition principles regarding predatory or excessive pricing, price squeeze, cross–subsidisation, rebates and tying practices, legally based on art. 81 or 82 EC. In conclusion, the EU NRF implements principles of EU generic competition law on an ex ante basis in e–communications markets, and assigns NRAs to put them into effect. Such an approach also reveals the underlying assumption in favour of the short life span of the NRF and NRAs, and their displacement by EU competition law when markets eventually mature.

3.3 National Regulatory Agencies & Competition Authorities

3.3.1 Overlap in jurisdictional powers

Sector-specific regulators are the third pillar of the electronic communications regulatory model and they are of fundamental importance for the wellbeing of the sector. Their task is to supervise the electronic communications market and implement existing sector–specific regulation. As was mentioned above, sector–specific regulation in e-communications has technical, social and economic dimensions and divisions. The economic part of the regulation imposes competition–related rules in the market. Therefore, there is in practice an overlap between the jurisdictional powers of national regulatory agencies (NRAs), which oversee the electronic communications

[12] Especially in cases regarding the concept of significant market power or the definition of markets (see following paragraph).
[13] Council Regulation (EC) 139/2004 of 20 January 2004 on the control of concentrations between undertakings, OJ L 24, 29.1.2004, p.1
[14] e.g. Case M.1439, Telia/Telenor, Commission Decision of 13 October 1999, Case M.2726, KPN/E-Plus, Commission Decision of 7 March 2002.
[15] Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for the electronic communications networks and services, OJ (2002) C 165 6–31,para. 70
[16] Ibid para. 24
[17] See Access Directive art. 10, Liberalization Directive art. 3

market but also deal with competition matters therein, and national competition authorities (NCAs), which regulate competition in all sectors of the economy. If left unresolved, this overlap can make regulation ineffective and damage the wellbeing of the sector. But the solution to this matter should be determined separately and ad hoc in each national jurisdiction, due to nationally distinct peculiarities.

3.3.2 Different Models

To analyse the jurisdictional overlap and its practical solutions, existing models in national jurisdictions ought to be brought under scrutiny. The models vary from cases where competition matters in e–communications are dealt with by separate entities (namely NRAs and general competition regulators) in which an overlap is observed, to cases where competence is exercised by a single entity (either a sector–specific or a economy–wide competition regulator) and where there is thus no overlap. The former cases, those which are relevant in our context, are also the most commonly encountered in practice.

The USA Model

In the United States in particular, three entities share concurrent jurisdiction in monitoring competition in the e-communications market: the Department of Justice (DoJ), the Federal Trade Commission (FTD) and the sector–specific Federal Communications Commission (FCC). The FCC is confined to the application of the ex ante competition rules of the Communications Act (1934), whereas the DoJ and the FTC are responsible for the enforcement of antitrust laws18. Overlap between the FCC and the DoJ/FTC exists in cases of mergers concerning radio licence transfer or common carriers, or in cases where there is a violation of both sector–specific and antitrust laws. According to a recent Supreme Court decision19, in these cases jurisdiction is designated to the first entity to deal with the matter.

EU & the UK

In the EU, regulation of competition in e–communications is shared between the European Commission, NCAs and NRAs. It should be noted that there is no community–wide communications regulatory authority. Therefore, the EC has exclusive jurisdiction in competition matters of a "Community dimension"20, where national entities cannot offer adequate solutions, whilst NCAs enforce national competition laws. Nevertheless, in certain market cases of a national dimension, NCAs and NRAs share concordant powers and coordination is essential. Particularly in the UK, OFCOM, the communications regulator, has joint jurisdiction with the Office of Fair Trade (OFT) for the control of anti–competitive agreements or abuses of a dominant position21, and to conduct market investigations22 in the communications market.

3.3.3 Partial Conclusion

The relationship and interaction between sector–specific regulation and competition law in e-communications is reflected in the function of, and jurisdictional division of power between NRAs and NCAs. The same reasons advocating sector–specific regulation in e-communications additionally support the establishment of NRAs. Sector–specific rules with economic objectives share the same principles as generic competition law, and accordingly NCAs are theoretically more appropriate for the regulation of competition matters in e–communications. Nevertheless, in practice NRAs have the expertise and the mechanisms required to deal with competition in such a complex environment. Additionally, NRAs are assigned with the duty of applying rules of sector specific regulation concerning not only economic but also social and technical issues. There would appear, therefore, to be no pervasive reason for abolishing NRAs and relying entirely on NCAs for the regulation of e-communications.

[18] Sherman Antitrust Act and Clayton Act.
[19] Verizon Communications Inc. v. Law Offices of Curtis V. Trinko LLP, 540 U.S. 398, 124 S.Ct. 872 (US 2004)
[20] See the division of jurisdictional powers in merger cases clearance under the Council Regulation (EC) 139/2004 of 20 January 2004 on the control of concentrations between undertakings, which ostensibly handed cases of EC competence to NCAs.
[21] See Part 5 Ch. 1 of the Communications Act (2003) in combination with Part 1 of the Competition Act (1998)
[22] See Part 4 of the Enterprise Act (2002)

4. The Future Regulatory Model in E-Communications

The three-pillared regulatory model is based upon the claim that sector–specific regulation and independent communications authorities are a historic necessity in the current transitory period of the sector. As the market gradually reaches maturity and moves towards a state of effective competition, it is deemed that the model will probably be displaced by generic competition rules. The aforementioned thesis further implies that the electronic communications market is no different in comparison with other industrial sectors, unregulated by sector–specific but primarily rather by competition rules, and that generic competition law is objectively the ideal paradigm for effective regulation of the sector.

4.1 Towards a Competition Law Model in E–Communications?

In order to scrutinise the adequacy of competition law as a regulatory instrument in the complex e–communications environment, it is first essential to examine its nature. Competition law is the result of a long process of economic liberalisation and market transformation, which led to the modern notion of economic freedom as an individual right, restrained only by ex post general rules of fair competition. It originates from the generalisation of previously imposed economic rules in specific sectors of the economy, which were gradually displaced by the paradigm as markets ripened and generalised competition rules were perfected. Due to its ex post nature[23] in the first stages of market development, the paradigm can only inadequately address such business environments, and can only effectively function in stages of established market maturity. The main aims of competition law are the establishment of fair and effective competition in markets and the prevention of market failures resulting from anti–competitive behaviour, allowing for the best allocation of resources, the underlying imperative being a benefit to consumers and the achievement of economic growth. Hence, the main aims of the paradigm are primarily of an economic nature, contrary to the sector–specific rules in e–communications, which pursue well-defined social goals in addition.

4.1.1 Competition Rules & E-Communications

The e–communications sector is characterised by the convergence phenomenon, which creates unprecedented potential for innovation and economic growth. In such an unpredictable and rapidly changing environment the need to exploit the arising business opportunities results in increasing competition in all the converging markets of the sector. The competition paradigm combines the regulatory elements which prove ideal for appropriate legal intervention. Emanating from their ex post nature, competition rules are affected only when anti-competitive behaviour occurs, the rest of the time being thus largely reliant upon market self–regulation. This approach is characterised by flexibility and, simultaneously, serves the objective of deregulation. In the wake of convergence, deregulation is essential in order to avoid stifling innovation and eliminating the potential of technological progress. Furthermore, competition rules are of a more general nature, covering aspects of business practice, such as mergers and joint ventures, which sector–specific rules have left untouched. After all, it is logical to claim that, since sector–specific regulation is based on identical principles and is more or less derivative, the time will come when it is displaced by the general paradigm. From the position of the aforementioned perspective, competition law would appear to be the ideal regulatory instrument for the future of e–communications.

4.2 Sustaining the Three–Pillared Regulatory Model

4.2.1. Particularities of the E-Communications Sector

The claim that the three-pillared regulatory model is only of a temporary nature and will eventually be displaced by generic competition law, is based inter alia on the aforementioned assumption that the e–communications sector bears no significant difference to other sectors of the economy regulated solely by ex post competition rules. This assumption proves erroneous in practice. The electronic communications sector is characterised by high costs in constructing networks and infrastructure and, therefore, of high and non – transitory structural barriers to entry. Such a task demands economies of scale and scope that cannot be achieved by most market players. Rather, reliance upon access to existing infrastructure by paying tariffs to network owners is the more affordable option[24].

[23] The competition law paradigm functions ex post facto, except for merger control rules, which are applied ex ante, due to the irreparable harm that can be caused to the market by certain mergers.

[24] On the other hand, construction of a variety of self–owned networks by each and every market player in order to achieve independence, while existing networks hold enough capacity to meet the needs of the public, is an oxymoron, and economy–wise, a waste of funds to the detriment of society.

As a result, the e–communications sector is inherently characterised by the existence of dominant players in the markets of communications networks and infrastructure, a characteristic which is not usually encountered in other sectors of the economy[25]. But the particularities of the sector are not limited to economic but also to social factors. The general functioning of e–communications has crucial technical facets that cannot be left to the market to regulate but require state supervision. Additionally, e–communications are at the heart of the modern information society. Their utilisation should serve public policy goals in order to guarantee access to knowledge and bridge the divide between "information poor" and "information rich". In an era in which information plays such a major role, concepts, like universal service, acquire renewed relevance in a struggle to strengthen democracy, social integrity and cohesion. History shows us that the market is unable to play such a social role entirely of its own accord.

4.2.2. Inadequacies of Generic Competition Law

As was mentioned above, e–communications create complex economical, technical and social issues. There is an analogy between these issues and the structure and function of the three-pillared regulatory model. Sector–specific regulation, as implemented by independent regulatory agencies, attains economical, technical and social goals tailored to these issues. Accordingly, sector–specific rules of an economic nature are only a part of the model, relating mainly to market regulation. Generic competition rules, on the other hand, are exclusively economic and thus unable to address technical or social issues. Of course, it could be claimed that enforcement of competition rules in a mature e–communications market would lead to lower prices, in theory indirectly achieving similar goals with universal service, but the competition law paradigm may yet prove inadequate in such a role, presently or even in the long term. Convergence continues to reveal further inadequacies of generic competition law in addressing regulatory needs in the new era. In particular, the rapid disintegration of e–communications markets shows the limitations of a market–based regulatory approach, inherent in competition law. Policy makers all over the world are unable to plan comprehensive policies for the regulation of new services, which confuse market boundaries, such as VoIP, IPTV, WiMax or Triple–Play. Competition rules also lack the specificity and coherence of sector–specific regulation and are instead characterised by generalisation and vagueness, which makes it difficult for market players to comply. Moreover, the competition law mechanism is particularly slow in reacting to anti–competitive behaviour and disputes take too long to be resolved. In the rapidly evolving e–communications business environment, such delays are proving to be disadvantageous for complying competitors and are likely to encourage violations.

4.2.3. Advantages of the Three-Pillared Regulatory Model

From the above analysis it can be concluded that the social and technical rules of sector–specific regulation serve particular purposes, which cannot be fulfilled by competition law and are by no means bound to disappear in the future. In a similar manner, independent regulatory agencies will also continue to exist, as the most appropriate supervisors for the enforcement of these rules. Nevertheless, the viability of the sustenance of economic rules sectorally applied in e–communications markets can still be questioned. Their similarity to general competition law is very strong. However, they are applied ex ante facto and generally to markets, whilst competition rules differ in that they are enforced ex post facto and ad hoc in each case. It is the combination of the two which establishes an effective regulatory framework and safeguards fair competition in a sector with a natural tendency towards monopolisation. Although there are merits in arguing that future market maturity will cancel the need of ex ante regulation, the three–pillared regulatory model would appear even in the future to be more adequate for the "sui generis" electronic communications business environment.

5. Epilogue

Finally, is the three–pillared regulatory model in e–communications of a temporary nature? Is it nothing more than an effective instrument to meet the needs of a transitory market period, or is it the permanent solution for the regulation of a "sui generis" environment? History points towards the latter assumption.

[25] It could be said that this particularity of the electronic communications sector is also acknowledged in the NRF as the main factor for imposing sector specific regulation (see the criteria for the necessity of sector specific regulation in the Commission Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services (C (2007) 5406).

As De Streel pinpoints :

> "When the Federal Communications Commission was created in 1934 in the US, it was supposed to be for a limited period of time. Yet after more than 70 years, the FCC is still there influencing very much the evolution of the American telecommunications industry."[26]

According to other commentators :

> "The idea that sector – specific regulation is limited in time was submitted for the first time, more than 15 years ago…. More than a decade has now passed and sector–specific regulation does not appear to have lost any of its relevance... To date, no deadline has been fixed for that body of the law to be dismantled."[27]

Hence, it can be claimed that sector–specific regulation and authorities are not temporary, they are not even a long–lasting transitory model of regulation in the electronic communications sector. They are more than that – namely they pertain to the inherent characteristics and nature of the sector, and thus they are here to stay.

[26] De Streel A., A New Regulatory Paradigm for European Electronic Communications : On the Fallacy of the "Less Regulation" Rhetoric, Tilburg Law & Economics Center Seminar, June 17th, 2005, http://www.tilburguniversity.nl/tilec/events/seminars/streel.pdf (last accessed on 10/06/2009).

27 Behrin D., Godart F., Jolles M., Nihoul P., Sector specific Regulation in European electronic Communications – meant to disappear?, (2005) 7, Info: The Journal of Policy Regulation & Strategy in Telecommunications 1.