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**Structural separation in the electronic communications market
Factors that may influence the actions of regulators and competition authorities in Europe.**

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Awarding institution:
King's College London

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KING'S COLLEGE LONDON
The Dickson Poon School of Law

Structural separation in the electronic communications market. Factors that may influence the actions of regulators and competition authorities in Europe.

Thesis submitted by
Pierluigi Congedo

For assessment with a view to obtaining the title of Doctor of Laws of King's College London

London, September 2011/Rev. 2013-14

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This thesis is the product of a long research carried out between London, Brussels and Rome for many years, alternatively working and studying.

Perhaps the most important conclusion can be found in the *Michelin* case where the European judge says

‘A finding that an undertaking has a dominant position is not in itself a recrimination but simply means that, irrespective of the reasons for which it has such a dominant position, the undertaking concerned has a *special responsibility* not to allow its conduct to impair genuine undistorted competition in the common market’.

If the demonstration that a dominant undertaking has a special responsibility of ‘behaving’ with the highest standards of correctness was the drive of the thesis, the idea that ‘*winners do not punish*’ but rather find constructive solutions is not less important.

In fact the thesis is dedicated to all those who suffered at least once in life an abuse.

It is to them that I ultimately suggest to do not look for a mere human punishment, but rather to look for those remedies whose effects might be much more effective and long-lasting. As Viktor E. Frankl wrote after his experience in Auschwitz,

‘(T)here is also purpose in that life which is almost barren of both creation and enjoyment and which admits of but one possibility of high moral behavior: namely, in man's attitude to his existence, and existence restricted by external forces [...]. Without suffering and death human life cannot be complete’¹.

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¹ Viktor E. Frankl, *Man's search for meaning*, p 106.

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Abstract

Structural separation in the electronic communications market. Factors that may influence the actions of regulators and competition authorities in Europe.

This thesis analyses **structural separation in the electronic communications market**. It examines the factors that may lead competition and sectorial regulators to consider structural separation. It argues that the European Commission, when called upon to apply a sanction and choose a behavioural or structural remedy, should take into consideration the positive effects that, under certain conditions, may derive from structural separation in terms of (i) prevention of abuses and deterrence of such abuses and (ii) enhancement of competition.

The thesis begins by setting out both exploitative and exclusionary abuses in the provision of electronic communications services provided through vertically-integrated structures (chapter II).

It then (chapter III) considers alternative remedies to structural separation namely *ex ante* remedies available (i.e. price caps; recently introduced provisions on functional separation to prevent refusal to supply, margin squeeze, cross-subsidisation etc.); and looks at how, and with what results, *ex post* remedies have been imposed until now (chapter IV).

The thesis examines functional separation as introduced by the BT Group creating, under OFCOM's supervision, a separate access division ('Openreach')². Following this model, Art. 2 of Dir. 2009/140/EC amended the

² J. Whalley & P. Curwen, 'Equality of access and local loop unbundling in the UK broadband telecommunications market' (2008) 25 *Teleinformatics and Informatics* 280-291. It provides an account of the initial phases of implementation of BT's functional separation.

Access Directive 2002, making functional separation one of the remedies to be proposed by the regulators to the Commission for approval (the directive also introduces art. 13(b) on voluntary ownership separation of the local access network assets as a more radical, but voluntary, form of separation). The question is whether the enforcer can go a step further, even in the presence of functional separation as a regulatory remedy, imposing structural separation in the presence of abuses of dominant position.

On a strictly legal point of view the recent cases *Deutsche Telekom* and *Telefónica* at European level have demonstrated that the Commission (and the National Competition Authorities), in their enforcement activity, can go beyond regulatory provisions that may not be sufficient to avoid the most subtle forms of anticompetitive behaviours, such as margin squeeze. In other words, the compliance by the incumbent to the provisions of the sector regulator in setting, for instance, retail and wholesale prices, for the European Commission and the European Courts was not considered a sufficient reason to exclude the infringement of Article 102 TFEU putting in place margin squeeze practices.

Once it is established that the incumbent might be still able to put in place exclusionary abuses even in the presence of *ex ante* (regulatory) measures, the thesis examines the modest impact that (i) pecuniary fines and (ii) functional separation have had in preventing abusive conducts.

Both cases are linked to examples of recidivism. Examining pecuniary fines specifically, the thesis shows that on a quantitative point of view, these fines often represent an infinitesimal percentage of the total turnover of the telecommunications incumbents.

Functional separation, either as an *ex ante* or *ex post* remedy, has proven not to be as effective as expected. This is evidenced by a study of the implementation of functional separation in the UK in the electronic communications sector which takes into consideration criticisms put forward

by competitors in the Energy Sector Enquiry of 2007, stressing the importance of adopting structural remedies in both the gas and electricity generation and transmission markets.

In Chapter V the role of commitments is discussed in order to establish what lessons can be learnt from the experience of structural separation in the energy sector. This is currently the category with the most relevant case-law at the European level. The discussion is underpinned by extensive literature and an analysis of the experience (cases *E.ON Electricity*³, *RWE*⁴ and *ENI*⁵, in particular).

Therefore, chapters I to V provide the legal background (also in comparative terms, using examples from the energy sector) that could support the applicability of structural separation as a pro-competition remedy in the electronic communications sector.

On the basis of existing case-law and experience, recourse to a sectorial comparative analysis drawn from the energy sector, the thesis shows that, in the presence of recurrent abuses and comparable foreclosing exclusionary effects, also in the electronic communications sector structural separation as an enforcement remedy should be also taken into consideration, going beyond the tradition pecuniary sanctions or functional separation (both as an enforcement remedy or as a new regulatory tool).

The second part of the thesis demonstrates how structural separation can be considered not only 'legally possible' but also beneficial to competition.

³ Commission Decision *E.ON* (Case COMP/38.388-38.389) of 26 November 2008, [2009] OJ C36/8 of 13 February 2009, accessible at http://ec.europa.eu/competition/antitrust/cases/dec_docs/39388/39388_2796_3.pdf.

⁴ Commission Decision *RWE (Gas Foreclosure)* (Case COMP/39.402) of 18 March 2009, Summary of the decision in [2009] OJ C133/10 of 12 June 2009 accessible at http://ec.europa.eu/competition/antitrust/cases/dec_docs/39402/39402_576_1.pdf

⁵ Commission Decision *ENI* (Case COMP/39.315) of 29 September 2010, [2010] OJ C352/8 of 23 December 2010, accessible at http://ec.europa.eu/competition/antitrust/cases/dec_docs/39315/39315_3019_9.pdf

In Chapter VI the possibility of introducing structural separation in the electronic communications sector is examined in analogy to the energy sector in Europe, using the US experience of structural separation represented by the *AT&T* case (1981-1984)⁶ as an example. The division in the doctrine about the effects structural separation had on competition in the USA is highlighted. More importantly, the conclusion that the experience of local (*or regional*) vertical separation was tailored to the specific nature of the US communications market and is only partially applicable to Europe, where *de facto* local separation is already a reality, considering the fact that the electronic communications operators networks reflect the partition of Europe in 28 States. Though not directly applicable to the European scenario, it is nevertheless the first most relevant example of structural separation in the electronic communications sector and could not be ignored.

After having analysed the various forms of separation identified by the doctrine (taking into consideration the examples collected by the OECD in the last thirteen years, in chapter VII), the thesis focuses in the conclusive chapter VIII on two very recent examples of structural separation in the electronic communications sector that can be applicable at the European level: one is the case of structural separation of Telecom New Zealand (2011) the other is currently under implementation in Australia, through structural separation of the national incumbent, Telstra. In both cases, structural separation takes place between network and services, and partially reflects the model of structural separation already implemented in the energy sector in Europe in the above-mentioned cases (E.ON, RWE and ENI). The fact that in New Zealand and Australia (where the government will deploy the New Broadband Network, once separated by the incumbent Telstra from 2018) structural separation has been considered beneficial to competition, represents a strong point in favour of structural separation as an enforcement remedy at European level.

⁶ *MCI Communications v. American Tel. & Tel. Co. (AT&T)*, 708 F.2d 1081, 1132-33 (7th Cir. 1983).

Two further elements reinforce the conclusion, acknowledging the benefits of structural separation.

(i) The similarity in terms of anticompetitive effects between electronic communications and energy sectors (demonstrated in chapters II, III, IV and V of the thesis), underpin the argument that structural remedies adopted in the E.ON, RWE and ENI commitments decisions could be applied in the electronic communications sector;

(ii) The fact that the European Courts in the *Deutsche Telekom* and *Telefónica* cases have reaffirmed the independence of the enforcer over the regulator demonstrates that, from a legal point of view, the Commission can go beyond the regulatory measures established by the regulator (including, on the basis of European Directive 2009/140/EC, also functional separation among these measures) imposing the most suitable remedy, including structural separation.

All these factors underpin the conclusion. Once the form of structural separation that could be applicable in the European context has been identified (structural separation of the network from the companies providing electronic communications services being the most realistic) the European Commission (or the national competition authority) should not hesitate to take into consideration structural separation as a remedy, as per Article 7 of Regulation 1/2003/EC.

The deterrent effect on the former incumbent; the fact that vertical structural separation erodes the position of strong market power of the vertically-integrated incumbent, and the fact that it may lead to more competition with regards services provision (possibly over a New Broadband Network deployed by the State, as in the Australian case from 2018) can be considered important factors in favour of structural separation.

CHAPTER I

Infrastructure and services between regulation and competition in vertically-integrated firms. The electronic communications sector.

'Europe is moving at a slower speed than the US. A number of obstacles reduce the capacity of industry in Europe to innovate and generate value added in the digital sphere: [...], the lack of high-speed transmission infrastructure and the lack of digital skills. Many of these obstacles point to a simple cause: a lack of a digital single market'⁷.

Mario Monti, former European Commissioner, Interim Italian Prime Minister

1. Preamble: the 'thesis' question' addressed by the thesis

The thesis seeks to analyse what competition law remedies are most suitable in dealing with recurrent network-related abuses of dominant position in the provision of electronic communications services such as fixed telephony and broadband communications. On the basis of the scientific literature gathered, comparison and application of legislative tools in actual cases, the jurisprudence of the European Courts and the practices of the European Commission and national competition authorities (hereinafter, 'NCAs'), but also on the basis of theoretical reasoning, my conclusion is that the European Commission and/or the NCAs (or the Regulators with competition law enforcement roles) when called to impose a sanction and to choose between a behavioural or structural remedy should take into consideration also the positive effects that, under certain conditions, may derive from **structural**

⁷ Mario Monti, A New Strategy for the Single Market – At the Service of Europe's Economy and Society, Report to the President of the European Commission, José Manuel Barroso, available at: http://ec.europa.eu/bepa/pdf/monti_report_final_10_05_2010_en.pdf,

separation in terms of (i) deterrence and prevention of abuses and (ii) increased competition (for instance, the purchaser of the separated network may be a new strong competitor entering the market).

The **first chapter** aims at establishing the key-concepts of: (i) vertically-integrated industry, (ii) how the network works in the telecommunications industry and (iii) what comparison can be made from a technical, economic and legal point of view between telecommunications and other network-based vertically-integrated firms.

1.2. Introduction.

The thesis aims at showing that among the competition law remedies, at the level of EU law, structural separation in certain circumstances, in the presence of recurrent abuses of dominant position in the provision of electronic communications services, can be considered beneficial. The modification in 2009 of three of the directives of the so-called ‘Telecommunications Package 2000’⁸ by Directive 2009/140/EC⁹, introducing vertical functional separation as an *ex ante* remedy, convinced me to consider how remedies, either *ex ante* or *ex post*, work in dealing with abuses of dominant position in vertically-integrated firms, and in the electronic communications, in particular.

⁸ Directive of the European Parliament and of the Council 2002/19/EC of 7 March 2002 on access to, and interconnection of, electronic communications networks and associated facilities, [2002] OJ L 108/7 (the ‘Access Directive’); Directive of the European Parliament and of the Council 2002/20/EC of 7 March 2002 on the authorization for the networks and the services of electronic communications, [2002] OJ L 108/22 (the ‘Authorisation Directive’); Directive of the European Parliament and of the Council 2002/21/EC of 7 March 2002 on a common regulatory framework for electronic communications networks and services, [2002] OJ L 108/33 (the ‘Framework Directive’); Directive of the European Parliament and of the Council 2002/22/EC of 7 March 2002 on universal service and users’ right relating to electronic communications networks and services, [2002] OJ L 108/51 (the ‘Universal Service Directive’); Directive of the European Parliament and of the Council concerning the processing of personal data and the protection of privacy in the electronic communications sector, [2002] OJ L 201/37 (the ‘Data Protection Directive’); and the Radio Spectrum Decision, [2002] OJ L 108/1.

⁹ Directive 2009/140/EC of the European Parliament and of the Council of 25 November 2009, [2009] OJ L 337/37.

Therefore, this thesis goes a step further beyond simply requiring functional separation as a regulatory tool introduced by Directive 2009/140/EC, and to look at the impact that *ex post* competition law remedies, namely fines, behavioural (and, among behavioural *lato sensu*, functional remedies) or structural remedies based on Art. 7 of Regulation 1/2003/EC¹⁰, may have, both in terms of deterrence and of enhancement of competition¹¹.

Vertical functional separation has been defined as ‘a remedy that can be applied in certain situations where competition is restricted as a result of vertical integration’¹². The OECD Report 2011 on ‘Experiences with structural separation’ is particularly useful to recall the most accepted definition of separation. It is based on the famous classification elaborated by Prof. Martin Cave, and will be discussed more in depth in the part of the thesis dealing with the various forms of separation. In brief, separation focuses on the ‘assets that cannot be replicated’¹³ and that can take various forms ranging from behavioural to structural measures. The OECD Report 2011 lists the following forms of separation

‘Accounting separation constitutes the weakest form of separation available, and ownership separation¹⁴ the strongest. In between these poles, ‘six degrees’ of functional (or operational) separation options have been identified: (i) creation of a wholesale division; (ii) virtual separation; (iii) business separation; (iv) business separation with localised incentives; (v) business separation with separate

¹⁰ Council Regulation 1/2003/EC of 16 December 2002 [2003] OJ L 1/1 (the ‘Modernisation Regulation’).

¹¹ For a recent outlook on remedies imposed by the European Commission, see I. Llanos, ‘Competition Law Remedies, in Search of a Theory’, CLES working papers series, April 2011, accessible at http://www.ucl.ac.uk/cles/research-paper-series/research-papers/cles_3_2011.

¹² B. Moselle and D. Black in ‘Vertical Separation as an Appropriate Remedy, (2010) Journal of European Competition Law & Practice, 84.

¹³ OECD Report 2011 ‘Report on Experiences with Structural Separation’, OECD pub. 2012, p 10, accessible at <http://www.oecd.org/daf/competition/50056685.pdf>

¹⁴ For example divestiture of assets.

governance arrangements; (vi) and legal separation involving separate legal entities under the same ownership'¹⁵.

The OECD Report 2011 reaches the quite broad conclusion that the optimal decision about what form of separation should be adopted needs to be based on the evaluation of the advantages and disadvantages both from a competition law point of view and from an economic efficiency point of view.

This thesis tries to go a step further. It analyses in depth the functioning and the impact that a structural remedy such as structural separation may have on competition. I consider how structural separation works or might work in the electronic communications sector and I carry out a number of comparisons with other regulated markets in which structural separation has already taken place. Theoretical reasoning may also be useful to foresee what impact a draconian remedy may have in the short and in the long term on the competitive scenario, bearing in mind the impact that it might have in terms of short and long-term consumer welfare and quality of the service, but also in terms of costs and prices.

Chapter I provides some key definitions such as the meaning of abuse, the difference between *ex ante* and *ex post* remedies, the meaning of behavioural and structural remedies, and the meaning of structural separation, as opposed to functional separation. It identifies the context of the analysis; the aims and the objectives of the thesis; the methodology; how the thesis critically evaluates the primary and secondary sources; and a short summary of the chapters. I will also explain on what evidence I base my reasoning, and how I will reach my conclusions.

Chapter I explains (i) the meaning of 'vertically-integrated' firms and networks, (ii) providing fundamental definitions of infrastructure, core backbone, access network in the electronic communications sector and explaining how the infrastructure works in the electronic communications industry.

¹⁵ M. Cave, 'Six Degrees of Separation: Operation Separation as a Remedy in European Telecommunications Regulation', (2006) 4th quarter, 64 Communications and Strategies, 1-15.

I conclude Chapter I by arguing that the experience of structural separation made in other vertically-integrated firms (e.g. electricity generation, transmission and distribution, gas extraction, transformation, transmission and distribution, as per the above-mentioned E.ON, RWE and ENI commitments decisions) could be used to underpin on a legal point of view the claim that the European Commission (and the National Competition Authorities) are entitled to apply structural separation also in the electronic communications sector.

In the following chapter I will also discuss the clear position taken by the European Commission in recent access-related abuses of dominant position decisions as in the *Deutsche Telekom*¹⁶ and *Telefónica*¹⁷ cases, affirming the possibility, for the European Commission to impose Art. 7 Regulation no. 1/2003/EC remedies (fines in particular) independently from national regulatory authorities' remedies already in place (such as access prices set by regulators).

The definition of the technical framework of the analysis (what an electronic communications network is and how it works) should facilitate the understanding not only of the abuses that are carried out with respect to the access to the network (the topic of the following chapter) but also to define the structural remedies and separate them from behavioural (and especially functional) boundaries of the behavioural (and especially the functional) as well as of the structural remedies that might be adopted (the topic of the remaining chapters).

¹⁶ Commission Decision *Deutsche Telekom AG* (Case COMP/C-1/37.451, 37.578, 37.579), [2003] OJ L263/9; on appeal, *Deutsche Telekom AG v. Commission*, Case T-271/03, [2008] ECR II 477; before the ECJ, *Deutsche Telekom AG v European Commission*, Case C-280/08, [2010] ECR I-09555, [2010] 5 CMLR 1495.

¹⁷ Commission Decision *Wanadoo España v Telefónica* [2008] OJ C83/6 ('Telefónica'), appealed at the General Court: Case T-336/07 *Telefónica and Telefónica de España v Commission* [2007] OJ C269/55, ECR I-0000, judgment on the 29 March 2012. On appeal at the Court of Justice, Case C-295/12 (see opinion of the Adv Gen Wathelet, 26 September 2013 accessible at <http://curia.europa.eu/jcms/upload/docs/application/pdf/2013-09/cp130117en.pdf>).

1.3. Methodology.

1. *Summary of the research topic and its importance*

The research topic is to analyse the difficulty that competition authorities, at European and at national levels, may encounter in adopting the most suitable sanction in the presence of recurrent abuses of a dominant position.

The thesis is mainly centred around abuses of dominant position carried out by vertically-integrated firms in the electronic communications sector, in particular with respect to traditional abuses, such as refusal to supply access to the network controlled by the incumbent, either charging excessive prices or through more subtle forms of abuse such as margin squeezes and indirect refusal to supply through non-innovation of the networks they control.

The research topic is important because through the analysis of case-law and comparison with remedies adopted in the presence of commitments signed to address the European Commission's concerns *vis à vis* alleged abuses of a dominant position, I want to show that in certain circumstances structural separation may be not only legally applicable (also on the basis of the most recent orientation expressed by the EU courts stressing the wide room of manoeuvre of the European Commission with respect to national regulators in dealing with Art. 102 TFEU infringements) but also a more effective remedy than mere financial sanctions or behavioural remedies. Within the category of behavioural remedies particular focus will be devoted to functional separation as an *ex ante* remedy that in 2009 was 'codified' by Directive 2009/140/EC¹⁸ as one of the possible remedies aimed at boosting competition.

¹⁸ Directive 2009/140/EC of the European Parliament and of the Council of 25 November 2009 amending Directives 2002/21/EC on a common regulatory framework for electronic communications networks and services, 2002/19/EC on access to, and interconnection of, electronic communications networks and associated facilities, and 2002/20/EC on the authorisation of electronic communications networks and services, [2009] OJ L 337/37 (18 December 2009).

This form of separation, adopted for the first time in the United Kingdom in 2006 by the British Telecom Group (BT Group) under the supervision of the British communications authority OFCOM, represented the starting point of my research into other forms of separation, including the most invasive forms, such as that deriving from the divestiture of the electronic communications network, either in its entirety or in sections, at sub-national (inter-regional), regional or local levels.

The thesis will take into consideration relevant case-law in which various forms of remedies, either behavioural or structural, were adopted in relation to commitments signed by the management of vertically-integrated firms in sectors other than the electronic communications, such as in the gas and electricity generation and transmission (the above-mentioned cases *E.ON*¹⁹, *RWE*²⁰ and *ENI*²¹).

First of all it discusses the difficulty of choosing the best remedy, weighting legal and economic arguments in favour and against each prospected measure (advantages and disadvantages of both behavioural and structural remedies).

Having argued that structural separation, among the structural remedies, in the presence of certain pre-conditions can be considered a suitable form of *ex post* sanction, a further problem is the choice of the point or level of the network where the 'cut' (break-up) should take place. In fact it must be undertaken at a level that represents a sufficient loss for the abuser and, at the same time, offers a viable asset for the (suitable) purchaser. The divestiture must be applied with the aim of enhancing competition, and not simply with the idea of sanctioning the abusive behaviour. At the same time, structural separation applied in one country cannot always be 'exported' as a good model of reference into completely different contexts: the reference here is at

¹⁹ *E.ON*, [2009] OJ C36/8.

²⁰ *RWE*, [2009] OJ C133/10.

²¹ *ENI*, [2010] OJ C352/8.

the AT&T²² example of local vertical separation, which presents the legitimate question whether it might represent an example that could be directly applied in the European context or not.

This further aspect (at what level and where the 'cut' should take place) will be analysed bearing in mind the difficulties for NCAs or for national regulatory authorities²³ enforcing competition law of implementing the measure.

2. Key definitions: abuses, structural separation, ex ante and ex post remedies

In the first chapters (I and II in particular) the thesis analyses some key definitions on which the reasoning is built-up. Chapter I focus on the definition of vertical integration, as a common characteristic of both electronic communications firms and other public utilities firms, such as those providing electricity, gas, oil, water distribution services.

Chapter II focuses, in more detail, on the definition of network-related abuses, and is based on a comparative approach between abuses in the electronic communications and similar abuses in the electricity and gas production and distribution sectors.

Chapter III focuses on the analysis of the remedies, including regulatory and competition law enforcement remedies. This chapter is an important step in the thesis because introduces the issue of mandatory functional separation and voluntary structural separation as new regulatory tools as per Directive 2009/140/EC.

Functional separation is defined as the remedy that is behavioural in nature but with features specifically aimed at modifying the functioning of the firm in

²²*MCI Communications v. American Tel. & Tel. Co. (AT&T)*, 708 F.2d 1081, 1132-33 (7th Cir. 1983).

²³ Hereinafter, 'NRA'.

order to facilitate the pre-conditions for effective competition. An example is the creation of a separate entity, within the same company group, that by statute deals with the access to the network. The fundamental precedent is represented by the creation in 2006 of the separate access division called *Openreach* within the BT Group.

Functional separation differs from structural separation that consists in a more invasive remedy, aimed at breaking the unity of the undertaking allegedly abusing of its dominant position through divestiture of the network (or of relevant parts of it) or through the separation of the services companies from the network company belonging to the same group.

Chapter IV focuses on the analysis of ex post remedies as per Art. 7 of Regulation 1/2003/EC, and in particular (a) fines, (b) behavioural remedies and (c) structural remedies. It aims at analysing the advantages and disadvantages that these remedies have, on the basis of empirical evidence, based on reasoning, analysis of existing case-law, literature review. It is also the chapter that tries to compare the electronic communications sector with other vertically-integrated utilities markets, such as those related to production, transmission and distribution of electricity and gas.

This chapter as well as Chapter V will be based on the experience that can be drawn from the analysis of commitments signed between the European Commission and E.ON (electricity), RWE (gas) and ENI (gas), in 2008, 2009 and 2010 respectively. From the empirical demonstration of the advantages and disadvantages deriving from the network (partial) divestiture deriving from those commitments, I will try to demonstrate that structural separation as a remedy as per Art. 7 of Regulation 1/2003/EC should not be considered an ‘antitrust *taboo*’ but rather a highly pro-competitive remedy. Chapter IV concludes that it is a tool that the Commission, going beyond the limit imposed on regulators by Directive 2009/140/EC (functional separation), should be allowed to apply, under certain conditions.

In Chapter VI I carry out an analysis of the AT&T case of structural separation mandated on the 8th January 1982 in the US on the basis of a consent decree, is aimed at showing how the first example of structural separation in the electronic communications sector took place, even though I will argue that the local vertical structural separation of AT&T cannot be applied, as such, at European level, where geographic fragmentation of electronic communications networks with respect to the boundaries of each single EU Member State is a reality since the creation of the European Union

Chapter VII analyses the institutional approach of the OECD as an intergovernmental organisation. On the basis of the doctrine of the various layers of separation elaborated by Prof. Martin Cave, the OECD published two reports in 2001 and 2011 showing the difficulty of adopting, on both a legal and economic point of view, a univocal position vis á vis the choice of the best remedy.

The final chapter VIII I uses the evidence gathered in the body of the thesis to conclude that structural separation in the electronic communications sector, as well as in other vertically integrated industries, is legally possible on the basis of the statutes and of the recent position expressed by the European Commission and the European Courts in cases such as *Deutsche Telekom* and *Telefónica* with respect to the margin of autonomy of the European Commission in adopting the most suitable competition law remedy, irrespective of pre-existing regulatory remedies (such as access prices). The chapter goes further looking at the recent experience of two cases of structural separation in the electronic communications sector in Australia and in New Zealand, showing that in those realities the competition authorities must have concluded that structural separation should have a positive effect on competition in the short as well as in the long run.

It will demonstrate that the impact is twofold: on the one hand structural separation can constitute a serious deterrent for the incumbent; on the other hand it might lead to a reduction of prices, an increase in the quality of the services provided, and higher consumer satisfaction. The conclusion is based

on the analysis of the effects that structural separation had in the E.ON, RWE and in the ENI commitments cases, but also on the consequences that structural separation is expected to have in those countries where it is already a reality. The two examples of structural separation adopted in the electronic communications sector in Australia (of incumbent Telstra²⁴, effective from 2018) and in New Zealand (of the incumbent New Zealand Telecom²⁵), show that vertical structural separation is expected to have pro-competitive effects that are still underestimated at European level, above all if compared with the limited impact in terms of deterrence, enhancement of competition and long-term consumer welfare that pecuniary fines may have²⁶.

3. *Context: EU legislation and role of the European Courts. Practice of the European Commission. Reference to European national primary and secondary legislation. Reference to EU member States case-law, legislation and practice of national competition authorities and regulators. Comparative analysis with the US case-law and legislation.*

²⁴ On 29 July 2011 Telstra submitted a structural separation undertaking and draft migration plan to the Australian Competition & Consumer Commission (ACCC) on the basis of Sections 577A and 577BDA of the Telecommunications Act 1997. After a supplement of negotiation, the ACCC accepted on the 27 February 2012 Telstra's structural separation undertaking and approved the draft migration plan. On the 6 March 2012, Telstra's Structural Separation Undertaking and Migration Plan came into force. Detailed chronology and milestones are available at <https://www.accc.gov.au/regulated-infrastructure/communications/industry-reform/assessment-of-telstras-ssu-draft-migration-plan>.

²⁵ For an overview of New Zealand Telecom structural separation and the creation of the separated company Chorus, see 'The regulatory framework for separation of Telecom' accessible at <http://www.med.govt.nz/sectors-industries/technology-communication/pdf-docs-library/communications/telecom-separation/regulatory-framework-for-separation-of-telecom.pdf>.

²⁶ However, at least at national level in Europe the debate on the opportunity of enacting further forms of structural separation in particular in the energy sector is particularly alive. On the 27 March 2014 OFGEM, the energy regulator in the United Kingdom, announced to have proposed a reference to the Competition and Markets Authority to investigate the energy market, also considering that the 'CMA has powers, not available to OFGEM, to address any structural barriers that would undermine competition. Now consumers are protected by our simpler, clearer and fairer reforms, we think a market investigation is in their long-term interests'. See <https://www.ofgem.gov.uk/press-releases/ofgem-proposes-reference-cma-investigate-energy-market>. The investigation could prelude to structural separation at gas and electricity supply and distribution level. OFGEM has already asked NGT (National Grid Transco Group) to work on a paper recently published on 'Structural separation between transmission and distribution', accessible at <https://www.ofgem.gov.uk/ofgem-publications/50241/7419-ngtpaperdisg12structuralseparation.pdf>.

The dissertation is mainly based on the European legal system, as it is built-up on European primary and secondary legislation (and soft-law) and on the practice of the European Courts.

Having analysed the evolution of European legislation in the last three decades, during the entire process of liberalisation of the electronic communications markets, focusing on the European directives of the so-called 'Telecommunications Package' mentioned in Section 1.1 above adopted in 2002 and on Directive 2009/140/EC²⁷ that introduced mandatory functional separation and voluntary structural separation among the most recent regulatory tools introduced with the aim of facilitating the liberalisation process and of enhancing competition.

In terms of primary legislation the main provision to be recalled is Art. 102 of the Treaty on Functioning of the European Union on abuse of dominant position, and two key provisions of Regulation no. 1/2003/EC, in particular, art. 7 on remedies and art. 9 on commitments).

On the basis of these provisions, an analysis of the practice of the European Commission and the role played by the European Courts in defining the boundaries of the main forms of access-related abuses is provided which includes; the conditions for the application of the *essential facilities* doctrine; the duty of the dominant undertaking to favour competition; the margins within which the dominant undertaking can refuse to provide access to competitors.

The analysis of the relevant practice of the European Commission will be mainly focused on three cases in which commitments were proposed, by E.ON²⁸ and RWE²⁹ in 2008 and by ENI³⁰ in 2010 in order to address serious competition law concerns, aimed at removing alleged situations of abuse

²⁷ Directive 2009/140/EC of the European Parliament and of the Council of 25 November 2009, [2009] OJ L 337/37.

²⁸ E.ON, [2009] OJ C36/8.

²⁹ RWE, [2009] OJ C133/10.

³⁰ ENI, [2010] OJ C352/8.

mainly related to insufficient capacity (for instance, capacity withdrawal and deterrence of investments on the network in the E.ON case) or systematic and constructive refusal to supply (in the ENI case). Cases in which the European Commission closed the investigation on the basis of the proposal of divestiture put forward by the incumbents in Germany and Italy.

These decisions are particularly useful, considering the absence of European Commission's decisions, based on Art. 102 TFEU and Art. 7 of Reg. 1/2003/EC, imposing structural separation as a sanction.

The dissertation is also based on the relevant practice of national competition authorities in dealing with the problem of network-related abuses, and on the soft-law issued by the sector regulators at Member States level.

Reference is also made to other jurisdictions, as for instance to the important precedent represented by structural separation of AT&T in the US in the early 1980s. The analysis of the US case-law cannot be separated from an analysis of US legislation and practice of the FCC (Federal Communications Commission), in order to understand the framework in which matured the decision of divesting part of AT&T network in order to favour competition at regional level.

4. Aims and objectives of the thesis

This thesis aims at showing how structural separation can be a suitable remedy to deal with recurrent abuses of dominant position in the provision of electronic communications services. The conclusion is that the European Commission when called to apply a sanction and to choose a behavioural or structural remedy should take into consideration the positive effects that, in certain conditions, may derive from structural separation in terms of (i) prevention of abuses and deterrence, (ii) possibility of enhancing competition, (iii) possibility of enhancing quality of service and (iv) possibility of reducing costs and prices.

While focusing on both exploitative and exclusionary abuses in the provision of electronic communications services provided through vertically-integrated structures, the thesis first (i) takes into consideration the available ex ante remedies (i.e. price caps; recently introduced provisions on functional separation to prevent refusal to supply, margin squeeze, cross-subsidisation etc.); then (ii) it looks at ex post remedies as per Art. 7 of Reg. 1/2003. Finally (iii) it discusses the role of commitments to see what lessons can be drawn from empirical experience, bearing in mind that at the European level the most relevant case-law at present falls within this category. I will also discuss two examples of structural separation in the electronic communications sector adopted by the Australian and New Zealand competition authorities in order to show that the idea of separating the company ruling the network from the companies providing the services is already a reality.

Once demonstrated that recurrent fines *per se* may not succeed in avoiding both exploitative and exclusionary abuses, the thesis analyses how functional and structural remedies operate, and which type remedy could be more suitable. On a legal point of view I will stress how the recent judgments of the European Courts in the above-mentioned cases Deutsche Telekom and Telefónica confirm that the European Commission has considerable 'room of manoeuvre' when called to enforce competition law, above and beyond the regulatory tools already present in the single Member States.

On the basis of the existing case-law and experience and through the recourse to comparative analysis, the thesis reaches the conclusion that, under certain conditions, in the electronic communications sector structural separation should be preferred to functional separation. In certain cases, the proposed model of functional separation (either ex ante or ex post remedy) will not always be effective (in particular, due to lack of sufficient monitoring). This conclusion is underpinned by extensive literature and by the analysis of the experiences, both at the EU level (review of the cases *E.ON electricity*, *RWE gas* and *ENI gas*, in particular) and at EU member states level (the UK *Openreach* experience of functional separation). Thus (vertical) structural

separation as an enforcement remedy as per Art. 7 of Reg. 1/2003/EC should not be seen as an extreme remedy.

On the one hand, structural separation of the entities related to the wholesale provision of relevant access products can have a relevant **deterrent effect** on the former incumbent; on the other hand, structural separation **may favour the erosion of the position of monopoly of the incumbent**, and may lead to **more competition** both at upstream (network) and downstream (retail) level. All positive aspects that the European Commission and the national competition authorities should take into consideration when called to choose the most suitable form of sanction *vis á vis* the recurrent abuser. The thesis also discusses the long-term effects that a structural remedy may have, in particular in terms of long-term consumer welfare. More competition may mean more pressure to conquer larger market shares. Innovation on the separated infrastructure may consolidate the presence of new competitors at national or regional level, therefore triggering an indirect incentive to innovate.

1.4 Regulation and competition with respect to ‘vertically-integrated’ firms. In particular, the electronic communications networks.

Regulation and competition are the two main fields on which the present thesis is based. The two fields can be considered interlinked to the point that some tools or remedies (i.e. price caps, functional and structural remedies; as well as commitments and undertakings³¹), from the field of regulation are often ‘borrowed’ by the field of competition enforcement to address identical concerns.

The present work will tackle the different approaches adopted by the European Commission to prevent or to deal with abuses of dominant position in relation to access to electronic communications networks. The aim is to

³¹ To use the wording of the UK Enterprise Act 2002, *Undertakings in lieu of* reference to the Competition Commission are a form of commitments as per Section 154 of the Enterprise Act 2002

analyse the remedies available to deal with this specific form of distortion of competition, and to establish or, at least to foresee, what ex post remedy could be best placed to deal with recurrent abuses and to prevent future distortions, while also bearing in mind the targets of facilitating innovation, enhancing consumer satisfaction and also reaching long-term public interest targets, such as that of bridging the so-called 'digital divide' in the European Union territory.

In the thesis, a wide range of remedies will be discussed aimed at facilitating the role of regulators³² (*ex ante* approach) and enforcers³³ (*ex post* approach) from time to time will be identified in the course of the present work. In some cases the same remedy, for example functional separation, may be applied either as an '*ex ante*' remedy aimed at creating a 'frame' that should favour competition (as per the provision of the recently adopted Telecom Directive 2009/140/EC); or can be applied *ex post*, in presence of recurrent infringements of competition law principles, as one of the measures that may be imposed as per Art. 7 of Regulation 1/2003/EC when mere pecuniary fines appear to be not sufficient to address competition law concerns.

The thesis will also demonstrate how, on the basis of recent margin squeeze cases such as the *Deutsche Telekom*³⁴ and *Telefónica*³⁵ cases, the European Courts have reaffirmed that the national incumbents are subjects to the duties deriving from competition law even in the presence of regulatory provisions that the companies could try to use to justify their anticompetitive behaviours.

³² 'Regulators' here stands for the administrative sectorial authorities supervising the functioning of the public utilities: i.e. electronic communication authority (OFCOM in UK, AGCOM in Italy, FCC in the US), energy authorities, transports authorities, etc.

³⁴ Commission Decision *Deutsche Telekom AG* (Case COMP/C-1/37.451, 37.578, 37.579), [2003] OJ L263/9; on appeal, *Deutsche Telekom AG v. Commission*, Case T-271/03, [2008] ECR II 477; before the ECJ, *Deutsche Telekom AG v European Commission*, Case C-280/08, [2010] ECR I-09555, [2010] 5 CMLR 1495.

³⁵ Commission Decision *Wanadoo España v Telefónica* [2008] OJ C83/6 ('Telefónica'), appealed at the General Court: Case T-336/07 *Telefónica and Telefónica de España v Commission* [2007] OJ C269/55, ECR I-0000, judgment on the 29 March 2012. On appeal at the Court of Justice, Case C-295/12 (see opinion of the Adv Gen Wathelet, 26 September 2013 accessible at <http://curia.europa.eu/jcms/upload/docs/application/pdf/2013-09/cp130117en.pdf>).

Before analysing in depth the panoply of regulatory and enforcement tools aimed at dealing with the restrictions to effective competition in the provision of communications services through the incumbent's network, a few sections will be devoted to the definition of 'network' and to the concept of vertical integration through which dominance may be leveraged to abuse within the meaning of Art. 102 TFEU.

1.5. Vertical integration

Vertical integration represents the situation in which an undertaking operates in more than one successive stage of the production process. In the manufacturing sector this could happen, for example, when the producer is also the retailer of the products it has materially produced. This model can be transferred to the electronic communications sector, where the owner of the infrastructure is also the 'reseller' of electronic communications services. For instance, the electronic communications incumbent operator can have a monopoly over access to residential customers: it is usually a vertically-integrated company that owns the backbone and of the local loop and, until the beginning of the process of liberalisation, is the sole supplier of the services. The problem in regulatory and competition law terms arises when competitors require access to the same local loop in order to provide telephony or broadband services³⁶.

Figure 1 explains graphically the described situation:

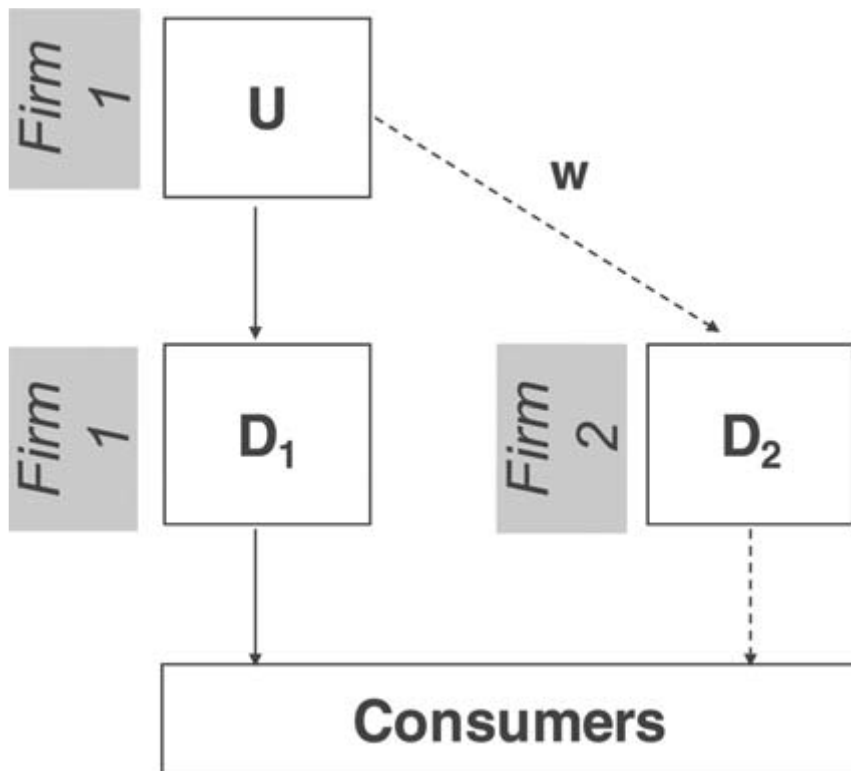


Figure 1.1: Source: B. Moselle and D. Black, ‘Vertical Separation as an appropriate remedy’, (2010) *Journal of European Competition Law & Practice*, 85. ‘W’ is the wholesale input.

Even though vertical integration is not necessarily an indicator of monopoly, it is nevertheless a serious factor in determining the existence of a dominant position (see, for instance, the conclusion reached by the Court in *United Brands* with respect to vertical integration)³⁷.

Vertical integration, as a structural factor, has to be seen both in its static and dynamic dimension. On the one hand, it represents the static dimension of the market structure; on the other hand, it represents a process of market

³⁷ Case C-27/76 *United Brands v Commission* [1978] ECR 207, para 58: ‘The Commission bases its view that UBC has a dominant position on the relevant market on a series of factors which, when taken together, give UBC unchallengeable ascendancy over all its competitors: its market share compared with that of its competitors, the diversity of its sources of supply, the homogeneous nature of its product, the organisation of its productions and transport, its marketing system and publicity campaigns, the diversified nature of its operations and finally its vertical integration’. See A. Jones and B. Sufrin, cited (4th edn, 2011), p 344.

structure adaptation³⁸. However, the dynamic dimension is probably the most relevant to underpin findings of dominance. As Scherer and Ross note

‘firms integrating upstream, or backward, undertake to produce raw materials and semi-fabricated inputs that might otherwise be purchased from independent producers. Firms integrating downstream, or forward, move toward further finishing manufactured goods in the hands of consumers’³⁹.

At first glance, it might appear logical that a vertically-integrated supplier could try to restrict the supply of the input to its competitors in order to maximise profits in the downstream market⁴⁰. Some scholars argue that there is sufficient economic evidence that vertically-integrated undertakings usually make rational choices, maximising both their own interests and consumers’ interests, as since a vertically-integrated firm controls a ‘bottleneck’ monopoly, it can maximise its own profit without maximising care of consumers’ welfare⁴¹. For these scholars such an undertaking seems to be ‘condemned’ for its efficiency⁴².

Others *vice versa* argue that discrimination or other forms of abuse by vertically-integrated firms might not be a rational strategy, since increases in profits at the retail level (i.e. through excessive prices) might be outweighed by

³⁸ F. Scherer and D. Ross, cited, p 94.

³⁹ *ibid*.

⁴⁰ B. Moselle and D. Black, ‘Vertical Separation as an Appropriate Remedy, (2010) Journal of European Competition Law & Practice, 84 ff. See in particular p 88: ‘the requirement to provide an input at cost to a downstream competitor may incentivise a firm to use various non-price discrimination methods to prevent competition eroding margins in the downstream market’.

⁴¹ Argument reported by the 2011 OECD Report, cited, p 12. Fundamental literature on the dilemma between incentive or not to abuse in vertically-integrated industries: F. Lafontaine and M. Slade, ‘Vertical integration and firm boundaries: the evidence’ (2007) 45(3) Journal of Economic Literature, 629-685; P.L. Joskow, Ch 11, ‘Vertical integration’ in ABA Section of Antitrust Law, Issues in Competition Law and Policy, Vol. I (2008, ABA pub., Chicago) pp. 273-292.

⁴² A. Jones and B. Sufrin, cited (4th edn, 2011), p 344.

losses at the wholesale level (since the dominant firm might be reluctant to offer wholesale access to competitors)⁴³.

If vertical integration is one of the factors determining dominance, intervention against vertical integration may represent a way of reducing dominance at the same time as enhancing competition and, possibly, enhancing consumer welfare (at least in the long term). However, *ex ante* or *ex post* intervention on vertical integration is not always easy to put into practice. In vertically-integrated undertakings the local distribution network may represent a natural monopoly that is difficult to attack (see, for instance, in the electricity, gas and water distribution sectors where the same monopoly could have been maintained though restricting (or precluding) the access of competitors in the market⁴⁴.

The OECD Report 2011 stresses how

‘an issue of increasing importance, in the context of the debate regarding [network] structural separation, is the impact of such arrangement on investment incentives, in particular relating to infrastructure development [...]. On the other hand, where vertical integration remains in place, there is a risk that the integrated firm will engage in **strategic under-investment in its infrastructure**, in a bid to circumvent access obligations. In such circumstances, the **decision to separate may lead to greater investment in infrastructure development**’⁴⁵.

In other sectors, such as electricity, gas or water distribution, intervention might have no pro-competitive effects at all: i.e. in the high-voltage transmission or in regional distribution for electricity; in national and regional distribution for gas industry; in track and stations infrastructures in the railways

⁴³ D.W. Carlton ‘Should ‘price squeeze’ be a recognised form of anticompetitive conduct?’ (2008) 4 Journal of Competition Law and Economics 271 (p 275), recalling the Cournot’s theorem of ‘one monopoly profit’ (i.e. a monopolist can extract only one premium for being a monopolist).

⁴⁴ R. Baldwin and M. Cave, *Understanding Regulation. Theory, Strategy, and Practice* (Oxford University Press, 1999), p 212.

⁴⁵ OECD Report 2011, cited, p 14-15. Emphasis added.

sector; or for the main infrastructure in the water distribution sector⁴⁶, even though in recent times the European Commission has accepted commitments by dominant undertakings such as E.ON (2008), RWE (2009) and ENI (2010) in which structural divestiture of their generation (E.ON) and transmission networks (RWE and ENI) was one of the key features.

To argue about what remedy would be more suitable to address competition concerns with respect to vertically-integrated firms, also requires looking at the reasons behind vertical integration. Vertical integration may present, from an economic point of view, positive features that may outweigh the negative impact that vertical integration may have on free competition.

On this respect the various schools of economics are divided.

For instance, the neoclassical approach to explain vertical integration looks at the single firm on a micro-economic point of view, before analysing the aggregate effect on the market that vertical integration may have. A neoclassical explanation for vertical integration is that the enterprise will minimise its inefficiencies that arise when market power is present both in the upstream and downstream level. In terms borrowed from economics, in a vertically-integrated industry 'market prices will be greater than the marginal costs of production in both upstream and downstream markets as firms exercise market power'⁴⁷.

Vertical integration in a neoclassic perspective is seen as the best tool to avoid the problem of 'double marginalisation', i.e. the risk of setting the final price including the monopoly prices at both upstream and downstream level. The problem of 'double marginalisation' can be easily explained considering that the upstream monopolist will charge the downstream retail company with a price that should cover its upstream marginal cost ($P_M > c$) for the single unit.

⁴⁶ R. Baldwin and M. Cave, *ibid*, p 214. The case-law reported in the following chapters will show the different forms of separation implemented with respect to single markets (i.e. gas distribution, energy generation).

⁴⁷ Paul L. Joskow, 'Vertical integration', (2010) Vol. 55, no. 3 *The Antitrust Bulletin*, 550.

Similarly, the downstream retail monopolist takes the price P_M as a cost and will charge a retail price $P_{RM} > P_M$ ⁴⁸. The phenomenon of double marginalisation is linked to such a combination of two monopoly 'mark-ups' to the production costs, charging the final consumer with a price that is higher than the price that a vertically-integrated company could charge considering the cost of the upstream input only once. This is one of the main reasons why vertical integration is considered positive also for the final consumer. As P. L. Joskow underlines

'if we assume that vertical integration is costless, the aggregate profits of the upstream and downstream monopolies will increase if they merge because the distortion from double marginalisation will disappear'⁴⁹.

The problem of double marginalisation can be removed only if the downstream market is perfectly competitive. In this case the downstream retail firm does not have incentive to charge twice the upstream monopoly price (P_M). It will simply 'pass-on' that price on the consumer.

An important aspect of vertical integration, linked to the price chain, is the *ratio* of value-added to sales⁵⁰. If the first element of the production chain (the producer or the first buyer of raw materials) detains the higher value-added ratio (in the range of 0.5), the further elements of the production chain see their value-added ratio decreasing each step downstream. To make an example, the distributor ratio is calculated in 0.33. As Scherer and Ross point out 'the nearer the raw materials end of the production stream a specialist firm's (or industry's) operations are, the higher its value added/sales ratio tends to be, *ceteris paribus*'⁵¹.

⁴⁸ *ibid*, 551.

⁴⁹ *ibid*.

⁵⁰ Scherer and Ross, cited, p 95.

⁵¹ *ibid*.

What really matters for the aim of this thesis is to understand the link between vertical integration and market structure. Vertical integration is often joint with and further strengthens market power, one of the key preconditions for super-dominance and monopoly (even though high market power and monopoly are not necessarily synonymous).

These aspects will be further considered when in the following chapters which tackle the problem of the choice of the optimal regulatory or competition enforcement remedy to grant effective competition in vertically-integrated firms, when regulators or competition authorities are called to make a choice between (i) maximisation of short term consumer welfare through the preservation of structural unity of the dominant undertaking, opting for functional remedies, or (ii) enhancement of competition among competitors through structural separation.

In those chapters the various forms of behavioural remedies, as well as types, modalities and consequences of functional and structural separation will be also discussed more in detail.

1.6. Vertical integration in the electronic communications market.

I must now focus on vertical integration in the electronic communications sector and vertical integration with respect to comparable network-based undertakings.

By comparable network-based firms I mean those vertically-integrated firms providing their services through networks. In this respect, I need to show how electronic communications services, gas transformation, transmission and distribution, electricity generation, transmission and distribution, water distribution, to take a few examples, can be compared due to some common features: the presence of a network; the position of natural monopoly that usually the owner of the network possesses; the applicability, in specific circumstances, of the 'essential facilities' doctrine in favour of competitors

aiming to enter a market protected by its position of natural (and often legal) monopoly.

Comparison among different firms can be carried out only with extreme prudence. However some common structural features among different firms can be identified, as well as some common abusive conducts (here I think of predatory pricing, margin squeeze, direct or indirect refusal to supply, for instance).

The application of vertical behavioural or structural remedies can be taken as a model from other vertically-integrated firms to the electronic communications sector; the same exercise can be carried out modelling remedies already applicable in the electronic communications sector (I think here of functional separation as per Directive 2009/140/EC) on abusive or otherwise anticompetitive scenarios in other vertically-integrated firms.

(i) Definition of communications network.

Art. 2 (a) of the Directive 2002/21/EC 'Framework'⁵² provides a first useful definition of 'electronic communications network' as those

'[...] transmission systems and, where applicable, switching or routing equipment and other resources which permit the conveyance of signals by wire, by radio, by optical or by other electromagnetic means, including satellite networks, fixed (circuit- and packet-switched, including Internet) and mobile terrestrial networks, electricity cable systems, to the extent that they are used for the purpose of transmitting signals, networks used for radio and television broadcasting, and cable television networks, irrespective of the type of information conveyed'.

The network is often considered as constituted by (i) the 'principal network' (the 'core network', i.e. the network that links together the individual main parts of the network) and (ii) the 'access network' (i.e. the secondary network that

⁵² Directive 2002/21/EC of 7 March 2002, [2002] OJ L 108/33 (the 'Framework Directive').

connects the final consumers to the principal network, also defined 'backbone').

'Downstream' (or 'access') networks use transmission systems of various types. The most common access networks are based on the fixed copper network, made by the 'twisted metallic pair' normally used for the telephone wire. In the last decade revolutionary efforts were made to enhance the quality of the (bit-stream, or bit-rates) data that can be transmitted through metallic wires.

This dichotomy has to be borne in mind to identify the most suitable competition law remedies to favour the enhancement of the quality of the infrastructure in the long-term.

In fact the wires may be (i) those of the twisted metallic pair normally used for the voice telephony systems, or (ii) those of the co-axial cables (connecting the television cable to the cable modem). In the most advanced economies, they have been progressively replaced by optic fibres (normally used by business users)⁵³, while in certain cases, to bridge long distances in areas where it is impossible or too expensive to deploy fibre cables the most common transmission systems are represented by 'point-to-point' radio connections⁵⁴.

The evolution from analogical services to digital services based on packet-switched communications and the need of increasing the capacity of transfer of digital data per second has led to radical changes towards forms of communications that will be based on networks substantially different from the present infrastructures. The demand of broadband services will necessarily be

⁵³ The technical, physical, difference between fibre or copper/cable networks is at the origin of the current debate on how to facilitate innovation through private, public, or competition law based intervention.

⁵⁴ For an extensive and clear description of 'core networks' and 'access networks' as well as the progressive 'fixed-mobile' substitution, see I. Walden, cited (3rd edn, 2009), pp 5 ff and, in particular the Section 'Technology and Terminology' drafted by L. Cuthbert, head of department of Electronic Engineering at Queen Mary, University of London.

higher with an exponential growth in the number of non-professional consumers. It is possible, at this early stage, to assume that a large part of the broadband services will be provided through the so-called New Generation (core and [A]ccess) Networks (abbreviated, respectively, in 'NGN' and 'NGAN'⁵⁵).

The network can be technically and logically separated into two main parts: the *core network* and the *local loop* (or, access network)⁵⁶.

The first, also called 'trunk' or 'backbone', is the main structure that usually has a regional, national or continental extension.

The 'local' part of the trunk is defined as the 'local loop', or 'the last mile', considering the distance between the local switch (or exchange) and the end customer.

The core network, in the electronic communications field in particular, can be easily duplicated today as a physical infrastructure, both in terms of quality (quality of service, or 'QoS') and capacity (quantity of analogue or digital units that may be transferred in a fraction of time).

On the other hand, the local-loop can be examined from two perspectives. The **local loop** (or 'last-mile', from the switch to the end customer premises), and the **sub-local loop**, that is the part of the network connecting the street exchange ('cabinet') with the premises of the end customer.

⁵⁵ New Broadband Network ('NBN') in the Telstra case discussed in Chapter VIII.

⁵⁶ Definitions of core and local access networks can be found in some key Commission Decisions. For instance for the definition of long-distance networks ('backbones') see also the Commission Decision *Worldcom/Sprint* (Case COMP/M. 1741) of 28 June 2000, [2003] OJ 300/1 with respect to a proposed merger among two of the main global communications operators (paras 16-17 expressly mention the 'backbone' infrastructures for the provision of electronic communications at global level and the provision of connectivity to Internet to end users through the Internet Service Providers, or ISP).

ii. Different degrees of regulatory and/or ‘technical’ unbundling of the local loop in Europe.

Once provided the definition of ‘core’ (or ‘backbone’) and ‘access network’, it is worth explaining briefly the concept of ‘unbundling’. Unbundling is the term that indicates the physical separation of the last mile of wire (cable) from the incumbent, in order to allow a competitor to provide a service using that specific part of the network⁵⁷. To give an example: NTL⁵⁸, a UK fixed telephony operator and Internet services provider, required the unbundling of the local loop, historically owned by British Telecom (hereinafter, ‘BT’), to connect the ‘last-mile’ to its own switches.

The UK government for a long time tried to hinder the unbundling (either mandatory or forced) of the local loop, because it deemed that it would have discouraged new competitive investments in the infrastructure. Through asymmetric regulatory measures, it rather tried to create and maintain the duopoly BT/Mercury, based on an artificial network competition of their infrastructures. BT and Mercury on their networks (different in size) were prevented from providing broadcasting services, while the cable operators ‘were allowed to exploit that economy of scope’⁵⁹.

The Italian, French and German governments, on the other hand, favoured a different approach, and instead forced the incumbent (respectively, Telecom Italia, France Télécom and Deutsche Telekom) to unbundle the local loop. At

⁵⁷ I. Walden (ed), *Telecommunications Law and Regulation*, (3rd edn, Oxford University Press, 2009), p 407ff.

⁵⁸ NTL Internet, known since February 2007 as Virgin Media, a company involved in television, Internet, mobile phone, and fixed-line telephone services, especially in the United Kingdom.

⁵⁹ M. Cave and I. Vogelsang ‘How access pricing and entry interact’ (2003) 27 *Telecommunications Policy* 720ff. The idea was that only the incumbent, through the revenues deriving from the provision of its services (including wholesale data capacity) but also through the lease of its infrastructures, would have been able to innovate and invest on its own network, at the various levels of the network scale. In other words, excessive competition was supposed to discourage investments on the network.

European level the Resolution on Unbundling of Local Loop no. 2887/00/EC⁶⁰ represented more than a decade ago the first piece of soft-law adopted by the European Commission aimed at enhancing down-stream competition among incumbent and new competitors.

In principle, pure competition law remedies would not have been able to force BT to offer its local loop; but regulatory measures actually did. The fact that the developments in DSL technology in the last decade (in particular in the ADSL⁶¹ technology) allowed BT to provide not only telephony services but also broadcasting services through the same local infrastructure, convinced the regulator (OFTEL, the legal entity that preceded as sector-regulator OFCOM⁶², before December 2003) to force BT to unbundle its local loop. The decision was adopted because also the two competing broadcasting networks, NTL and Telewest, were able to provide the same services (broadcasting, voice telephony, data) along their co-axial and fibre cable, but to provide full voice telephony/data services they needed the access to the local loop. Therefore to increase competition between BT, NTL and Telewest, the regulator forced the incumbent to open its local loop⁶³.

Today in the entire United Kingdom there are more than 8.2 million unbundled lines (January 2012)⁶⁴. This factor has enormously increased competition and did not at all impede further investments by the incumbent in the creation of the so-called 'New Generation Network'. OFCOM is satisfied with the greater choice and lower prices that the British consumers pay. In fact it is possible to

⁶⁰ See Regulation 2887/00/EC of the European Parliament and of the Council of 18 December 2000 on the unbundled access to the local loop, [2000] OJ L 336/4, as well as fn 36 on the access to the sub-loop.

⁶¹ Asymmetric Digital Subscriber Line.

⁶² Office of Communications, created on the basis of the Communications Act 2002 Chapter 11 (available at: <http://www.legislation.gov.uk/ukpga/2002/11/contents>), adopted the 19 March 2002 by the British Parliament.

⁶³ I. Walden and J. Angel, cited (2nd edn, 2005), s 8.3.5. 'Local Loop Unbundling', pp 301-302.

⁶⁴ Source: OTA2 Update for 2012, accessible at <http://www.offta.org.uk/updates/otaupdate20120207.htm>. See also OFCOM website, at <http://consumers.ofcom.org.uk/2012/02/broadband-competition-reaches-new-milestone-2/>.

state that unbundling of the local loop is the first, indirect, less expensive, regulatory (ex ante) way of enhancing competition⁶⁵.

In reality, in many other European countries the diffusion of unbundling has been slower and narrower than expected. Limited unbundling means reduced competition, with the well-known consequences in terms of rigidity of prices and reduced choice and quality of services provided for the end consumers.

A few words must also be devoted to the analysis of a different aspect of unbundling: the so-called '*sub-loop unbundling*' ('*SLU*')⁶⁶ that is the unbundling of the last 'ten meters' between the terminal switch of the national telecommunications operator⁶⁷ before the premises of a building and the customer premises.

The sub-loop unbundling is defined as the possibility of access to the sub-loop frequency-capacity along the terminal network, using the available spectrum of the twisted pair wires. This is technically obtained by placing a further small street cabinet with a DSLAM (Digital Subscriber Line Access Multiplexer, allowing telephone lines to make faster connections to Internet) next to the telecom operator local copper aggregation cabinet (also called SAI, Serving Area Interface), using a 'tie-cable' to connect the last part of the local loop (sub-loop) with the customer premises. This technique allows faster Internet connections that in those obtained through normal Unbundling of the Local Loop. It may lead to the complete exclusion of the main electronic communications operator from the customer's premises (unless the operator

⁶⁵ On the technicalities of local loop unbundling through BT Openreach access division, see <http://www.openreach.co.uk/orpg/home/products/llu/llu.do>. On the evolution of Local Loop Unbundling in the main European countries and in the United Kingdom, see R. Cadman, 'Invention, Innovation and Diffusion of Local Loop Unbundling in the UK, Center for Competition Policy (CCP) Working Paper 12-8, accessible at <http://competitionpolicy.ac.uk/documents/107435/107587/ccp12-8.pdf/725f4cd4-26b5-456d-ba00-15a00d489371>.

⁶⁶ A 'Sub-Loop' is any portion of an 'Unbundled Local Loop' that is accessible at terminals located in a company's outside plant, including inside wiring. Accessible terminals are any points on an Unbundled Local Loop where technicians can access the copper wire or fibre within the cable without removing the splice sheathing.

⁶⁷ The so-called 'street cabinet' in the telecommunications jargon.

installs a DSLAM in its cabinet allowing Internet Protocol-level access). The sub-loop cabinet is connected with the main point of presence of the incumbent through long-range wireless (i.e. Wi-Max) or through fibre connections.

When considering the different technical approaches described above to obtain the unbundling of the local loop, it is evident that the incumbent may or may not lose the direct control of its former customers. Therefore, not only at the regulatory level but also at the competition law enforcement level the authorities may adopt decisions that may lead to enhanced competition (i.e. favouring solutions that may lead to sub-loop unbundling), or that may simply sanction the incumbent for anti-competitive conducts, without removing the technical factor that materially may lead to future recurrent abuses⁶⁸. Hence, the question that will be answered by the present thesis is: can structural, more intrusive, remedies, leading for instance to the separation of local (at 'local loop' and 'sub local loop' level), regional or even State-wide portions of the network have a positive outcome in term of new investments and innovation of the network? Might expropriation of part of the infrastructure, as a consequence of structural separation as a competition enforcement remedy, at the same time 'punish' and create the conditions for effective competition, enhancing, in the long term, consumer welfare? The importance of identifying and defining the various portions of the network resides in the different role and functionality that these portions may have for the competitor or competitors aiming to provide electronic communications services in competition with the incumbent. The competitors may have an interest in having access to the sub-loop portion of the network (i.e. installing a separate 'street cabinet' with their own switches) taking the direct control of the last portion (last ten meters) of the network.

Also the State might be involved in the process of structural separation of network, at national, regional or local level, for instance in a preliminary phase,

⁶⁸ A further form of unbundling is that obtained through the so-called 'shared-access', offered by the incumbent both at local or sub-loop level to the competitor, using the no-local frequency band not utilised by the incumbent, that continues to provide the telephony service.

when a new network should be rolled out. The example provided by structural separation of Telstra in Australia promoted by the Australian Competition and Consumers Commission ('ACCC'), with the parallel creation of a structurally separated New Broadband Network ('NBN') funded by the Australian government to be completed by 2018, seems to go exactly in this direction⁶⁹.

This action may result, in practice, in the vertical structural separation of the network at various levels (from the separation of the back-bone, for instance, to the separation at regional or local level of the portion of the network closer to the final users), with completely different consequences in terms of ownership.

As we will discuss later, the incumbent may have the option to be 'functionally' (rather than 'structurally') limited in the control of the access network. This possibility, less invasive in terms of 'expropriation' of part of the network by the competitors, will be discussed in the chapter dedicated to the 'functional separation' alternative. In fact both approaches, functional and structural separation of the access networks, will be discussed in a regulatory and competition law enforcement perspective among the various remedies that can be adopted to favour competition but also with the ultimate purpose of enhancing what I will define as 'long term' consumer welfare.

The Commission and the national competition authorities' practice as well as the European Courts' jurisprudence show how difficult is the choice of the most suitable remedy, in particular when technical obstacles may lead to disruptions that might damage the final consumer.

⁶⁹ The Guidelines of the European Commission on State Aids to develop broadband capacity in Europe⁶⁹ stress the importance of developing new broadband access networks (New Generation Access Networks) going beyond the traditional model characterised by the traditional incumbent owner at the same time of the fibre 'backbone' and of the copper wire local (and sub-local) loop, encouraging the creation of most advanced forms of local access network, in which the fibre directly reaches the premises of the final customers (with the so call 'Fibre to the home' or 'FTTH' technology. See Communication from the Commission – EU Guidelines for the application of state aid rules in relation to the rapid deployment of broadband networks, C(2012) 9609/2 accessible at http://ec.europa.eu/competition/state_aid/legislation/broadband_guidelines_en.pdf ('Broadband State Aids Guidelines').

1.7. Comparison with other vertically-integrated network firms.

As anticipated in Section 2 on vertical integration, in showing how structural remedies in the electronic communications sector could under certain circumstances, be preferred to behavioural remedies, another preliminary step, , is to clarify whether the electronic communications firms can be compared to other vertically-integrated network-based firms.

To put it simply, I should identify the analogies, within the wider category of vertically-integrated firms, between the electronic communications sector and other vertically-integrated firms providing services of general public interest, otherwise called 'utilities'. In such a way, it would be possible to compare the outcome, in competition law terms, that structural remedies (such as divestiture of assets) had with respect to other vertically-integrated firms, and argue whether those remedies could be applied in the electronic communications sector.

Some basic characters of vertically-integrated firms, irrespective of the fact that their services are delivered to the final consumer through the network or not, are in common.

(i) One reason for vertical integration, as I anticipated in Section 2, is to reduce costs⁷⁰. Upstream integration, in the example offered by Scherer-Ross⁷¹, 'can help ensure that supplies of raw materials will be available in time of shortage and protect the user from a price squeeze by monopolistic suppliers'⁷².

⁷⁰ Scherer and Ross, cited, p. 94.

⁷¹ Scherer is an expression of the Harvard School of Economics. His studies on market structure, level of concentration, monopoly and behaviour of the dominant undertakings are fundamental to understand how the intervention on market structure may address monopoly and oligopoly-related competition distortions.

⁷² Scherer and Ross, cited, p 95.

With respect to oil production and distribution (therefore, an example of vertical integration through distribution network) they note that

‘the major petroleum refiners are highly integrated, and control extensive crude oil reserves, refining facilities, the downstream pipelines through which crude oil and refined products are transported, and in many instance networks of company-owned retail gasoline stations’⁷³.

From a different perspective, Chicago School’s scholar R. H. Bork argued how vertical integration (achieved through vertical mergers) is aimed at creating and enhancing efficiency, not of ‘injuring competition’⁷⁴. For Bork vertical integration should be seen as a simple organisational tool, without anti-competitive implications (for instance, as a tool for facilitating predation). For Bork, ‘the world ‘integration’ means only that administrative direction rather than a market transaction organises the cooperation of two or more persons engaged in a productive or distributive activity’⁷⁵. He stresses how vertical integration as a consequence of a vertical merger should be seen as a way of cutting ‘sales and distribution costs, facilitate the flow of information between level of the industry, create economies of scale in management (...)’⁷⁶.

Bork rejects the critiques that a vertically-integrated firm may offer at a lesser price to its own vertically-integrated entity its own products or services. He argues that the cost for the firm of such a policy would be equal to the loss incurred for not having sold at a full price the product or service to a neutral, non-vertically-integrated, buyer⁷⁷.

The doctrine on this specific point, as I will discuss more in depth in the following chapters, is divided.

⁷³ Scherer and Ross, *ibid*.

⁷⁴ R.H. Bork, *The Antitrust Paradox. A Policy at War with Itself*. Free Press 1993 (1st edn Basic Books 1978), p 226.

⁷⁵ *ibid*, p 227.

⁷⁶ *ibid*.

⁷⁷ *ibid*.

The economist M. H. Riordan, among others, investigated how the dominant firm's cost advantage may or may not offset the negative effect of higher prices on social welfare⁷⁸. This author, in particular, stresses how in the last decade of 20th century new attention was paid to the anticompetitive concerns that vertical integration may create, in particular taking examples from the mergers' area of competition law. Using a paper of M. W. Klass and M. A. Salinger of 1995⁷⁹, Riordan points out that the anticompetitive effect of vertical integration was particularly evident in the telecommunications sector. The most obvious observation to support the anticompetitive effect of vertical integration derived from the demonstration of the 'raising rivals' costs' theory of vertical market foreclosure⁸⁰. This theory is fundamentally based in showing that the efficiencies in terms of costs management deriving from vertical integration do not outweigh the anticompetitive effects for the competitors and the social-welfare as a whole.

These are all topics that will be developed in the following chapters, in order to focus the reasoning around the idea that vertical structural separation, on the model of vertical divestiture of assets as a remedy in merger control, or in commitments signed in order to address Art. 102 TFEU concerns, should not be a priori excluded in competition law enforcement.

(ii) Another common trait to many vertically-integrated firms, in particular for those providing their services through a network, is the presence of regulation aimed at favouring the passage from monopoly to competition, a characteristic of the process of liberalisation of the last two decades of the 20th century in the European Union.

⁷⁸ M. H. Riordan, 'Anticompetitive Vertical Integration by a Dominant Firm', in (1998) vol. 88, no. 5, American Economic Review, 1232 ff.

⁷⁹ Klass, M. w. and Salinger, M. A., 'Do New Theories of Vertical Foreclosure Provide Sound Guidance for Consent Agreements in Vertical Merger Cases'? (Fall 1995) vol. 40, no. 3 Antitrust Bulletin, 667-98.

⁸⁰ Theory developed by S. C. Salop and D. T. Scheffman in 1993 in 'Raising Rivals' costs' in (1983) Vol. 73, no. 2, American Economic Review, 267-271.

Looking at the US experience, Scherer and Ross point out how competition in the electronic communications sector, but also in 'transportation, electrical and gas utilities, is controlled and restrained by formal public regulations'⁸¹. They underline how 'oligopoly is the predominant market structure in railroading, air transport, intercity bus lines, parts of water transportation, and highway freight carriage between less densely travelled points, while large number of firms operate on the high/volume trucking routes and in inland water transportation' and how 'in electricity and gas distribution and local telephone service, natural monopoly has been the rule, although under regulations implemented during the 1980s'⁸².

If we look at the above-mentioned vertically-integrated firms, we can say that another key common feature is in fact the presence of a network, either physical (telecommunications, oil, gas or electricity generation, transmission and distribution) or organisational (truck distribution network, banks network, etc.).

One of the tasks of the thesis is to look carefully at the process of regulation of vertically-integrated firms, irrespective of the type of service or product delivered to the final consumer, and to look at its successes and failures at European level, in order to go a step further and ask whether the competitive arena could benefit by more structural and invasive ex post remedies, going beyond the regulatory tools that the European directives have introduced in the last decades to favour the process of liberalisation.

(iii) Another feature to analyse is the impact that structural separation can have in terms of ownership. The thesis question is whether focussing on the structure of the monopoly, such as on the vertical integration of a company, is possible to tackle competition distortions intervening on the ownership of the network though divestiture to facilitate competition. Therefore the next step is to look at the impact that ownership separation had in other sectors.

⁸¹ Scherer and Ross, cited, 80.

⁸² *ibid.*

If the structure of the company is the starting point for market power, certainly divestiture of the network will considerably reduce market power. The question is whether structural separation in the electronic communications, or in other comparable vertically-integrated firms, may lead to a transfer of the monopolist position in the separated infrastructure, simply shifting some of the problems (e.g. abuses such as refusal to supply, strategic under-investments) from one network owner to a new one; or rather to solve at least part of the problems (as, for instance, excessive prices, by increasing the number of competitors who might see their countervailing market power enhanced).

1.9. Conclusion.

This introductory chapter first of all sets out the thesis' question. Can we see structural remedies, rather than behavioural, or rather than fines, as best positioned to address electronic communications network access-related abuses of a dominant position?

From a methodological point of view, I have first explained how the presence of a network and vertical integration of the firm are joint features. I therefore explained why prohibiting vertical integration it is often considered as not cost-effective.

Going more in depth into the analysis of vertical integration through the control of electronic communications network. I devoted a few sections to explaining how the network works in the electronic communications, before devoting another section to the comparison with other vertically-integrated firms supplying their services through the.

If, on an economic and functional point of view, the comparison between different vertically-integrated firms is well grounded, it would be possible to analyse how distortion of competition as a consequence of access related abuses have been dealt in *other* vertically-integrated firms (e.g., power generation and distribution, gas and oil extraction and distribution, water

distribution, etc.) in order to apply the same remedies to the electronic communications sector.

The analysis of the most frequent access-related abuses of a dominant position will be the topic of the next chapter; this will pave the way for the analysis of the remedies applicable, supported by empirical evidence of the positive or negative effects that these remedies have had in recent years at European Union level.

CHAPTER II

‘Network-based’ abuses in the electronic communications sector and their anticompetitive effects.

2.1. Introduction.

Chapter I provided an overview on vertical integration in the electronic communications sector. I focused mainly on the notion of network, defining the various structural levels on which networks for electronic communications operate.

In chapter I the concept of vertical integration was analysed acknowledging that a relevant part of the doctrine is against the idea of vertical structural separation of an integrated firm.

With respect to vertically-integrated firms providing electronic communications services, I took as an example a widely accepted model of separation, in which the network company and the services companies belong to the same group are separated as a consequence of an external intervention by the State (either as a regulator, or as an enforcer). Using the words of P.W.J. Bijl, this most obvious form of separation takes place between ‘the company owning the local access network, providing wholesale access (the network operator), and the rest of the company, providing retail services, and possibly operating those parts of the network that do not create problems of anticompetitive behaviour, such as long-distance networks (the service provider)’⁸³. However, it must be borne in mind that other forms of separation are possible. These will be discussed looking at the experience made both in the electronic communications sector and in other regulated sectors (electricity, gas, railways sector to make a few examples).

⁸³ Paul W.J. de Bijl, ‘Structural separation and access in telecommunications markets’, in (2005) 6 *Journal of Network Industry*, 98.

In chapter I, I also clarified that at regulatory and competition law level the problems with access to the local network can be related to two forms of access sought by competitors who do not own their own network:

- a) They can have access to the network purchasing capacity from the incumbent and reselling it to end-users in order to offer voice telephony services ('Carrier Select' services⁸⁴), or
- b) Their entry can be based on 'local loop unbundling'⁸⁵, deriving from the physical 'separation' of part of the local network (usually in highly populated, metropolitan, areas) in order to allow competitors to offer their services through the unbundled lines.

Before discussing in the following chapters at what level and in what form functional and structural separation may occur in the electronic communications sector, in chapter I, I also briefly recalled the 'technicalities' of the local loop unbundling, identifying three different sections of the network: the 'backbone', the local loop and the sub-local loop. I provided fundamental definitions that facilitate the understanding of how and at what level structural separation, as the most invasive pro-competition remedy, can be implemented (answering the basic questions 'why, where and how should we put in place the cut?').

Beyond the anticompetitive foreclosure effect of abusive conducts, I asked myself whether the enforcement policy should also deal with the problem of innovation of existing electronic communications networks. This is particularly relevant considering the current public policy issue, at European Union level, of the need for national incumbents to roll out the so-called New Generation Networks (NGN), and New Generation Access Networks (NGAN).

⁸⁴ *ibid*, 96.

⁸⁵ *ibid*.

In other words, I asked myself whether, in the presence of recurrent abuses of dominant position carried out by the incumbents with respect to the access to the network, the Commission and the national enforcement authorities should contemplate the possibility of imposing structural separation (i.e. divestiture) as an enforcement remedy as per Art. 7 of Regulation 1/2003/EC. This has never been imposed in Europe in the electronic communications sector but might provide an 'opportunity' to address competition concerns, by removing the anti-competitive conducts and effects (for instance, increasing the number of operators within the same geographic market) as a measure that might favour the required investments to innovate the network.

To answer the two sub-questions ('if' and 'when'), I will look at the traditional forms of abuse of a dominant position in the electronic communications sector, such as excessive pricing, predatory pricing, margin squeeze in the provision of wholesale access services, direct refusal to supply. I will also look at their anticompetitive foreclosure effects, focusing on the problem of under-investments on local and sub-local loops, as a form of indirect refusal to supply.

The answer to question (i) (can a structural remedy be suitable to remove competition law concerns?) is more likely to be given by looking at the deterrent effect that the threat of structural separation may determine; while the answer to question (ii) (in the presence of what type of abuses and anticompetitive effects should a structural remedy be imposed?) is much more difficult, due to very limited case-law, mostly deriving from commitments decisions adopted in the last few years in the electricity and gas generation and transmission. The choice of the best remedy (imposition of pecuniary fines; imposition of specific behaviours, with functional or even structural effects; or divestiture tout-court) is usually made on a case-by-case basis, balancing (i) competition law concerns with (ii) the economic cost (and opportunity) that the measure may entail.

As I will discuss later in the thesis, the high costs of a structural separation usually lead the enforcer to opt for more traditional sanctions (for instance,

pecuniary fines). However I will argue that the perspective of imposing a structural remedy might represent a serious threat that may favour the adoption of less invasive remedies (for example, the alleged abuser may decide to propose undertakings such as that of putting in place functional separation of its own network), adopting a measure under the supervision of the regulator, as per Directive 2009/140/EC. However, the possibility of adopting structural remedies may also dissuade other abusers at EU level. The analogy with the existing case-law in the energy sector (under the form of commitments as per Article 9 of Regulation 1/2003/EC), discussed in chapter V, may help to reach univocal conclusions. In that chapter I will look at abuses put in place in the electricity generation and transmission markets, and in the gas transmission market, with a particular focus on the anti-competitive effects that such conducts have.

If the analogy on the foreclosure effects that the abuses in different vertically-integrated industries (energy and electronic communications) is well grounded, it might be possible to argue that structural separation should have the same procompetitive effect of increasing the number of competitors enhancing competition in the long-run, outweighing the cost/opportunity concerns of the enforcer.

After some preliminary remarks on the notion of ‘incumbent’ in the electronic communications sector (Section A), I will discuss in Section B how the legal definition of ‘dominance’ must also take into consideration ‘structural criteria’.

In Section C I will go through the main forms of abusive conducts with a focus on the electronic communications sector. I will keep the distinction between ‘exploitative’ and ‘exclusionary’ abusive conducts, according to the most consolidated literature, and I will look at their most common anticompetitive effects.

The study of the main cases of refusal to supply is aimed at identifying the common traits of the European Commission practice and of the European Courts in cases such as *Oscar Bronner* and *Magill*, showing how the adoption

by the European Commission of the 2008 Guidance on the prioritisation of the enforcement of Art. 102 TFEU exclusionary conducts with its references to economic efficiency and to the ‘consumer welfare imperative’ does not exclude that competition among competitors remains a vital target of European competition policy, in line with the Ordo-Liberal tradition.

Under the heading ‘exclusionary conducts’ will focus on the origin and the evolution of the ‘essential facilities’ doctrine. I will examine cases that do not come directly from the electronic communications sector, but that both in the US and in the EU paved the way for tackling margin squeeze and refusal to supply as two of the main abuses that a vertically-integrated undertaking may put in place having direct control over the so-called ‘bottle-neck’. I will then recall two recent cases of margin squeeze, *Deutsche Telekom*⁸⁶ and *Telefónica*⁸⁷, focusing on their anticompetitive foreclosure effects and on the very clear position taken by the Commission and by the European Courts on the room of manoeuvre that the Commission has in adopting remedies aimed at full enforcing competition law, and Articles 101 and 102 TFEU in particular, even in the presence of ex-ante regulatory remedies that have evidently shown their inadequacy in creating the conditions of perfect competition.

In terms of foreclosure effects, the analogy with the energy sector will be self-explanatory. It is in the energy sector that the European Commission as an enforcer has favoured the adoption of structural remedies in consideration of the particularly negative impact not only on competitors’ performance, but also on consumer welfare as a whole, even though, as I will discuss, such remedies were object of Art. 9 of Reg.1/2003/EC commitments, more than remedies imposed as per Art. 7 of the same regulation.

⁸⁶ Commission Decision *Deutsche Telekom AG* (Case COMP/C-1/37.451, 37.578, 37.579), [2003] OJ L263/9 (14 October 2003). On appeal at the General Court, Case T-271/03 *Deutsche Telekom AG v. Commission* [2008] ECR-II-477, [2008] 5 CMLR 631; *Deutsche Telekom AG v European Commission*, Case C-280/08, [2010] ECR I-09555, [2010] 5 CMLR 1495.

⁸⁷ Commission Decision *Wanadoo España v Telefónica* [2008] OJ C83/6 (‘Telefónica’), appealed at the General Court: Case T-336/07 *Telefónica and Telefónica de España v Commission* [2007] OJ C269/55. On appeal at the Court of Justice, Case C-295/12 (see recent opinion of the Adv Gen Wathelet, 26 September 2013).

This chapter paves the way for the analysis, in chapter III of various regulatory and competition-law enforcement remedies that at European and US level have been adopted in the last decades to deal with network-related abuses of dominant position.

2.2. The incumbent in the electronic communications sector and forms of abuse of a dominant position.

Before analysing the forms of abusive conducts I need to define the economic entity which will be subject to regulation, on the one hand, and to competition enforcement, on the other. In other words, I must identify and define the 'incumbent' in regulatory terms and the 'dominant undertaking', in 'enforcement' terms.

The word 'incumbent' is borrowed from the regulatory world and usually refers to State-owned utilities operator. The notion of incumbent is therefore common to the so-called natural monopolies (providing water distribution services, gas transmission and distribution services, electricity generation and transmission services, railways and postal services). Looking at the wording from a competition law perspective, the notion of 'dominant undertaking' cannot be separated from the concept of dominance, as that subjective condition that allows the firm to behave independently of its competitors, customers and final users⁸⁸.

The subjective characteristics of the author of the abuse cannot be separated from the conduct itself. Its position of dominance has to be taken into consideration to analyse its performance as a whole.

Since the 1930s the Harvard School of Economics has been focusing on the importance of *market structure* and on the level of concentration (and of

⁸⁸ As I will stress later, the concept of dominance will be fundamental to identify when an undertaking has 'significant market power' (also shortened in 'SMP'), definition introduced by the Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services of 7 March 2002.

integration in a specific economic sector) before dealing with the enforcement of the anticompetitive conducts. Anticipating the topic of chapter III of the thesis, I can recall here the theoretical reconstruction made by Professor E.S. Mason of Harvard University who, in his seminal work '*Price and Production Policies of Large-Scale Enterprise*'⁸⁹ discussed how the dimension and the level of concentration of the dominant undertakings, through their conduct, ultimately influence general economic performance.

Scherer and Ross⁹⁰, in line with the teaching of Mason, stress how market structure, conduct and performance are strictly related, and how it would be impossible to achieve an optimal economic outcome (product and allocative efficiency, progress, full employment and equity) without first solving the problem of market structure (i.e. number of sellers and buyers, product differentiation, barriers to entry, cost structure, *vertical integration*, diversification)⁹¹.

For these authors, a high level of the concentration of a specific industrial sector, high or very high market shares, may lead to 'conducts' (pricing behaviour, product strategy and advertising, research and innovation, plant investment, legal tactics) that need the intervention of the State in order to keep the enterprise in the 'river bed', through its statutory tools (i.e. regulatory tools, antitrust enforcement, price controls, taxes and subsidies, etc.)⁹².

Other authors, in particular those influenced by the Chicago School of Economics, put in doubt the relevance of this paradigm and, in particular, the importance of the endogenous factors (basic structure and market structure). This simplification (we must look at the subjective structure of the dominant

⁸⁹ E.S. Mason '*Price and Production Policies of Large-Scale Enterprise*' (1939) 29 American Economic Review 61-74, but see also, of the same author, '*The Current State of the Monopoly Problem in the United States*' (1949) 62 Harvard Law Review 1265-1285.

⁹⁰ F. Scherer and D. Ross, *Industrial Market Structure and Economic Performance* (3rd edn, Houghton Mifflin Company, 1990), pp 4ff.

⁹¹ *ibid*, p 6.

⁹² What F. Scherer and D. Ross call the 'public policy' intervention (*ibid*, p 5).

undertaking, or rather at its economic performance as a whole?) helps clarify the terms and boundaries of the debate. As I will show, (i) incumbent, with its high market shares, (ii) its conduct, in competition law terms, (iii) the impact on the overall economic performance and the anticompetitive foreclosure effect as categorised by the Guidance on the Prioritisation of the enforcement activity *vis á vis* exclusionary conducts, and (iv) when and how the ‘controller’ may be called to intervene (not only on the conduct, but also on the firm’s structure), altogether form not only the ‘hat rack’ of any regulatory or competition law initiative⁹³, but also the steps that will lead us to the conclusion on the choice of the most suitable enforcement remedy.

Yet other authors, with a background in law and economics, define dominant undertakings as those enterprises able to raise prices ‘above the competitive level without attracting new entrants and without losing sales to competitors so rapidly that the price increase is unprofitable and must be rescinded as substantial (or significant) market power (SMP)’⁹⁴. In fact, Section 2 of the US Sherman Act considers as dominant a firm that has the power to control prices or that can exclude competition (through ‘monopolisation’ or ‘attempt to monopolise’)⁹⁵. However, all these definitions of dominant undertaking are still not in line with the EU law definition.

The EU position is much more focused on the *direct relationship* of the dominant undertaking with its competitors and third parties (the consumers) than by the subjective characteristics of the firm. If competitors or consumers have an alternative to the product or service of the dominant undertaking, the impact of the abusive behaviours of the dominant firm is drastically contained. An undertaking will be considered dominant only if ‘its conduct is *not*

⁹³ F. Scherer and D. Ross, *ibid*, p 6.

⁹⁴A. Jones – B. Sufrin, cited, 4th edn, Oxford University Press 2011, p 285 ff. The authors recall W. Landes and R. Posner ‘Market Power in Antitrust Cases’ (1980-81) 94 Harvard Law Review 937.

⁹⁵Jones-Sufrin recall US fundamental case-law to define dominant firm: *Standard Oil Co. of New Jersey v. United States*, 221 US 1 (1911); *United States v. E I du Pont de Nemours & Co.*, 351 US 377 (1956); *United States v. Grinnell Corp.*, 384 US 563 (1966).

*constrained*⁹⁶ by the existence of competitors producing competing products and services so that it is able to raise prices and reduce inputs'⁹⁷.

In line with this premise, in EU competition law, dominance was defined by the practice of the European Courts (paraphrasing fundamental judgments that I will examine in the next section) as that position of 'economic strength' which enables an undertaking to (i) prevent effective competition (ii) by giving it the power to behave to an appreciable extent *independently*⁹⁸ of its competitors, customers and ultimately of its consumers.

2.3. Dominance and its 'legal' definition. The importance of structural criteria.

There is no definition of dominant position within the Treaty establishing the European Communities (as well as in the subsequent versions of it), even though the author of the abuse must be necessarily dominant to be 'captured' under Article 102 TFEU.

The approach to the correct definition of 'dominant position' is twofold. On the one hand, the Commission decisional practice, some pieces of 'soft law' (such as the DG COMP's Discussion Paper on Art. 102⁹⁹ and the Guidance on the prioritisation of the application of Art. 102¹⁰⁰), as well as the jurisprudence of the European Courts, play altogether a fundamental role in defining the

⁹⁶ Emphasis added.

⁹⁷ A. Jones and B. Sufrin, cited, p 286.

⁹⁸ Emphasis added.

⁹⁹ DG Competition discussion paper on the application of Article 82 of the Treaty to exclusionary abuses—Public Consultation, Brussels, December 2005, available at: <http://ec.europa.eu.int/comm/competition/antitrust/others/discpaper2005.pdf> (hereinafter, 'Discussion Paper'). The 107 replies to the public consultation are available at: http://ec.europa.eu.int/comm/competition/antitrust/others/article_82_contributions.html.

¹⁰⁰ Communication from the Commission 'Guidance on the Commission's Enforcement Priorities in Applying Article 82 EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings, Brussels, 3 December 2008, COM (2008), OJ [2009] C45/7 (hereinafter, 'Guidance Paper').

concept of dominance within the framework of Art. 102¹⁰¹. On the other hand, the doctrine and the scientific literature also contribute to define this concept.

A definition of the dominant position can be extracted from several judgments of the ECJ defining dominance as that position of economic strength which allows a company 'to behave to an appreciable extent independently of its competitors, customers and ultimately of final consumers'¹⁰².

More than ten years after the 1997 Commission's notice on the definition of the relevant market¹⁰³ the Discussion Paper and the Guidance Paper provided new interpretative tools to establish the existence of a dominant position with respect to a specific market.

The Discussion Paper stressed how for European case law 'dominance is a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, its customers and ultimately of the consumers'¹⁰⁴, recalling the 'pillars' on dominance theorisation provided by the cases *Michelin I*, *Centre Belge d'Etudes de Marché–Télémarketing*, *United Brands* or *Hoffmann-La Roche* ('Vitamins')¹⁰⁵. In fact the Discussion Paper underlines that such a

¹⁰¹ R. Whish and D. Bailey, *Competition Law* (7th edn, Oxford University Press, 2012), pp 179ff.

¹⁰² See Case 322/81 *Nederlandsche Banden Industrie Michelin NV v Commission of the European Communities* [1983] ECR 3461, [1985] 1 CMLR 282, [1985] FSR 250, para 30; Case 311/84 *Centre Belge d'Etudes de Marché–Télémarketing (CBEM) SA v. Compagnie Luxembourgeoise de Télédiffusion SA (CLT)* [1985] ECR 3261, [1986] 2 CMLR 558, para 16; Case 27/76 *United Brands Co. v Commission* [1978] ECR 207, [1978] 1 CMLR 429, para 65; Case 85/76 *Hoffmann-La Roche & Co AG v Commission* ('Vitamins') [1979] ECR 461, [1979] 3 CMLR 211, [1980] FSR 13, paras 38-39.

¹⁰³ European Commission's Notice on the Definition of the Relevant Market for the Purposes of [EU] Competition Law [1997] OJ C372/5, para 2.

¹⁰⁴ Discussion Paper, cited, para 22.

¹⁰⁵ The case law recalled ranges from Case 322/81 *Nederlandsche Banden Industrie Michelin v Commission* (*Michelin I*), to Case T-83/91 *Tetra Pak v Commission* (*Tetra Pak II*) [1993] ECR II-755, from Case T-111/96 *ITT Promedia v Commission* [1998] ECR II-2937, to Case T-228/97 *Irish Sugar v Commission* [1999] ECR II-2969 and Case T-203/01 *Nederlandsche Banden Industrie Michelin v Commission* (*Michelin II*) [2003] ECR II-4071

definition of dominance is threefold: (i) the economic strength in a particular market; (ii) which prevents effective competition being maintained on that market by (iii) affording it the power to behave independently to an appreciable extent¹⁰⁶.

The Guidance Paper places a special focus on the concept of market power as a synonym of dominance. In particular it recalls one of the main conclusions of the case law: to hold a dominant position ‘confers a special responsibility on the firm concerned, the scope of which must be considered in the light of the specific circumstances of each case’¹⁰⁷. It goes beyond the traditional approach, by stressing how three further factors shall be taken into account to define the ‘competitive structure’ of the market: (i) the constraints imposed by the existing supplies from, and the position on the market of, actual competitors (the market position of the dominant undertaking and its competitors); (ii) the constraints imposed by the credible threat of future expansion by actual competitors or entry by potential competitors (expansion and entry); (iii) the constraints imposed by the bargaining strength of the undertaking’s customers (countervailing market power). However, even considering the importance of these further factors, in reality the Discussion Paper and the Guidance Paper confirm the crucial role of the European Courts jurisprudence to define dominance.

In their reasoning and in their wording, they recall *United Brands*¹⁰⁸ with its consolidated definition of dominance as that ‘[...] position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by giving it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers’.

¹⁰⁶ Discussion Paper, cited, para 21.

¹⁰⁷ Guidance Paper [2009] OJ C45/7, cited, para 9.

¹⁰⁸ Case 27/76 *United Brands v. Commission* [1978] ECR 207, cited above. As known, this definition for a few years (1976-1981) became the benchmark in many subsequent applications of Article 102 TFEU, and is today considered ‘genetically’ part of the same concept of dominance.

The ECJ's definition of dominance specifies that a dominant undertaking must be able to act independently '*to an appreciable extent*' and to hinder the maintenance of '*effective competition*'. It is clear that not all competition has to be eliminated for an undertaking to be in a dominant position¹⁰⁹.

When the market share level and 'dependence' criteria are not sufficient to determine the dominance of the undertaking alleged to abuse its position, the ECJ and the European Commission use additional structural criteria to establish if an undertaking is in a dominant position. Some of these criteria are considered fundamental and include:

- *vertical integration between enterprises*;
- rigid and strict production quality control;
- technological lead over competitors;
- strong brand name due to large-scale advertising campaigns;
- highly developed sales network;
- absence of potential competition;
- presence of the undertaking on a wide range of markets;
- advanced position of the undertaking in the market, and
- the firm's financial ('deep pockets') and technological resources¹¹⁰.

Looking at economic-efficiency oriented schools of economics such as the Chicago School, the only real barrier to entry can be considered efficiency, in

¹⁰⁹ Ibid, paras 113-117.

¹¹⁰ See A. Jones and B. Sufrin, cited (3rd edn, 2008), pp 342ff. These authors point out that '[t]he superior technology of an undertaking has often been found to be a factor indicating dominance. This can be seen from the extracts set out from United Brands, Hoffmann-La Roche, Michelin, Eurofix-Bauco (Hilti) and Tetra Pak. It is, however, questionable from an economic point of view to hold that an undertaking's technological superiority operates as a barrier to entry *per se*. It is true that expenditure on technological development can be a sunk cost of entry but it is also true that a new entrant on to the market may not have to spend the same resources on research and development as the incumbent on the market: there is no need to reinvent the wheel'. On the same point see V. Korah 'Concept of a Dominant Position Within The Meaning of Art. 86' (1980) 17 Common Market Law Review 395, 408 and 410; D. Harbord and T. Hoen 'Barriers to Entry and Exit in European Commission Policy' (1994) 14 International Review of Law and Economics 411 and 419; C. Baden Fuller 'Article 86 EEC: Economic Analysis of the Existence of a Dominant Position' (1979) 4 European Law Review 423 and 437.

particular where an undertaking is progressively excluded from the market by consumer's choice, with no need for authoritative intervention or other exogenous factors¹¹¹.

The European Courts and the Commission have kept a more formalistic approach, and defined in a number of judgments and decisions the concept of dominant position using the market shares test rather than a more volatile concept of dominance based on the efficiency of the investigated company¹¹². This formalistic approach has attracted severe criticism towards European institutions for having underestimated the economic approach in assessing dominance, and for having left apart the concept of market power¹¹³. In fact, market shares taken *per se*, without further economic analysis (for instance to assess the weight of existing or potential barriers to entry) in some occasions may have led to wrong conclusions¹¹⁴.

The Discussion Paper and Guidance Paper shed new light on barriers to entry as an important factor to argue that an undertaking is in a dominant position. The Guidance Paper¹¹⁵ is clear in showing that barriers to entry, such as technological superiority or the possibility of leveraging control over the network in order to exclude potential competitors, can be easily taken into consideration to establish dominance. At the same time the Guidance Paper

¹¹¹ On the point see also R.H. Bork *The Antitrust Paradox: A policy at war with itself* (2nd edn, The Free Press Paperbacks, 1993), pp 195-196. It is worth quoting: '[...] If everything that makes entry more difficult is viewed as a barrier, and if barriers are bad, then efficiency is an evil. That conclusion is inconsistent with consumer-oriented policy. What must be proved to exist, therefore, is a class of barriers that do not reflect superior efficiency and can be erected by firms to inhibit rivals'.

¹¹² A. Jones and B. Sufrin, cited (2nd edn, 2004), p 338. In particular they write 'Neither the Court nor the Commission appears to have any particular school of economic thought, and **they certainly do not adhere to the Chicago view** [...]'.

¹¹³ The European Commission since its creation followed the so-called 'Ordo-Liberal' approach, more based on the need of granting the survival (or, at least, the co-presence) of the largest number of companies within the European 'common market', than the prevalence of one company over the competitors.

¹¹⁴ A. Jones and B. Sufrin, cited (4th edn, 2011), p 326: '[...]The Court has placed great reliance on market shares although [...] economic theory holds that in the absence of barriers to entry high market shares are not themselves indicative of dominance'.

¹¹⁵ Guidance Paper, [2009] OJ C45/7 paras 12, 16 and 17.

says that the entry of potential new competitors must be 'likely, timely and significant' to represent a serious limit to the position of the dominant undertaking¹¹⁶.

The first lines of paragraph 17 of the Guidance Paper list the forms that barriers to entry can take:

'They may be legal barriers, such as tariffs or quotas, or they may take the form of advantages specifically enjoyed by the dominant undertaking, such as economies of scale and scope, privileged access to essential inputs or natural resources, important technologies or an established distribution or sales network. They may also include costs and other impediments, for instance resulting from network effects, faced by customers in switching to a new supplier. The dominant undertaking's own conduct may also create barriers to entry, **for example where it has made significant investments which entrants or competitors would have to match**¹¹⁷, or where it has concluded long-term contracts with its customers that have appreciable foreclosing effects. Persistently high market shares may be indicative of the existence of barriers to entry and expansion'¹¹⁸.

If we can draw well-grounded analogies between network-related abuses put in place by different vertically-integrated firms, basing the comparison on the anticompetitive foreclosure effects that the abuses have, it might be possible to argue that in certain conditions the initiatives adopted by the competition authorities with respect to the subjects of the abuses in similar situations (for instance in the electricity generation or gas distribution) can be replicated in the electronic communications sector.

The analysis will focus not only on the demonstration of the positive effects that actual structural initiatives have had with respect to comparable vertically-

¹¹⁶ *ibid*, para 16.

¹¹⁷ Emphasis added.

¹¹⁸ *ibid*, para 17.

integrated firms, but also with the deterrence effect that the threat of similar remedies may have, for instance with the aim of negotiating and implementing less invasive form of intervention (for instance, functional separation).

2.4. Abuse of dominance and typologies of abuses in vertically integrated industries (in particular, exploitation and exclusion).

In the previous sections I detailed the fundamental features of dominance and the ‘criteria’ usually applied in order to establish whether an undertaking can be considered dominant or not, showing how the legal definition (degree of ‘independence’) or economic measurement (level of the ‘market share’) of dominant position should also take into consideration the existence of structural factors.

These preliminary remarks allow us to tackle in more depth the various forms of abuse, making explicit reference, when possible, to conducts carried out by vertically- integrated companies in the electronic communications sector.

The Guidance Paper, with the purpose of ‘reshaping’ the priorities of intervention of the Commission, seems to suggest that Art. 102 TFEU should be first of all applied when an abusive conduct has a direct impact on consumer welfare, in line with the ‘effect based’ approach derived from the Chicago School of economics.

Both the Discussion Paper and Guidance Paper identify consumer welfare as one of the key objectives that must be taken into consideration when the Commission has to decide whether to intervene in the presence of an alleged abuse of dominant position or not. Quite apart from the doctrinal discussion whether the Guidance Paper, as a form of ‘soft law’, may tackle such a crucial and substantial aspect as the ‘consumer protection’ issue (putting it on a higher level with respect to the traditional target of ensuring competition among undertakings, in line with the principles of the Ordo-Liberal school), it is evident that the past decade has inaugurated a new frontier for the

intervention of the Commission in those cases that may not only hamper pure competition among undertakings, but also restrict the opportunities for final consumers¹¹⁹.

The doctrine defines consumer welfare as ‘the difference between the price a consumer is willing to pay and the price he actually pays for a good or service’¹²⁰. This definition is encapsulated in the Discussion Paper where it says ‘with regard to exclusionary abuses the objective of Article 82 is the protection of competition in the market as a means of enhancing consumer welfare and ensuring an efficient allocation of resources’¹²¹.

With different wording, omitting the reference to the efficient allocation of resources, the Guidance Paper states

‘the aim of the Commission’s enforcement activity in relation to exclusionary conduct is to ensure that dominant undertakings do not impair effective competition by foreclosing their rivals in an anticompetitive way and thus having an adverse impact on *consumer welfare*’¹²².

Even though there is no clear definition of consumer welfare, both the Discussion and the Guidance Paper identify it through the impact and **the**

¹¹⁹ See L.L. Gormsen, cited, p 158. She says ‘[t]here is a difference between (i) adopting priority guidelines stating that the Commission will focus its limited resources on cases where it believes consumers are harmed, and (ii) issuing substantive guidelines stating that the objective of Article 82 is consumer welfare if this is not supported in case law’. She recalls the position taken by Advocate General Kokott a few months after the release of the Discussion Paper in the British Airways case. She said ‘even if [the Commission’s] administrative practice were to change, the Commission would still have to act within the framework prescribed for it by Article 82 EC as interpreted by the Court of Justice’. In other words, the practice of the European Courts is what really matter when deciding if the Court shall intervene or not.

¹²⁰ H. Hovenkamp ‘Legislation, Well Being and Public Choice’ (1990) 57 University of Chicago Law Review 63 and 72. See also the contribution of O. Dayagi-Epstein in *Article 82 EC: reflections on its recent evolution*, edited by A. Ezrachi (Hart Publishing, 2009), ch 4, ‘The Evolution of the Notion of Consumer Interest in Light of the Modernisation of Article 82 EC’, pp 74ff.

¹²¹ Discussion Paper, cited, para 4.

¹²² Guidance Paper, [2009] OJ C45/7 cited, para 19.

effects that the abusive conducts may have on prices, quality, consumer choice, innovation and growth¹²³.

What is really crucial for our purposes is that after the review on the application of Art. 102 TFEU, there is now a more clear perception of the impact that abusive conduct may have on consumers (in the two forms of intermediate consumers acting also as competitors, and of final consumers), reaching a higher level of awareness of the ultimate anticompetitive foreclosure impact that certain types of conducts (exclusionary, in particular) may have in terms of consumer welfare¹²⁴.

This is not the place to predict how the European Commission and the national competition authorities will enforce effective competition in the future. The European Courts are not bound by these pieces of soft-law, as they have shown in the last years having continued to apply competition law in line with their own precedent formalistic approach¹²⁵. However, bearing in mind this new awareness of the ultimate effects of abusive exclusionary conducts on final consumers, I can now recall the main forms of abuse focusing, for our purposes, on those conducts that are likely to be carried out by vertically-integrated undertakings.

What is important to point out is that the competition authorities may be tempted to impose punitive measures aimed at addressing consumer welfare concerns or pro-competitors measures with an eye to a short-run impact, while omitting to adopt, or threaten to adopt, more radical measures such as structural separation. A large part of the doctrine, at least in the electronic

¹²³ As correctly points out O. Dayagi Epstein, cited, p 77.

¹²⁴ Ibid, p 86.

¹²⁵ See, in particular, the Case *British Airways*, in which the ECJ followed the settled principles deriving from the Continental Can jurisprudence: the practice that may harm the competitive structure of the market shall be punished *per se*, and there is no need of showing harm to consumers (case C-95/04 P *British Airways* [2007] ECR I-2331, [2007] 4 CMLR 982). Another case that will be analysed more in depth *ultra* is Case T-340/03 *France Télécom SA* (formerly Wanadoo Interactive SA) v *Commission*, [2007] ECR II-107, where the predatory pricing practice was considered illegal despite the demonstration that in the short run the pricing policy adopted by the company in fact benefited the consumers

communications sector, still considers structural separation as detrimental for the incumbent in the short run, but looking at recent case-law with respect to other vertically-integrated firms in the energy sector, more draconian remedies may remove the anti-competitive foreclosure effects, with a particularly positive impact in terms of consumer welfare in the long-run.

Exploitative conducts

(i) Excessive pricing.

Before analysing the most complex forms of price-related abuses, it is worth starting with excessive pricing as the most obvious form of exploitative abuse, though often difficult to prove.

It is tackled by an express provision of Art. 102 TFEU that, at paragraph 2, point (a), establishes that an abuse may consist in ‘directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions’.

As I will discuss in the following chapter, with the aim of limiting the power of the undertakings providing in a monopolistic position services to public otherwise defined as ‘public utilities’, pricing policy is at the heart of any regulatory *ex ante* activity. To take an example, as stated by the Commission in the Notice on the Application of the Competition Rules to Access Agreements in the Telecommunications Sector, ‘excessive pricing for access, as well as being abusive in itself, may also amount to an effective refusal to grant access’¹²⁶.

Article 102.2(a) TFEU is based on the assumption that a dominant undertaking, acting independently from its customers and its competitors, will try to fix the price of its goods and services at the highest level in order to maximise its profits.

¹²⁶ Notice on the Application of the Competition Rules to Access Agreements in the Telecommunications Sector [1998] OJ C 265/2, [1998] 5 CMLR 821, para 97.

Excessive, or simply high or very high, prices may simply be an index of scarcity or of technical excellence. Prices may be high and still remain fair. Intervention by the competition authorities without solid evidence of an abusive conduct or abusive aim might turn into a boomerang; competition authorities are not supposed to act as 'price regulators'. As stated in the European Commission's 1994 Competition Report, adopted in the middle of the liberalisation process of public utilities,

'The existence of a dominant position is not itself against the rules of competition. Consumers can suffer from a dominant company exploiting this position, the most likely way being through prices higher than would be found if the market were subject to effective competition. *However the Commission in its decision-making practice does not normally control or condemn the high level of prices as such*¹²⁷. Rather it examines the behaviour of the dominant company designed to preserve its dominance, usually directed against competitors or new entrants who would normally bring about effective competition and the price level associated with it' ¹²⁸.

The approach of the European Commission and of the ECJ *vis à vis* the excessive prices practice is best described by the case *Scandlines Sverige AB v Port of Helsingborg*¹²⁹ of 2004. It was the first time that a case focused not only on the direct relation price/cost, as derived from the *United Brands*¹³⁰ precedent, but also on the unfairness of the (excessive) price.

¹²⁷ Emphasis added.

¹²⁸ XXIV Report on Competition Policy (Commission, 1994), Brussels-Luxembourg, 1995 (available at http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=CM9095283), para 207.

¹²⁹ Commission Decision *Scandlines Sverige v. Port of Helsingborg* (Case COMP/36.568), [2006] 4 CMLR 1298 (also available at http://ec.europa.eu/competition/antitrust/cases/dec_docs/36568/36568_44_4.pdf).

¹³⁰ Commission decision *United Brands* [1976] OJ L 95/1, [1976] 1 CMLR D28, section II, letter A, point 3, letter c). In this case the Commission concluded that '[...] *United Brands*' prices are excessive in relation to the economic value of the product supplied. This is confirmed by the substantial difference of 30 to 40 per cent between the prices of unbranded bananas sold by UBC and those sold under the Chiquita brand, although the quality of unbranded bananas is only slightly lower than that of Chiquita bananas [...]'.

Scandlines Sverige v. Port of Helsingborg is a decision dealing with the excessive prices charged by the Port Authority at Helsingborg in Sweden to the operators operating between that harbour and Elsinore in Denmark. In line with the *United Brands* case¹³¹, the Commission had to ascertain

‘Whether the difference between the costs actually incurred and the price actually charged is excessive, and, if the answer to this question is in the affirmative, to consider whether a price has been charged which is either unfair in itself or when compared to other competing products’¹³².

The Commission could not rely exclusively on ascertaining that the final price was just above the costs. Other non-cost related factors had to be taken into account. Paragraph 171 of the Commission decision *Scandlines Sverige v Port of Helsingborg* confirms that the reference to the prices of competing products is crucial to determine the *unfairness* of the price

‘According to case law and the decisional practice of the Commission, the contested price may however be compared to (i) other prices charged by the dominant company on a market different from the relevant market or (ii) prices charged by other firms providing similar products/services on other relevant markets’¹³³.

However this decision also points out that before establishing the unfairness of the price, the effective value of the goods or services must be considered and calculated with respect to their cost, in order to determine whether the price is or not excessive. At the same, the decision refers that the decision *United Brands* did not provide evidence to determine the real ‘economic value’ of the goods or services provided¹³⁴.

¹³¹ Ibid, para 252.

¹³² R. Whish - D. Bailey, cited (7th edn, 2012), p 722.

¹³³ Commission decision *Scandlines Sverige v. Port of Helsingborg*, para 171.

¹³⁴ Ibid, para 218.

Consequently

'[...] even if we were to assume that there is a positive difference between the price and the production costs exceeding what [the company] Scandlines claims as being a reasonable margin (whatever that may be), the conclusion should not necessarily be drawn that the price is unfair, provided that this price has a reasonable relation to the economic value of the product/service supplied. The assessment of the reasonable relation between the price and the economic value of the product/service must also take into account the **relative weight of non-cost related factors**'¹³⁵.

Such a reasoning led the Commission to conclude that

'As a consequence, finding a positive difference between the price and the approximate production costs exceeding what Scandlines claims as being a reasonable margin, *would not necessarily lead to the conclusion that the price is unfair, provided that this price has a reasonable relation to the economic value of the product/services supplied*'¹³⁶.

Unfairness (in competition law terms) reveals itself to be a crucial factor also in assessing other forms of abusive behaviours, particularly in the electronic communications sector.

For instance, in the margin-squeeze abusive conduct, even in the presence of a regulatory-imposed price cap, the incumbent may operate unfairly, and force competitors to leave the market, as I will discuss with respect to the *Deutsche Telekom case*¹³⁷ analysed more in depth later in this chapter (alongside with

¹³⁵ Ibid, para 228. Emphasis added. Concept further stressed in the conclusion of the decision (para 232): [...]. The economic value must be determined with regards to the particular circumstances of the case and take into account also *non-cost related factors* such as the demand for the product/service'.

¹³⁶ Ibid, para 233 (emphasis added). See also the conclusions by the United Kingdom Competition Appeal Tribunal in the Case *Attheraces Ltd v. The British Horseracing Board Ltd*, [2005] EWHC 3015, [2005] UKCLR 757.

¹³⁷ Commission Decision *Deutsche Telekom AG* (Case COMP/C-1/37.451, 37.578, 37.579), [2003] OJ L263/9 (14 October 2003). On appeal at the General Court, Case T-271/03 *Deutsche Telekom AG v. Commission* [2008] ECR-II-477, [2008] 5 CMLR 631; *Deutsche Telekom AG v European Commission*, Case C-280/08, [2010] ECR I-09555, [2010] 5 CMLR 1495.

the case *Telefónica*¹³⁸), where the unfairness of prices (irrespective of the role played by the sector regulators in setting those prices) is the central point of the decision.

Excessive, or unfair, pricing conduct in the electronic communications sector has been primarily dealt with regulatory tools. The imposition of a price-cap represents one of the first ways of preventing this form of abuse.

Account separation represents a further regulatory step, first recommended, then imposed by the most recent pieces of legislation not only in the electronic communications industry, but more generally in any vertically-integrated industries in which competitors seek access to the incumbent's downstream network.

Chapter III focuses on functional separation of the 'access division' from the other divisions of the incumbent in the electronic communications sector. This is now considered to be one of the most advanced regulatory tools aimed at preventing this form of abuse (as well as any other access-related abusive practices).

Here comes back the thesis' question: whether in the presence of excessive and unfair prices the competition authorities, beyond the regulatory (unsuccessful) intervention, may go beyond functional separation, imposing (or threatening to impose) structural separation or, rather, whether structural remedies can be justified only in specific circumstances, such as in the presence of exclusionary conducts with vertical foreclosing effects.

The answer is twofold. Not only on the basis of the most recent decisions and judgments of the European Courts in the cases *Deutsche Telekom* and *Telefónica*, it is now clear that the enforcement authorities can go beyond the 'intervention' of the regulatory authorities (in setting prices, but also in accepting functional separation as a remedy to enhance competition) if the

¹³⁸ *Telefónica* [2008] OJ C83/6; Case T-336/07 *Telefónica*. At present on appeal at the Court of Justice, Case C-295/12.

'remedies' appear to be insufficient to grant a level playing field of competition and if the incumbent is still able to put in place an abuse; but also carrying out a comparative analysis of very recent Art. 102-based case-law regarding commitments decisions in the energy sector (the mentioned cases E.ON, RWE and ENI that will be discussed in chapter V), it is now clear that structural remedies can be imposed in the presence of vertical foreclosure effects.

Unfairly excessive pricing is often combined with price discrimination, which is the subject of the next sub-section.

(ii) Price discrimination.

Article 102, para 2, let. c), TFEU provides that an abuse may consist in '[...] applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage'¹³⁹. This form of discrimination can be enacted by charging different prices for goods and services of the same quality and quantity in the same geographical market, where these differences are not justified by reasons of production, transport or means of offer to the public. Also for this form of abuse the above-mentioned Commission's decision *United Brands*¹⁴⁰ is considered a leading case.

The prohibition of charging prices in a discriminatory manner pursuant to Article 102 TFEU can be also considered an application of the European Law principles of 'non-discrimination' and 'equality of treatment' in the pursuit of economic activities, as per Title IV, Free movement of persons, services and capital (Part III, Union policies and internal actions) of the TFEU¹⁴¹.

¹³⁹ Treaty of Lisbon, [2007] OJ C 306, 17.12.2007.

¹⁴⁰ *United Brands* [1976] OJ L 95/1, [1976] 1 CMLR D28.

¹⁴¹ The problem of EU law principles underpinning the application of Art. 102 TFEU is tackled in depth by R. Nazzini. See in particular, cited, ch 4 (pt B, s 3, sub s b) 'Internal market and economic freedom', pp 115ff.

The principle of non-discrimination is one of the key concepts on which the European directives on electronic communications were modelled since the beginning of the process of liberalisation, in particular with respect to the access to networks

Article 10 of the 'Access Directive'¹⁴² stresses that 'a national regulatory authority may, in accordance with the provision of Article 8, impose obligations of non-discrimination, in relation to interconnection and/or access'¹⁴³.

More recently, Directive 2009/140/EC¹⁴⁴ amending, among others, the Access Directive 2002, recalls the principle of non-discrimination in various parts of the preamble, for instance with respect to the introduction of technology and service neutrality¹⁴⁵; to the negotiation of terms and conditions of access to the networks with pricing arrangements that may depend on volumes or length, provided that they are non-discriminatory¹⁴⁶; to the role of functional separation with the specific objective of reducing the margin for discrimination to third parties seeking access to the incumbent's network¹⁴⁷).

In this respect, on the one hand the NRAs play a crucial role in determining whether and how electronic communications networks' owners interact with their competitors, being obliged to keep fair and non-discriminatory access conditions. However, even in the presence and in full observance of access rates established by the NRA, the competition law enforcement authorities (at

¹⁴² Dir. 2002/19/EC [2002] OJ L108/7.

¹⁴³ Second part of Article 10 of Dir. 2002/19/EC [2002] OJ L108/7 states: 'Obligations of non-discrimination shall ensure, in particular, that the operator applies equivalent conditions in equivalent circumstances to other undertakings providing equivalent services, and provides services and information to others under the same conditions and of the same quality as it provides for its own services, or those of its subsidiaries or partners'.

¹⁴⁴ Dir. 2009/140/EC [2009] OJ L337/37.

¹⁴⁵ *ibid*, recital 40. Principles recalled also by M. Monti in his work 'A New Strategy for the Single Market', cited, n 1, with respect to the importance of network and technological neutrality.

¹⁴⁶ *Ibid*, recital 55.

¹⁴⁷ *Ibid*, recital 61.

national and at EU level) may find that the conditions imposed on competitors, for instance in the negotiation of network access agreements or in buying bandwidth from the incumbent, may have been discriminatory¹⁴⁸. This particular form of discrimination will be analysed in more detail below along with the exclusionary conducts, under the category of the 'margin squeeze' practices (sub section iv).

Exclusionary conducts

(iii) Predatory pricing.

Another form of abuse of dominant position in electronic communications and, more generally, in vertically-integrated industries, through pricing practices consists in charging goods or services at prices below cost, for the time necessary to discourage competitors to enter the market or simply to force them to leave it.

Within the electronic communications sector, the Commission has determined that predatory pricing practices in the network access market exists in those cases where the incumbent charges rates of interconnection to its own subsidiaries below cost, so that its competitors are forced to leave the market. The *Wanadoo* case¹⁴⁹, decided by the European Commission in 2003, is one of the most interesting applicable cases of predatory pricing affecting the new economy market in the last decade.

¹⁴⁸ See below the analysis of the Commission decision *Deutsche Telekom AG* [2003] OJ L263/9 and the judicial review of the decision by the General Court and the ECJ, with respect to abusive conducts of 'margin squeeze' carried out by Deutsche Telekom even in presence of prices established by the German sector regulator.

¹⁴⁹ Commission decision *Wanadoo Interactive (France Télécom)* (Case COMP/38.2333) of 16 July 2003, [2005] 5 CMLR 120, IP/03/1025. See also R. Klotz and J. Fehrenbach 'The Wanadoo Interactive case' (2003) Competition Policy Newsletter no. 3 (Autumn 2003), 10. The case was upheld by the General Court in 2007: Case T-340/03 *France Télécom SA v Commission of the European Commission*, [2007] ECR II-107, FT's appeal was dismissed in Case C-202/07 *P France Télécom v Commission* [2009] ECR I-2369.

In this case, in particular, the Commission found that Wanadoo (a 72% owned subsidiary of France Télécom, hereinafter 'FT', specialising in ADSL services) during the period covered by the decision operated almost all the ADSL lines in France. The cable networks operators were not in a position to represent a serious competitive threat for FT, while any other electronic communications operators would not have been in a position, within that time-frame, to roll out an alternative network. Therefore, the position of dominance by FT was not disputed.

The findings of the Commission were that Wanadoo sold its ADSL services at prices that were below the variable costs until August 2001, while after that moment the prices became at least approximately equivalent to variable costs, but still considerably below total costs.

As a result of that practice Wanadoo operated at a loss until the end of 2002, in line with the strategy to pre-empt the market for high-speed Internet access. However, FT during that same time-frame made considerable profits in the market for wholesale ADSL services for Internet Services Providers ('ISP') (including Wanadoo). Wanadoo was obviously fully aware of the loss made, but did not interrupt its sale of ADSL services below cost, since its purpose was that of acquiring and maintaining a monopolistic position. Subsequently, the abuse came to an end when FT started selling its wholesale services 30% below on the previous prices charged. New ISPs were able to enter the market and, as a consequence, the number of new subscribers rose sharply in France after the end of the abuse. In the proceedings before the European Commission Wanadoo tried to demonstrate that what was considered an abusive conduct, was in reality a normal market strategy to conquer market shares, knowing that within a time-frame of five years those losses would have been recouped.

The European Commission objected that such a strategy, carried out by a dominant undertaking such as FT through its subsidiary had to be considered abusive because even though it could appear a rational strategy, in reality was violating the basic duty of a dominant undertaking of behaving in a responsible

manner *vis à vis* its competitors. In other words, '[...] the recoupment of initial losses over a certain period of time is in the usual case the very objective of a predatory pricing behaviour [...]. Admitting [the company's] reasoning in this respect would have led to the conclusion that by essence predatory pricing can simply not exist'¹⁵⁰

As R. Klotz and J. Fehrenbach correctly pointed out when they published their article in 2003, '[f]rom a policy point of view, the intervention of the Commission in this case was all the more necessary as high-speed Internet access plays a key role in the achievement of the objectives of the Lisbon strategy'¹⁵¹.

Obviously *Wanadoo* tried to object that its 'below cost' strategy was aimed at favouring and increasing the use of broadband services in France. However the Commission clearly objected that

'[...] Wanadoo Interactive's argument is deficient in one essential respect: there is no proof that the strategy pursued by the company would alone have made it possible to attain the desired objective of increased broadband use in France. The positive effects linked to market growth could have been brought about had the market developed under conditions of equilibrium among service providers. If it had really been the France Télécom group's intention to develop the high-speed market for the benefit of all operators, France Télécom could have priced all its wholesale products - from shared or full unbundled access to the local loop to IP/ADSL access and routing services - at low levels encouraging the entry of competitors. The France Télécom group chose instead to confine the losses associated with developing high-speed access to its retailing subsidiary, thereby diverting the market growth to its advantage. It cannot therefore cogently be maintained that the France Télécom group, and Wanadoo Interactive in particular, were guided by a desire to develop the market for the benefit of all stakeholders. If such had been the case, France Télécom could have applied much sooner the

¹⁵⁰ R. Klotz and J. Fehrenbach, cited (fn 172), 12.

¹⁵¹ *ibid.*

remedy that was finally proposed once proceedings had been initiated against Wanadoo Interactive'¹⁵².

As Jones and Sufrin correctly note, this case was in reality a case of 'margin squeeze', but considering the relationship between FT and its subsidiary (in the time-frame considered) it was instead analysed by the Commission as a case of predatory pricing¹⁵³.

I analyse in the following section (iv) the 'margin squeeze' pathology, while I will discuss in section (v) the more general category of 'refusal to supply', as per the most recent classification provided by the Guidance Paper¹⁵⁴.

(iv) Margin (price) squeeze.

A more complex form of abuse of dominant position in the electronic communications sector is that deriving from the '*margin (or price) squeeze*' practice, conduct usually carried out in vertically-integrated industries. The Commission ascertained that an undertaking performs a margin squeeze practice when the margin between prices charged to have access to the downstream (derived) markets (for instance to the local loop) and prices charged to have access to the principal market (for instance the services provided by the incumbent, owner of the local loop) does not allow the competitor (even as *efficient*) to perform its activities in the derived market with normal profit levels¹⁵⁵. A similar conduct can be put in place with respect to the purchase of wholesale capacity, at a price that would not allow the competitor(s) to have sufficient profits, ultimately being forced to leave the market.

¹⁵² Commission decision *Wanadoo Interactive (France Télécom)* (Case COMP/38.2333) of 16 July 2003, [2005] 5 CMLR 120, (para 312).

¹⁵³ A. Jones and B. Sufrin, cited (4th edn, 2011), p 408.

¹⁵⁴ Guidance Paper [2009] OJ C45/7, para 80.

¹⁵⁵ *Ibid*, para 79.

The Guidance Paper on enforcement priorities tackles margin squeeze and refusal to supply conducts under the same letter (Chapter IV ‘Specific forms of abuse’, letter D), an indication that this kind of abuse is strictly related to the access to facilities in vertically integrated industries. The analysis of margin squeeze conducts is crucial in understanding the target of the present thesis, aimed at showing how the choice of the optimal solution to enforce effective competition (i.e. through functional or even structural separation rather than through mere pecuniary fining), in cooperation with national competition authorities and NRAs, could possibly enhance the access and the provision of access-related services.

Technically the benchmark to detect a margin squeeze abuse is the so-called ‘Long-Run Average Incremental Cost’ (or ‘LRAIC’)¹⁵⁶ of a non-integrated competitor downstream.

In *Napier Brown/British Sugar*¹⁵⁷, the Commission stated:

‘[...] Should British Sugar have maintained this margin in the long term, Napier Brown would have been obliged to leave the United Kingdom retail sugar market [...]’.

In the electronic communications sector the Commission already dealt with this form of abuse with its Notice on Access of 1998¹⁵⁸. The Commission infers that

¹⁵⁶ To be distinguished from the Average Avoidable Cost (AAC). See the Guidance Paper, para 25. Quoting from the Guidance Paper: ‘The cost benchmarks that the Commission is likely to use are average avoidable cost (AAC) and long-run average incremental cost (LRAIC). Failure to cover AAC indicated that the dominant undertaking is sacrificing profits in the short term and that an as efficient competitor **cannot** serve the targeted customers without incurring a loss. LRAIC is usually above AAC because contrary to the latter (which only includes fixed costs if incurred during the period under examination), it included product specific fixed costs made before the period in which allegedly abusive conduct took place. Failure to cover LRAIC indicates that the dominant undertaking is not recovering all the (attributable) fixed costs of producing the good or services in question and that an as efficient competitor **could be** foreclosed from the market’.

¹⁵⁷ Commission decision *Napier Brown-British Sugar* [1988] OJ L284/41, [1990] 4 CMLR 196, para 66.

¹⁵⁸ Commission Notice on the ‘Application of the Competition Rules to the Access Agreements in the Telecommunications Sector-Framework, Relevant Markets and Principles’ [1998] OJ C 265/2 of 22 August 1998, para 117.

‘A price squeeze could be demonstrated by showing that the dominant company's own downstream operations could not trade profitably on the basis of the upstream price charged to its competitors by the upstream operating arm of the dominant company. A loss-making downstream arm could be hidden if the dominant operator has allocated costs to its access operations which should properly be allocated to the downstream operations, or has otherwise improperly determined the transfer prices within the organisation. The Commission Recommendation on Accounting Separation in the context of Interconnection addresses this issue by recommending separate accounting for different business areas within a vertically integrated dominant operator. The Commission may, in an appropriate case, require the dominant company to produce audited separated accounts dealing with all necessary aspects of the dominant company's business. However, the existence of separated accounts does not guarantee that no abuse exists: the Commission will, where appropriate, examine the facts on a case-by-case basis’.

The analysis of the efficacy of the fine in dealing with this type of abuses, bearing in mind the seriousness of margin squeeze infringement, its anticompetitive foreclosure effects and its impact for long-term consumer welfare (to do not mention the impact on direct competitors), is at the basis of the question: could be a structural remedy more suitable than a functional remedy to guarantee the pursuit of effective competition?

Did the national regulators fail to enhance competition through the application of ex-ante tools, therefore making necessary the introduction of the new tool (functional separation) introduced by EC Directive 2009/140/EC? If the new ex-ante remedy (functional separation) turns to be insufficient, why the Commission should be reluctant to impose the more radical remedy of structural separation?

(v) Analysis of margin squeeze cases. Margin squeeze in Germany and in Spain: *Deutsche Telekom* and *Telefónica* cases

In recent years at European level numerous cases of network-related abuses of dominant position in the electronic communications were detected in all the major Member States to the point that the doctrine has been arguing about the opportunity to deal with these behaviours with a more ‘forward-looking’ approach aimed at radically removing the functional or structural reasons rather than simply fining the companies for the same, recurrent, abusive conduct.

This form of abuse, more than others, symbolises how a vertically integrated undertaking can carry out access pricing policies hardly detectable but equally detrimental for competition and, ultimately, for consumers.

A definition of margin squeeze comes from the Guidance of 2008, which it states that:

‘a dominant undertaking may charge a price for the product on the upstream market which, compared to the price it charges on the downstream market, does not allow an as efficient competitor to trade profitably in the downstream market on a lasting basis (a so-called margin squeeze)’¹⁵⁹.

Margin squeeze as an abuse of dominant position can be directly compared with the refusal to supply abuse. However, the Commission also dealt with this abuse using the category of predatory pricing.

The doctrine identified this further form of abuse taking into consideration dominant undertakings’ pricing policies only apparently not abusive, but determining **exclusionary effects** for competitors in the long term. Usually predation occurs when prices are set below the ‘average variable cost’; are presumed to be predatory where prices are set below the ‘marginal variable

¹⁵⁹ Guidance Paper, para 79. If ‘margin squeeze’ is seen as a form of indirect refusal to supply, it is worth mentioning that the Guidance identifies some cumulative circumstances that should lead the antitrust authorities to intervene in the event of an unjustified refusal. These are: (i) the refusal relates to a product or service that is objectively necessary to be able to compete effectively on a downstream market; (ii) the refusal is likely to lead to the elimination of effective competition on the downstream market; and (iii) the refusal is likely to lead to consumer harm (Guidance Paper, para 80).

cost' (of production factors such as energy, location, raw materials, manpower). While it is easy to determine whether any extra unit of a specific product or service is below the 'marginal variable cost', it is almost impossible to detect whether the cost of a single phone call is below that cost. In order to detect such a volatile form of abuse, the doctrine identified the so called long-run average incremental costs (LRAIC), linking together the cost of each additional service to the additional cost of providing a further unit of capacity¹⁶⁰.

One of the most interesting cases of margin squeeze at European level is case of the *Deutsche Telekom* ('DT') fined by the European Commission¹⁶¹ in 2003. The findings were that DT was dominant in the provision of both wholesale local loop access and in the downstream market for the provision of retail access services to end customers. Therefore DT, provider of wholesale, upstream, services for the access to the local loop, was also a direct competitor on the retail market of the purchasers of its services (in line with basic scheme depicted in Figure no.1 on vertical integration)¹⁶².

The abusive conduct in this case was identified in the subsidisation of DT's retail activities with revenues made in the upstream market (wholesale provision of access to the local loop). The margin squeeze, in particular, consisted in the higher price that the competitors in the retail market had to pay in order to have whole access to DT's local loop with respect to the lower price paid by DT's subsidiary to provide the same retail service, therefore reducing to a minimum the competitors' profits.

DT appealed the Commission decision imposing a fine of EUR 12.6 million for abusing its dominant position through a margin squeeze conduct, arguing that

¹⁶⁰ E. Pitt and R. Morton-Fincham, cited p 458.

¹⁶¹ Commission Decision *Deutsche Telekom AG* (Case COMP/C-1/37.451, 37.578, 37.579), [2003] OJ L263/9 (14 October 2003). On appeal at the General Court, Case T-271/03 *Deutsche Telekom AG v. Commission* [2008] ECR-II-477, [2008] 5 CMLR 631; *Deutsche Telekom AG v European Commission*, Case C-280/08, [2010] ECR I-09555, [2010] 5 CMLR 1495.

¹⁶² E. Pitt-R Morton-Fincham, cited, p 460.

the wholesale access prices charged to competitors had been established by the German telecommunications authority. On appeal, the General Court and the Court of Justice confirmed that the competition law provisions take precedence over regulatory obligations¹⁶³.

This decision forms a particularly important part of the argument put forward in this thesis for two reasons. Firstly it represents a clear demonstration of the relevance of anticompetitive foreclosure effects in detecting an abuse in a vertically-integrated industry, even in the presence of access prices set by the regulator. It also shows that long-term efficiencies (or other long-term factors) have to be taken into consideration while applying Art. 102 TFEU. Secondly, it shows the various forms of access to the network in the electronic communications sector.

The decision highlighted how the incumbent DT had control over the access to the network on which the competitors wanted to provide their own retail services. Alternatively, but at much greater expense, competitors could develop and use their own alternative networks (optical fibre, cable television, power lines, etc.)¹⁶⁴. The decision points out how:

‘new entrants do not have network infrastructures of their own that are as extensive as those of DT, and with traditional technologies they are unable to match the economies of scale and the coverage of the incumbent operator, which rolled out its local network over a long period under the protection of exclusive rights, and funded its investment out of monopoly rent’¹⁶⁵.

The decision, in its preliminary remarks, points out how there were two ways of access to the network at local level for the provision of telephone services:

¹⁶³ Case T-271/03 *Deutsche Telekom*. See in particular Case C-280/08 P *Deutsche Telekom*, paras 77-96.

¹⁶⁴ Commission Decision *Deutsche Telekom AG*, [2003] OJ L263/9, para 12.

¹⁶⁵ *Ibid*, para 13.

- (i) Access could be obtained through the full local loop unbundling, or
- (ii) Through 'line sharing' (shared use of local loops).

The decision points out how the charges would have been different for the two options and that it focused exclusively on the 'fully unbundled access to DT's local loop'¹⁶⁶.

Under the German regulatory regime, the German communications authority established a 'price cap' for the local loop interconnection rates, rather than a mere regulatory mechanism. Starting from the cost-orientation principle, the undertaking has a margin to fix the price, within the threshold of the 'price cap'¹⁶⁷. DT argued that the Commission should not have intervened to assess whether the 'margin' established by DT was infringing the competition law principle of 'unfair pricing' since the price cap had been set by the German regulatory authority and therefore the pricing policy of DT could not be considered unfair¹⁶⁸.

The Commission replied that

'contrary to DT's view, however, the ECJ and the General Court have consistently held that the competition rules may apply where the sector-specific legislation does not preclude the undertakings it governs from engaging in autonomous conduct that prevents, restricts or distorts competition. This is particularly so in the case of complaints submitted to the Commission regarding possible violation of the EU competition rules. In such cases the Commission has a duty to investigate, and if necessary to order appropriate remedies'^{169,170}.

¹⁶⁶ Ibid, para 15.

¹⁶⁷ Ibid, para 32.

¹⁶⁸ Ibid, para 33.

¹⁶⁹ Emphasis added.

¹⁷⁰ Ibid, para 34.

The Commission in particular argued that the imposition of regulatory tools does not preclude the undertaking from applying the principles of competition law¹⁷¹. Therefore it focused on the demonstration that there was an evident disproportion between wholesale's charges and retail charges for access to the local network. Even though the charges in both cases (wholesale and retail) were subject to sector-specific regulation, DT had a commercial discretion which allowed it to restructure its tariffs further so as to 'reduce or indeed to put an end to the margin squeeze'¹⁷². The Commission found that having failed to do so, DT had carried out a practice of margin squeeze constituting the imposition of unfair selling prices within the meaning of Article 82 (a) of the Treaty.

A definition of margin squeeze is given at paragraph 106 where is said that the abuse occurs where:

'the wholesale prices that an integrated dominant undertaking charges for services provided to its competitors on an upstream market and the prices it itself charges end-users on a downstream market are in a proportion such that competition on the wholesale or retail market is restricted'.

And again in paragraph 107,

'there is an abusive margin squeeze if the difference between the retail prices charged by a dominant undertaking and the wholesale prices it charges its competitors for comparable services is negative, or insufficient to cover the product-specific costs to the dominant operator of providing its own retail services on the downstream market'.

The definition of 'anticompetitive pressure' can be found in paragraph 108 of the decision, where the Commission states that it is 'exerted on competitors'

¹⁷¹ Ibid, para 35 '[...] Given the detailed nature of the ONP rules and the fact that they may go beyond the requirements of Article 86 (now Article 82), undertakings operation in the telecommunications sector should be aware that compliance with the Community competition rules does not absolve them of their duty to abide by obligations imposed in the ONP context, and vice versa':

¹⁷² Ibid, para 57.

trading margins, which are non-existent or too narrow to enable them to compete with the established operator on retail access markets. An *insufficient spread between a vertically integrated dominant operator's wholesale and retail charges constitutes anticompetitive conduct* especially where other providers are excluded from competition on the downstream market even if they are at least as efficient as the established operator'¹⁷³.

The conclusion of the European Commission was that DT had abused its dominant position in the relevant markets for direct access to its fixed telephone network, as per art. 102 (a) TFEU: such abuse in particular consisted in charging unfair prices for (i) wholesale access services to competitors and (ii) retail access services in the local network. The Commission found that DT was 'in a position to end the margin squeeze entirely by adjusting its retail charges. [Later] DT could in any event have reduced the margin squeeze, by increasing the ADSL retail access charges not subject to the price cap system'¹⁷⁴. However, it did not.

The Commission's decision was appealed before the General Court, but was entirely upheld. The Court considered that DT had had the opportunity to bring to an end, or to reduce, the margin squeeze deriving from the difference between the retail charges and the wholesale charges, if DT had applied to the German communications authority for a review of the charges. In failing to do so, the Commission was right in applying Article 102 TFEU to DT's abusive conduct, even in the presence of price caps established by a sector regulator. The General Court observed that 'the decisions of national authorities in respect of Community telecommunications law do not in any way affect the Commission's power to find infringements of competition law'¹⁷⁵.

¹⁷³ Ibid, para 108.

¹⁷⁴ Commission Decision *Deutsche Telecom AG* [2003] OJ L263/9, para 199.

¹⁷⁵ Press release of the General Court no. 26/08 on the judgment of the Court of First Instance in Case T-271/03 (**CJE/08/26 of 10 April 2008**).

The General Court judgment in DT underlined **the negative effects on the communications market on the whole**, saying that margin squeeze ‘will in principle hinder the growth of competition in the downstream markets. If the applicant’s retail prices are lower than its wholesale charges, or if the spread between the applicant’s wholesale and retail charges is insufficient to enable an equally efficient operator to cover its product-specific costs of supplying retail access services, a potential competitor who is just as efficient as [DT] would not be able to enter the retail access services market without suffering losses’¹⁷⁶.

The General Court pointed out that in Germany there was no alternative infrastructure than DT’s fixed network¹⁷⁷. Therefore the margin squeeze conduct had **hindered the access of new competitors** in the retail access services, as potential competitors ‘as efficient as DT’ could not enter the retail access services market without suffering losses. The small market shares of the competitors acquired in that market (retail access services) were an index of the effect determined by DT practice¹⁷⁸.

As stated above, DT appealed against the Commission decision also on the ground that it did not have sufficient scope to avoid a margin squeeze¹⁷⁹, claiming that ‘the applicant [DT] did not have scope to fix its charges for retail access either. As regard the period 1998-2001, any abuse by the applicant is precluded by the fact that RegTP [the German telecom regulator] alone – and

¹⁷⁶ Case T-271/03 *Deutsche Telekom AG v. Commission* [2008] ECR-II-477, para 237.

¹⁷⁷ *ibid*, para 236: ‘[i]n that respect it must be borne in mind that the applicant owns the fixed telephone network in Germany and, moreover, that it is not disputed that, as the Commission notes in recitals 83 to 91 to the contested decision, **there was no other infrastructure in Germany at the time of the adoption of the decision that would have enabled competitors of the applicant to make a viable entry into the market in retail access services**’ (emphasis added).

¹⁷⁸ See press release of the European Commission no. 26/08 of 10 April 2008 and para 239 of the General Court judgment ‘[f]urthermore, the small market shares acquired by the applicant’s competitors in the retail access market since the market was liberalised by the introduction of the TKG on 1 August 1996 are evidence of the restrictions which the applicant’s pricing practices have imposed on the growth of competition in those markets’.

¹⁷⁹ Case T-271/03 *Deutsche Telekom AG v. Commission* [2008] ECR-II-477, paras 69-71.

previously the BMPT – is responsible for the applicant's charges for narrowband connections [...]¹⁸⁰.

On appeal before the General Court, DT was very bold in stating that it could not be blamed for the contested behaviour (in particular for fixing the retail prices for narrowband connections in the period before 2002) simply because those prices had been established by RegTP; furthermore DT could not depart from those prices without being fined by the regulator¹⁸¹. More interestingly, in the judgment (para 79) the claimant stresses how even the German Court of Justice (*Bundesgerichtshof*) on the 10 February 2004, setting aside the judgment of the court of Düsseldorf (16 January 2004) had agreed with DT's claim that the RegTP usually has to check whether 'a charge to which a request for authorisation relates is compatible with Article 82 EC and that responsibility for any infringement of article 82 EC can only exceptionally be ascribed to the undertaking which applied for the charge to be authorised. The applicant observes that RegPT itself has concluded on several occasions since 1998 that there is no margin squeeze to the detriment of the applicant's competitors. Furthermore, the *Bundesgerichtshof* expressly left open the question of the applicant's responsibility under competition law on account of the regulated charges'¹⁸².

The General Court replied to these objections saying that the practice of the Court had consistently gone in the direction of considering prevailing the weight of Art. 101 and 102 TFEU over the national legislation (including the regulators' provisions) when this legislation 'leaves open the possibility of competition which may be prevented, restricted or distorted by the autonomous conduct of undertakings [...]'¹⁸³. If the national legislation makes easier for the companies to infringe competition law, they are still subject to

¹⁸⁰ Ibid, para 71.

¹⁸¹ Ibid, para 73.

¹⁸² Ibid, para 79.

¹⁸³ Ibid, para 86 ff.

Art. 81 and 82¹⁸⁴. Therefore the General Court argued that it had first to ascertain whether the ‘German legal framework’ (presumably including also the provisions of the telecom regulator) would have left some margin of discretion to the undertaking or not¹⁸⁵.

The defence of DT went further, saying that the German telecommunications regulator was obliged, as per the German law, to verify and examine the conformity of the requested adjustment of charges ‘with [...] other legal provisions’ (said by the applicant to include Article 82 EC) [...]’ (para 112). In other words, DT tried not only to justify its conduct with the fact that aligned its behaviour within the range authorised by the German regulator, but also that the German regulator ‘had to act’, by law, in line with the European provisions. The Court correctly recall, on this respect, the famous case *Consortio Italiano Fiammiferi* (CIF)¹⁸⁶, and confirms the obligation of all the organ of the State to respect the provisions of the EC Treaty (para 113). However it goes further stating that

‘the national regulatory authorities operate under national law which may, as regards telecommunications policy, have objectives which differ from those of community competition policy (see the Commission’s Notice of 22 August 1998 on the application of the competition rules to access agreements in the telecommunications sector – framework, relevant markets and principles (OJ) 1998 C 265, p. 2), Paragraph 13)’¹⁸⁷.

The General Court stressed how the same RegTP found that ‘the competitors were not prejudiced with regard to their competitive opportunities in the local network by the slight difference between retail and wholesale prices at to make it economically impossible for them to enter the market successfully or even to remain in the market’ (para 117) somehow confirming that not only DT but also the German telecommunications regulator was not fully aware of the

¹⁸⁴ Ibid, para 89.

¹⁸⁵ Ibid, para 90.

¹⁸⁶ Case C-198/01 *CIF* [2003] ECR-I 8055, para 67.

¹⁸⁷ Case T-271/03 *Deutsche Telekom AG v. Commission* [2008] ECR-II-477, para 113.

anticompetitive consequences of DT's conducts *within* a theoretically fully legal framework of tariffs set by the same regulator.

The General Court in its judgment considered whether the Commission 'has established to the requisite legal standard in the contested decision that the applicant has sufficient scope in the period from 1st January 1998 to 31 December 2001 to [avoid] the margin squeeze (recital 164). In that respect, the Commission stated in the contested decision that the applicant 'was in a position [during that period] to end the margin squeeze entirely by adjusting its retail charges' (recital 199)'¹⁸⁸.

In other words, the General Court not only stressed that the EC Treaty provisions (articles 101 and 102 TFEU) had to be respected and applied by the national telecommunications regulator, but also confirmed that the Commission was the ultimate 'watchdog', guardian of the respect of those provisions by the national, indirectly carrying out its own scrutiny on the regulator itself.

At para 140 of the judgment the Court expressly stated that

'It follows from all the foregoing that the Commission was entitled to find in the contested decision (recitals 164 and 199) that the applicant had sufficient scope during the period from 1 January 1998 to 31 December 2001 to end entirely the margin squeeze complained of in that decision'¹⁸⁹.

Similar conclusion was reached with respect to the period from 1st January 2002 with respect to the margin squeeze identified in that decision by increasing its charges for ASL access services¹⁹⁰.

¹⁸⁸ Ibid, para 132.

¹⁸⁹ Ibid, para 140.

¹⁹⁰ Ibid, para 151.

In other words, this judgment is fundamental to prove that the position of the European court is unequivocally in favour of the Commission enforcement activity aimed at addressing distortions of competition *even* in the presence of *ex ante* measures imposed by a national regulator that do not impede the national incumbent to adopt prices that at the end amount to an anticompetitive conduct (margin squeeze in the examined case).

Nothing impede to think that a similar reasoning could have been applied in the presence of other ex-ante measures adopted by a national regulator, such as functional separation. If, in line with my hypothesis, the Commission is able to demonstrate that, even adopting a behaviour remedy authorised at national level by Directive 2009/140/EC such as functional separation, the incumbent is still able to abuse its dominant position, nothing should impede the Commission (or the NCA) **to adopt structural remedies, going beyond ineffective regulatory measures**¹⁹¹.

The General Court judgment concluded that ‘while it is not inconceivable that the German authorities also infringed Community law –particularly the provisions of Directive 90/388/EC, as amended by Directive 96/19– by opting for a gradual rebalancing of connection and call charges, such a failure to act, if it were to be established, would not remove the scope which the applicant had to reduce the margin squeeze’¹⁹².

The General Court judgment was upheld by the ECJ in December 2010, confirming the correctness of the General Court’s conclusions with respect to the duty of the incumbent to operate in line with the competition law principles, even in the presence of ‘*espace de manoeuvre*’ established by the sector regulatory authority. The ECJ confirmed that even in the presence of specific approval by the national regulator of wholesale prices proposed by the incumbent, if it has the possibility of bringing to an end the margin squeeze practice, it is obliged to comply with Art. 102 TFEU:

¹⁹¹ Emphasis added.

¹⁹² Ibid, para 265.

‘According to the case-law of the Court of Justice, it is only if anti-competitive conduct is required of undertakings by national legislation, or if the latter creates a legal framework which itself eliminates any possibility of competitive activity on their part, that Articles 81 EC and 82 EC do not apply. In such a situation, the restriction of competition is not attributable, as those provisions implicitly require, to the autonomous conduct of the undertakings. Articles 81 EC and 82 EC may apply, however, if it is found that **the national legislation leaves open the possibility of competition which may be prevented, restricted or distorted by the autonomous conduct of undertakings**’¹⁹³.

The ECJ recalls the fundamental case-law showing that even though national provisions may actually induce companies to infringe Articles 101 and 102 TFEU, the companies (and the national legal entities) have a duty to comply with the Treaties’ provisions¹⁹⁴.

The ECJ stressed that the fact that the appellant (DT) ‘was encouraged by the intervention of the national regulatory authority such as REgTP to maintain the pricing practices which led to the margin squeeze of competitors who are at least as efficient as the appellant **cannot, as such, in any way absolve the appellant from responsibility under Article 82 EC**’¹⁹⁵.

The ECJ went a step further in stating (para 91) that ‘[a]dmittedly it is not inconceivable, as the appellant observes, that **the national regulatory authorities may themselves have infringed Article 82 EC in conjunction with article 10 EC**, and therefore that the Commission could have brought an action for failure to fulfil obligations against the Member State concerned’¹⁹⁶.

¹⁹³ C-280/08 P *Deutsche Telekom AG v Commission*, [2010] ECR I-09555, [2010] 5 CMLR 1495, para 80. Emphasis added.

¹⁹⁴ Ibid, para 81, 82, 83. In particular the ECJ also recalls the Case 322/81 *Michelin v Commission* [1983] ECR 3461, para 57, where it stresses that the dominant undertakings have a special responsibility not to allow their conduct to impair genuine undistorted competition on the common market.

¹⁹⁵ Ibid, para 84.

¹⁹⁶ Ibid, para 91 (emphasis added).

The ECJ (para 105 of the judgment) stressed how DT, in its appeal, reiterated the same arguments put forward before the General Court, in particular its 'good faith' in complaining with instructions received by the national telecommunications regulator (not challenged by the national courts). However, DT did not provide any further element to deduct that the General Court erred in law in claiming that the national regulators and the incumbent are both bound to competition law (articles 101 and 102 TFEU) and that the Commission complied with its duties investigating and finding that the company had abused of its dominant position. It must be noted that when the General Court on the 10 April 2008 filed its judgment on the *Deutsche Telekom* Commission decision, another case of margin squeeze had been just decided by the Commission in July 2007: the *Telefónica* case¹⁹⁷.

This second decision relating to margin squeeze is particularly interesting not only for the higher fine inflicted on the Spanish company (EUR 151 million), but also for the relevance given to the '**effects on competition**' of the margin squeeze conduct. In this decision the Commission evidently took into consideration the Art. 102 TFEU review triggered with the Discussion Paper of 2005.

The *Telefónica* decision relates to abuse of a dominant position carried out through margin squeeze practices over a significant period of time (five years) with respect to wholesale broadband access market at national and regional level (it is not a local loop unbundling case).

The company charged high broadband access rates to its competitors, keeping at very low levels the rates of access to its own retail broadband access services, forcing competitors to exit the market. This conduct not only damaged competitors for a long period of time (leading the Commission to

¹⁹⁷ Commission Decision *Wanadoo España v Telefónica* [2008] OJ C83/6 ('Telefónica'), appealed at the General Court: Case T-336/07 *Telefónica and Telefónica de España v Commission* [2007] OJ C269/55, ECR I-0000, judgment on the 29 March 2012. On appeal at the Court of Justice, Case C-295/12 (see opinion of the Adv Gen Wathelet, 26 September 2013 accessible at <http://curia.europa.eu/jcms/upload/docs/application/pdf/2013-09/cp130117en.pdf>

severely fine the incumbent) but also impeded many companies from entering the market, consequently excluding the final consumers from having access to the broadband services¹⁹⁸.

The Commission pointed out how competitors, in order to provide DSL access services, had no other choice but to deal with the incumbent to get access to the ADSL enabled local loops, ***unless they decide to create a viable alternative network which is not economically*** ¹⁹⁹.

The decision pointed out that from 2002 the Spanish regulatory authority mandated wholesale access to the incumbent's network at national and regional level in favour of the competitors (paragraphs 289-290). The access rates were established applying the so-called '*retail minus price*' regime²⁰⁰, that has the following positive consequences: (i) it does not alter the recovery of the costs of wholesale access; (ii) it should avoid a situation of a margin squeeze between the incumbent's wholesale and retail prices; (iii) productive efficiency is ensured i.e. a potential entrant enters only if it is viable, which occurs only if it is more efficient than the incumbent in the downstream activity and (iv) the system preserves the networks operators' incentives (including the incumbent) to invest in their own infrastructure.

Access based on similar price conditions was in line with both the liberalisation 1998 regulatory framework²⁰¹ and in line with the electronic communications

¹⁹⁸ Nellie Kroes, former Commissioner for Competition at the European Commission, pointed out that the Spanish consumers paid 20% more than the EU-15 average for broadband access, with a rate of penetration 20% below EU-15 average, and a growth of 30% lower than of the EU-15. See press release IP/07/1011 of 4th July 2007.

¹⁹⁹ See para 74 of the decision: 'An undertaking wishing to provide broadband access to the end-users throughout the Spanish territory has no other option, save the economically not viable roll-out of an alternative nation-wide access network, but to contract one of the wholesale ADSL services available on the market, which are all built on TESAÚ's access network consisting of ADSL enabled local loops'.

²⁰⁰ Under the retail-minus system, the wholesale access charge is set at the vertically-integrated operator's retail price minus the incremental cost of providing downstream services and any network elements supplied by the access seeker. See W.J. Baumol-J.G. Sidak, *The pricing of Inputs Sold to Competitors*, (1994) 11 Yale Journal of Regulation, 196.

²⁰¹ As confirmed by the judgment given in preliminary ruling by ECJ on 13 December 2001 in Case C-79/00 *Telefónica de España vs. Administración General del Estado* [2001] ECR I-10057.

regulatory package 2000 (in particular with the Framework Directive²⁰² and the Access Directive²⁰³).

In response to the European Commission's statement of objections Telefónica tried to show that the conditions set in *Oscar Bronner* with respect to the impossibility of replication (non-replicability) of the network as a pre-condition for mandatory access on the basis of the essential facilities doctrine in this case were not applicable (paragraph 301). The Commission challenged this conclusion saying exactly the opposite, underlining that Telefónica had a **duty to supply** the upstream inputs called GigADSL and ADSL-IP. The decision stressed that the duty was established with a view to promoting competition (among down-stream undertakings providing competing services) and the consumer interest (without specifying whether short term or long term consumer interest).

The decision at stake is particularly important for the relevance given to the **exclusionary effects of the abuse on competition**, in line with new perspective at the basis of the Discussion Paper and Guidance Paper²⁰⁴. The decision showed that the margin squeeze conduct 'affected Telefónica's competitors' ability to enter into the relevant market and exert a competitive restraint on Telefónica'²⁰⁵. As a consequence of the margin squeeze conduct, Telefónica's competitors, even as efficient as the incumbent, incurred in 'unsustainable' losses, being ultimately forced to leave the competition and discouraged from innovating and investing in new infrastructures (impact on growth).

²⁰² Art. 8 of the Framework Directive.

²⁰³ Art. 8 of the Access Directive.

²⁰⁴ The *Telefónica* decision devotes a large part of the text to the impact assessment of the abusive conduct, from para 564 to para 618, showing high interest not only for the mere effects of the margin squeeze conduct on competitors and consumers but also, more generally, on the entire broadband market, the Spanish economy as a whole, and as part of the European construction.

²⁰⁵ Point 3.3. 'Effects of the abuse' of the summary of Commission Decision *Wanadoo España v Telefónica* [2008] OJ C83/6 ('Telefónica') of 4 July 2007.

Such a conduct resulted in a delay in the arrival of ADSL operators in many areas of Spain; they had no incentive to create their own infrastructure or the use of the local loop unbundling. In the absence of margin squeeze conduct, it is very likely that consumers would have paid lower prices, would have had increased choice and access to more innovative products. The Commission stated that the entire broadband market in Spain suffered a drastic downsizing, and pointed out the low positions, below the EU-15 average, reached by the incumbent and its competitors in the broadband penetration on the Spanish territory²⁰⁶.

An appeal against the decision was dismissed by the General Court in March 2012²⁰⁷. In its judgment the General Court rejected the claim of the Spanish company that the Commission (i) had not taken into consideration that the infringement was committed in part through simple negligence by Telefónica, or (ii) had considered Telefónica's negligence as 'extremely serious'. The General Court confirmed that the company was dominant in the wholesale markets in relation to which margin squeeze was established and rejected Telefonica's claim that the Commission had omitted to carry out a 'margin squeeze test' based on an optimal mix of available wholesale products.

The Court also confirmed the approach already held in the *Deutsche Telekom* case examined above with respect to the balance between application of *ex ante* provisions and respect of EU competition law: compliance with the decisions taken by the national telecom regulator on the basis of the regulatory framework does not release dominant firms from their obligation to respect EU competition law²⁰⁸.

²⁰⁶ See para 584 and 585, figure no. 19, with index of broadband penetration in Europe, excerpted by The ECTA broadband scorecard. See <http://www.ectaportal.com/en/basic650.html>. See also the OECD Report: 'Benchmarking broadband prices in the OECD', Working Party on Telecommunications and Information services Policies, 18 June 2004, p. 50 (see page Div-53 of the file): 'Overall, broadband access prices available in Spain are relatively expensive in terms of the price and performance ratio' (note 661 of the decision).

²⁰⁷ Case T-336/07 *Telefónica, SA – Telefónica de España, SA* [2012] ECR-I 0000. Judgment on appeal at the Court of Justice, proceedings C-295/12, appeal filed on 27 July 2012.

²⁰⁸ Case T-336/07 *Telefónica, SA – Telefónica de España, SA* [2012] ECR-I 0000, paras 321 ff.

I will further discuss the importance of this judgment when I will draw my conclusion with respect to the superiority of the enforcement action of the European Commission with respect to the measures imposed at regulatory level (not only prices, but also functional separation as per Directive 2990/140/EC). Here, it must be stressed that the General Court (and, more recently, the Advocate General in the appeal proceedings before the Court of Justice) in March 2012 made clear that ‘Article 82 EC applies only to anti-competitive conducts engaged in by undertakings on their own initiative. If anticompetitive conduct is required of undertakings by national legislation or if the latter creates a legal framework which itself eliminates any possibility of competitive activity on their part, Article 82 EC does not apply’²⁰⁹; however,

‘Article 82 EC may apply if it is found that the national legislation does not preclude undertakings from engaging in autonomous conduct which prevents, restricts or distorts competition’²¹⁰.

The Court also rejected the argument put forward by the appellant that ‘the Commission had at its disposal an ad hoc formal instrument of intervention resulting from Article 7 of the Framework Directive, which enable it to intervene in a situation such as that at issue in the present case’²¹¹. In other words Telefonica argued that the Commission should have followed rather a regulatory approach than adopting a decision imposing a pecuniary fine. The General Court, however, stated clearly that the *ex-ante* remedies do not exclude the intervention of the Commission when Article 102 TFEU is infringed:

‘The existence of that measure [as per Article 7 of the Framework Directive] has **no effect whatsoever on the powers which the Commission derives directly from Article 3(1) of Regulation no 17 and, since 1 May 2004, from Article 7(1) of Regulation 1/2003**

²⁰⁹ Ibid, para 328.

²¹⁰ Ibid, para 329.

²¹¹ Ibid, para 292.

to find infringement of Articles 81 and 82 EC [...]. Thus, the competition rules laid down in the EC Treaty supplement, by ex post review, the regulatory framework adopted by the EU legislature for ex ante regulation of the telecommunications markets [...]²¹².

The judgment also rejected [paragraphs 296 ff] the claims of the appellant that the Commission would have infringed the principles of subsidiarity, proportionality and legal certainty ‘since [the Commission] interferes without good reason in the exercise of the power of the [Spanish telecommunications regulator]’.

However, with respect to the principle of subsidiarity in particular, the Court stated that Article 5 EC provides that the Community (in this case the Commission) can intervene and take action ‘only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member states and can therefore, by reason of the scale or effects of the proposed action, be better achieved by the Community [the Commission]’²¹³.

In other words, here the General Court confirmed once again, in line with the *Deutsche Telekom* judgments analysed above, the Commission’s competence in applying and enforcing Articles 101 and 102 TFEU going beyond the range of action of the regulatory authorities of the Member States. The judgment stated that the Spanish regulator ‘is not a competition authority and it has never intervened to enforce Article 82 EC or adopted decisions relating to the practices penalised in the contested decision [...]’. **The Commission cannot be bound by a decision taken by a national authority pursuant to Article 82 EC**²¹⁴.

²¹² Ibid, para 232. Between brackets are reported the references in the judgment to *Deutsche Telekom v Commission* reported above. Emphasis added.

²¹³ Ibid, 297.

²¹⁴ Ibid, 301. Emphasis added.

The Court also recalled the judgment given in *Deutsche Telekom v Commission*²¹⁵ where it stated '[...] notwithstanding such legislation, if a dominant vertically integrated undertaking has scope to adjust even only its retail prices, the margin squeeze may on that ground alone be attributable to it'²¹⁶.

The judgment of the General Court in the *Telefónica* case is therefore extremely important for the purpose of demonstrating that the Commission (and the Courts) have considerable room of manoeuvre in adopting remedies as per Article 7 of Regulation 1/2003/EC (and, among those remedies, also the most suitable) going beyond the regulatory activity of the national telecommunications authority (but the same, as we will see in the next chapter can be said for the energy sector).

The judgment has been appealed before the Court of Justice²¹⁷. The Advocate General Melchior Wathelet has recently filed his opinion²¹⁸ confirming the principle of unlimited jurisdiction of the European Court, and the possibility, for it, to cancel or to confirm a fine, but also to reduce or to increase it²¹⁹. He also confirmed that the European Commission did not breach the duty of cooperation with Spanish telecommunications regulator, reaffirming the principle that, in line with Regulation no. 1/2003/EC, it does not have a duty of consultation with the national regulatory authorities²²⁰. He suggested that the claim, on appeal, of the company that the European Commission breached

²¹⁵ Ibid, para 85.

²¹⁶ Ibid, para 330.

²¹⁷ Case C-295/12 *Telefonica SA and Telefonica Espana SAU v Commission*, appeal filed on 27 July 2012.

²¹⁸ Adv Gen's Opinion in Case C-295/12 P *Telefonica SA and Telefonica Espana SAU v Commission* accessible at <http://curia.europa.eu/juris/document/document.jsf?text=&docid=142183&pageIndex=0&doclang=IT&mode=req&dir=&occ=first&part=1&cid=385399>.

²¹⁹ The A G Wathelet also stated that the paragraphs of the General Court's judgment in *Telefónica* with respect to the calculation of the fines does not contain a genuine analysis and recommended the General Court to conduct ex novo a full review of the Commission decision with respect to the amount of the fine.

²²⁰ A G Mathelet opinion, para 41.

both the duty of loyal cooperation and good administration should be rejected. Similarly, the Advocate General recommended to reject the claim that the General Court did not take into consideration the company's claim that it had in good faith relied on the conformity of its pricing practices with the scope of Article 102 TFEU²²¹.

As I will discuss in Chapter IV with respect to the imposition and effectiveness of fines, the Advocate General's opinion filed in the proceedings before the ECJ recently stressed that the General Court had not correctly exercised its power of review of the Commission's decision with respect to the fine, suggesting to annul the General Court judgment²²².

The judgments in the *Deutsche Telekom* and *Telefónica* cases are therefore particularly important not only for the definition and the 'reconstruction' of the conduct that may lead to a margin squeeze abuse, but also for having clarified the applicability of Article 102 TFEU to conducts that might have been put in place within the boundaries and the limits of regulatory provisions that, *per se*, are not sufficient to exclude the infringement by the incumbent. This is a key point in the thesis, since the position of the Commission, of the Courts and of the Advocates Generals as shown is unanimous in stressing that the European Commission is exclusively bound by the EU Treaty and its provisions (articles 101 and 102 TFEU) in analysing the behaviour of the companies, considering irrelevant *ex ante* remedies (including the imposition of prices aimed at favouring rather hindering competition) imposed, at regulatory level, on them.

The position adopted by the Commission and the Courts in the last years confirms my argument that the Commission is, in principle, entitled to apply not only Article 7 of Regulation no. 1/2003 but that article in its entirety, going beyond the imposition of fines, applying not only behavioural but also structural remedies (such as structural separation), even in the presence of *ex ante* regulatory measures (such as pre-determined access prices) or

²²¹ Ibid, para 55.

²²² Ibid, para 175 ff.

behavioural remedies (such as functional separation as per Directive 2009/140/EC) approved as per Article 7 of the Framework Directive 2002/21/EC (as amended).

I conclude the analysis of the recent cases of margin squeeze with the *TeliaSonera* case, a case referred by the Stockholm District Court to the European Court of Justice in 2009. In this case the European Court of Justice expressed serious concerns for the end-consumers (preliminary ruling judgment given on 14 February 2011)²²³.

The case is relevant because the Commission, somehow departing from its own Guidance Paper, stressed that a margin squeeze conduct has to be considered harmful for the consumers without passing through the 'refusal to supply test', irrespective whether the abusive practice is carried out in presence of a pre-existing duty to deal. As stressed earlier, the Guidance Paper considered the margin squeeze conduct under the heading 'refusal to supply'²²⁴, as an indirect form of abuse carried out by a dominant undertaking that in the particular market has a duty to supply the access to an essential facility.

The Court confirmed its concern for the final consumers irrespective of the existence of all the pre-conditions that for the Commission's Guidance Paper had been considered fundamental, in line with the existing and well settled case law. In *TeliaSonera* the Court stresses that

²²³ Case C-52/09 *Konkurrensverket v TeliaSonera Sverige AB* (Telia Sonera) of 17 February 2011, [2011] ECR I-000, [2011] 4 CMLR 982, See also Opinion of AG Mazák in Case C-52/90 *Telia Sonera*.

²²⁴ See on this point R. Nazzini, cited, pp 273-274. The Advocate General Mazák, R. Nazzini notes, with respect to refusal to supply suggested a different approach, in particular (i) to look at the margin squeeze as a form of vertical foreclosure tactic similar to that carried out by refusal to supply (ii) to take into consideration the risk that if there is not a duty to deal, 'to impose a duty to charge upstream and downstream prices that allow as efficient downstream firm to compete effectively would reduce the dominant undertaking's investment incentives' and, most interestingly (iii) to take into consideration an 'a fortiori', very subtle, argument: if the duty to deal is not a pre-condition, and the company in theory could refusal to supply, 'why can it not harm them by charging upstream and downstream prices that make it difficult for them to compete?' (R. Nazzini, cited, p 274).

‘in the absence of any objective justification, the fact that a vertically integrated undertaking, holding a dominant position on the wholesale market in asymmetric digital subscriber line input services, applies a pricing practice of such a kind that the spread between the prices applied on that market and those applied in the retail market for broadband connection services to end users is not sufficient to cover the specific costs which that undertaking must incur in order to gain access to that retail market **may constitute an abuse within the meaning of Article 102 TFEU**’²²⁵.

More importantly, the Court underlines that any circumstances may be useful to determine whether the margin squeeze conduct is abusive, but certainly ‘it is necessary to demonstrate that, taking particular account of whether the wholesale product is indispensable, that practice produces an anti-competitive effect, at least potentially, on the retail market, and that the practice is not in any way economically justified’²²⁶.

It is worth recalling that the opinion of Advocate General Mazák went in a different direction. For him margin squeeze had to be seen as a conduct analogous to refusal to supply; in both cases there are risks of over-deterrence that might discourage investments (for instance if the ‘as efficient competitor’ test is not correctly applied); if an incumbent can harm the competitors by refusing to supply, why (*a fortiori*) should not be able to set downstream and upstream prices at such a level to make impossible for the competitors to compete²²⁷?

For our aims it is important to stress the list of factors that in 2011 the Court considered as *not* relevant to assess whether the undertaking abuses or not. In particular, the Court in *TeliaSonera* suggests to

²²⁵ Case C-52/09 *Telia Sonera* [2011] ECR I-000, [2011] 4 CMLR 982, para 115 (conclusion). Emphasis added.

²²⁶ *Ibid*, para 115 .

²²⁷ R. Nazzini, cited, p 274.

- (i) Not to look at whether ‘the fact that that undertaking does not also hold a dominant position in the retail market for broadband connection services to end users’, or
- (ii) Not to take into consideration ‘whether the customers to whom such a pricing practice is applied are new or existing customers of the undertaking concerned’, or
- (iii) ‘the fact that the dominant undertaking is unable to recoup any losses which the establishment of such a pricing practice might cause, or
- (iv) ‘the extent to which the markets concerned are mature markets and whether they involve new technology, requiring high levels of investment’²²⁸.

R. Nazzini criticises the approach of the Court at this point, diverging both from the Prioritisation Guidance of the Commission and from AG Mazák’s opinion. He stressed the importance that the margin squeeze test should also include a ‘refusal to supply test’ to be complete, while it seems that the Court had underestimated the importance of the existence of a duty to deal as a pre-condition to establish whether the margin squeeze conduct can be considered an abuse of dominant position. This approach can be shared.

However, I think that the Court (rapporteur Judge A. Tizzano) did not want to depart from consolidated case-law (such as *Oscar Bronner*). Probably the Court wanted to adopt an approach in which more generally re-stated the rationale of *Michelin I*, the duty for the incumbent to favour competition, in particular where the incumbent benefited in the past of the protection of ‘exclusive rights’ and subsidisation by the State to create the infrastructure. Somehow the Court went a step further than in the *Deutsche Telekom* margin squeeze case. Putting aside the ‘indispensability’ criterion shows that is determined to uphold in the future Commission’s decisions aimed at discouraging not only refusal to supply, but also more difficult to detect practices by the former incumbents. It is also a step away from the US doctrine and jurisprudence on margin squeeze and essential facilities, less

²²⁸ See the discussion carried out by G. Monti e J. Baker with respect to the *Deutsche Telekom* and the *Telefónica* cases, in which they rather stressed the importance to take into consideration at least this factor when dealing with a margin squeeze case.

prone to sanction under Sect. 2 of the Sherman Act refusal to deal or other pricing practices in regulated sectors²²⁹.

At this point, it must be stressed that the enforcement trend of the European Commission in the last three years have other incumbents being investigated or fined for network-related abuses of dominant position also in the new accession countries.

(v) Two more cases of abuse of dominant position in the electronic communications sector fined by the European Commission.

After having analysed the cases of margin squeeze *Deutsche Telekom*, *Telefónica* and *TeliaSonera*, in order to discuss and explain the anticompetitive foreclosure effects of those cases finding analogies with similar foreclosure effects in the energy sector (Chapter III), I wish to focus on two more recent cases of vertical foreclosure conducts investigated by the European Commission.

In April 2009 the Commission opened two formal proceedings against the telecoms incumbents Telekomunikacja Polska S.A in Poland and Slovak Telekom²³⁰ in Slovakia.

Later in June 2011 the Commission confirmed its finding that Telekomunikacja Polska S.A. (TP) had in various ways tried to obstruct access of competitors to

²²⁹ See the case *Verizon Communications, Inc. v Law Office of Curtis V. Trinko, LLP*, 540 U.S. 398 (2004) ('[...] Indeed, a detailed regulatory scheme such as that created by the 1996 Act ordinarily raises the question whether the regulated entities are not shielded from antitrust scrutiny altogether by the doctrine of implied immunity [...] In some respects the enforcement scheme set up by the 1996 Act is good candidate for implication of antitrust immunity, to avoid the real possibility of judgments conflicting with the agency's regulatory scheme that might be voiced by courts exercising jurisdiction under the antitrust laws'). The Supreme Court in *Verizon* underlined that it will be less prone to find a refusal to supply infringement in regulated industries when the regulator has adopted ex ante measures aimed at preventing conducts captured under antitrust laws.

²³⁰ See MEMO/09/203 Brussels, 27 April 2009 available at http://europa.eu/rapid/press-release_MEMO-09-203_en.htm. Inspections had been carried out in Poland in September 2008 and in Slovakia in January 2009.

its infrastructure, and fined the former incumbent with a fine of EUR 127 554 194²³¹. The Commission found that the Polish company hindered competition between August 2005 and October 2009 by proposing unreasonable conditions in the draft contracts, delaying negotiations and refusing access to its network, subscriber lines and general information. The Commission decided to fine the company up to 10% of the annual turnover, stating that TP had carried out the contested abusive conducts with the express aim of excluding downstream competition.²³²

With respect to a telecom operator of one of the main EU 'Big-Enlargement' states such as Poland, Commission Vice-President J. Almunia stressed how this case 'shows our determination to ensure that dominant telecom operators do not systematically hinder competitors who can make the real difference in the market to the benefit of consumers and businesses'. It is worth considering that Poland has one of the lowest broadband penetration rates in Europe, reaching only 13% in January 2010, far below the EU average of 24% for the same period of time²³³.

Almost one year later, in May 2012, the European Commission also filed its statement of objections against Slovak Telekom and Deutsche Telekom, its parent company²³⁴. In this case the product market in which the Slovak incumbent allegedly carried out the abuse is the wholesale broadband markets. In its Statement of objections the Commission stated that it takes the view that Slovak Telekom (i) would have refused to supply unbundled access

²³¹Commission Decision *Telekomunikacja Polska* (Case COMP/35.525) of 22 June 2011, [2011] OJ C 324/7 of 9 November 2011, accessible at http://ec.europa.eu/competition/antitrust/cases/dec_docs/39525/39525_1916_7.pdf.

²³² Ibid, para 892.

²³³ European Commission press release of 22 June 2011, IP/11/771. The Commission recalls how only 66% of the Internet access lines in Poland does not exceed the speed of 2Mbit/s compared to an EU average of just 15%, with monthly rates for the end users much higher than the prices in other Member States, and the second highest in the OECD area.

²³⁴ Case *Slovak Telekom* COMP 39.523, statement of objection filed on the 8 May 2012, press release IP 12/462 accessible at http://europa.eu/rapid/press-release_IP-12-462_en.htm. Deutsche Telekom has been considered co-responsible for the allegedly abusive conducts carried out by ST because it owns a majority stake of 51%.

to its local loops and wholesale services to competitors, alongside with (ii) imposing a margin squeeze on alternative operators by charging unfair wholesale prices. Once again, it emerges that the incumbent in Slovakia proposed unjustifiable and burdensome technical and commercial terms to its competitors, delaying and obstructing in various way the unbundled access to the local loop. In this case too, the incumbent tried to obstruct access to competitors through a double conduct, not only refusing or hindering the unbundling of the local loop, but also through the more subtle form of abuse carried out through margin squeeze on the broadband wholesale market. Also in this case, the main concern for the European Commission was that of fining the incumbents in order to force them to favour undistorted competition within the single market, following the same rationale adopted in its decisional practice in the last decade, generally upheld by the European courts.

The analysis of these two further cases in the electronic communications sector, once again with respect to abusive conducts carried out with respect to the access to networks (margin squeeze, price discrimination and refusal to supply unbundled access) shows that abusive conducts in the electronic communications sector are recurrent and may lead to a reiteration of fining measures. In chapter V I will argue that the deterrence impact on the incumbents can be very limited, considering the exiguity of the fine in comparison to the annual (of the entire group or made in the relevant market in which the abuse was put in place) turnover.

On the other hand, as I will discussed in Chapter IV, even regulatory intervention may lead to solutions that do not survive the competition law enforcement scrutiny: in that chapter I will discuss the reasons that on appeal led the European Courts to uphold the *Deutsche Telekom* and *Telefónica* Commission decisions, confirming that even *ex ante* remedies may turn out to be inadequate to avoid forms of abuse of dominant position such as margin squeeze (nor constitute a justification for the abusive conduct).

The question remains: do solutions based on mere fining provide the best outcome for the consumers in the medium and long run? Does the European

Commission's current antitrust enforcement, putting consumer welfare and effective competition among competitors in the short-term as the main objective of its competition policy after the Guidance Paper, simply fining the incumbent really ensure full competition, fostering consumer welfare and innovation in the long term²³⁵?

If the European Commission has, until now, preferred to deal with the above-analysed conducts simply applying high (and in some cases recurrent) fines in order to address in the short term its competition concerns, are there other remedies that might be better positioned to foster innovation in the long term, at the same time sanctioning abusive conduct?

There are examples both from the telecommunications sector and from other vertically-integrated industries that may encourage a different way of thinking in dealing with access-related abuses.

In the next chapters I will take into account the lesson that the European Commission may draw from its own experience with the application of Article 9 of the Modernisation Regulation in accepting commitments that have brought vertically integrated dominant undertakings such as E.ON and RWE in Germany in 2008 and ENI in Italy (2010)²³⁶ to divest part of their assets, technically enacting forms of vertical structural separation to address Art. 102-based competition concerns.

As discussed in Chapter IV, the European Commission 'legislative' policy has showed the ability to take important and successful lessons from the Member States antitrust practice. The 'undertaking in lieu of reference to the UK Competition Commission (partially comparable to the commitments as per Art. 9 of the Modernisation Regulation) that led to the creation of the separated

²³⁵ The question was analysed in a seminal article of J. Baker, *Beyond Schumpeter vs. Arrow: how antitrust fosters innovation*, (2007) 74 (3) *Antitrust Law Journal* 575 ff that will be discussed more in detail later.

²³⁶ For references, see fn 7, 8, and 9 here-above.

division *Openreach* within the BT Group materially enacted a form of vertical functional separation.

The Commission found that experience so relevant from a regulatory point of view that, this form of vertical functional separation, became one of the pillars of the 2007 Reform of the electronic communications directives. The importance is proven by the fact that it is now one of the regulatory remedies aimed at preventing, or bringing to an end, access-related abusive conducts applicable at European level.

In the next chapters I will discuss how structural separation already adopted in the energy sector on the basis of commitment decisions may become a model of reference for Art. 7 enforcement decisions, and may lead the Commission to (at least) threaten structural vertical separation in the electronic communications sector, with the aim of speeding up functional separation as an *ex ante* remedy.

It is impossible to say a priori whether an example taken from one regulated industry (per example from the gas or electricity sectors) can be applied to another regulated industry (per example to the electronic communications sector). The 'efficacy test' and the 'efficiency test' that the Commission has to carry out before deciding whether to sanction the abusive conduct by imposing a fine or a functional or structural remedy lead to decisions tailored to the specific circumstances of the case. It might be argued that to address an access-related form of abuse (such as margin squeeze) ordering structural separation of the former incumbent's network (or of the services divisions) might be disruptive, too invasive and not economically viable for the undertaking involved. Nevertheless, I believe that some criticisms to the current way of enforcing Art. 102 are well grounded, and can legitimize the idea of investigating the applicability of other remedies.

(vi) Refusal to supply

As the Guidance Paper underlines, refusal to supply can be determined by a wide range of practices, from refusing to supply products to existing or new customers to refusing to license intellectual property rights (i.e. interface information²³⁷). For the aim of the thesis, I must specifically focus on the incumbent's refusal to supply the access to its infrastructure (network) by competitors²³⁸.

A form of refusal to supply identified by the Guidance Paper is, for instance, the 'constructive refusal', that is the opposite of a 'flat' refusal: for instance, using the Guidance's wording,

'unduly delaying or otherwise degrading the supply of the product or involving the imposition of unreasonable conditions in return for the supply'²³⁹.

In vertically-integrated industries, a particular form of refusal to supply can be undertaken simply failing to invest to innovate the network, making more difficult the access by competitors²⁴⁰.

In the last twenty years the European Commission adopted a series of decisions that have shown the crucial importance of such a form of abuse among all the various forms of abuse of dominant position. From the *Magill* case²⁴¹ to *Oscar Bronner*²⁴², from *IMS Health*²⁴³ to *Microsoft*²⁴⁴, the

²³⁷ See Case T-201/04 *Microsoft Corp'n v Commission* [2007] ECR II-3601, [2006] 4 CMLR 311.

²³⁸ Guidance Paper [2009] OJ C45/7, para 77.

²³⁹ *Ibid.*, para 78.

²⁴⁰ The 2010 Commission decision *ENI* accepting commitments proposed by the company provides an example of indirect refusal to supply, and will be discussed more in depth in the next chapter (section iv, role of commitments and other forms of undertakings). See, Summary of the Commission decision *ENI* no. COMP/39.315 of 29 September 2010, [2010] OJ C352/8 of 23 December 2010, para 5.

²⁴¹ Commission decision *Magill TV Guide/ITP, BBC and RTE* [1989] L 78/43, [1989] 4 CMLR 757; Cases T-69-70/89 *RTE, ITP, BBC v. European Commission (Magill)* [1991] ECR II-485, [1991] 4 CMLR 586.

Commission and the European Courts have progressively elaborated their own approach to what refusal to supply means. In fact, refusal to supply with respect to access to 'essential facilities' is one of the main expressions of this specific form of abuse.

Analysing refusal to supply access to the incumbent's network will pave the way to the analysis of one of the main competitive pathologies in the electronic communications sector that can be addressed with remedies such as functional and structural separation, topic that will be tackled, from a regulatory and competition enforcement perspective in a following chapter.

(a) The US 'essential facilities' doctrine.

The 1998 Commission Notice on the application of the competition rules to the agreements regarding the access in the telecommunications sector ('The Access Notice') at paragraph 68 provides a general definition of *essential facility* as follows

'The expression essential facility is used to describe a facility or infrastructure which is essential for reaching customers and/or enabling competitors to carry on their business, and which cannot be replicated by any reasonable means'²⁴⁵.

In reality, to understand the link between abuse of dominant position and infrastructure, it is necessary to define the concept of *essential facility* as it was outlined by the US practice and doctrine.

²⁴² Case C-7/97 *Oscar Bronner GmbH & Co KG v. Mediaprint* [1998] ECR I-7791, [1999] 4 CMLR 112.

²⁴³ Case T-184/01 R *IMS Health v Commission* [2001] ECR II-3193, [2002] 4 CMLR 58 and Case C-481/01 P(R) *IMS Health v Commission* [2002] ECR I-3401, [2002] 5 CMLR 44.

²⁴⁴ Commission Decision *Microsoft* of 24 March 2004 [2007] OJ L 32/23 (*Microsoft I*) and Case T-201/04 *Microsoft Corp v Commission* [2007] ECR II-3601, [2006] 4 CMLR 311.

²⁴⁵ Notice of the European Commission on the 'Application of the Competition Rules to the Access Agreements in the Telecommunications Sector-Framework, Relevant Markets and Principles' [1998] OJ C 265/2 of 22 August 1998, para 68.

The US doctrine defines an *essential facility* as that factual situation

‘where facilities cannot be duplicated by would-be competitors, those in possession of them must allow them to be shared on fair terms. It is illegal restraint of trade to foreclose the scarce facility’²⁴⁶.

The case *MCI Communications Corp. v AT&T*²⁴⁷ provides us with a clear example of the approach held by the US antitrust authorities between the 1970s and the 1980s²⁴⁸ in dealing with excessive rates *de facto* hindering the access of competitors to the telecommunications essential facilities (in particular, to the local exchange carriers owned by AT&T’s subsidiaries, the Bell Operating companies, impeding the access to operators competitors in the long-distance services).

The US doctrine in the 1980s claimed that an infrastructure must be considered ‘essential’ only when it is necessary to allow a competitor to have access to the downstream market in conditions of full competition and the competitor’s presence is considered essential to ensure effective market competition. Furthermore, access by a competitor would cause a price reduction or at least an increase in production. Finally, even if all these conditions were met, any denial of access can always be legally opposed on the ground of valid reasons based on the production trends and the enterprises’ stability²⁴⁹.

²⁴⁶ Hecht v. Pro-Football, Inc., 570 F.2d 982, 992 (D.C. Cir. 1977), quoted from Pitofsky, ‘Essential facilities doctrine under United States Antitrust Law’, submission to the European Commission in support of National Data Corporation in its case against IMS, available at <http://www.ftc.gov/os/comments/intelpropertycomments/pitofskyrobert.pdf>.

²⁴⁷ *MCI Communications v. American Tel. & Tel. Co. (AT&T)*, 708 F.2d 1081, 1132-33 (7th Cir. 1983). See Pitofsky, cited, p 4. This case will be analysed more in depth in Chapter III, tackling the case law on ‘structural separation’.

²⁴⁸ The first MCI’s complaint against AT&T was filed in 1974.

²⁴⁹ Bellodi, cited, p 110.

In *MCI Communications v American AT&T Co.*²⁵⁰ the US Supreme Court established the conditions that must be satisfied in order to challenge a refusal to deal. I will discuss this case later on in more depth in the body of the thesis, since it represents one of the first forms of intervention of the State with respect to a vertically-integrated company in the communications sector²⁵¹. These conditions can be summarised as follows: (i) a monopolist has control over the facility; (ii) the competitor needs to have access or to make usage of the service or product or other 'protected' good (i.e. Intellectual Property Rights) that can be duplicated only with considerable expense; (iii) the blank denial to the potential competitor of the use of the facility by owner of the facility; (iv) the possibility without excessive loss of providing access or to favouring the use of the facility itself²⁵².

The US Supreme Court in this decision made clear that when the costs for replicating an infrastructure are physically and economically impossible, the refusal to deal (or the denial of access) cannot be accepted without harming competition, the market and the consumers.

If, conversely, the facility can be 'easily' duplicated, the US Courts keeps open the door for action to ensure that the (potential or actual) competitor is not encouraged to seek the 'expropriation' of the facility²⁵³.

Nevertheless, it is worth noting that in the last few decades the US Courts, and the Supreme Court in particular, have reaffirmed the concept that the fundamentals of the 'essential facilities' doctrine, on the one hand, and those affirmed by the Sherman Act, on the other, cannot go beyond the limit of

²⁵⁰ 708 F.2d. 1081 (7th Cir. 1983)

²⁵¹ As we will see Professor Areeda criticised in many respects the compression of the property rights born by AT&T in 'Essential facilities: an epithet in need of limiting principles', (1990) 58 Antitrust Law Journal 841.

²⁵² See A. Capobianco 'The essential facility doctrine: similarities and differences between the American and the European approach', [2001]26(6) European Law Review, 553 ff.

²⁵³ See *Alaska Airlines v United Airlines*, 948 F.2d (9th Circ. 1984). As we will see in the next section, the European Court of Justice in the *Bronner* case also ruled out imposing a duty to deal simply on the basis of the additional cost or the inconvenience of creating an alternative network.

imposing undue or unnecessary pressure on rational and sane competition. In the case *Verizon Communications Inc. v. Law Offices of Curtis v. Trinko, LLP*²⁵⁴, the US Supreme Court partially criticised the ‘essential facility’ doctrine, to the point of saying that *Aspen* was ‘near the outer boundary § 2 liability’²⁵⁵. In *Trinko* the US Supreme Court stated that Section 2 of the Sherman Act ‘seeks merely to prevent unlawful monopolization’ and it represents ‘the Magna Carta of free enterprise, *United States v. Topco Associates, Inc.* 405 U.S. 596, 610 (1972), [...] but it does not give the judges *carte blanche* to insist that a monopolist alters its way of doing business whenever some other approach might yield greater competition’²⁵⁶.

Verizon had been forced to provide full access to its local network on the basis of the Telecommunications Act of 1996, which imposes upon an incumbent local exchange carrier (LEC) an ‘obligation under 47 U.S.C. § 251 (c) to share its telephone network with competitors [...] including provision of access to individual elements of the network on an ‘unbundled’ basis’²⁵⁷. However, in this specific case the Supreme Court stated that the activity of Verizon did not violate ‘pre-existing antitrust standards’²⁵⁸. In *Aspen Skiing* the Court recognised the dominant undertaking’s liability under Section 2 of the Sherman Act for refusal to deal with competitors. The defendant’s termination of a voluntary agreement with the plaintiff suggested a willingness to forsake short-term profits to achieve an anticompetitive end. By contrast, in this case, the Supreme Court said that it was not demonstrated that Verizon had made

²⁵⁴ Case *Verizon Communications Inc. v. Law Offices of Curtis v. Trinko LLP* 540 US 398, 124 S.Ct. 872 (2004).

²⁵⁵ *Verizon Communications Inc v Law Offices of Curtis V. Trinko, LLP*. 540 U.S. 398, 408 decided by the US Supreme Court on the 13 January 2004. See on this point also Stratakis, ‘Comparative Analysis of the US and EU Approach and Enforcement of the Essential Facilities Doctrine’ [2006] 8 European Competition Law Review, 435. Stratakis underlines how the case *Trinko* ‘highlights in a categorical way that promotion of efficiency is the predominant consideration in the application of antitrust law, especially in the area in question [electronic communications]’ (p 434, fn 3).

²⁵⁶ Case *Verizon v Trinko LLP* 540 US 398, 124 S.Ct. 872 (2004), Conclusions of the writ of certiorari (certiorari to the United States Court of Appeals for the Second Circuit), opinion delivered by Justice Scalia on the 13 January 2004, § IV.

²⁵⁷ *ibid*, § I.

²⁵⁸ *Ibid*, end of § II.

agreements with its rivals. In *Aspen Skiing*, the defendant rejected the proposal of the plaintiff to buy the ski-pass at retail price, 'suggesting a calculation that its future monopoly retail price would be higher'²⁵⁹. On the contrary, Verizon expressed reluctance to interconnect at the cost-based rate of compensation was not demonstrated. In other words, quoting from the conclusions of the 'writ of certiorari' in the *Verizon* case:

'In *Aspen Skiing*, what the defendant refused to provide to its competitor was a product that it already sold at retail [...]; [in the *Verizon* case] 'the unbundled elements offered pursuant to [the Communications Act] exist only deep within the bowels of Verizon; they are brought out on compulsion of the 1996 Act and offered not to consumers but to rivals, and at considerable expense and effort'²⁶⁰.

It is interesting to recall here the conclusion filed by the US Supreme Court in this fundamental case

'We do not believe that traditional antitrust principles justify adding the present case to the few existing exceptions from the proposition that there is no duty to aid competitors. Antitrust analysis must always be attuned to the particular structure and circumstances of the industry at issue. Part of that attention to economic context is an awareness of the significance of regulation'²⁶¹.

The importance of this judgment is also linked to the reference to regulatory remedies, which must be considered the first 'protection' of a competitive market:

'One factor of particular importance is the existence of a regulatory structure designed to deter and remedy anticompetitive harm. Where such a structure exists, the additional benefit to competition provided by antitrust enforcement will tend to be small, and it will be less plausible that the antitrust laws contemplate such additional scrutiny'²⁶².

²⁵⁹ Ibid, § III.

²⁶⁰ *ibid*.

²⁶¹ Ibid, § IV.

²⁶² Ibid.

In other words, the US Supreme Court rejected any possibility of intervention to force Verizon to open its network, and re-stated the direct competence of the regulatory authorities in dealing with the access to electronic communications infrastructures. An approach radically different from the European competition law perspective, where the European Commission has a direct competition law enforcement competence above and beyond any existing regulatory measure foreseen by the European legislation.

Focusing on the European side of the Atlantic, the following section will show that the European Community 'essential facilities' doctrine has been largely modelled on the above-mentioned US experience. Nevertheless, the outcome has been only partly similar. From time to time the Commission and, at jurisdictional level, the European Courts have adopted decisions and judgments that show particular attention for the economic existence (or, rather, survival) of competitors (as well as of the incumbents), attention which can be considered at least at the same level, if not above, of that paid to consumer welfare.

In fact, in the electronic communications sector up to the present time there are no precedents for structural separation on the model of the AT&T's remedy put in place in the US in the 1980s.

Instead, for the time being at European level in the electronic communications the only form of vertical separation aimed at enhancing the access to an essential facility fully disciplined by a European directive is functional separation as a regulatory tool. This has been based on the model of the vertical functional separation voluntarily enacted by British Telecom in 2006 through the creation of a separated access division called *Openreach*²⁶³, in which the British electronic communications regulatory authority (Ofcom) accepted 'undertakings' from British Telecom for which its access network

²⁶³ J. Whalley & P. Curwen, 'Equality of access and local loop unbundling in the UK broadband telecommunications market' (2008) 25 *Teleinformatics and Informatics* 280-291. It provides an account of the initial phases of implementation of BT's functional separation.

division would have been ‘functionally separated’ from the controlling entity to facilitate the access by competitors. The adoption of the Directive 2009/140/EC²⁶⁴ introducing this form of separation is the demonstration that the European Union is ready to intervene where the access to the network is obstructed.

However, as it will be discussed in the next chapter, in recent times more invasive remedies (such as structural separation) have also been adopted with respect to other vertically-integrated industries, through voluntary commitments, in particular in the energy sector.

The cases *E.ON*²⁶⁵, *RWE*²⁶⁶ and *ENI*²⁶⁷, to make a few examples, represent the most interesting cases of divestiture of vertically-integrated assets with the aim of enhancing competition and, indirectly, favouring innovation and development of new facilities. For the analogy of the anticompetitive foreclosure effects with some exclusionary conducts put in place in the electronic communications sector, will be analysed in the next chapter.

(b) The notion of ‘essential facilities’ under EU law.

Theoretically, the essential facilities doctrine, as developed and applied by the US Courts, could have been applied in the same way on the European side of the Atlantic. Basic concepts such as ‘

²⁶⁴ Directive 2009/140/EC of the European Parliament and of the Council of 25 November 2009, [2009] OJ L 337/37.

²⁶⁵ Commission Decision *E.ON* (Case COMP/38.388-38.389) of 26 November 2008, [2009] OJ C36/8 of 13 February 2009, accessible at http://ec.europa.eu/competition/antitrust/cases/dec_docs/39388/39388_2796_3.pdf.

²⁶⁶ Commission Decision *RWE (Gas Foreclosure)* (Case COMP/39.402) of 18 March 2009, Summary of the decision in [2009] OJ C133/10 of 12 June 2009 accessible at http://ec.europa.eu/competition/antitrust/cases/dec_docs/39402/39402_576_1.pdf.

²⁶⁷ Commission Decision *ENI* (Case COMP/39.315) of 29 September 2010 (2010/C 352/10), [2010] OJ C352/8 of 23 December 2010, accessible at http://ec.europa.eu/competition/antitrust/cases/dec_docs/39315/39315_3019_9.pdf.

non-duplicability' of the network without excessive expense or 'essentiality of the 'facility' are identical in the US and in the EU legal systems.

In reality the application of the essential facility doctrine in the EU legal system in the last decades has been characterised by substantial differences.

If in the US, at least in the last ten years, the rationale followed by the Courts has been that of trying to preserve the integrity of the property rights of the incumbent or of the owner of the essential facility, bearing in mind that the main target of any antitrust policy is consumer welfare more than the protection of the competitors, in the EU the application of the essential facility doctrine has been more prone to create a more competitive arena, with the ultimate (and indirect) aim of enhancing consumer welfare *as a consequence* of the creation of effective competition.

A number of EC directives have established the obligation to grant access to electronic communications networks (from the Open Network Provision Directives of 1990 to the Telecommunications Package 2000 to the reform enacted in November 2009). At the same time, the Commission has taken a position in a number of decisions with respect to the applicability of the 'essential facilities' doctrine.

The analysis of the most recent cases of the European Courts with respect to refusal to supply is fundamental in understanding when a competition authority may decide to intervene to facilitate the access to the incumbent's infrastructure.

In fact, if a company is compelled to provide part of its services (or its raw materials, or intellectual property rights, as in the *Magill* or *IMS* cases) to a competitor in order to allow it to enter a specific market, *a fortiori* the relevant authority can decide to take functional (behavioural) or even structural remedies to break the monopoly of an undertaking to facilitate the downstream access of a potential or actual competitor.

Indeed, there is a limit to the power of the 'essential facilities' doctrine: if it is demonstrated that an undertaking can easily duplicate the infrastructure (or can easily get the service, or the raw materials, or the necessary data and information) necessary to enter the new market to provide a competitive product, or the costs of forcing the access to the infrastructure would outweigh the benefits, the essential facility doctrine should not be applicable²⁶⁸.

At the European level, the ECJ in recent years has been adopting a number of judgments on the suitable balance between the prohibition of refusal to supply to facilitate access within a new market and the right for the incumbent to claim, within the boundaries of fair competition, the right compensation for the 'expropriation' of its products or services. In some cases the right to protect its own intellectual property rights prevailed over the alleged need for the 'essential facility'.

The 1998 *Oscar Bronner* case²⁶⁹ is one of the leading judgments in which the Court set out the limited circumstances in which access to a facility can be ordered.

The Advocate General Jacobs did not exclude that

'the possibility that the cost of duplicating a facility might alone constitute an insuperable barrier to entry. That might be so particularly in cases in which the creation of the facility took place under non-competitive conditions, for example, partly through public funding. However, the test in my view must be an objective one: in other words, in order for refusal of access to amount an abuse, it must be extremely difficult not merely for the undertaking demanding access but for any other undertaking to compete. Thus, if the cost of duplicating the facility alone is the barrier to entry, it

²⁶⁸ On the consequences of barriers to entry as an infringement as per Art. 102 TFUE, lett. (b), see J. Temple Lang 'Reprisals and Overreaction by Dominant Companies as an Anti-competitive Abuse Under Article 82(b)' [2008] 1 E.C.L.R., pp 11-15.

²⁶⁹ Case C-7/97, *Oscar Bronner GmbH & Co KG v. Mediaprint* [1998] ECR I-7791, [1994] 4 CMLR 112.

must be such as to deter any prudent undertaking from entering the market'²⁷⁰.

The position of the Advocate General Jacobs in this case was one of extreme prudence with respect to the possibility of interfering with the economic activity of a dominant undertaking. In particular, he stressed the necessity of carefully balancing the interests of competitors with the interests of consumers, to the point of admitting that in the long term might be more in line with consumer interest not to interfere with the ownership of a[n essential] facility²⁷¹.

The precedent recalled by the Advocate General Jacobs and by the Court in which, conversely, data protected by intellectual property rights were considered an 'essential facility', is the *Magill* case (1995) ²⁷²in which the incumbent was forced to supply the data necessary to create a new product and provide a new service.

In the *Magill* case, an Irish publisher wanted to publish a composite television listings magazine. However, the broadcasters, whose programmes could be received in Ireland, at the time refused to allow him to publish their schedules, which were protected by copyright under Irish law. The ECJ found that only in exceptional cases a refusal to supply material protected by an intellectual property right could be an abuse. The exceptional circumstances in *Magill* were that (i) there was no substitute for a weekly television guide, (ii) the refusal to supply had prevented the appearance of a new product for which there was consumer demand, (iii) there was no justification for the refusal, and

²⁷⁰Case C-7/97, *Oscar Bronner GmbH & Co KG v. Mediaprint* [1998] ECR I-7791, [1994] 4 CMLR 112, AG Jacobs' opinion, para 66.

²⁷¹ AG Jacobs (opinion in *Oscar Bronner*, para 58)) said that 'the primary purpose of Article 86 is to prevent distortion of competition – and in particular to safeguard the interests of consumers – rather than to protect the position of particular competitors. See on this point Capobianco, cited, 559. He points out how for instance **'if access to a production, purchasing or distribution facility were allowed too easily there would be no incentive for a competitor to develop competing facilities.** Thus while competition was increased in the short term it would be reduced in the long term. Moreover, the incentive for a dominant undertaking to invest in efficient facilities would be reduced if its competitors were, simply upon request, able to share the benefits'.

²⁷² Joined Cases C-241/91 P and C-242/91 P, *RTE and ITP v. Commission* [1995] ECR I-743, [1995] 4 CMLR 718.

(iv) the refusal had excluded competition on a secondary market as a consequence of the denial of the access to the indispensable raw material²⁷³.

This case anticipated the *IMS Health*²⁷⁴ saga, in which the ECJ, invested for preliminary ruling from the *Landgericht Frankfurt* (the Court was required to ascertain whether or not to grant a license in a situation where a competitor is seeking access to the same geographical and product market could be considered an abuse) suggested the referring court to ascertain if the three conditions set out in the *Oscar Bronner* case (and re-called in *Magill*) to force a dominant undertaking to supply their 'facilities' to a competitor, were met or not.

The ECJ, on the basis of the opinion provided by Advocate General Tizzano, set out the conditions in which a refusal to supply copyright is an abuse, but left the German court to decide whether these three cumulative conditions were satisfied in the situation before it. The conditions set out by the Court were:

- 1) firstly, there must be a new product involved;
- 2) secondly, access to the protected material must be 'indispensable' so that the refusal will exclude any or all competition on a secondary market;
- 3) thirdly, the refusal must be unjustified²⁷⁵.

Those conditions were certainly met in the *Magill* case. There the exceptional circumstances were constituted by the fact that the refusal to supply concerned a product the supply of which was indispensable to carrying on the business in question. As anticipated above, in that case it was possible to demonstrate that (i) without that information, the undertaking wishing to

²⁷³ Joined Cases C-241/91 P and C-242/91 P, *RTE and ITP v. Commission* [1995] ECR I-743, [1995] 4 CMLR 718, paras 52, 53, 54 and 56.

²⁷⁴ Case T-184/01 R *IMS Health v Commission* ECR II-3193, [2002] 4 CMLR 58; Case C-418/01, *IMS Health GmbH & Co OHG v. NDC Health GmbH & Co KG* [2004] ECR I-5039, [2004] 4 CMLR 1453.

²⁷⁵ See the Opinion of AG Antonio Tizzano delivered on 2 October 2003, para 51

publish a weekly TV guide would have been driven out of the market; (ii) such refusal prevented the emergence of a new product for which there was a potential consumer demand, (iii) it was not justified by objective considerations, and (iv) the behaviour was likely to exclude all competition in the secondary market.

In the *IMS* case the Court did not provide further indications to the referring court. Nevertheless it stated pretty clearly that the only situation in which free competition can override the rights of the copyright holder is where the refusal prevents the development of the secondary market to the detriment of consumers, concluding that the licence is not ordered to protect the competitor but to protect consumers through free competition²⁷⁶.

However, considering that IMS Health and its competitor had started to cooperate the Commission already in August 2003 decided to do not proceed to a final decision, closing the case²⁷⁷.

All these developments have been ultimately encapsulated in one of the key points of the Discussion Paper and in the Guidance Paper on Art. 102 TFEU. These both shed new light on the meaning of refusal to supply in line with the mentioned case law.

On the one hand, the Discussion Paper focused on those 'situations where a dominant company denies a buyer access to an input in order to exclude that buyer from participating in an economic activity (vertical foreclosure)²⁷⁸, saying that the 'excluded buyer' could be only a customer and that the main form of 'exclusion' is where the buyer is potentially also a rival, a competitor, of the dominant undertaking in the economic activity for which the input is needed (i.e. access to a network as 'essential facility', or an obtainment of a

²⁷⁶ Case C-418/01, *IMS Health GmbH & Co OHG v. NDC Health GmbH & Co KG* [2004] ECR I-5039, [2004] 4 CMLR 1453, para 48.

²⁷⁷ A. Jones and B. Sufrin, cited (4th edn, 2011), pp 503-508.

²⁷⁸ Discussion Paper, cited, para 209.

license intellectual property rights). These forms of refusal to supply were classified as 'exclusionary abuses'²⁷⁹.

On the other hand, the Discussion Paper also identified practices that do not necessarily consist of a flat and direct refusal to supply but rather in behaviours that might be considered equivalent, such as delaying strategies in supplying the required access or access-related services, imposing unfair trading conditions or charging prices so high that for the buyer would not be economically viable to continue its activity²⁸⁰.

The Discussion Paper and the Guidance acknowledge how in vertically-integrated firms it might happen that a company abuses in its downstream market, trying to exclude new competitors that at some point might challenge its dominant position also in the upstream market²⁸¹.

The concerns identified by these interpretative tools are of key importance in understanding how the intervention of the antitrust authorities may play a crucial role, depending on the type of remedy adopted to redress the competition concerns.

To make an example of the new horizons of intervention identified by the Commission when the Discussion Paper was adopted, I can mention the new light shed on the importance of efficiency as one of the criteria that the Competition Authorities must bear in mind in deciding when to intervene choosing the best remedy.

Paragraph 214 of the Discussion Paper explicitly says:

²⁷⁹ Ibid, para 210.

²⁸⁰ Ibid, para 209.

²⁸¹ Ibid, , at para 213, says '[i]f the downstream market is necessary as an outlet for a product or service from the upstream market, by eliminating competition in the downstream market the owner of the input may make it less attractive for potential rivals to challenge its position in the upstream market. Furthermore, eliminating competition in the downstream market can also eliminate the possible competition from a product in the downstream market which is or may become a threat to the input in the upstream market'.

‘any obligation to supply pursuant to Article 82 [102] can be established only after a very close scrutiny of the factual and economic context; the factors which go to demonstrate that an undertakings’ conduct in refusing to supply is abusive are highly dependent on the specific economic and regulatory context in which the case arises’²⁸².

The question is whether the suggestion to carry out ‘a very close scrutiny of the factual and economic context’ when dealing with a case of refusal to supply, if can be considered valid having as a target the protection of an indefinite number of consumers ‘pictured’ in the short term, may still be considered well-grounded looking at the interest of the consumers in a long term perspective.

The analysis of these cases of refusal to supply, applicable also to network-related abusive conducts, requires us to focus on the Guidance Paper and the role that played to underline the importance of looking at the effects that exclusionary abuses determine in the enforcement action of the European Commission.

2.5. The role of the Commission’s Guidance Paper with respect to refusal to supply as an abuse. Importance of an ‘effect-based’ analysis,

The thesis is aimed at finding whether structural remedies as per Article 7 of Regulation 1/2003/EC may be applied in vertically-integrated firms, particularly in the electronic communications. The lessons learned from the implementation of *ex ante* regulatory remedies (in particular, by the functional separation experiment) should be borne in mind as well as the outcome that structural *ex post* enforcement remedies had in the past in the US (in the *MCI v AT&T* case), even though, as I will discuss in chapter VII and VIII, that form of local vertical structural separation is not applicable in the EU context.

²⁸² Discussion Paper, cited, para 214.

The objective of the thesis is also to discuss and show how the various *ex post* remedies may have a different impact in the long-run depending on whether the enforcer has as a target the ‘competitors welfare’ or the ‘consumer welfare’, and whether the ‘consumer welfare’, in particular, can be seen from a short and even a long term perspective. This is why before analysing the regulatory and enforcement remedies I have been focusing until now on the types of network-related abuses, their impact, their ‘functioning’ from a legal point of view, always bearing in mind the dichotomy (i) impact on the competitors and (ii) impact (*real* effect) on consumers as final users.

At European level, the years from the publication of the Discussion Paper (2005) to the adoption and publication of the Guidance Paper (2008-2009) have certainly enhanced the awareness of the dilemma whether competition law policy with respect to abuse of dominant position has as a target the protection of competitors or rather the enhancement of consumer welfare. Looking closer at these documents we can draw some preliminary conclusion particularly useful for the following chapters.

In respect of the refusal to supply and margin squeeze the Guidance represents an important step in the perception that the Commission’s intervention may lead to distortions in applying article 102 TFEU when it does not take into consideration the ultimate consumer interest and the final effect on the affected market.

This is clearly stated at paragraph 74 of the Guidance where it says

‘[...] The existence of such an obligation - even for a fair remuneration - may undermine firms’ incentives to invest and innovate and, thereby, possibly harm consumers. The knowledge that they may have a duty to supply against their will may lead dominant undertakings – or undertaking who foresee that they may become dominant – not to invest, or to invest less, in the activity in question. Also, competitors may be tempted to free ride on investments made by the dominant undertaking instead of investing

themselves. Neither of these consequences would in the long run be in the interest of consumers'²⁸³.

The Commission seems to say: before looking at a remedy (punishment) to enhance competition among incumbent and competitors, let's look at the consumer welfare (and economic efficiency) too.

From a methodological point of view, the Guidance refers to various forms of refusal to supply, putting together the refusal to supply products to existing or new customers with refusal to licence intellectual property rights, or refusal to grant access to an essential facility or a network²⁸⁴.

The Guidance Paper outlines the cumulative circumstances to be borne in mind by the Commission when dealing with the prioritisation. In particular, (i) the refusal relates to a product or service that is objectively necessary to be able to compete effectively on a downstream market; (ii) the refusal is likely to lead to the elimination of effective competition on the downstream market; and (iii) the refusal is likely to lead to consumer harm.

The Guidance Paper stresses the importance of taking into consideration on the one side the consumer harm and, on the other, the potential efficiencies that a refusal to supply may or may not entail. In other words, in both cases, the Commission is called on to ascertain whether the remedy (order the access to the facility, oblige a company to supply a product) and, within the possible remedies, what remedy, is preferable for the final consumer.

Theoretically, under an economic point of view, the 'efficiencies' for the final consumer may, in fact, outweigh the negative consequences of a refusal to supply: in terms of economic efficiency, it is argued that in certain cases a refusal to supply may (paradoxically, and in contrast with my thesis) lead to an

²⁸³ Guidance Paper [2009] OJ C45/7, para 74.

²⁸⁴ Ibid, para 77.

increase of investments in research and development, for the creation, for instance, of a new network, or a new product²⁸⁵.

These factors will determine an inversion of the burden of proof, where the incumbent will be requested to demonstrate what efficiencies may be reached through the allegedly abusive refusal to supply²⁸⁶.

However, if the prioritisation criteria are relevant to provide guidance to the enforcers on *when* to intervene, they still do not seem to provide much guidance on *how* to intervene.

Still, which remedy is preferable is left to the discretion of the enforcer which might be conditioned by a variety of immediate concerns (i.e. survival of the competitor; short-run consumer welfare) that do not have any relation with long term consumer welfare concerns.

In other words, the Guidance Paper tells us that if the Commission has as its target the enhancement of consumer welfare through the protection of effective competition, perhaps a ‘sanction’ that preserves the structural integrity of the incumbent (if the preservation of the structural integrity satisfies the immediate and short-term ‘consumer welfare imperative’), should be preferable to any other remedy that might increase competition (among incumbent and competitors) but could jeopardise, at least in the short-run, consumer welfare.

²⁸⁵ However, on this delicate point it is worth mentioning the recent Case C-209/10 *Post Danmark v Konkurrencerådet* [2012] ECR-I 0000 [not yet reported] of 27 March 2012. In this case, centred on an alleged abuse of dominant position performed by the Danish postal incumbent ‘practising a target policy of reductions designed to ensure its customers’ loyalty’ [para 8], the Court stated that the fact of charging lower (below cost) prices to retain customers cannot be considered *per se* as determined by the will of excluding the competitors [‘it could not be established that Post Denmark had deliberately sought to drive out that competitor’, para 29]. The Court, in line with the more economic efficiency-oriented approach of the Guidance Paper, states that ‘such an undertaking may demonstrate [...] either that its conduct is objectively necessary [...] or that the exclusionary effect produced may be counterbalanced, outweighed even, by advantages in terms of efficiency that also benefit consumers (Case C-95/04 P *British Airways v Commission* [2007] ECR I-2331, para 86, and *TeliaSonera Sverige*, para 76).

²⁸⁶ Guidance Paper [2009] OJ C45/7, paras 88 and 89.

The question to be tackled in the next chapters is whether a draconian remedy such as structural separation, favouring competitors and enhancing competition might rather have a positive impact in the long-run, somehow satisfying other aspects of a probably more complex and multifaceted definition of consumer welfare.

One of the key aspects that emerged from the 2008 review on the enforcement activity of the Commission *vis á vis* exclusionary abusive conducts is the focus on 'effect analysis'. This could provide us with a further powerful logical tool: that of analogy.

If we compare vertically-integrated firms conducts, and how the European Commission dealt with exclusionary abuses through negotiation of commitments in recent times, we might be able to draw direct analogies among abuses (for example refusal to supply, withdrawal of capacity) but with an eye not only to the conduct *per se* but rather to the anticompetitive effects that that conduct might have had. In other words, a comparative analysis of the effects in the existing recent European case-law in both the electronic communications sector and in the energy sector (electricity and gas in particular) might represent one of the crucial arguments, the argument *a fortiori*, to justify vertical structural separation as an applicable remedy.

2.6. The Guidance Paper and the importance of effects analysis.

The Guidance Paper is adamant in stating that the Commission should prioritise its enforcement activity focusing on those practices that have serious anticompetitive effects on the market²⁸⁷.

The case-law of the last decade, from *Microsoft* (tying abuse²⁸⁸) to *Telefónica*²⁸⁹ (pricing practices) and *Deutsche Telekom* (margin squeeze

²⁸⁷ R. Whish – D. Bailey, cited, p 200 ff.

²⁸⁸ Commission decision *Microsoft* of 24 March 2004.

practices), the Commission went beyond the analysis of the abusive conduct, looking at the anticompetitive effects determined by those conducts, in terms of restriction of overall competition, harm of competition and consumers²⁹⁰.

If the new approach indicated in the Guidance Paper is simply reported as a suggested practice to be followed by the European Commission (and the Courts), the European Courts in two important decisions, *Deutsche Telekom*²⁹¹ and *TeliaSonera*²⁹², ‘expressly stated that potential anti-competitive effects must be demonstrated before a margin squeeze is condemned as unlawful’²⁹³. In the *TeliaSonera* case the Court stated that ‘in order to establish whether [a margin squeeze] is abusive, that practice must have an anti-competitive effect on the market’²⁹⁴.

If this new ‘effects analysis’ trend is taken in conjunction with the Guidance Paper, it is crucial to look at the existing case law where structural separation as a remedy was adopted (even though on the basis of commitments decisions) to see whether the Commission had looked not only at the conducts (as per the traditional Art. 102 enforcement approach) but also at the anticompetitive effects that those conducts had determined in the relevant markets.

²⁸⁹ Commission Decision *Wanadoo España v Telefónica* [2008] OJ C83/6 (‘Telefónica’), appealed at the General Court: Case T-336/07 *Telefónica and Telefónica de España v Commission* [2007] OJ C269/55, ECR I-0000, judgment on the 29 March 2012. On appeal at the Court of Justice, Case C-295/12 (see opinion of the Adv Gen Wathelet, 26 September 2013 accessible at <http://curia.europa.eu/jcms/upload/docs/application/pdf/2013-09/cp130117en.pdf>).

²⁹⁰ Commission decision *Telefónica*, paras 543-618.

²⁹¹ Case C-280/08 P *Deutsche Telekom AG v Commission* [2010] ECR I-955, [2010] 5 CMLR 1495.

²⁹² Case C-52/09 *Konkurrensverket v TeliaSonea Sverige AB* [2011] ECR I-527, [2011] 4CMLR 982.

²⁹³ R. Whish – D. Bailey, cited, p 201.

²⁹⁴ Case C-280/08 P *Deutsche Telekom AG v Commission* [2010] ECR I-955, [2010] 5 CMLR 1495, paras 250-261; Case C-52/09 *Konkurrensverket v TeliaSonera Sverige AB* [2011] ECR I-527, [2011] 4CMLR 982, paras 60-77.

The presence of those same anticompetitive foreclosure effects in both the energy and in the electronic communications sectors could then be taken as a non-negligible point in common, opening the door for the application of the analogy tool.

Also reasoning *a contrario* we can reach similar conclusions. Looking at anticompetitive conducts in the energy sector which had a lower impact in terms of foreclosure effect, the Commission opted for behavioural remedies rather than structural, showing the existence of a 'scale' of potential remedies available, of intensity variable in relation to the anticompetitive effect²⁹⁵.

2.7. Concluding remarks on the differences of approach between the US and the EU in dealing with abuse of dominance.

An interesting further issue that must be further stressed is the existing dichotomy between the US and European approach *vis-à-vis* behaviours that may constitute forms of abuse of a dominant position. US antitrust law does not in general protect competitors from hard or tough competition; from the District Courts up to the Supreme Court it has been said that the main aim of any antitrust law is to protect final consumer welfare²⁹⁶.

On the European Union side, it can be said that Article 102 TFEU both covers all the cases captured by Article 2 of the Sherman Act, and any abuse by a dominant firm, 'including *uses of power that may not increase power*'²⁹⁷ at all, because the dominant undertaking is structurally *per se* more efficient. In other

²⁹⁵ R. Nazzini, arguing of the search for a single abuse test for exclusionary, exploitative and discriminatory abuses, writes that 'in framing a test, not just the type and magnitude but also the likelihood of anti-competitive effects should be taken into account. Therefore, practices should be treated differently if the likelihood of them having anti-competitive effects is different [...] '[p]ractices are treated more leniently because they have a lower potential for anti-competitive effects [...]. See R. Nazzini, *The foundations of European Union Competition Law. The objective and principles of Article 102*, (Oxford University Press, 2011), pp 53-54.

²⁹⁶E. Fox, *Abuse of dominance and monopolization: how to protect competition without protecting competitors*, Eight Annual Competition Law and Policy Workshop, European University Institute, Fiesole (Florence), 6-7 June 2003, pp 1ff.

²⁹⁷ *ibid*, p 2.

words in the European system, a dominant firm first has the duty not to harm competitors.

Such a difference of approach can be seen in the above-mentioned case *United States v Microsoft* (1999), in which the District Court recognized that Microsoft would have harmed the competitor (Netscape in particular) and, finally, also the end consumers; while the Court of Appeal, recognising that not all the conducts examined could be considered anticompetitive in respect to the competitors, substantially 'lowered the bar', imposing a settlement between Microsoft and Netscape.

In the *British Telecom* case²⁹⁸ filed in 1983 with the ECJ, the telecom incumbent BT, at that time still a State-owned undertaking, impeded the private telecom operators from forwarding international calls. The European Commission approach, under Article 102 TFEU, forced BT to remove such a restraint, in the interest of the competitors²⁹⁹. The US Court, more likely, would have not sanctioned such a conduct except in the presence of final consumer harm³⁰⁰.

Between the two poles of 'harm to competition through a direct damage to the consumers' and 'harm to competitors', should be added a further pole of analysis that is the business conduct that 'unnecessarily blocks competition on merits'³⁰¹. This last is particularly important for former State-owned controlled

²⁹⁸ Case C 41/83, *Italy v Commission (British Telecom)* [1985] ECR 873.

²⁹⁹ However it must be noted that the European Commission adopted a decision mirroring the approach held in those same years in the US in the *MCI v ATT&T* case, where in the interest of the competitors the break-up of AT&T had been ordered.

³⁰⁰ See on this point E. Fox, cited, pp 2ff. It is cited the Case *GE/Honeywell*, in which the US authorities cleared a merger that at the same time was rejected by the EC Commission with the consequence that several commentators underlined how the US protect *competition*, while the European Union protect *competitors*. Interesting the comment of Bork in 'The antitrust paradox: a policy at war with itself' that observed how '**improper** exclusion is always deliberately predatory and inefficient, [even though] rare; otherwise, the exclusion is the product of superior efficiency'.

³⁰¹ E. Fox, cited, p 11.

economies, as the Italian one, as former Competition Commissioner Mario Monti noted

‘Enshrined in the Treaty [...] [is] an open market economy with free competition. Since its adoption more than 40 years ago, the Treaty acknowledges the fundamental role for the market and of competition in guaranteeing consumer welfare, encouraging the optimal allocation of resources and granting to economic agents the appropriate incentives to pursue productive efficiency, quality and innovation’³⁰².

Some EU Member States equipped with solid competition law still have ‘State-granted privileges and weak capital markets [so that t]hey must keep a watchful eye on entry conditions and contestability of markets’³⁰³. In these economies, antitrust law should go beyond the finding of harm to competition deriving from a direct harm to consumers also by looking for the ‘road-blocks’ that impede full and fair competition among competitors. In other words, in Europe the NCAs ought to look for competition on merits, granting that the expansion of the market is ultimately based on consumer demand. In other words, they should permit the highest level of fair competition, with the removal of any obstacle to innovation, adopting those remedies (including structural measures) which may facilitate long-term growth and development.

The words of John Temple Lang³⁰⁴, back in 1995, on the importance of carefully balancing the property rights of the incumbent with the consumer interest might be used as conclusion of this first part of the thesis

‘[b]roadly, any company, even if dominant, has a right to compete actively by all methods that are normally permitted. It thus is normally entitled to keep and use to the maximum any competitive advantage that it has largely acquired, even if its competitors do

³⁰² M. Monti, *European Competition Policy for the 21st Century*, in *International Antitrust Law & Policy* (Fordham Corp. L. Inst., Barry Hawk editions, NY, 2001), Ch. 15, p 257. Emphasis added.

³⁰³ E Fox, cited, p 11, and Fingleton, Fox, Neven and Seabright, ‘Competition Policy and the Transformation of Central Europe’, Centre for Economic policy Research 1996, pp 15-16.

³⁰⁴ Former director of Directorate General Competition at the European Commission.

not have any such similar advantages (and may not realistically be able to obtain them). Legitimate competition included obtaining and keeping exclusive access to, e.g., patents or physical facilities that confer competitive advantages. However, competition law also says that when a dominant company owns or controls a facility access to which is essential to enable its competitor to carry on business, it may not deny them access, and it must grant access on non-discriminatory basis, in certain circumstances. In these circumstances, it must not use its powers as owner to give itself advantages as a competitor. The needs of its competitors, and the interests of consumers and the public in free competition, override the interests of the dominant company in having exclusive use of the facility which it had acquired'³⁰⁵.

It is a difficult task to draw a line between the interest of the incumbent, on one hand, and the interest of competitors and, ultimately, of consumers as European citizens not only in the short term but above all in the long term, on the other hand. The analysis in the next chapter of a few recent commitments decisions in the energy sector will provide some interesting examples on how the Commission, taking action also in response to the findings emerged from the Energy Sector Inquiry of 2007, adopted behavioural and structural measures aimed at bringing to an end exclusionary and exploitative conducts.

These cases show that the Commission was particularly prone to accept structural remedies in the presence of particularly serious anticompetitive foreclosure effects, while accepted the proposal of behavioural remedies in the presence of circumstances that had an anticompetitive impact of less intense magnitude.

³⁰⁵ J. Temple Lang, 'Defining Legitimate Competition: companies' duties to supply competitors, and access to essential facilities' (Fordham Corporate Law Institute, Kluwer International, The Hague, 1995), ch 12, p 245.

CHAPTER III

***Ex ante* remedies aimed at preventing electronic communications network-related abuses.**

3.1. Introduction.

Chapters I and II were aimed at providing the key-tools to allow informed discussion of the topics that form the central chapters of the thesis: *ex ante* and *ex post* remedies to address competition law concerns in dealing with abusive conducts in the electronic communications sector.

I firstly established the boundaries of the analysis, explaining that the thesis is aimed at showing which remedies might be more suitable in dealing with recurrent exploitative and exclusionary abuses in vertically integrated industries, particularly in the electronic communications sector. In Chapter I, I defined the notion of electronic communications networks, both under a regulatory point of view and through the analysis of the European Commission decisional practice and of the European Courts judgments. In Chapters II and III I looked at some examples of ‘network-related’ abuses of dominant position, both in the electronic communications and in the energy sector, so as to compare different types of vertically-integrated firms. I focussed firstly on the notion of ‘incumbent’ as undertaking in a dominant position in a ‘regulated scenario’; then on the recent evolution of the notion of dominance and abuse in line with the Guidance on the prioritisation of the enforcement activity of the European Commission in dealing with Art. 102 TFEU abuses. The analysis of the Guidance Paper led to focus on the exclusionary conducts, and to the importance of identifying anticompetitive foreclosure effects in order to prioritise the enforcement action of the European Commission according to the urgency and seriousness of the infringement.

In Chapter I, I referenced the problem of the ultimate scope of competition law enforcement. If the ultimate scope is to enhance ‘consumer welfare’ through

effective competition among competitors, I asked myself whether in choosing the best (regulatory or enforcement-related) remedy the Commission and the regulatory and competition national authorities have to look at the target of enhancing consumer welfare in a 'short-term' perspective, or do they have to aim at a long-term perspective of individual and collective welfare.

The impulse recently given by the 2007 Treaty of Lisbon, puts the European citizen at the hearth of European legal system. This seems to coincide with the intuition that in the coming years perhaps the choice of the best enforcement remedy will be guided not only by the idea of (i) enhancing consumer welfare (ii) and assuring at the same 'effective competition ('competition law test') in what might be seen as a 'short term' perspective, but also by the possibility that a structural remedy such as vertical separation of the network may favour the choice of a solution that might enhance individual and collective 'welfare' in the long-run perspective. A structural remedy may not only satisfy 'competition concerns' in the short term (per example through its deterrence or punitive effect) but may also enhance satisfaction for the final consumers in the long term, for instance increasing the number of players in the electronic communications arena, either as network services or as communications services provides within the same geographic market.

As I will discuss in chapter V, the 3rd package of liberalisation measures in both the gas and electricity sectors is based on the 2009 directives that establish vertical structural unbundling separating the producer from the transmission company, going a step beyond mere functional separation.

In the energy sector, I will discuss some recent commitments decisions aimed at implementing purely structural remedies (cases *E.ON* in 2008, *RWE* in 2009 and *ENI* in 2010).

This chapter is aimed at analysing the traditional regulatory remedies in the electronic communications, and how in certain circumstances they were not sufficient to impede some types of abuses, in particular exclusionary ones.

It will therefore analyse first the most basic regulatory remedy: 'price cap' as a measure to prevent 'excessive pricing' or 'unfair pricing'. I will then discuss more sophisticated regulatory remedies introduced by the Telecommunications Package 2000 which comprises accounting separation as the most basic form of 'separation'. This preludes to the recently introduced, more complex, 'functional separation', the answer of the European Commission to overcome the difficulties still present in process of liberalisation of the electronic communications sector, in line with other forms of (more radical, structural) separations introduced in the energy sector.

Having discussed the Commission's 2003 Recommendation and the problem of 'barriers to entry', the second section of the chapter deals with the 2007 reform of the Telecommunications Package 2000 that led to the adoption of the Directive 2009/140/EC³⁰⁶ introducing at European level the remedy of functional separation as an important 'regulatory' step forward in preventing network-related abuses.

Chapter IV will build on the analysis of the *ex ante* remedies discussing the effectiveness of fines and of behavioural remedies, recalling how commitments showed a way of addressing the enforcer's competition concerns through negotiated solutions. The analysis of a particular form of commitments at UK national level, as the 'undertakings in lieu of reference to the Competition Commission for market investigation' will help to explain the origin of functional separation as a regulatory tool, but will also give the opportunity to argue that the remedy has still completely addressed all the competition concerns of the regulator (OFCOM).

³⁰⁶ Directive 2009/140/EC of the European Parliament and of the Council of 25 November 2009, [2009] OJ L 337/37.

3.2. The regulatory approach. *Ex ante* remedies in the electronic communications.

Why are *ex ante* (regulatory-based) or *ex post* (enforcement-based) remedies are required to grant and vitalise competition, in particular with respect to those services that are considered of 'general economic interest'?

The main reason is that from late 19th century onwards in the most industrialised countries the provision of services of economic general interest, such as post and telecommunications, transmission of electricity and gas, distribution of water, or supply of transport services, were almost exclusively provided (i) by the State; (ii) in a regime of (natural, then legal) monopoly³⁰⁷.

The single Member State was the sole entity in a position to invest considerable sums of money into the deployment of networks³⁰⁸ required to provide the services, also considering the long period of time to reach the 'break even'.

These investments had to be 'protected' by granting public ownership (*legal monopoly*) to the State. The State could then transfer part of its rights to *concessionaires*, who could then make (monopolistic) profits.

From mid-1980s in the United Kingdom and the early 1990s in the rest of continental Europe, many of these *national champions* (to use a recent terminology) faced at least two 'natural' enemies.

Firstly, technological evolution. Electronic communications networks, for instance, had to evolve and required new investments to be competitive and efficient. As I. Walden points out

³⁰⁷ See F. Di Porto 'La Regolazione 'geneticamente modificata': c'è del nuovo in tema di rapporti tra regolazione e concorrenza' (2006)6 Riv. Ital. Dir. Pubblico Comunitario, 947 ff.

³⁰⁸ For instance copper lines, for telecommunications; bridges and railways, for transportations; plants and grids for energy production and distribution; pipelines, for gas and oil distribution.

‘the provision of a modern telecommunications infrastructure requires massive capital investment, a funding burden which governments are no longer prepared to shoulder. Attracting some degree of private sector finance is generally seen as the only feasible mechanism for meeting the policy objective of modernizing this strategic economic sector’³⁰⁹.

Secondly, evident inefficiencies of the State-intervention model in the economy might have influenced some European Member States, particularly the United Kingdom, towards privatisation. Scholars of the Chicago’s School of Economics have certainly played an important role in influencing governments, based on the key principle that economic efficiency should be the driver for optimal industrial choices.

When the process of privatisation began (during the 1980s in the United Kingdom, but only in 1990s in Italy, to make two examples) the ‘national champions’ had to be bound by rules or, more legally, *regulated*. As a consequence, the State ‘owner’ (or State ‘administrator’) transformed into be State ‘regulator’³¹⁰.

At the same time many Member States adopted national legislations in order to enforce the main competition law provisions of the Treaties to grant a level playing field of competition in accordance with the competition law rules against the risk of collusion or potential abuses of a dominant position³¹¹. Alongside privatisation, the European Commission proposed a number of directives aimed at favouring the process of liberalisation, in line with the idea that economic efficiency could be maximised only in the presence of a clear ‘framework’ of rules favouring the fairness of the competitive game of

³⁰⁹ I. Walden, *Telecommunications Law and Regulation* (3rd edn, Oxford University Press, 2009), p 10. For Walden a second reason that led to privatisation can be found in the concerns that a state-owned incumbent might inhibit market entry (*ibid*).

³¹⁰ F. Di Porto, *cited*, p 949.

³¹¹ To make an example, Italy adopted its Competition Law Act in 1990: Law no. 287 of 10 October 1990, in OJ of the Italian Republic no. 240 of 13 October 1990.

economic actors³¹². The balance and proportion between regulation and free competition is not rigidly set: when considering the different economic backgrounds and the different industrial development paths, the proportion of regulatory measures and free competition at European level may vary considerably from one State to another. The doctrine identifies at least four different balances among regulators and competition authorities³¹³.

The first approach is defined of 'mutual exclusion', as suggested by the US Courts. Enforcers do not intervene in those areas that might be better disciplined by sector-regulators (for instance the case *Verizon v. Trinko*³¹⁴ in which the US Supreme Court ruled that the regulatory authority was 'best positioned' in making a decision with respect to the access to Verizon's network). The US Supreme Court stated in that occasion that in the presence of a 'regulatory structure [...], the additional benefit to competition provided by antitrust enforcement will tend to be small, and it will be less plausible that the antitrust laws contemplate such additional scrutiny'³¹⁵. The Court deems that if a regulator showed its capacity of preventing anticompetitive anomalies, there is no reason for further intervention by the courts³¹⁶. The above-mentioned case *Verizon v. Trinko*³¹⁷ decided in 2004 by the US Supreme Court, ruling the exclusive competence of the communications authority in a case dealing with interconnection and access to the local loop, can be taken as a clear example

³¹² In the electronic communications sector the first piece of European legislation aimed at liberalising the sector is the so-called 'Terminals' Directive 88/310/EEC of the European Commission of 16 May 1988, on competition in the markets in telecommunications terminal equipment. It was followed by the Commission Directive 90/388/EEC of 28 June 1990 ('Services'), liberalizing the added value services.

³¹³ See an excellent overview of the main schools of thought with respect to the balance between competition and regulation outlined by F. Di Porto, cited, p 951 ff.

³¹⁴ *Verizon Communications Inc. v. Law Offices of Curtis Trinko, LLP*, 540 US 398, 124 S. Ct. 872 (2004), decided on 14 January 2004 by the US Supreme Court. See syllabus (from the writ of certiorari), accessible at <http://supreme.justia.com/cases/federal/us/540/02-682/>.

³¹⁵ Syllabus from the certiorari of *Verizon Communications Inc. v. Law Offices of Curtis Trinko, LLP*, above, p 2.

³¹⁶ F. Di Porto, 'La regolamentazione 'geneticamente modificata': c'e' del nuovo in tema di rapporti tra regolazione e concorrenza', (2006) no. 6 *Rivista Italiana di Dir. Pubblico Comunitario*, 955.

³¹⁷ *Verizon Communications Inc. v. Law Offices of Curtis Trinko, LLP*, 540 US 398, 124 S. Ct. 872 (2004), decided on 14 January 2004 by the US Supreme Court.

of 'antitrust immunity' when dealing with an issue that could be better decided by the sector-regulator.

On this specific point, I will discuss later how the European Commission enforcement action can be considered as independent from the regulators' range of action, as demonstrated by the *Deutsche Telekom*³¹⁸ case of 2003, in which the Commission fined DT for abuse of dominant position even though DT claimed of having fully complied with the tariffs' scheme set by the German communications regulator.

A second approach to regulation and antitrust enforcement can be defined 'à la Littlechild': named after the British professor who dealt with the privatisation and regulation of the British energy market in the 1980s. Regulation *precedes* antitrust enforcement: 'regulation (...) is not a substitute for competition. It is a mean of 'holding the fort until competition arrives'³¹⁹. In a perfectly mature market, regulation should disappear. The prices, quality and quantity should be simply granted by pure competition forces³²⁰.

The third approach can be summarised as a 'complementary' approach (Laffont and Tirole³²¹). The authorities 'strike the same rocks'³²² at the end, each authority specialised in a different field but with the same final target:

³¹⁸ Commission Decision *Deutsche Telekom AG* (Case COMP/C-1/37.451, 37.578, 37.579), [2003] OJ L263/9 (14 October 2003). On appeal at the General Court, Case T-271/03 *Deutsche Telekom AG v. Commission* [2008] ECR-II-477, [2008] 5 CMLR 631; *Deutsche Telekom AG v European Commission*, Case C-280/08, [2010] ECR I-09555, [2010] 5 CMLR 1495.

³¹⁹ Stephen C Littlechild, *Regulation of British Telecommunications' Profitability* (London: Department of Industry, 1983), p 7. See also the First Report of the Select Committee of Regulators of the UK Parliament (Chapter VII 'Competition and Competitiveness'), available at <http://www.publications.parliament.uk/pa/ld200607/ldselect/ldrgltrs/189/18910.htm>.

³²⁰ S. Littlechild literally said 'Competition is indisputably the most effective means-perhaps the only effective means-of protecting consumers against monopoly power. Regulation is essentially a means of preventing the worst excesses of monopoly; it is not a substitute for competition. It is a means of 'holding the fort' until competition arrives'. See L. Correa, 'The Economics of Telecommunications Regulation', in I. Walden, cited, *Telecommunications Law and Regulation*, p 59.

³²¹ K.J. Laffont and J. Tirole, *Competition in Telecommunications* (MIT Press, 2000), p 276ff.

³²² K.J. Laffont and J. Tirole, cited, p 277.

grant a level playing field for competition, ultimately enhancing consumers satisfaction.

The fourth approach is defined as the ‘complementary balance’ approach. It is represented by the equilibrium between regulation and competition law, a sort of combination of the Littlechild’s and Laffont & Tirole’s approaches³²³. An example is given by the creation of the regulator for communications in United Kingdom, the Office of Communications (OFCOM) in 2003, an attempt at merging different authorities supervising the British ‘communications’ regulators galaxy (OFTEL, ASA, BBFC, BSC, ITC, PCC).

The UK Communications Bill of June 2002³²⁴ suggested this new form of ‘cohabitation’, combining regulatory with competition enforcement (application of the Competition Act 1998, hereinafter the ‘CA98’, rules on agreements and abuse of dominance) activities.

It is worth recalling the exact wording of the Communications Bill

‘as competition becomes more pervasive in the supply of communications services, it is expected that OFCOM will be able to rely increasingly on these general powers (antitrust), rather than powers specific to the sector (regulation), in addressing concerns about competition (*consequentiality*). However, many aspects of the sector specific framework, e.g. universal service provision, will remain necessary and will not disappear or become redundant in the foreseeable future (*complementarity*)’³²⁵.

The European Commission adopted this ‘combined’ approach in the review process of the electronic communications at the beginning of the 2000s (which led to the adoption of the ‘Telecommunications Package 2000’).

³²³ F. Di Porto, cited, 957. The Author defines this type of relationship as ‘consequentially complementary’.

³²⁴ F. Di Porto, cited, 958.

³²⁵ Section 5.3.3. of the Policy document attached to the Draft Communications Bill, jointly submitted by the Ministry of Trade and Industry and by the Ministry of British Culture, published the 7 May 2002. The Draft Communications Bill is available at <http://www.publications.parliament.uk/pa/jt200102/jtselect/jtcom/169/169.pdf>, quote at p 55.

Principles taken from antitrust doctrine and jurisprudence (such as the concept of dominance) were used in the new set of directives to integrate and transform the previous regulatory tools.

The balance between regulation and competition will be analysed more in depth in the following sections.

The regulatory and competition law enforcement approaches, as well as the different solutions adopted in different jurisdictions, has to be considered not only with respect to the short-term outcomes obtained or expected, but also with respect to their capacity of achieving long-term objectives, generically identified as *general interest* or public policy targets.

This thesis aims to answer the research question, ‘can structural remedies in the electronic communications sector be applied?’, particularly with respect to exclusionary abuses. Looking at the way in which various forms of abuse have been dealt with in the recent years, the impression one gets is that both not ‘invasive’ regulatory tools and enforcement measures (mainly pecuniary fines) may have been insufficient even though they achieved immediate outcomes (i.e. access to a facility; application of serious fines of the abuser).

In chapter III I showed how the most recent directives (adopted in 2009) in the electricity and gas sectors have embraced the structural approach, in parallel with the commitments decision adopted by the European Commission in the aftermath of the Energy Sector Enquiry, between 2007 and 2010. In the presence of recurrent abuses of dominant position, sometimes within the same geographic market, and with respect to the same undertaking, serious questions on the effectiveness of the *ex-ante* measures applied may arise. As well as further doubts about the deterrence effect of *ex post* measures arise.

Regulatory intervention, at least temporarily, may prevent some access-related infringements of competition law, but may lack of forward-looking

perspective³²⁶. I will demonstrate the importance of reasons that may lead the competition enforcer, in full autonomy with respect to the measures imposed by the sector regulators, to adopt more invasive remedies in presence of network-related abuses. These may be disruptive in the short-term but have a potential of generate more competition in the long-term.

I will analyse the pros and cons of the remedies adopted in recent times in different vertically integrated industries, and show the advantages of both functional and structural remedies, underlining the uncertainties that may follow the adoption of mere behavioural or functional remedies. A more invasive and draconian remedy such as a structural separation may in certain conditions be the best solution, at least in terms of deterrence for the dominant undertaking.

3.3. Price-cap as a form of preventing ‘excessive pricing’ or ‘unfair pricing’ conducts. An example of price cap from the British experience.

‘Price-cap’ is the most obvious form of a (temporary) regulatory measure that, in vertically-integrated industries, particularly in electronic communications, can directly prevent some of the most common forms of abuse, first of all excessive pricing.

In an early stage of the privatisation process, with the aim of imposing a ceiling on the profits that the privatised incumbent could earn, the United Kingdom government adopted a ‘rate-of return’ oriented regulation, i.e. the prices had to be set in a way of allowing a ‘fair’ rate of return on the capital invested³²⁷.

³²⁶ There are remedies such as functional separation (typical *ex post* remedy, as the more draconian remedy of structural separation) that may be now considered, after the last review of the Telecommunications Package 2000 carried out between 2006 and 2009, regulatory tools aimed at preventing anticompetitive distortions rather than *ex post* ‘punishments’.

³²⁷ See L. Correa, ‘The Economics of Telecommunications Regulation’ in I. Walden (ed) *Telecommunications Law and Regulation* (3rd edn Oxford University Press 2009), 58ff.

This first means of capping prices (and, consequently, the profits of the incumbent) was progressively abandoned, since it emerged that the incumbent would augment capital investments raising the ceiling of profits, without particular concerns for diminishing costs³²⁸. This method turned to be inefficient both for the shareholders and customers.

This regulatory approach was overtaken with another form of price-cap, calculated through the 'RPI-X' ('retail minus') formula, developed by Professor S. Littlechild³²⁹.

Through this method a basket of incumbent's prices is first taken into account (for the various services provided) over a period of four-five years. These prices can be increased annually subtracting from the RPI (Retail Price Index) the X factor, calculated taking into consideration (a) the presumed movements of productivity plus (b) the costs of the specific industry. This means that the final price can be increased each year by taking into account any increase in efficiency (for instance, reducing the costs, less will be deducted from the RPI, therefore the revenues will be higher).

This second approach was particularly welcomed by economists, because it granted an increase of profits for the privatised incumbent, preserving the incentive of reducing the costs to a minimum.

The price-cap as a first, intuitive, regulatory tool to grant a certain level of 'fairness' of the incumbent's pricing activity, encounters many operational difficulties. One of the main problems for the regulator is to gather all the information in order to establish a 'fair' price. As seen above, the X factor, in particular, requires complex speculation about the foreseeable growth of a certain sector, in addition to the 'efficiency gains' (cost-reduction oriented). The regulator, obviously, has limited access to information that only the

³²⁸ *ibid*, 58.

³²⁹ S. C. Littlechild, *Regulation of British Telecommunications' Profitability: Report to the Secretary of State, London, Department of Industry, 1983*, and S.C. Littlechild and M.E. Economics Beesley, 'The Regulation of Privatized Monopolies in the United Kingdom', in (1989) 20 *RAND Journal of Economics*, 454-72.

incumbent can have: a crucial problem called ‘asymmetry of information’ between the information owned by the regulator and the firm³³⁰.

Asymmetry of information represents one of the main problems for regulators to adopt fully effective price-cap policies.

Nevertheless, some regulatory instruments aimed at favouring the ‘symmetry’ of information can be adopted. One of the simplest ways of separating the information of various departments or branches of the incumbent is the so-called ‘accounting separation’. On a different level, but with the same aim, other forms of separation can be adopted, further enhancing a new shape of market structure, symmetry of information, effective competition: as we will see, functional and structural separation are the most effective forms of separation.

3.4. Accounting separation as a tool to deal with price-related abuses in the electronic communications sector. The regulatory tools of the ‘Telecommunications Package’ 2000.

With respect to the electronic communications sector, regard should be given to the fact that sometimes it is not easy to determine the ‘real’ costs (it being also difficult to distinguish the ‘sunk’ and the ‘fixed’ costs from the ‘variable’ costs)³³¹.

³³⁰ L. Correa, cited, 60-61.

³³¹ I will discuss later, in s. 4 of chapter VI, the criticisms expressed by the General Court in the Case *Telefónica and Telefónica de España v Commission* T-336/07 [2007] OJ C269/55. The judgment of the 29 March 2012 expressly states that the Spanish regulator set the retail and wholesale prices on the basis of estimates of cost that did not reflect the historical, actual, costs borne by the incumbent. Furthermore, the Court confirmed the position already adopted in the *Deutsche Telekom* case, stating that the prices set by the regulator cannot exempt the incumbent from behaving according to the competition law principles. From the European Commission’s press release announcing the General Court judgment: ‘As regards the role of ex ante regulation, the Court confirms the position taken in the *Deutsche Telekom* judgment (case C-280/08 P of 14 October 2010) that national legislation concerning telecommunications— in this case, compliance with the decisions taken by the national telecom regulator CMT on the basis of the regulatory framework —does not release dominant firms from their obligation to respect EU competition law. In any event, Telefónica had sufficient discretion to determine its pricing policy. Importantly, the Court confirms that Telefónica must

In order to quantify the real costs of telecommunications services, in the Open Networks Provisions (OPN) directives the European Council and the Commission stated that the telecommunications operators have to keep separate their accounts for telecommunications services, on the one hand, from the accounts of the telecommunications infrastructures, on the other. This idea was 'codified' in the 'Telecommunications Package' directives adopted in 2002. The 'Access Directive', in particular, established that the NRA may impose obligations for accounting separation in relation to specified activities related to interconnection and/or access. In particular, the NRA could finally require a vertically-integrated company 'to make transparent its wholesale prices and its internal transfer prices' in order to prevent any form of discrimination or to prevent unfair cross-subsidisation³³².

With the same aim, the 'Framework Directive'³³³ provided duties of accounting separation and financial reports in order to

'identify all elements of cost and revenue, with the basis of their calculation and the detailed attribution methods used, related to their activities associated with the provision of electronic communications networks or services including an itemised breakdown of fixed and structural cost',

or,

'have structural separation for the activities associated with the provision of electronic communications networks or services'³³⁴.

have known that the regulator never examined the existence of a margin squeeze in relation to the regulated regional wholesale access product on the basis of the actual costs of the undertaking, but rather on the basis of estimates which had not in actual fact been confirmed by the developments of the market'. See Memo 12/233 of 29 March 2012, accessible at: http://europa.eu/rapid/press-release_MEMO-12-233_en.htm.

³³² Dir. 2002/19/EC [2002] OJ L108/7, art 10.

³³³ Dir. 2002/21/EC [2002] OJ L 108/33.

³³⁴ Dir 2002/21/EC [2002] OJ L 108/33, art 13.

Accounting separation (the so-called ‘accounting unbundling’) is one of the most efficient tools aimed at enhancing the financial and administrative transparency of electronic communications operators.

However, in recent years the idea of granting transparency, fair prices (for competitors and consumers) and effective competition, through recourse to a more advanced form of behavioural remedy such as functional separation emerged. It represents a combination of both structural and accounting separation, and it is aimed at creating a ring-fenced division of the incumbent company dealing mainly with access and interconnection of competitors with the network³³⁵.

This option is now part of the Access Directive as amended by Directive 2009/140/EC³³⁶. As per Article 2 of Directive 2009/140/EC, the Access Directive has now a new provision, Article 13 (a), authorising the functional separation of the division dealing with wholesale access to the network, in particular

‘[w]here the national regulatory authority concludes that the appropriate obligations imposed under Articles 9 to 13 have failed to achieve effective competition and that there are important and persisting competition problems and/or market failures identified in relation to the wholesale provision of certain access product markets’³³⁷.

The NRAs are now entitled to impose an obligation upon the electronic communications incumbent under their own jurisdiction to ‘place activities related to the wholesale provision of relevant access products in an independently operating business entity’³³⁸.

³³⁵ L. Correa, cited, 64.

³³⁶ Directive 2009/140/EC of the European Parliament and of the Council of 25 November 2009, [2009] OJ L 337/37.

³³⁷ Ibid, art 2, para 10.

³³⁸ Ibid.

It aims at impeding bi-directional streams of information between the 'access/interconnection' division of a company and the retail division of the same vertically integrated company, creating a system of firewalls between the various divisions of the same company and its highest decisional bodies.

As mentioned above, the most interesting example of a separation of this type was adopted in United Kingdom in 2006 with the creation of a separate division of the British Telecom Group (BT) called 'Openreach'. This emerged after a long process of consultation between the electronic communications operators, the incumbent and OFCOM. Since its creation it deals with the access to BT's infrastructures and is aimed at granting the highest transparency and fairness during (and after) the negotiations between the incumbent and its own competitors.

In line with the target of enhancing the 'information symmetry' between the regulator and the incumbent, the directive also amended Art. 13 of the Access Directive introducing a new paragraph establishing that

'[a] national regulatory authority may [...] impose obligations relating to cost recovery and price controls, including obligations for cost orientation of prices and obligations concerning cost accounting systems, for the provision of specific types of interconnection and/or access, in situations where a market analysis indicates that *a lack of effective competition means that the operator concerned may sustain prices at an excessively high level, or may apply a price squeeze, to the detriment of end-users*³³⁹.

The problem of access to communications infrastructure has played a crucial role in the adoption of fundamental pieces of European legislation in the last two decades. After the fragmented approach of the late 1980's and early 1990s³⁴⁰, with a first set of directives aimed at liberalising some

³³⁹ Dir 2009/140/EC [2009] L 337/37, art 2, para 9. Emphasis added.

³⁴⁰ Note that the first liberalisation provisions dates back to 1984, the Council Recommendation 84/549/EEC concerning the implementation of harmonisation in the field of telecommunications, [1984] OJ L 298/49 (16 November 1984) (see I. Walden – J. Angel, cited, p 107 s).

telecommunications sectors (for instance, non-voice telephony services)³⁴¹, the most powerful attempt of harmonisation was made by the so-called Telecommunications Package 2000. One of the key features of the Telecommunications Package 2000 was that of providing a systematic legal framework to the Significant Market Power (hereinafter, 'SMP') test, which was aimed at ascertaining whether an undertaking, within a specific telecommunications product and geographic market, holds 'significant market power' if it detains at least a 25% share of the relevant market³⁴². If that threshold is triggered, then the communications regulatory authorities can impose specific behavioural obligations aimed at guaranteeing undistorted competition in that specific electronic communications market.

To understand the evolution of the discipline of the SMP test, firstly one has to look at the Directive 97/33/EC³⁴³ on interconnection in the electronic communications sector that specified the characteristics that an undertaking must have in order to be forced to fulfil the duties established to guarantee the full and complete liberalisation of the market. Article 4 represents a key point in the process of liberalisation of the European telecommunications networks stating that:

'Organizations authorized to provide public telecommunications networks and publicly available telecommunications services [...] which have **significant market power** shall meet all reasonable requests for access to the network including access at points other than the network termination points offered to the majority of end-users. An organization shall be presumed to have significant market power when it has a share of more than 25 per cent of a

³⁴¹ See, in particular, the so-called 'Services Directive' 90/388/EC of 28 June 1990 on 'Competition in the markets for telecommunications services', accessible at <http://www.anacom.pt/template16.jsp?categoryId=59470>. See also the Council Resolution of 22 December 1994 on the principles and timetable for the liberalisation of telecommunications infrastructures, in OJ C 379/4 of 31 December 1994.

³⁴² The SMP test had been first introduced into the European legal system since the 1990s, but only in the Telecommunications Package 2000 found a more systematic discipline.

³⁴³ Directive of the European Parliament and of the Council 97/33/EC of 03 June 1997 on interconnection in telecommunications with regard to ensuring universal service and interoperability through application of the principles of Open Network Provisions [1997] OJ No L 199/32.

particular telecommunications market in the geographical area in a Member State within which it is authorized to operate³⁴⁴.

This provision was substantially amended after a long review process, accompanied by public consultations. The SMP notion was finally anchored to the competition-law concept of dominance as elaborated by the Commission's practice and European Courts' jurisprudence on Article 102 TFEU. To establish whether an undertaking detains SMP, the national regulatory authority will not simply 'measure' the 25% share held by an undertaking in a specific market, but rather will 'measure' its position in a particular market through a more complex assessment, bearing in mind the tools described in Chapter II of the present work to ascertain the existence of a 'dominant position' in competition enforcement proceedings.

The Commission in drafting the above-mentioned directives adopted on 7 March 2002 provided a new definition of SMP clearly modelled on the notion of dominance pursuant to Article 102 TFEU and the practice of the European Courts. In particular, Article 14, paragraph 2, of the Framework Directive³⁴⁵ established that

'An undertaking shall be deemed to have significant market power if, either individually or jointly with others, it enjoys a position equivalent to dominance, that is to say a position of economic strength affording it the power to behave to an appreciable extent independently of competitors, customers and ultimately consumers',

³⁴⁴ It is also interesting to mention the third paragraph of Article 4: 'NRAs may nevertheless determine that an organization with market share of **less than 25 per cent** in the relevant market has significant market power. They may also determine that an organization with a market share of **more than 25 per cent** in the relevant market does not have significant market power. In either case, the determination shall take into account the organization's ability to influence market conditions, its turnover relative to the size of the market, its control of the means of access to financial resources and its experience in providing products and services in the market'. Emphasis added.

³⁴⁵ Directive 2002/21/EC [2002] OJ L 108/33.

in full accordance with the most consolidated practice of the European Courts on dominance. To make an example, in the above-mentioned case *United Brands*³⁴⁶ the dominant position was defined as

‘[...]a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by giving it the power to behave to *an appreciable extent independently of its competitors, customers and ultimately of its consumers*³⁴⁷.

The regulators will apply the same rationale to establish whether the company has SMP.

Once it is established that an undertaking that has direct control of the access network also has SMP, the following obligations are automatically imposed to the incumbent:

- 1 Mandatory access to specific network facilities;
- 2 Transparency obligations;
- 3 Accounting separation;
- 4 Cost-oriented accounting and retail price regulation³⁴⁸.

It must be noted that the ascertainment of the position of dominance for the aims of enforcing Article 102 TFEU is carried out with respect to past behaviours. The SMP test, by contrast, is carried out to decide whether an *ex ante* measure must be applied, therefore ‘past behaviour’ should not be taken into account. Rather, as Garzaniti correctly observed before the adoption of the new Telecommunications Package 2000, ‘*the finding of SMP will mean a substantial amount of projections and assumptions on future development*’³⁴⁹.

³⁴⁶ Case 27/76 *United Brands v. Commission* [1978] ECR 207, [1978] 1 CMLR 429, CMR 8429.

³⁴⁷ Emphasis added.

³⁴⁸ On this point see L. Garzaniti, *Guidelines on Significant Market Power*, Freshfields Bruckhaus Deringer, Brussels, December 2001.

³⁴⁹ L. Garzaniti, *ibid.*

In order to provide regulators with the necessary interpretative tools to apply *ex ante* a parameter (dominance) usually applied in *ex post* enforcement proceedings, the Commission adopted two further documents: (a) **guidelines** regarding the evaluation of SMP in relation to the markets of networks and services of electronic communication³⁵⁰, and (b) a first Commission recommendation (2003) regarding the relevant markets of products and services which could be subject to *ex ante* regulation pursuant to the Framework Directive³⁵¹, listing 18 markets³⁵², recently substituted by a second **Commission Recommendation**³⁵³ of 17 December 2007, reducing the relevant products and services markets from 18 to 8, in line with the objectives outlined at the beginning of the ‘Telecommunications Package Review’ process launched in June 2006.

As per the 2002 Guidelines, one can say that an undertaking shall be deemed to have SMP and to be in a dominant position when it holds at least 50 per cent of the market. In specific circumstances, an undertaking with a market share over 40 per cent may be also considered as dominant, pursuant to the ECJ relevant jurisprudence³⁵⁴. In addition, other criteria are used to measure market power, such as technological advantages or superiority, economies of scale, vertical integration or absence of potential competitors. The adoption of

³⁵⁰ Guidelines of the Commission for the analysis of the market and the evaluation of the Significant Market Power pursuant to the new EC regulatory framework for the networks and services of electronic communications [2002] OJ C 165/6 (11 July 2002) (‘Guidelines 2002’).

³⁵¹ Directive 2002/21/EC [2002] OJ L 108/33.

³⁵² Commission Recommendation 2003/311/EC of 11 February 2003 regarding the relevant markets of products and services of the electronic communications sector susceptible of an *ex ante* regulation pursuant to the Directive 2002/21/EC, [2003] OJ L 114/45 (8 May 2003) (‘Recommendation 2003’).

³⁵³ Commission Recommendation 2007/879/EC 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’, [2007] OJ 344/65 (28 December 2007) (‘Recommendation 2007’).

³⁵⁴ For the concept of dominance determined looking at the market share (calculated on the basis of the volume or the value) of the undertaking in a dominant position, the fundamental case is *Hoffman La Roche v. Commission*, Case 85/76, [1979] ECR 461; on dominance even with a market share lower than 40% (39.7%) see Commission Decision *Virgin/British Airways* IV/D-2/34.780 in OJ L 30/1 [2000], [2000] 4 CMLR 999; appeal: Case *British Airways v Commission*, T-219/99

this model of assessment of the dominant position within the electronic communications markets, and the consequences in terms of duties and obligations that new entrants had to satisfy within the liberalised and regulated market, seemed to have opened new perspectives of preventing abuses by the incumbent vis-à-vis its competitors seeking access to the networks³⁵⁵. The Guidelines suggested the assessment of an undertaking's dominance on the basis of legal tools of competition law:

- i) the current jurisprudence of the General Court and of the ECJ with reference to the market definition and the concept of dominant position pursuant to Article 102 EC and Article 2 of the EC merger regulation³⁵⁶;
- ii) the Commission decisional practice and the criteria listed in the Annex II of the Framework Directive³⁵⁷;
- iii) the Communication of the Commission on the notion of relevant market;
- iv) the Communication of the Commission on the application of the competition rules to the agreements on the access in the telecommunications sector³⁵⁸.

On the other hand, the Recommendation 2007 provided a list of relevant markets in the electronic communications sector which reflected the radical and fast changes which occurred in the past decade.

³⁵⁵ The innovative nature of the 2002 Telecommunications Package could be captured by reading paragraph 24 of the Guidelines of 7 July 2002 where it states 'in order to define the markets and to determine a Significant Market Power shall be applied the same methodologies used for the competition provisions', quite unusual for a piece of legislation aimed at regulating a specific utility rather than enforcing competition law.

³⁵⁶ Guidelines 2002, Sect. 3.1.2.1, para 89 ff.

³⁵⁷ Ibid, Sect. 3.1.2.2., para 95 ff. Among the criteria listed in the Annex II of the Framework Directive it is worth recalling: mature market, stagnant or moderate growth on the demand side, low elasticity of demand, homogeneous product, similar cost structures, similar market shares, lack of technical innovation.

³⁵⁸ Notice on the application of the competition rules to access agreements in the telecommunications sector – Framework, Relevant Markets and Principles, OJ [2002] 98/C 265/02.

Finally, Recital 5 of the Recommendation 2007 lists three main cumulative criteria to define the relevant markets to which *ex ante* regulation must be applied:

- i) The first criterion is the presence of high and non-transitory barriers to entry³⁵⁹;
- (ii) The second criterion admits only those markets whose structure does not tend towards effective competition within the relevant time horizon. The application of this criterion involves examining the state of competition behind the barriers to entry;
- iii) The third criterion is that application of competition law alone would not adequately address the market failure(s) concerned.

Recommendation 2007 was aimed at playing a major role in terms of granting fair conditions of access to the relevant markets. With the application of the three cumulative (and rigid) criteria it was aimed at identifying a few markets where *ex ante* obligations must be imposed with a high level of certainty in order to enhance and grant effective competition. This would allow the existing operators to launch new products and services into the market without imposing excessive and discouraging regulation.

Recommendation 2007 must be now read in conjunction with the new Directive 2009/140/EC, reforming Article 7 of the Framework directive, as discussed in Section 6, below.

3.5. Price caps do not prevent exclusionary abusive conducts: the ‘margin squeeze’ cases *Deutsche Telekom* and *Telefónica*.

³⁵⁹ It adds: ‘These may be of a structural, legal or regulatory nature. However, given the dynamic character and functioning of electronic communications markets, possibilities to overcome barriers to entry within the relevant time horizon should also be taken into consideration when carrying out a prospective analysis to identify the relevant markets for possible *ex ante* regulation’.

In Chapter II (section 4, point v), I discussed how some abusive exclusionary conducts such as margin squeeze could be put in place even in the presence of price cap established by the national regulatory authority.

As we have seen the *Deutsche Telekom*³⁶⁰ is all centred on the abusive conduct carried out by DT in the market of the leased lines for fixed telephony. The Commission focused on its pricing strategy for local access to the fixed telephony network, finding that DT put in place its margin squeeze activity 'by charging new entrants higher fees for wholesale access to the local loop than what subscribers had to pay for retail lines'³⁶¹. The investigation was triggered by the complaints filed by numerous new entrants in the German fixed-line telecommunications market.

In this case, new entrants were not looking for technical local loop unbundling (local access lines), but rather to lease the lines at fair and non-discriminatory terms. It represents an example of intervention of the European Commission as an enforcer even in the presence of prices set by the German communications regulator (*Regulierungsbehörde für Telekommunikation und Post* - REgTP). As I said in chapter II, DT objected that 'any margin squeeze must be the result of excessive wholesale prices or predatory retail prices, or a combination of the two' and that simply modifying those set prices 'it must be legally possible to terminate the squeeze'³⁶².

The Commission objected that in this case the margin squeeze test was the relevant test, and that since de facto the new entrants were excluded from the German fixed telephony market because they could not make a sufficient

³⁶⁰ Commission Decision *Deutsche Telekom AG* (Case COMP/C-1/37.451, 37.578, 37.579), [2003] OJ L263/9 (14 October 2003).

³⁶¹ R. Klotz-J. Feherenbach, 'Two Commission decisions on price abuse in the telecommunications sector', (2003) no. 3, Competition Policy Newsletter, European Commission, 8.

³⁶² *ibid*, 9

margin of profit, therefore the margin squeeze test had to prevail, even in presence of regulated tariffs.

The Commission demonstrated that DT under certain conditions could have avoided the margin squeeze, in particular by increasing the retail access charges for analogue telephony, ISDN and ADSL connections within the German price cap system. Between 1998 and 2001 the Federal Ministry of Posts and Telecommunications had given sufficient margin to DT to restructure its tariff system, allowing DT to increase the retail access charges, compensating such an increase with a reduction of the call charges. The Commission, in particular, showed how DT, even though could have set the retail access tariff at higher level, compensating the increases of the retail access tariffs with a reduction of the call charges, in reality did not undertake any increase of the charges for analogue and ISDN connections, therefore forcing the competitors (new entrants) either to leave or to do not enter the market.

Without recalling here the findings of the General Court and the Court of Justice already discussed in chapter II, it is nevertheless important to stress how DT was able to put in place its margin squeeze conducts even in the presence of prices set by the regulator that gave it the possibility to rise the retail access tariffs by decreasing the call charges in order to balance that increase. The Court of Justice, in line with the position of the General Court in the same case, confirmed the applicability of Art. 102 by the Commission in those cases in which the incumbent is subject to national provisions that do not impose an anticompetitive behaviour but rather put the incumbent in the position of exercising its discretionary power, by simply soliciting or facilitating the adoption of anticompetitive behaviours³⁶³. DT was in the position of choosing whether to lower the wholesale access tariffs for the new entrants, or raise the prices for the final consumers, therefore increasing the margin of profit for the new entrants. None of these behaviours was put in place.

³⁶³ G. Colangelo, 'Margin squeeze in Europa dopo *Deutsche Telekom e TeliaSonera*' in (2011) vol. XIII no. 2 *Mercato Concorrenza Regole*, 370-371.

This raises the question: when, even in the presence of national provisions set by the NRA that would allow the incumbent to set the prices at such a level to ensure that the competitors can enter the market, the incumbent is able to put in place strategies aimed at excluding its potential competitors, such as margin squeeze practices, vertical (functional and structural) separation of the division dealing with wholesale and retails communications, on the one hand, from the access division, on the other hand³⁶⁴, could have impeded the margin squeeze conduct? This is what the reform carried out between 2007 and 2009 tried to address with the new formulation of the Framework Directive.

As discussed later, functional separation has been introduced as a regulatory *ex ante* remedy by Directive 2009/140/EC³⁶⁵ to deal also with such abuses. The question is whether in case such as *Deutsche Telekom* (or *Telefónica*, also discussed in that chapter) functional or even structural separation could have been imposed as an enforcement measure.

Here it is worth considering, the most realistic objection that structural separation would have faced.

Should a competitor have acquired Deutsche Telekom's or *Telefónica's* infrastructure, it would have become a competitor of the incumbent in several electronic communications services (for example, voice telephone, mobile telephony, broadband). As the 2006 OECD Report on Structural Separation noted 'the telecom sector is somewhat distinct from the others in the sense that the non-incumbent operator seeking access and interconnection could be a competitor of the infrastructure operations of the incumbent'³⁶⁶.

³⁶⁴ As in the Openreach case, to make an example of functional separation.

³⁶⁵ Directive 2009/140/EC of the European Parliament and of the Council of 25 November 2009, [2009] OJ L 337/37.

³⁶⁶ OECD, Report on Structural Separation, (2006) vol. 8, no., 2 OECD Journal of Competition Law and Policy, 30ff.

Structural separation, in this hypothetical scenario, seems to work only if the network is operated by a third party, in a position of complete neutrality *vis á vis* the former incumbent and the competitors, non-incumbents.

The question is whether in those examples of margin squeeze, functional separation, introduced as a regulatory tool only in 2009, could have been an effective remedy to prevent the occurrence of this type of abuse.

The genesis of functional separation as a regulatory tool is the topic of the next section.

This section is important to remind that the position of the Commission and of the European Court in the past decade have confirmed that the Commission has a wide margin of action in order to enforce competition law. The regulatory measures, and their respect by the incumbent, are not sufficient to exclude their responsibility if Article 102 TFEU is infringed as a consequence of their pricing policies.

This means that not only price cap but also functional separation as an *ex ante* remedy, in principle, is not the last frontier: the Commission is legally authorised, as per Article 7 of Regulation 1/2003/EC and the recent jurisprudence, to go beyond. The point discussed in the next chapters is whether the Commission can decide to impose severe fines, or can also decide to go a step further, imposing structural separation, if both pricing measures and (or) functional separation do not work.

3.6. The 2007 Reform. Functional separation as a regulatory remedy as per Dir. 2009/140/EC

Viviane Reding, former European Commissioner responsible for Information Society and Media, launched the 'Review of EU Telecom Rules'³⁶⁷ in June

³⁶⁷ See the Communication of the Commission on the Review of the EU Regulatory Framework for electronic communications networks and services COM (2006) 334 final of 29

2006, underlining the crucial role that regulatory tools have had in supporting the creation of a more competitive scenario in the telecommunications sector in Europe in the 1990s and from 2000 onwards.

At the same time, she stressed the need to introduce new regulatory tools to boost competition, particularly between networks (based on optical fibres, cable and wires in particular, not excluding antennas for radio-waves communications).

Seven years after the adoption of the Telecommunications Package 2000, in a 27³⁶⁸ Member States European Union with an industrial environment partially changed (in certain aspects, more communications-oriented), one of the key points of the reform process was the review of the application of Article 7 of the Framework Directive procedure³⁶⁹. This is the principal instrument for EU regulation of electronic communications, establishing that the NRAs are required to analyse their national markets for electronic communications (so-called 'markets review') in consultation with the industry and propose appropriate regulatory measures to address market failures.

Under this article, national authorities notify the European Commission of their findings and propose the best remedies to address their competition concerns. The referral to the European Commission opens a 'Phase I' (and, if further investigation is required, a 'Phase II') in order to establish whether the proposed measure would or would not create a barrier to the single market.

The regulatory measures that can be imposed are:

June 2006. See also the speech 06/422 'The Review 2006 of EU Telecom Rules: Strengthening Competition and Completing the Internal Market' held by Viviane Reding on 27 June 2006 in Brussels (available at: http://europa.eu/rapid/press-release_SPEECH-06-422_en.htm).

³⁶⁸ Today, 28 after the recent access of Croatia.

³⁶⁹ Article 7 of the Framework Directive 'Consolidating the internal market for electronic communications', reported in Annex I of the thesis.

- (i) for wholesale markets, they are aimed at enhancing transparency and non-discrimination, or to achieve accounting separation³⁷⁰, or may consist in access obligations³⁷¹ and price control;
- (ii) for retail markets: the obligations may include requirements not to charge excessive prices, inhibit market entry or restrict competition by setting unsustainably low prices, or discriminate between end users. Only in exceptional circumstances has the Commission exercised its right of 'veto' and rejected proposed measure. The question is whether the measures that the single Member States had proposed until the reform were or were not sufficient to achieve the regulatory and competition law targets of the 'single market imperative'.

On 13 November 2007 a set of proposals³⁷² for new electronic communications directives was filed by the European Commission. It was the result of a long process of consultation, aimed both at reforming the co-operation between Member States and the Commission, and at further harmonising and facilitating the access to networks to enhance competition and development.

At the end of 2009, the Council and the Parliament adopted the new directives aimed at enhancing (i) the harmonisation process for the electronic communications in general, in particular with respect to the access (to networks) procedures and related 'remedies' as well as (ii) to boost the use of

³⁷⁰ Separation of accounts between various levels of business.

³⁷¹ Requirements to provide access to the SMP operator's network.

³⁷² (i) Proposal for a Directive of the European Parliament and of the Council amending Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services, 2002/19/EC on access to, and interconnection of, electronic communications networks and services, and 2002/20/EC on the authorisation of electronic communications networks and services, COM (2007) 697 final, Brussels 13 November 2007; (ii) Proposal for a Directive of the European Parliament and the Council amending European Parliament and Council Directives 2002/22/EC and 2002/58/EC; (iii) Proposal for a regulation of the European Parliament and of the Council establishing the European Electronic Communications Market Authority, in COM(2007) 699 final, Brussels, 13 November 2007, [2007] OJ L 344/65 (28 December 2007).

radio-spectrum and the Internet Protocol (IP) as a tool of overtaking the barriers between single Member States³⁷³.

To understand the importance of this reform it must be considered that growth and development as well as regulatory coherence and normative consistency are directly linked, as shown by several studies³⁷⁴. It is worth keeping in mind that the electronic communications sector represents 2 per cent of the EU GDP today and that the overall revenue growth of this sector out-paces the growth of the entire EU economy³⁷⁵.

One of the key targets of the directives was to maximise the utilisation of the electric communications networks and enhance broadband penetration in the entire European territory. The chart below shows how at the time of the negotiation of the new directives, in 2007/2009, there were still a high number of 'white spots' (areas uncovered by broadband services) in the European territory³⁷⁶:

³⁷³ See the speech of Manuel Barroso, President of the European Commission, 'Airwaves know no borders. And the Internet Protocol has no nationality' (13 November 2007, on the adoption of the new directive proposals), available at http://europa.eu/rapid/press-release_IP-07-1677_en.htm.

³⁷⁴ The reform process was anticipated in 2006 by experts reports filed at the European Commission which represent a valuable source of economic data, combined with detailed survey on the implementation, at European and global level, of several regulatory and competition law provisions. See, in particular, the reports of: (i) PriceWaterHouse & Coopers of London in conjunction with London Economics, 'An assessment of the regulatory framework for electronic communications: growth and investment in the EU e-Communications sector', July 2006; (ii) by the law-firm Hogan & Hartson and the consulting agency Analysis, 'Preparing the Next Steps in Regulation of Electronic Communications - A contribution to the review of the electronic communications regulatory framework', July 2006; and, (iii) by Professors Martin Cave, Tommaso Valletti and Ulrich Stumpf, 'A Review of certain markets included in the Commission's Recommendation on Relevant Markets subject to *ex ante* Regulation - An independent report'.

³⁷⁵ In 2006 the ICT sector was valued at EUR 649 billion; the investment in telecoms sector was of EUR 47 billion and the value of radio-spectrum-dependent services in the EU is of EUR 250 billion (source: Why is there an EU responsibility for the telecoms sector, 13 November 2007, at <http://ec.europa.eu/ecomm>).

³⁷⁶ From Viviane Reding's presentation of the directive proposals on 13 November 2007 (source: Why is there an EU responsibility for the telecoms sector?, available at <http://ec.europa.eu/ecomm>). This concern led the European Union institutions to put aside, in January 2009, up to EUR 1 billion aimed at bridging the digital divide and bringing 100% of broadband coverage through the entire territory of the European Union within the non-realistic time-bar of December 2010. See <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/09/35>.

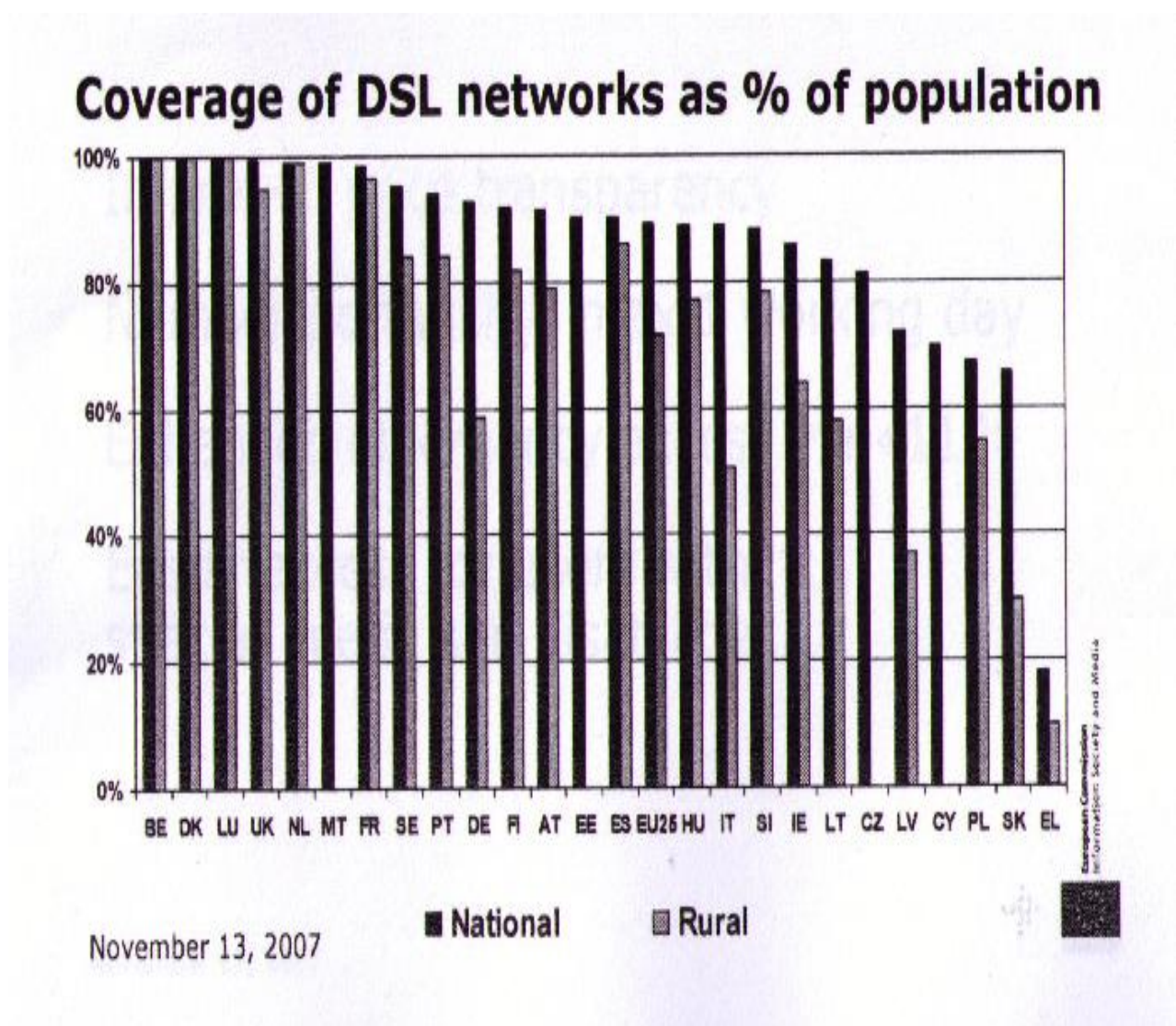


Figure 3 – Broadband penetration in the EU in 2007 (source: European Commission – DG InfoSoc)

One of the most innovative amendments introduced by Directive 2009/140/EC³⁷⁷ amending Directives 2002/21/EC ('Framework Directive'), 2002/19/EC ('Access Directive') and 2002/20/EC ('Authorization directive') was the introduction of **functional separation** of electronic communications

³⁷⁷ Directive 2009/140/EC of the European Parliament and of the Council of 25 November 2009, [2009] OJ L 337/37.

operators as an additional *ex ante* remedy to grant a 'level playing field' of competition. This is homogeneously applicable in all Member States, in order to ensure equal treatment for all the operators within the single market³⁷⁸.

The real scope of the reform was multi-faceted, ranging from the general objectives of the entire European construction (growth and development; harmonisation and creation of a homogeneous internal market) to the removal of technical or legal barriers (as those deriving from the un-necessary occupation of part of the radio-spectrum by a small number of undertakings, or those deriving from the joint management and control of both the network and the provision of the services provided through it). Another indirect positive effect of the reform of the 2002 directives was the simplification of administrative procedures, substantially cutting administrative costs.

Apart from the more general purposes of the directive 2009/140/EC³⁷⁹, recital 61 of its preamble introduces functional separation as a new *ex ante* remedy. It states that:

‘the purpose of functional separation, whereby the vertically integrated operator is required to establish operationally separate business entities, is to ensure the provision of fully equivalent access products to all downstream operators, including the operator’s own vertically integrated downstream divisions. Functional separation has the capacity to improve competition in several relevant markets by significantly reducing the incentive for

³⁷⁸ The Directive proposal 2007 was not in the direction of ‘ownership unbundling’. It was rather aimed at better defining the ‘Article 7’ procedure of the Framework directive. The preamble of the directive proposal, in particular, said that one of the main amendments was aimed at ‘improving the consistency of regulation of the internal market in electronic communications..

³⁷⁹ As an example of EC Treaty general principles recalled by the preamble of the directive proposal, it is worth to recall Recital (15) ‘In line with the objectives of the European Charter on fundamental rights and the United Nations Convention on the Rights of Persons with Disabilities, the regulatory framework should ensure that all users, including disabled end-users, the elderly, and users with special social needs, have easy access to affordable high quality services. Declaration 22 annexed to the final Act of Amsterdam provides that the institutions of the Community shall take account of the needs of persons with a disability in drawing up measures under Article 95 of the Treaty’.

discrimination and by making it easier to verify and enforce compliance with non-discrimination obligations’.

More importantly, the preamble stresses how ‘[i]n exceptional cases, **functional separation may be justified** as a remedy where there has been **persistent failure to achieve effective non-discrimination in several of the markets concerned**, and where there is little or no prospect of infrastructure competition within a reasonable time-frame after the recourse to one or more remedies previously considered to be appropriate’.

Thus the new directive modified key articles of the Framework and Access directives. For instance, on the one hand, Article 7 describes the new process of consultation among Member States’ regulatory authorities while, on the other hand, establishes the (simplified) exchange of ‘drafts’ between the Member State regulatory authorities and the Commission. Article 2 (‘Amendments to Directive 2002/19 EC’) of the new directive also introduces two new articles in the Access Directive, 13a and 13b.

Article 13(a) ‘Functional Separation’, first subparagraph, establishes that a NRA may, in accordance with the provisions of Article 8³⁸⁰,

‘impose an obligation on vertically integrated undertakings to place activities related to the wholesale provision of access products in an independently operating business entity³⁸¹. That business entity shall supply access products and services to all undertakings, including other business entities within the parent company, on the same timescales, terms and conditions, including those relating to price and service levels, and by means of the same systems and processes’.

The directive also tackles the possibility, that the dominant undertaking might propose a ‘voluntary separation’ (ownership separation). Article 13b

³⁸⁰ In particular, second subparagraph of Article 8.3.

³⁸¹ Emphasis added.

‘Voluntary separation by a vertically integrated undertaking’ establishes that

‘[u]ndertakings which have been designated as having significant market power in one or several relevant markets in accordance with Article 16 of Directive 2002/21/EC (Framework Directive) shall inform the NRA in advance and in a time manner, in order to allow the NRA to assess the effect of the intended transaction, when they intend to transfer their local access network assets or a substantial part thereof to a separate legal entity under different ownership, or to establish a separate business entity in order to provide to all retail providers, including its own retail divisions, fully equivalent access products’.

Focusing on the first of the two options raises the question of why the European Commission proposed a new behavioural remedy with functional features.

The focus of the new directive on this remedy is strictly related to the observation of case-law of the last decade both at the European and US level. The recurrent presence of anomalies (such as ‘margin squeeze’ conducts³⁸²) in negotiating the process of access to wholesale services, on the one hand, and the increased awareness of the importance of granting fair and transparent access to ‘essential facilities’ (such as the communications networks), on the other, led the Commission to propose the amendments contained in directive 2009/140/EC. The aim was that of tackling the problem of access-related exclusionary or exploitative abuses with a remedy, functional separation, representing a further, more invasive, behavioural remedy.

³⁸² As discussed the relevant case law on margin squeeze is represented by the Commission Decision *Deutsche Telekom AG* (Case COMP/C-1/37.451, 37.578, 37.579), [2003] OJ L263/9 (14 October 2003). On appeal at the General Court, Case T-271/03 *Deutsche Telekom AG v. Commission* [2008] ECR-II-477, [2008] 5 CMLR 631; *Deutsche Telekom AG v European Commission*, Case C-280/08, [2010] ECR I-09555, [2010] 5 CMLR 1495; by the Commission Decision *France Télécom/Wanadoo* of 16 July 2003 COMP/38.2333 [2005] 5 CMLR 120, IP/03/1025; Case T-340/03 *France Télécom SA v Commission of the European Commission*, [2007] ECR II-107; Case C-202/07 *P France Télécom v Commission* [2009] ECR I-2369; Commission Decision *Wanadoo España v Telefónica* [2008] OJ C83/6 (‘Telefónica’), appealed at the General Court: Case T-336/07 *Telefónica and Telefónica de España v Commission* [2007] OJ C269/55, ECR I-0000, judgment on the 29 March 2012. On appeal at the Court of Justice, Case C-295/12 (see opinion of the Adv Gen Wathelet, 26 September 2013 accessible at <http://curia.europa.eu/jcms/upload/docs/application/pdf/2013-09/cp130117en.pdf>).

At the time of the negotiation of Directive 2009/140/EC³⁸³ the most important experience of functional separation was the remedy voluntarily proposed in 2006 by British Telecom, under the supervision of OFCOM, with the creation of the separate legal entity within the same group called '*Openreach*'.

This remedy represented the natural evolution of a discussion carried out by economists, international organisations (such as the OECD), law makers, regulatory and competition authorities. The argument centred around whether the draconian remedy of structural separation and the 'softer', behavioural, remedy of accounting separation, were better suited to provide transparency, fair prices (for competitors and consumers) and effective competition than recourse to functional separation. It represents a combination of both structural and accounting separation, and it is aimed at creating a ring-fenced division of the incumbent company dealing mainly with access and interconnection of competitors with the network³⁸⁴.

On the basis of this precedent, Article 13 a, first subparagraph, introduced by Article 2 of the new directive into the Access Directive, not only authorises functional separation of the division dealing with wholesale access to the network, but also stresses how the remedy will be adopted

'[w]here the national regulatory authority concludes that the appropriate obligations imposed under Articles 9 to 13 have failed to achieve effective competition and that there are important and persisting competition problems and/or market failures identified in relation to the wholesale provision of certain access product markets [...]'³⁸⁵.

Suffice to say that it aims at impeding bi-directional streams of information between the 'access/interconnection' division of a company and the retail division of the same vertically integrated company, creating a system of fire-

³⁸³ Directive 2009/140/EC of the European Parliament and of the Council of 25 November 2009, [2009] OJ L 337/37.

³⁸⁴ L. Correa, cited, p 64.

³⁸⁵ Dir 2009/140/EC [2009] L 337/37, art 2, para 10.

walls between the various divisions of the same company and its highest decisional bodies. Sharp accounting separation is a consequence and an important component of this process.

In line with the target of enhancing the ‘information symmetry’ between the regulator and the incumbent, the directive also amended Art. 13 of the Access Directive introducing a new paragraph establishing that

‘[a] national regulatory authority may, in accordance with the provisions of Article 8, impose obligations relating to cost recovery and price controls, including obligations for cost orientation of prices and obligations concerning cost accounting systems, for the provision of specific types of interconnection and/or access, in situations where a market analysis indicates that *a lack of effective competition means that the operator concerned may sustain prices at an excessively high level, or may apply a price squeeze, to the detriment of end-users*’³⁸⁶.

The analysis of the regulatory remedies that may be adopted to face network access-related abuses such as excessive pricing, price discrimination, margin squeeze, refusal to supply or ‘cross-subsidisation’ represents only one step into the variety of approaches adopted *vis à vis* the mentioned forms of abuse.

This analysis cannot be disjoint by the study of the *ex post* enforcement action carried out by the European Commission in recent years, in particular with respect to abuses carried out by some of the major European electronic communications operators.

The analysis in chapter V of some recent cases of Art. 102 infringements in the electronic communications sector (such as a few recent margin squeeze cases) complement the analysis carried out in chapter III with respect to the energy sector.

³⁸⁶ Dir 2009/140/EC [2009] L 337/37, art 2, para 9. Emphasis added.

3.7. Conclusion

Chapter III was aimed at linking the first three chapters on (i) functioning of the electronic communications networks, (ii) dominance and abuse with respect to those networks with the part of the thesis in which I will discuss the *ex post* enforcement activity and its effectiveness, arguing that in certain condition there should be the possibility of applying (or threatening to apply) structural remedies in the presence of exclusionary conducts with serious, anticompetitive, foreclosure effects. I will then, in chapter V, show how structural remedies have been implemented at least in the energy sector.

Next chapter will focus on the enforcement activity of the European Commission also in dealing with margin squeeze conducts in recent years. This chapter centred on the regulatory action that the European Commission carried out in the last two decades in order to prevent network-related abuses. It was also aimed at showing how some regulatory, *ex ante*, remedies, proved not to be completely apt to avoid certain forms of abuses, such as margin squeeze (*Deutsche Telekom* and *Telefónica* cases, discussed more in detail in chapter II).

I analysed the most elementary forms of regulatory action, aimed at introducing price-caps and accounting separation in order to avoid excessive pricing or other discriminatory policies.

I discussed how even in the presence of regulated tariffs (price cap) electronic communications operators such as DT and Telefónica were still able to fix their wholesale access prices (for the non-incumbent operators seeking the access) or their retail tariff (for their customers) at such a level as to make competition impossible in the long-run. The anticompetitive foreclosure effects (to use the Guidance Papers words) prevail on a conduct only apparently not harmful.

The weakness of the price-cap system in vertically-integrated undertakings is evident, after three judgments (the fourth, in the *Telefónica* case, is still

pending) of appeal that confirmed the duty for the undertaking to exercise all the discretionary power to avoid the anticompetitive exclusionary effect, even in the presence of tariffs set by the communications regulator.

One possibility of avoiding the negative effects of vertical integration combined with coordination among different divisions of the same company (dealing, for instance, with wholesale operations, retail operations and network access) would have been to separate the network access division from the 'body' of the corporation.

In those same years the Commission had just launched the Discussion Paper (2005), aimed at investigating at European level how anticompetitive foreclosure effects should have been taken into account by the Commission in prioritising its own enforcement activity. It is interesting to see how the Guidance Paper (2008) was published in the aftermath not only of the implementation of functional separation of British Telecom, but also in the aftermath of important judgments such as *Deutsche Telekom* (and the Commission decision against Telefónica in 2007), in which the issue of the relevance of **anticompetitive effects**, more than the conduct per se, can be indirectly linked also to the same reasons that are behind the decision of functionally separate British Telecom.

At the same time the reform of the electronic communications package 2002 took place and part of this chapter discusses the regulatory reform carried out by the European Commission in 2007/2009 through the proposal of new European legislation who became Directive 2009/140/EC, introducing functional separation as an *ex ante* remedy applicable at European level.

The central question in this chapter was whether functional separation can be considered sufficient to avoid network-related abusive conducts considering the difficulty, both for regulators and competition authorities, to detect the most subtle forms of abuse, such as margin squeeze.

The creation of a separate division within the BT Group called *Openreach*, the first form of functional separation for a major electronic communications

operator in Europe, and the relative success that this remedy had in United Kingdom, seems to suggest that vertical separation might be the correct answer to deal with access-related abusive conducts.

The question is whether more radical forms of separation, such as structural separation, either as an *ex ante* or as an *ex post* enforcement remedy is advisable in the electronic communications.

In the next chapter I will analyse how the European Commission and the European Courts have been dealing with the anticompetitive conducts of major operators, arguing that the fines imposed did not constitute a serious deterrent.

However, the recent evolution of the Courts (substantially upholding the finding and the decisions of the European Commission in the mentioned margin squeeze cases) shows not only an increased attention for network access-related abusive practices, but also a very stringent approach.

The cases of commitments in the energy sector that I will tackle in chapter V will show how in recent years the Commission adopted further important decisions in which proposals of vertical separation were accepted in order to suspend competition law enforcement proceedings.

This might suggest that also in the electronic communications sector the European Commission theoretically could either negotiate commitments leading to similar forms of structural separation, or adopt decisions imposing structural separation.

The doctrine has been largely hostile towards this extreme remedy. Why structural remedies as per Art. 7 of Regulation 1/2003/EC were never imposed in the electronic communications sector? This is a question that will be discussed after having further analysed in the next chapter the enforcement activity of the Commission with respect to access abuses put in place by vertically-integrated undertakings. I will discuss what role could play, at least

theoretical, the treat of imposing a draconian remedy such as structural separation.

CHAPTER IV

Ex post remedies as per Art. 23 and 7 of Regulation 1/2003/EC in the electronic communications sector.

PART A

- Pecuniary fines with respect to abusive conducts with anticompetitive foreclosure effects in the electronic communications sector
- Ineffectiveness of fines

PART B

- Analysis of commitments and undertakings in vertically-integrated industries at the origin of forms of vertical functional separation
- Partial ineffectiveness of functional separation as a behavioural remedy

4.1. Introduction

After having tackled in the previous chapter the legislative regulatory measures that the European Commission has been putting in place to address ‘bottleneck’-related restrictions to competition, I will now analyse some cases discussed in Chapter II and III in which the European Commission intervened on the basis of Articles 23 and 7 of Regulation no. 1/2003/EC to deal with Art. 102 TFEU abuses, imposing fines but also functional and structural remedies. The objective of this chapter is to argue whether the remedies adopted (pecuniary fines and functional separation, in particular) were effective, represented a serious deterrent, and addressed the competition concerns, or not.

I will highlight some recent cases of margin squeeze and refusal to supply unbundled access to the local loop (*Deutsche Telekom*³⁸⁷, *Telefónica*³⁸⁸, *TeliaSonera*³⁸⁹, *Telekomunikacja Polska*³⁹⁰ S.A and *Slovak Telekom*³⁹¹), showing the growing determination of the European Commission and of the European Courts to deal with margin squeeze and other forms of refusal to supply, linked to the control of the ‘bottle-neck’ access, restricting competition and reducing consumer welfare in the short and in the long run.

In certain cases, as in the *Deutsche Telekom* and *Telefónica* decisions, the Commission fined the companies even though these objected that their behaviour (in particular, setting network access prices) was in line with the margin of discretion set by the respective national regulatory authorities.

Margin squeeze, in particular, has the foreclosure anticompetitive effect of impeding direct competitors to survive in the medium and long run. Furthermore, such a practice indirectly affects also the level of broadband penetration in large parts of the European Union (as indicated, for instance, in paras 554 and 555 of the *Telefónica* Commission Decision³⁹²).

³⁸⁷Commission Decision *Deutsche Telekom AG* (Case COMP/C-1/37.451, 37.578, 37.579), [2003] OJ L263/9 (14 October 2003). On appeal at the General Court, Case T-271/03 *Deutsche Telekom AG v. Commission* [2008] ECR-II-477, [2008] 5 CMLR 631; *Deutsche Telekom AG v European Commission*, Case C-280/08, [2010] ECR I-09555, [2010] 5 CMLR 1495.

³⁸⁸Commission Decision *Wanadoo España v Telefónica* [2008] OJ C83/6 (‘Telefónica’), appealed at the General Court: Case T-336/07 *Telefónica and Telefónica de España v Commission* [2007] OJ C269/55, ECR I-0000, judgment on the 29 March 2012. On appeal at the Court of Justice, Case C-295/12 (see opinion of the Adv Gen Wathelet, 26 September 2013).

³⁸⁹Case C-52/09 *TeliaSonera*. See in particular the Opinion of AG Mazák.

³⁹⁰Commission Decision *Telekomunikacja Polska* COMP/35.525 of 22 June 2011, available at http://ec.europa.eu/competition/antitrust/cases/dec_docs/39525/39525_1916_7.pdf.

³⁹¹ Case *Slovak Telekom* COMP 39.523 on an alleged abuse of dominant position (refusal to supply unbundled access to competitors); statement of objection filed on the 8 May 2012, press release IP 12/462 accessible at http://europa.eu/rapid/press-release_IP-12-462_en.htm.

³⁹² Commission Decision *Telefónica* [2008] OJ C83/6, paras 554, 555 ff. In these paragraphs is clearly stated the anticompetitive effect that the margin squeeze conduct had on competitors and end users: ‘(para 554) By imposing a margin squeeze on its competitors, Telefónica’s conduct was likely to delay the entry and growth of competitors, and the achievement by those operators of a level of economies of scale which would have justified investments in their own infrastructure to use local loop unbundling. In so doing, Telefónica’s conduct also was likely to

I will also discuss the recent case of preliminary ruling *TeliaSonera*, examining how the Court partially departed from the opinion of Advocate General Mazák in dealing with a margin squeeze abuse, considering it sufficient to carry out the ‘margin squeeze test’ without including the ‘duty to supply test’, showing consistent determination in enforcing this type of abusive conduct.

The analysis of functional separation as a behavioural remedy (with related discussion about its effectiveness) will be based on the analysis of the *Deutsche Post* case of 2001, entailing the operational separation of one of its divisions to address competition concerns (Sect. 6).

I will then analyse the undertakings in lieu of reference to the Competition Commission at the origin of the creation in 2006 of Openreach as a separate access division within BT Group.

The analysis in Chapter III of functional separation in the United Kingdom as a remedy to deal with ‘bottlenecks’-abuses put in place by vertically-integrated firms, can be seen in conjunction with the structural remedies adopted through commitments in the energy sector (cases *E.ON*³⁹³ of 2008, *RWE*³⁹⁴ of 2008 and *ENI*³⁹⁵ of 2010, that will be discussed in the next chapter), showing that vertical structural separation realised through ownership divestiture may also be highly suitable to deal with vertical foreclosure, enhancing competition, innovation of the network (one of the target of *ENI* commitments), ultimately maximising consumers’ welfare.

delay the moment competitors could threaten its dominance in the regional and national markets. This conduct was likely to exhaust financially its competitors (para 555).

³⁹³Commission Decision *E.ON* (Case COMP/38.388-38.389) of 26 November 2008, [2009] OJ C36/8 of 13 February 2009, accessible at http://ec.europa.eu/competition/antitrust/cases/dec_docs/39388/39388_2796_3.pdf.

³⁹⁴Commission Decision *RWE (Gas Foreclosure)* (Case COMP/39.402) of 18 March 2009, Summary of the decision in [2009] OJ C133/10 of 12 June 2009 accessible at http://ec.europa.eu/competition/antitrust/cases/dec_docs/39402/39402_576_1.pdf.

³⁹⁵Commission Decision *ENI* (Case COMP/39.315) of 29 September 2010 (2010/C 352/10), [2010] OJ C352/8 of 23 December 2010

The scope of this chapter is that of evaluating the limits of pecuniary fines, and the advantages and disadvantages of functional separation as an enforcement remedy to deal with Art. 102 TFEU exclusionary abuses.

PART A

4.2. Pecuniary fines with respect to abusive conducts with anticompetitive foreclosure effects in the electronic communications sector. Ineffectiveness of fines

In Chapter II I analysed three major cases of margin squeeze (*Deutsche Telekom*³⁹⁶, *Telefónica*³⁹⁷, *TeliaSonera*³⁹⁸), one case of predatory pricing that was considered by the Commission as a case of margin squeeze (*Wanadoo* (France Télécom)), as well as two recent cases of margin squeeze and refusal to supply unbundled access in two new accession countries, Poland and Slovakia.

Except for the *Slovak Telekom* case (proceedings still pending), all these cases were fined by the European Commission with pecuniary fines as per Art. 23 of Regulation 1/2003/EC.

In the same way, looking at case-law at national level in many European countries with respect to the same type of abusive conducts, imposition of pecuniary fines is the most recurrent feature of competition law enforcement proceedings.

³⁹⁶ Commission Decision *Deutsche Telekom AG* (Case COMP/C-1/37.451, 37.578, 37.579), [2003] OJ L263/9 (14 October 2003). On appeal at the General Court, Case T-271/03 *Deutsche Telekom AG v. Commission* [2008] ECR-II-477, [2008] 5 CMLR 631; *Deutsche Telekom AG v European Commission*, Case C-280/08, [2010] ECR I-09555, [2010] 5 CMLR 1495.

³⁹⁷ Commission Decision *Telefónica* [2008] OJ C83/6, appealed at the General Court: Case T-336/07 *Telefónica*, now on appeal at the Court of Justice, Case C-295/12.

³⁹⁸ Case C-52/09 *TeliaSonera*.

For instance, in Italy, between 1994 and 2013, a number of exclusionary conducts cases were all decided by the Italian competition authority (*Autorita' Garante della Concorrenza e del Mercato*, AGCM) with the imposition of pecuniary fines. In some cases behavioural measures were imposed, but neither functional nor structural separation was ever discussed as an *ex post* remedy.

To address the thesis question: what remedy, functional or structural, is most suitable to deal with network-related abuses, I need to answer another question. Were pecuniary fines sufficient to deter the major electronic communications operators in Europe since the beginning of the liberalisation process?

This section is aimed at looking at what percentage of the annual turnover (total and/or of the affected market) made in the previous financial year was applied in order to fine the major operators of electronic communications. The aim is to show that pecuniary fines, in the presence of 'deep pockets' undertakings, do not seem to constitute a serious threat or deterrent for the abusers, when the fines form only a fraction of annual turnover.

If we look at the new Guidelines for setting the pecuniary fines, applicable to infringements for which the statement of objections was filed by the Commission after 1st September 2006, first of all, the basic amount of the pecuniary fine is calculated as a percentage of the value of the sales (made in the previous business year) connected with the infringement, multiplied by the number of years the infringement has been taking place.

The percentage of the value of sales is determined according to the gravity of the infringement (nature, combined market share of all the parties concerned, geographic scope, etc.) and may be as much as 30 % of the value of sales³⁹⁹.

As per Article 23(2) of Regulation 1/2003/EC the pecuniary fine cannot trespass the threshold of 10% of the annual turnover of the company, bearing

³⁹⁹ For an overview of the guidelines for setting fines, see http://europa.eu/legislation_summaries/competition/firms/l26118_en.htm

in mind that the 10% limit may be based on the turnover of the entire group to which the company belongs when the parent company of the group exercise decisive influence over the operations of the subsidiary during the infringement period⁴⁰⁰.

At a European level we can start with the 2003 *Deutsche Telekom*⁴⁰¹ margin squeeze case. As I discussed in Chapter II, in 2003 the company was fined with a pecuniary fine of EUR 12.6 million for abusing its dominant position through a margin squeeze conduct.

The annual turnover of Deutsche Telekom in the market of fixed-network business in 2002 was of EUR 30,2 billion⁴⁰². The Commission considered the infringement put in place by Deutsche Telekom as a serious one from 1998 to 2000, and only a minor infringement until the beginning of 2002, considering the nature, scale and impact of the conducts⁴⁰³.

The Commission suggested a starting amount to calculate the fine of EUR 10,000,000⁴⁰⁴ (reaching the mentioned amount of EUR 12,6 million by virtue of the aggravating and mitigating circumstances). If we look at the annual turnover of DT's fixed-network business, the starting-point fine of EUR 10 million was equal to 0,033%⁴⁰⁵, an infinitesimal fraction of that turnover. If we consider the total turnover of DT at global level, that fine is even smaller. It must be said that the initial amount on which the final fine was calculated was

⁴⁰⁰ See Fact sheet on the imposition of European Commission fines, accessible at http://ec.europa.eu/competition/cartels/overview/factsheet_fines_en.pdf. The most recent guidelines on the procedure to setting fines date September 2006 (Guidelines on the method of setting fines imposed pursuant to Article 23(2)(a) of Regulation No 1/2003 - 2006/C 210/02. They also set a 30% threshold of the annual turnover of the market concerned by the abuse.

⁴⁰¹ Commission decision *Deutsche Telekom AG* [2003] OJ L263/9.

⁴⁰² *ibid*, para 205.

⁴⁰³ *ibid*, para 204.

⁴⁰⁴ *ibid*, para 200.

⁴⁰⁵ In the *Deutsche Telekom* case, the EUR 10,000,000 fine was increased by 40% for the long duration, but got 10% reduction for mitigating circumstances.

quite small also considering that it was the first time that the European Commission fined a telecom company for margin squeeze.

However, similar conclusion can be reached with the 2003 *Wanadoo Interactive* (France Telecom⁴⁰⁶) case. It was dealt by the Commission as a case of predatory pricing (though, as mentioned in Chapter II, it could be considered as a case of margin squeeze). In this case the Commission imposed a fine of EUR 10.35 million⁴⁰⁷, starting from a starting amount of EUR 9,00 million, equal to a very small percentage of the group's turnover (the forecast for the financial year 2002 were EUR 34.4 billion)⁴⁰⁸. The Commission decision was appealed, but the European Court rejected the appeal as partially inadmissible and partially unfounded⁴⁰⁹.

The Commission decision *Telefonica* of 4 July 2007⁴¹⁰ led to a fine of EUR 151 875 000 for infringing Article 102 TFEU. The decision was addressed to Telefónica S.A. ('Telefónica') and its 100% owned subsidiary Telefónica de España, S.A.U ('TESAU'). According to the finding of the Commission, between September 2001 and December 2006 Telefónica abused its dominant position by imposing unfair prices in the form of a margin squeeze in the Spanish broadband market. In this case the proceedings had been triggered by a complaint of Wanadoo Espana alleging that Telefónica was engaging in a margin squeeze in the Spanish broadband internet access markets. According to the Commission Decision *Telefónica* (para 15), the

⁴⁰⁶Wanadoo Interactive is part of the France Télécom group: 99.9% of its capital is held by Wanadoo SA.

⁴⁰⁷ Commission decision *Wanadoo Interactive (France Télécom)* (Case COMP/38.2333) of 16 July 2003, [2005] 5 CMLR 120 paras 404 and 414.

⁴⁰⁸ The turnover of the group is in Annex 16 of the Commission decision *Wanadoo Interactive*, but is redacted. An approximate amount of the entire group's turnover can be found at <http://www.totaltele.com/view.aspx?ID=399093>.

⁴⁰⁹ *On appeal, France Télécom SA (formerly Wanadoo Interactive SA) v Commission*, Case T-340/03, [2007] ECR II-107. Judgment of the General Court appealed before the European Court of Justice: *France Télécom v Commission* Case C-202/07 P, [2009] ECR I-2369.

⁴¹⁰ Commission Decision *Telefónica*, appealed at the General Court: Case T-336/07 *Telefónica*, judgment on the 29 March 2012. On appeal at the Court of Justice, Case C-295/12.

worldwide revenues of the Telefónica group were € 52.9 billion in 2006⁴¹¹. In this case too it could be argued that the fine represents a very small percentage of both the relevant market in which the abuse was put in place, and the total turnover of the Telefónica group⁴¹².

As anticipated in Chapter II, the General Court on the 29 March 2012 rejected the appeal filed by the company, confirming the fine. The company appealed the judgment before the ECJ. It must be noted that in September 2013 the Advocate General Melchior Wathelet filed his opinion stressing that the General Court did not correctly exercise its power of review of the Commission's decision with respect to the fine. He argued that the General Court had made errors of law in analysing the respect of the principle of proportionality, of equal treatment and of the individuality of the fines (as well as the duty of motivation), recommending the Court of Justice General Court to annul the General Court's judgment since had not re-examined the correctness of the fine imposed by the Commission⁴¹³. It is therefore possible if the opinion of the Advocate General will be taken into account, the judgment will be annulled and, upon review, the fine will be substantially reduced.

In the *TeliaSonera* case (preliminary ruling by the European Court of Justice filed on the 17 February 2011) the Swedish national competition authority asked the referring court to fine TeliaSonera with SEK 144 000 000 (EUR 15.1 million) for infringing national competition law and Article 102 TFEU for abusing 'on the wholesale market by applying a margin between the wholesale price for input ADSL products and the retail price for ADSL services it offers to consumers which would not have been sufficient to cover TeliaSonera's incremental costs on the retail market'⁴¹⁴. TeliaSonera's total turnover for 2010 was SEK 106.5 billion (EUR 11.95 billion). Again the fine represents a very small percentage of the total turnover of the group. The Stockholm District

⁴¹¹ Telefónica Trimestral Report December 2006, p 7.

⁴¹² The financial data of Telefónica are accessible through its online prospectus at http://www.telefonica.com/en/about_telefonica/pdf/informes/2006/version_inglesa.pdf.

⁴¹³ Case C-295/12, opinion of the Adv Gen Wathelet, 26 September 2013, para 175 ff.

⁴¹⁴ Opinion of AG Mazák in Case C-52/90 *TeliaSonera*, para 3.

Court in December 2011 effectively fined with SEK 144 000 000 TeliaSonera, but a recent judgment on appeal given by the Swedish Market Court (in April 2013) on the one hand confirmed the existence of the abuse, but on the other further reduced the fine to SEK 35 000 000, making the pecuniary fine much lighter⁴¹⁵.

Similar analysis could be carried out at national level, looking at the most recent cases of abuse of dominant position in the electronic communications sector, and in particular to exclusionary conducts with anticompetitive foreclosure effects.

If, to make a national example, we look at the Italian scenario, between 1995 and 2001, similar conclusions can be reached with respect to fines imposed at European level.

One of the first cases of exclusionary conduct is the '*Albacom/Telecom Italia–leased lines*' case⁴¹⁶ of 1997. The incumbent, Telecom Italia, was fined for having abused its dominant position not only by hindering the access to its network by a broad-band service competitor (Albacom) but more interestingly for not having put at its disposal the part of networks (dedicated circuits, or leaded lines) that would have allowed the competitor to provide high-capacity services up to 34 Mbps. The Italian Competition Authority considered these infringements as particularly serious. However, the Italian competition authority fined Telecom Italia with a fine of EUR 490,702 equivalent to 1 per cent of the relevant annual turnover of the specific market (leased lines)⁴¹⁷.

⁴¹⁵ The judgment reduced the fine also considering some mistakes made by the District Court in dealing with the standard of proof, making excessively burdensome for the competition authority to provide evidence supporting its claims. See Lars Henriksson, The Swedish Market Court Rules in an important margin squeezing case involving TeliaSonera, accessible at <http://celec.info/?p=1168>. A press release of the Swedish Competition Authority is accessible at http://www.kkv.se/t/NewsPage___8975.aspx on the website of the authority itself. The judgment of the Swedish Market Court is accessible at <http://www.marknadsdomstolen.se/Filer/Avg%C3%B6randen/Dom2013-5.pdf>.

⁴¹⁶ Italian Competition Authority *delibera* no. 5428 (A178) - *Albacom/Telecom Italia-Circuiti dedicati* of 30 October 1997.

⁴¹⁷ Telecom Italia's previous business year annual turnover for the lease lines market was LIT 95 billion, equal to 38% of the total turnover of Telecom Italia.

Considering that it is one of the first cases in the electronic communications sector, and the first case of exclusionary behaviours, the exiguity of the fine could be justified by the will of sanctioning the behaviour with a 'symbolic' fine.

However, the sanctions did not increase a few years later. On 17 November 1999 the Italian Competition Authority opened proceedings against Telecom Italia for an alleged abuse of its dominant position in supplying fast Internet service with ADSL technology. The complaint was filed by its competitor, Infostrada. On 27 April 2001 the Competition Authority issued a decision recognising that Telecom Italia abused its dominant position on the market for the supply of (i) local connectivity; and (ii) data transmission and Internet access services with the application of the ADSL and X-DSL/SDH broadband technologies to the public switched network. The Italian incumbent was charged with a fine of approximately EUR 59 400 000, one of the highest fines imposed on a telecommunications operator in Italy⁴¹⁸. In 1999 the annual turnover of the entire group at global level was of Italian Liras 52 480 billion (EUR 271 billion), while the turnover of the internet division of Telecom Italia (TIN.it) was of Italian Liras 133 billion (EUR 68 million). Therefore also in this case the fine represents a very small percentage of both the annual turnover of the group and of the relevant market.

Another case triggered in 2003 against Telecom Italia⁴¹⁹ on the basis of a complaint filed by the major electronic communications operators for predatory pricing leads to identical conclusions with respect to the exiguity of the fine. The competitors alleged that Telecom Italia abused its dominant position by offering communications services on fixed networks to 'business' final users providing under-cost tailored services rates. As per the complaint, the final users and Telecom Italia had signed contracts authorising Telecom Italia to carry out monitoring activities on the final consumers of its own wholesale customers.

⁴¹⁸ See Italian Competition Authority *delibera* no. 9472 (A285) *Infostrada/Telecom Italia – Tecnologia ADSL*, cited.

⁴¹⁹ Italian Competition Authority *delibera* no. 12067/2003 (A 351) - 'Abusive behaviours of Telecom Italia' of 5 June 2003, in bulletin of the Italian competition authority no. 23/2003

On 16 November 2004 the Italian Competition Authority established that Telecom Italia had abused its dominant position, imposing a fine of EUR 152 million. The global turnover of Telecom Italia for the previous year was equal to EUR 30,400 billion; as in other cases the fine represents a very small percentage of the global turnover. The Authority demonstrated that Telecom Italia had carried out its abusive conduct in the provision of fixed network telecommunications services for business customers and that the abusive conduct had to be considered part of a single strategy aimed at excluding competitors from the business end-users market for telecommunications services, in order to preserve its dominant position.

The Italian Competition Authority's decision was appealed before the administrative tribunal and quashed on the basis of several weaknesses found in the reasoning carried out by the Competition Authority. The judgment of the administrative tribunal was appealed by the Competition Authority before the *Consiglio di Stato*, which overturned the judgment, confirming the Competition Authority's findings, slightly reducing the amount of the fines⁴²⁰.

In this case too we can conclude that the amount of the fine is an infinitesimal percentage of the total turnover of the group.

Along the same lines, we can analyse another case of abuse of dominant position, namely '*Tele2/Telecom Italia Mobile, Vodafone, Wind*' (2004-2007). The investigation was launched on 23 February 2005⁴²¹ by the Italian Competition Authority on the alleged violation of Art. 102 TFEU. The proceedings were closed on 3 August 2007 with a decision fining Telecom Italia with EUR 20 million (with a turnover in the mobile telephony of EUR 12.9 billion in 2004) and WIND with EUR 2 million (with a global turnover of EUR 4.5 billion in 2004)⁴²².

⁴²⁰ *Consiglio di Stato*, judgment of 10.03.2006, no.1271/06.

⁴²¹ Italian Competition Authority *delibera* no. 14045 (A357) *Tele2/TIM-VODAFONE-WIND* of 23 February 2005, in bulletin of the Italian Competition Authority no. 8/2005.

⁴²² Italian Competition Authority *delibera* no. 17131 (A357) *Tele2/TIM-VODAFONE-WIND* of 3 August 2007, <http://www.agcm.it>.

Again one can conclude that the amount of the fine is a small percentage of the total turnover of the companies involved in the abusive conduct.

This section was aimed at showing how both at European and at a national level (taking a few examples from the national experience of Sweden and Italy) the pecuniary fines⁴²³ do not seem to have a major impact on the activity of the company and do not seem to have a deterrent effect, considering that at least at national level the abuses are recurrent and that Telecom Italia, in the last twenty-three years of activity of the Italian competition authority, appears to be recidivist.

PART B

- **Analysis of functional separation as an ex post remedy (the *Deutsche Post* decision, 2001)**
- **Analysis of commitments and undertakings in vertically-integrated industries at the origin of forms of vertical functional separation (the *Openreach* experience, 2006)**
 - **Partial ineffectiveness of functional separation as a behavioural remedy**

4.3. Cases at European level. *Deutsche Post*: a case of operational (functional) separation in a pre-Regulation 1/2003/EC scenario.

One of the few cases in which the European Commission imposed functional operational separation, within the same group (*de facto* anticipating of a few

⁴²³ At European level calculated on the basis of criteria set in the Guidelines of the European Commission of 1998 and 2006.

years the voluntary functional separation of the BT/*Openreach*ⁱ case of 2006) is the *Deutsche Post* case of 2001⁴²⁴.

The European Commission, after an investigation launched on the basis of a complaint filed by United Parcel Service ('UPS'), found that Deutsche Post AG had abused its dominant position in the market for delivery of business parcel services by granting fidelity rebates and engaging in predatory pricing to the point of foreclosing competition. Functional (operational) separation imposed by the European Commission represented the most suitable solution to implement a system of transparent and market-based pricing operating between Deutsche Post AG and the new entity for the delivery of products and services.

Such a form of safeguard was considered the most efficient way to ensure that Deutsche Post's revenues from the monopoly in the letter market would not be used to finance the delivery of business parcels, hampering competition.

The decision also condemned a long-standing scheme of fidelity rebates in mail order parcel deliveries, from 1974 to 2000. Deutsche Post granted substantial discounts to its large mail order customers on the condition that its customers would have used its services to deliver business parcels. This system was sufficient to impede any other competitor to reach a 'critical mass' of deliveries that would have made economically efficient to enter the market. The Commission also fined Deutsche Telekom with a pecuniary fine of EUR 24 million.

Mario Monti, commenting on this decision, made express reference to the difference between adopting a decision imposing a mere financial fine and a decision with a forward-looking approach:

⁴²⁴ Commission Decision *Deutsche Post AG* (Case COMP/35.141) of 20 March 2001, [2001] OJ L125/27. See also press release of the European Commission decision *Deutsche Post AG*, IP/01/419.

'Today's decision establishes clear rules on the issue of 'cross-subsidies' that postal monopolies who are also engaged in activities open to competition must respect. The winner clearly is the public at large: pricing below cost must be paid by somebody and that 'somebody' usually is the monopoly's customers. Moreover, pricing below cost forecloses market entry by efficient competitors and therefore prevents a wider offer at better prices and service conditions. I am particularly pleased that in this case we have not simply sanctioned anti-competitive practices but achieved a forward-looking result, in the form of Deutsche Post's commitments in the parcel delivery market which are of great importance to the development of electronic commerce'⁴²⁵.

As stated in the conclusion of the decision, Deutsche Post AG was ordered to create a Newco that would have dealt with the delivery of business parcel, submitting 'to the Commission a statement of the costs and revenue of Newco. In addition DPAG shall each year submit an itemised statement of the transfer prices paid by Newco for all goods or services procured from DPAG'⁴²⁶.

It must be remembered that in the postal sector the case *Oscar Bronner* found one of its first applications. As referred by M. Cave,

'It is therefore not desirable to force the incumbent to provide access to its network. Compelling access could result in inefficient entry and cost increases for the incumbent provider and could impede sustainable competition and innovation. The postal sector does not, on the whole, have any insurmountable entry business or any structural characteristic that would restrict actual competition within a reasonable period' ⁴²⁷.

Prima facie the functional separation solution appeared to be the most efficient, and induced the doctrine to argue that when the hypothesis of

⁴²⁵ Press release of the *Deutsche Post AG* Decision, IP/01/419.

⁴²⁶ Commission Decision *Deutsche Post AG* (Case COMP/35.141) of 20 March 2001, [2001] OJ L125/27, para of the final dispositive.

⁴²⁷ M. Cave, 'Separation and access prices in postal services', (2005) 6 *Journal of Network Industries*, 118, recalling a work of De Bijl, Van Damme and Larouche, 'Towards a liberalized postal market', report by TILEC, Tilburg University, 2003, p 74.

separation is at stake, the best approach is to consider each market and each case as an isolated situation in which the choice of the remedy requires complex preliminary investigation of the pros and cons⁴²⁸.

4.4. Functional separation at national level: the UK experience of *Openreach*.

Having analysed the main network-related abusive conducts in Chapter II (electronic communications sector) and Chapter III (energy sector), Chapter IV was devoted to the evolution of regulatory tools at European level to favour a non-discriminatory access to network. The Electronic Communications Directives reform, enacted in 2009, identified functional separation as the most suitable remedy to deal with serious obstacles to network access.

In the first part (Part A) of this chapter I analysed a few cases of abuse of dominant position with exclusionary (foreclosure) effects in which pecuniary fines were imposed. I briefly analysed the most interesting cases of competition enforcement activity carried out by the European Commission in the last decade in the electronic communications sector (cases *Deutsche Telekom*, *Wanadoo- France Télécom*, *Telefónica*), showing how access-related abuses of dominant position were usually penalised with fines representing a very small percentage of the annual turnover of the incumbent.

At a European level and with respect to the Italian scenario, it can be said that those fines (often reduced on appeal) did not represent a serious deterrent, as can be seen by (i) the exiguity of the pecuniary fines with respect to the turnover of companies fined, and (ii) the recurrence of the same type of abuse in two decades of competition law enforcement put in place by the same company (in the example of recidivism at national level taken in the previous section, Telecom Italia).

⁴²⁸ Ibid, p 120.

In the next chapters I will discuss how, if an ‘advanced behavioural remedy’ such as functional separation negotiated by BT with OFCOM was taken by the European Commission as a model for modifying the regulatory framework at European level introducing a new ‘ex ante’ remedy (as discussed in Chapter IV), also structural remedies could be taken as successful examples. This time without modifying existing regulations in order to introduce a new *ex ante* tool, but rather to suggest the Commission (and the NCAs) to go a step further in its/their *ex post* enforcement activity.

This section and the next sections are aimed at showing how functional separation became a model of reference for new *ex ante* rules in the electronic communications sector as per Directive 2009/140/EC, but also how, after seven years after its implementation there are still some concerns on its effectiveness.

In the United Kingdom, *Openreach* was the solution adopted on the basis of a particular form of commitments, the so-called ‘undertaking *in lieu* of market investigation’ as per Section 154 of the United Kingdom EA02⁴²⁹. Section 154 is the tool that in 2005-2006 provided the legal basis for the undertakings negotiated between the UK competition authority competent for communications, OFCOM, and the British incumbent of communications, British Telecom Group, which led to the functional separation of the access division of BT Group. The undertakings proposed by British Telecom were accepted by OFCOM, and were aimed at addressing serious concerns of potentially abusive conduct carried out over the years by British Telecom in the market for access to infrastructure of telecommunications (in particular to the local loop) *vis à vis* the competitors–new entrants (or would-be new entrants).

⁴²⁹ For an extensive explanatory analysis of the Enterprise Act 2002, see ‘Enterprise Act 2002, The New Law of Mergers, Monopolies and Cartels’, T. Frazer, S. Hinchliffe and K. George, The Law Society publishing, 2003. See also the Competition Commission’s guidelines on Market Investigation references, June 2003, CC3. The Competition Commission in April 2011 sought comments from stakeholders on those sections of the working-draft that had by that time been extensively developed. New guidelines were published in April 2013 (CC3, revised).

The undertakings signed by British Telecom before OFCOM in 2006 led to the creation of a new division within the group called '*Openreach*'. The creation of a separate division dealing with the negotiation of new access contracts between the incumbent and the competitors can be considered the first example in Europe and in the electronic communications sector of 'functional separation'.

Chapter 3 of the Enterprise Act, Enforcement, sub-section 'Undertakings and orders', establishes the legal tools for the so-called 'market investigations' carried out by the Competition Commission, as provided by Section 131 of the Enterprise Act 2002.

It is worth recalling part of Section 154 of the Enterprise Act 2002:

' [...]The OFT may, instead of making such a reference [to the Competition Commission] and for the purpose of remedying, mitigating or preventing: (A) any adverse effect on competition concerned; or (B) any detrimental effect on customers so far as it has resulted from, or may be expected to result from, the adverse effect on competition; accept, from such persons as it considers appropriate, **undertakings such action as it considers appropriate.** (3) In proceeding under subsection (2), the OFT shall, in particular, have regard to the need **to achieve as comprehensive a solution as is reasonable and practicable to the adverse effect on competition concerned and any detrimental effects** on customers so far as resulting from the **adverse effect on competition.** In proceeding under subsection (2), the OFT may, in particular, have regard to the effect of any action **on any relevant customer benefits** of the feature or features of the market concerned [...].

Before analysing in depth the meaning of Section 154 EA02, this article must be read in conjunction with Section 131 EA02 'Making references' (Chapter 1 – Market investigation references). At paragraph 1, it establishes that:

'The OFT may, subject to subsection (4), make a reference to the [Competition] Commission if the OFT has reasonable grounds for suspecting that **any feature, or combination of features, of a market in the United Kingdom for goods or services prevents, restricts or**

distorts competition in connection with the supply or acquisition of any good or services in the United Kingdom or a part of the United Kingdom [...]'.

If the investigated party does not propose undertakings in lieu of reference under Section 154 EA02, and a reference to the Competition Commission is made by the OFT, the Competition Commission has to decide whether competition is prevented, restricted or distorted. If this is the case, the Competition Commission decides which action should be taken to remedy the adverse effect on competition or any detrimental effect on customers resulting from it (i.e. higher prices, lower quality or less choice of goods or services, or less innovation in relation to goods or services in market in the UK)⁴³⁰.

The Competition Commission's reference is an exceptional tool in the hands of the competition authorities (OFT and CC, that will merge from 1st April 2014 to create the Competition and Markets Authority) to deal with situations that may escape to the customary application of the CA98 Prohibitions. A market investigation reference can be considered *the* preferable tool to address 'wider competition concerns than those which could be addressed by a CA98 case, and might, therefore, be a better way of proceeding'⁴³¹. By its very nature, it is a tool particularly suited to deal with anti-competitive issues determined by the particular **features** of an entire market or by the conduct or structure of a number of undertakings⁴³².

The 'undertakings in lieu of' reference represents a third way that will attract attention in future, especially in consideration of its capacity, as a tool of

⁴³⁰See point 1.11 of the March 2006 OFT Guidelines on the market investigation reference, p 4.

⁴³¹OFT Guidance, March 2006, point 2.5, p 7.

⁴³²*'The OFT might decide to make a market investigation reference when there has been an abuse of a dominant position and it is clear that nothing short of a structural remedy going beyond what is appropriate under CA98 would be effective in dealing with the consequential adverse effect on competition. This position will be reviewed in the light of changes to CA98 arising from the implementation in the UK of the modernisation of EC Competition Law [...]'*, *ibid*, point 2.8, p 8.

competition policy, to be flexible and potentially tailored to a specific case⁴³³. It is possible that the Competition Commission market investigation will show that the conduct amounted to an abuse of a dominant position prohibited under Article 102 TFEU; at the end of an investigation phase the Competition Commission might impose remedies under the EA02, including functional and even structural separation.

The market structure will be one of the key points that the Competition Commission (and, before the reference, the OFT) will investigate. Another important structural feature considered by the Competition Commission is the level of **'vertical integration' of the investigated companies**. Vertical integration may often be efficient or pro-competitive, but can easily turn into an anti-competitive aspect since this feature can lead to foreclosure of non-integrated competitors for a significant part of their market either by refusing to supply or to deal with them, or by discriminating against them through pricing. At the end of a market investigation, the Competition Commission will choose the best remedy to address competition concerns. In so doing, the Competition Commission will take into consideration two factors: **costs** and **proportionality**⁴³⁴. The Commission will also explain how the remedies may positively impact on consumers.

The remedy will be either directed at the adverse effects of a market feature on competition, or at the detrimental effect on consumers. In other words, it will either address the reason for the anti-competitive effects, or the consequences of the market feature that created the anti-competitive effect.

Another important aspect is the **effectiveness** of the remedy to be chosen. The Commission has a wide range of options. Remedies can be aimed at modifying the structure of the market, i.e. requiring the **divestiture of a business or assets** to a newcomer or to an existing, but smaller competitor; another option might be to keep focusing on the market feature, adopting less

⁴³³ *ibid*, point 2.12, p 9.

⁴³⁴ 'Enterprise Act 2002, The New Law of Mergers', cited, p 163.

intrusive remedies (i.e. the company may undertake to enact behavioural measures, for instance removing barriers to entry or lowering the switching costs). The Competition Commission, in doing so, will also establish whether it is directly competent to adopt the best remedy, or whether it is advisable to let a specific market regulator (for example OFCOM, OFGEM) adopt the most suitable remedy.

This preamble explains how the investigation triggered by the OFT in 2005, with respect to the electronic communications sector, led to the signature of the undertakings by British Telecom. The investigation was transferred to OFCOM being the entity directly competent *ratione materiae*. OFCOM identified several market features that had materially slowed down the competitive process in the downstream market of access to the infrastructures, especially the access to the last-mile. OFCOM also identified bottle-necks and the risk of discrimination carried by British Telecom with respect to the access to its own infrastructure by competitors, in particular providers of voice telephony and broadband access to internet.

British Telecom agreed to negotiate ‘undertakings in lieu of reference’, that led, in September 2005, to the signature of a proposal of undertakings mainly dealing with the creation of a separate division, within the same group (BT Group), responsible for the access to the last mile: *Openreach*, the new division created in January 2006⁴³⁵.

Features of this procedure will be analysed further in Chapter VI, and compared with other remedies, namely with structural separation.

⁴³⁵ The fundamental document is the ‘undertakings’ signed by BT with OFCOM. See the *Undertakings given to OFCOM by BT pursuant to the Enterprise Act 2002*, 22 September 2005, at <http://stakeholders.ofcom.org.uk/binaries/telecoms/policy/bt/btundertakings.pdf>. It must be read in conjunction with the OFCOM’s *Final statements on the Strategic Review of Telecommunications and undertakings in lieu of a reference under the Enterprise Act 2002*, 22 September 2005, London, 2005, at <http://stakeholders.ofcom.org.uk/binaries/consultations/752417/statement/statement.pdf>.

In the next chapter I will show how the extreme outcome of structural separation that appeared buried by jurisprudence and the doctrine as exemplified by the *AT&T* case of 1984, is a viable argument to be used when dealing with network-related anticompetitive conducts also at national level.

5.5. Advantages of functional separation in the UK experience with *Openreach*.

The undertakings signed by British Telecom with OFCOM represent the cutting-edge of a long process of regulation aimed at protecting and enhancing competition and therefore, competitiveness in the communications markets in Britain. The United Kingdom is today characterised by the presence of a high number of communications operators. Briefly, in the market of fixed telephony British Telecom can be listed alongside a relevant number of competitors: Cable & Wireless, COLT, Easynet Ltd, Global Crossing UK, Gamma Telecommunications, Geo, Kingston Communications, NTL-Telewest, Thus, Your Communications. These main operators were joined by 370 'wholesale line rental' operators and Local Loop Unbundled operators (the twelve main fixed telephony operators, plus Carphone Warehouse/AOL UK, Pipex, Orange UK, Tiscali UK, Cable & Wireless, NTL-Telewest, Easynet for one million lines in total)⁴³⁶.

In the last decade, the main issue for operators in the electronic communications market was how to gain access to the existing infrastructure without suffering potential or actual recurrent forms of price-discrimination, direct or indirect refusal to supply, predatory or excessive prices and, more recently, forms of margin squeeze. The 'Framework Directive' tried to prevent access-related abuses through the above-mentioned SMP obligations. However, the UK example of functional separation negotiated in 2005 with OFCOM demonstrated the possibility of an alternative remedy with respect to traditional *ex ante* tools.

⁴³⁶ Data presented by J. Taylor, BT Global Services, in her presentation 'Openreach – an open network for all. Dream or reality', November 2006, available at http://www.pts.se/Archive/Documents/SE/061129_Presentation_Joanna_Taylor_9.pdf

As we have seen above, the main concerns that led to functional separation in the UK were the following: the monopolist was not investing in terms of innovation as there was no incentive to take risk; the control (ownership) of the fibre to cabinet or to premises arrangements appeared to be used as an excuse for a form of 're-monopolisation'; the incumbent (BT) would have rolled out the so-called '21 CN'⁴³⁷ (the New Generation Network, or 'NGN') knowing that it would have been regulated and functionally separated by the core of the Group.

The EU directives and the NRAs had the common target of granting a non-discriminatory, transparent, cost-oriented access for any competing operators. However, competition in UK was evidently restricted in at least two markets: the wholesale markets (i) for access to the network and (ii) of backhaul services. This factor was particularly evident if one considers that the incumbent had substantial wholesale market power and was a vertically integrated provider with a presence in directly-related retail markets.

The peculiar characteristic of the electronic communications operator, controlling the wholesale provision and the downstream businesses at the same time, led OFCOM to embark on an action calling into question BT's ability to carry out potentially discriminatory behaviours. The chronology of recurrent abuses carried out by BT leveraging its dominant position in the upstream market or in the control of the access to the core-infrastructure forced OFCOM to identify the best remedy to pave the way for the creation of the New Generation Network to be deployed in UK from 2006 onwards.

OFCOM's Telecommunications Strategic Review of 2004 played a crucial role. The conclusion reached at the end of that review could lead to a reference to

⁴³⁷ Network of new generation for the 21st century, <http://www.btplc.com/21CN/>), explanatory video to understand the concept of migration from the traditional network to the New Generation Network: <http://www.btplc.com/21CN/The technology of the network/21CN-guide.wmv>

the Competition Commission on the basis of the Enterprise Act 2002. The outcome at that early stage was unpredictable, but one of the hypotheses was that the Competition Commission could opt for BT's structural separation. BT therefore decided to negotiate 'undertakings in lieu of reference', which had finally signed on 22 September 2005 and implemented in January 2006 with the creation of a separate division⁴³⁸. The undertakings focus on access bottlenecks; they outline the creation of a functionally separate entity, i.e. a separate access division⁴³⁹; they are based on the principle of 'equivalence of inputs'; they outline the operational separation, transparency of negotiation and separation of the systems; the new entity must have independent oversight, and enforcement mechanisms are also foreseen.

Figure no. 7 shows the assets of Openreach and how the undertakings in lieu of reference materially impact over the functions of British Telecom Group.

⁴³⁸ For an overview on the creation and functioning of Openreach as a separate division of BT Group, see the clear memorandum published by OFCOM, at <http://stakeholders.ofcom.org.uk/binaries/telecoms/policy/bt/overview.pdf>

⁴³⁹ The main operational characteristics of Openreach can be outlined as follows: equivalence of input to access bottlenecks; same services available to all and equally used by incumbent in downstream markets; forceful, and transparent, non-discrimination obligations; equality of access to information and product development; clear boundaries between upstream and downstream divisions; effective, transparent and public accounting separation obligation; effective regulation and control to ensure full compliance to the proposed undertakings.

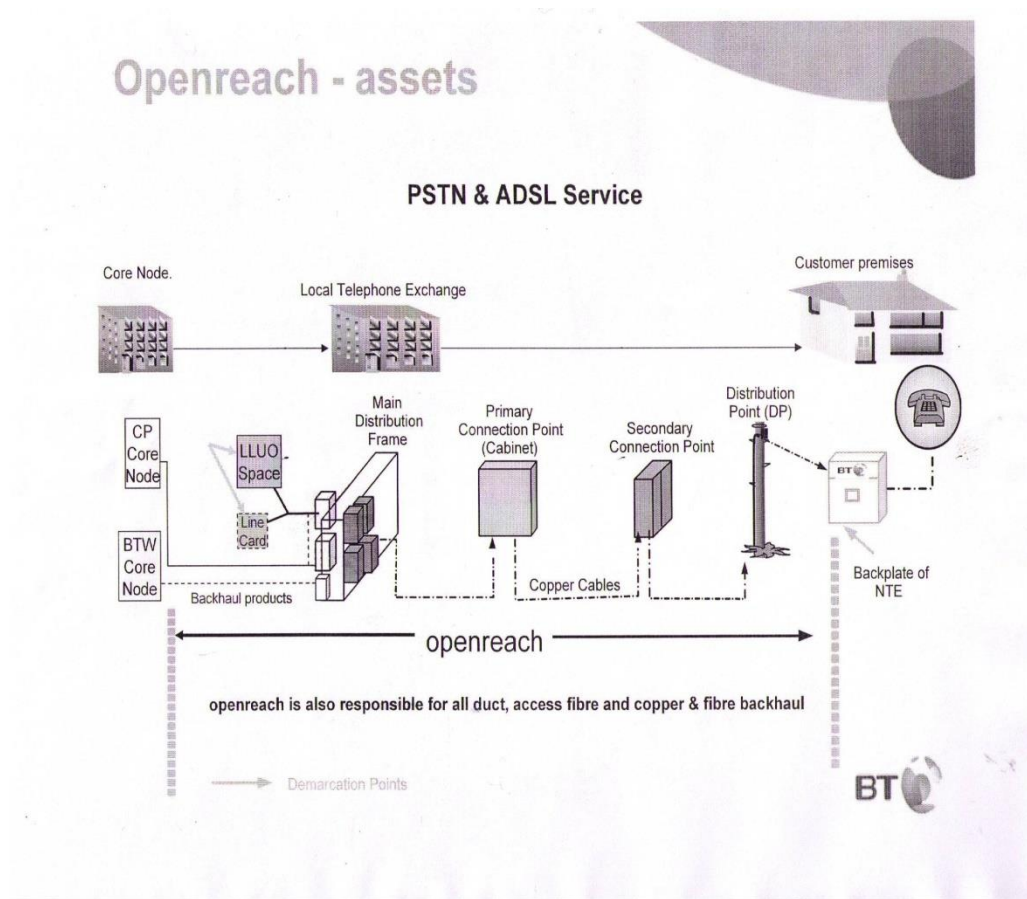


Figure 7 - Openreach assets⁴⁴⁰

As shown in the picture, Openreach is a company still part of the BT Group but functionally separated from BT Wholesale, BT Global Services and BT Retail, thus aimed at facilitating access by third party operators to BT's infrastructure, in particular the part of infrastructure between BT Wholesale Core nodes and local loop 'backplate' of NTE. It is a newly created separate entity, with its own headquarters, distinct brand and about 30,000 employees. It controls and operates the duct, fibre, copper and other non-electronic assets in BT's access and backhaul networks (the part of the network mainly responsible for the above-mentioned 'access bottlenecks'). It provides management, sales and service management for significant market power (SMP) products delivered over BT's access and/or backhaul networks—bottleneck products. Obviously the financial accounts are also kept separate.

⁴⁴⁰ Figure excerpted from a non-confidential document distributed by J. Taylor, a BT Global Services manager, in November 2006.

One of the most interesting features of Openreach management is the fact that its board of directors reports⁴⁴¹ directly to the Chief Executive Officer of BT, while the 'compliance oversight' rests with the main BT PLC board through a separate entity supervising the Openreach board, without interferences by wholesale, retail or global services boards.

Any breach of undertakings can lead to three different measures. In particular, OFCOM can adopt simple 'directions' or seek a judicial enforcement of the undertakings; in the event of continued violation of the undertakings, OFCOM can also decide to refer BT to the Competition Commission (one of the outcomes being the structural separation of the network); third parties can also trigger civil actions for damages.

A key concept of the undertakings signed between BT and OFCOM is the so-called 'Equality of Input'. Equality of input is more than 'non-discrimination'. It means 'same ordering system', 'same ability to influence', same prices, same terms and conditions, same services and same access to commercial information.

Equality of Input has been achieved through the creation of an 'Equivalence Management Platform' ('EMP') for the Unbundling of the Local Loop (ULL), specifically created on 30 June 2006. According to the EMP, all the fault repairs, dialogue services capability and other management discussions are conducted through a single interface for all the operators, including BT. BT's new wholesale orders now use the same Local Loop Unbundling (LLU) products on the same terms as the rest of the industry.

As a consequence, if the number of unbundled lines in November 2006 were one million in the entire UK, in the aftermath of the signature of the undertakings Openreach began processing 30,000 new LLU orders every week, to the point that in a few years more than twenty new LLU

⁴⁴¹ So-called 'management reporting' in the undertakings.

communications players were able to provide unbundled services from almost 1,000 local exchanges across the UK.

The new scenario determined by the BT undertakings has increased clarity for the operators, reducing the risk of bottlenecks, enhancing the interest of investors in the Next Generation Networks and has ultimately fostered innovation and growth. The competition is now more infrastructure-oriented than simply product-service oriented.

The Communications Providers ('CP') are in general optimistic and favourable about the impact of Openreach on the UK scenario. OFCOM noticed that the creation of identical conditions of access to the local loop through Openreach has stimulated competition providing new services and products through the same network, increasing the number of opportunities for the operators.

If one looks at the aggregate data in terms of voice and mobile telephony in United Kingdom, as well as in terms of broadband penetration, the last decade can be considered positive. Looking at a recent OFCOM's report now 76 per cent of household are connected to the Internet (25 per cent in 2000) with peaks of household penetration up to 89 per cent of superfast broadband availability in the Greater London Authority in 2013⁴⁴². The landline penetration partially dropped from 93 per cent in 2000 to 81 per cent in 2011, in favour of more mobile communications; but in change now 93 per cent of houses have multi-channel digital TV, in comparison to 36 per cent in 2000; 60 per cent of households owns an HD-Ready TV (but only 50 per cent claim to receive HDTV channels)⁴⁴³.

⁴⁴² See maps.ofcom.org.uk/broadband, accessed on the 30.10.2013.

⁴⁴³ Communications Market Report 2011 (August 2011), available at the OFCOM website: <http://stakeholders.ofcom.org.uk/market-data-research/market-data/communications-market-reports/cmr11/uk/>. It provides very detailed information on the state-of-play of landline, mobile and Internet penetration in United Kingdom.

More interesting data come from the broadband penetration. As the August 2011 OFCOM' report on the state-of play of communications in United Kingdom says

'by May 2011, around 500,000 households had adopted superfast broadband, with a headline speed of 30Mbit/s or higher, with a fivefold increase from 2010. 57 per cent of households are now passed by superfast broadband, either through Virgin Media's cable service or BT's Infinity product. Satisfaction with superfast broadband is high, with 80 per cent saying they are satisfied with their previous broadband service), and a third (33 per cent) saying download speeds exceeded their expectations. '⁴⁴⁴.

All these factors encourage to believe that in a highly regulated country as the United Kingdom, with an efficient legal enforcement system, the model of functional separation seems to deal efficiently with the set targets: (i) to grant a level playing field of competition for the competitors; (ii) to ensure a high level of consumer welfare in the short-medium term.

However, as I will discuss in the next section, still the UK electronic communications sector is not perfectly competitive even after functional separation of the incumbent. Similarly, in the energy sector functional separation functional separation as per the Energy Sector review 2007 was not seen as the panacea.

4.6. Functional separation: criticisms

The adoption of functional separation as a remedy to favour network-based competition has not been immune to criticism.

Some criticisms can be applied to both functional and structural separation; others are specific to one or the other form of separation.

⁴⁴⁴ OFCOM's press release announcing the publication of the Communications Market Report 2011 available at <http://media.ofcom.org.uk/2011/08/04/a-nation-addicted-to-smartphones/> (4 August 2011).

Economists, in particular, argue that breaking a vertically-integrated business up into two or more divisions leads to inefficiencies and higher costs⁴⁴⁵.

The main criticism to functional separation is that the regulator needs to monitor the creation of two divisions carefully, ensuring that it is effective and not just a 'cover-up', leaving the decisional process with respect to network access tariffs (the most obvious example) untouched. Therefore the scope for heavy regulation remains intact.

Functional separation is also not definitive. Theoretically the two divisions (for instance, the 'wholesale' and 'access' divisions) may merge again in the future, if the remedy so provides; in this respect only (ownership) structural separation can be considered definitive.

Furthermore, the difference between the various divisions of a company will blur if we consider the technological evolution. For the time being the backhaul and transport network division is separated by the network access division (dealing for instance with the so-called last mile) , while in a post-NGN network scenario the difference between the first and the second type of network will disappear, the only real difference being the difference between the retail services division and the division operating the NGN network⁴⁴⁶ (in the last chapter I will show how in Australia this form of separation will materially take place from 2018).

If this difference between backhaul/transport network division and access network division is blurred, functional separation of these two divisions might not be the most effective solution adopted by the competition authorities. Instead complete structural separation between network division, on the one hand, and services division, on the other hand, could be the suitable solution.

⁴⁴⁵ S. Nicoletti, J. Homes, Structural and functional separation – The experience in Europe so far, (2008) vol. 58, no. 1, Telecommunications Journal of Australia (Monash Univ. Press), 8.3.

⁴⁴⁶ *ibid.*

Functional separation for instance found some opposition in Sweden. The survey launched by the Swedish National Post and Telecom Agency in 2007 (at the beginning of the Telecoms Package Review) investigated whether the preconditions to introduce functional separation as a remedy existed in Sweden. They found that the buy-sell relationship between TeliaSonera and the wholesale customers was not really working. The Swedish Telecoms Agency proposed to introduce legal and functional separation to rectify the competition's distortion caused by the vertical integration of TeliaSonera, going beyond the simple functional separation of Openreach. The public consultation launched by the Swedish agency found TeliaSonera reacting quite aggressively, proposing to create a new division managing both the copper and fibre infrastructure, dealing on equal terms with both retail and access services. It rejected the proposal of functional separation arguing that it would have gone against its constitutionally protected rights to full ownership. Nevertheless the Swedish government approved a bill introducing 'Functional separation for better broadband competition' from 1 July 2008, therefore anticipating the European Directive 2009/140/EC⁴⁴⁷.

In the United Kingdom, the process of implementation of milestones linked to the creation of Openreach as a separated division also passed through difficulties. The most recent report (2013) published by the Equality of Access Board ('EAB') of British Telecom on the state of implementation of the undertakings accepted by BT when created Openreach, shows that there are numerous outstanding issues to be solved⁴⁴⁸.

EAB found nine serious breaches of the undertakings, some of which are highlighted below.

⁴⁴⁷ *ibid*, 8.7.

⁴⁴⁸ Equality of Access Board ('EAB'), Annual Report 2013, published in November 2013, accessible at http://www.btplc.com/Thegroup/Ourcompany/Theboard/Boardcommittees/EqualityofAccessBoard/Publications/EAB_Annual_Report_2013.pdf

The EAB report points out that migration acceptance codes had been provided to BT Retail but not to other communications providers; customers' confidential information had been disclosed to the less regulated part of BT Wholesale business; BT found that BT Wholesale had set up a site on BT's intranet to trial a new means of informing the industry of small scale network incidents, accessible to BT Retail staff, but not by other communications providers; information was accidentally forwarded to BT Retail putting them in a competitive advantage *vis á vis* other communications providers; there was a disclosure of BT Wholesale customer confidential information to BT Retail; the '90% target' of migration of customer records to separate systems was not met (deadline missed)⁴⁴⁹. Another critical aspect detected by the EAB is that Openreach inappropriately shared commercial information with BT Wholesale (in particular, the paper described a new technology, and was sent by email to BT Wholesale ahead of a briefing to industry)⁴⁵⁰.

The majority of the infringements are related to the exchange of information between BT Wholesale and Openreach⁴⁵¹, somehow limiting the effectiveness of the separation or slowing the process of separation. On a positive note, BT management reacted promptly in trying to address the problems described.

The adoption of functional separation as a regulatory remedy (under art. 13 a(2)(c) of Directive 2009/240/EC) therefore requires careful evaluation of the disadvantages that it can entail. One of the most obvious disadvantages is common to other behavioural remedies, and is the significant increase of the workload on the regulatory authority. The authority has to establish what part of the incumbent has to be functionally separated (the network division, the access division, the wholesale division, fixed telephony services division). This disadvantage can be nevertheless compensated by the reduction of abuses

⁴⁴⁹ *ibid*, p 7.

⁴⁵⁰ *ibid*, p 8.

⁴⁵¹ *Ibid*.

that the same authority will have to deal with in the future⁴⁵². Another disadvantage is for the same incumbent: in a post-functional separation scenario the incumbent has to elaborate new processes and steps between the separated entity and the retail arm⁴⁵³. The incumbent will incur in high organisational costs.

Part of the economic literature argues that functional separation may have an adverse impact on the incentives to invest in the network, both for the incumbent and for the alternative operators (the incumbent will focus on profits made with the wholesale operations, while alternative operators have all the interest to lease the access network without investing in upgrading the network).

Such an adverse effect could be compensated with *ex ante* access prices, set a level to represent a sufficient incentive for the incumbent to 'climb the ladder of investments'⁴⁵⁴.

The two key factors that will lead the Commission to approve functional separation as an *ex ante* remedy in the electronic communications sector are the (i) impact on competition and (ii) impact on consumers. In both cases it will be particularly difficult for the Commission to foresee whether the remedy will boost competition and will enhance consumer welfare. Therefore functional separation will be chosen as the optimal remedy only when any other *ex-ante* remedy will have proven to be largely unsuccessful⁴⁵⁵.

Looking at Chapter III, in the energy sector functional separation was the first model of separation adopted as an *ex ante* remedy. Nevertheless, after four years of functional separation the European Commission in 2007 launched the

⁴⁵² Body of European Regulators for Electronic Communications (BEREC), Guidance on functional separation under articles 13a and 13b of the revised Access directive and national experiences, BoR (10) 44 Rev1, February 2011, p 15.

⁴⁵³ *ibid.*

⁴⁵⁴ *ibid.*, p 16.

⁴⁵⁵ *ibid.*, p 17.

Energy Sector Enquiry in order to allow the third parties (and the European electricity and gas incumbents) to express their views on the effectiveness of the remedy.

The criticisms led to the adoption of a new set of directives in 2009 leading to structural (ownership) separation of the retails arms from the divisions controlling access to the relevant parts of the network, as the only way of completely eliminating any incentive to discriminatory behaviour on the part of the incumbent operator⁴⁵⁶.

In France, for example, in 2000 an electricity transmission system operator was established that was operationally and functionally independent from EDF (the incumbent) on the basis of Directive 96/92/EC that opened up the electricity industry to competition. This step was followed by the functional separation of EDF's distribution business, on the basis of French law 9 august 2004, modelled on Directive 2003/54/EC. The third step is now structural separation, on the basis of the new set of directives adopted in 2009 (the so-called 'Third Package' of European Energy Sector Liberalisation Directives), preceded by the 2007 Energy Sector Enquiry (while at enforcement level the European Commission accepted commitments leading to structural separation of part of the network for E.ON (2008), RWE (2008) and ENI (2010).

The point is that functional and legal unbundling as introduced in the energy sector by the 'Second Package' according to the finding of the Sector Enquiry did not work as it was expected⁴⁵⁷.

It is worth remembering the main concerns identified by the Energy Sector Enquiry (2007) with respect to the persistence of vertical foreclosure effects even after functional unbundling of gas and electricity operators, since the

⁴⁵⁶ Commentary of the magazine's director, 'Functional Separation: pros and cons', in La Lettre de l'Autorité (Autorité de régulation des Communications électroniques et des Postes, ARCEP, France), (2007) no. 55, 3.

⁴⁵⁷ A. Ming-Zhi Gao, The Third European Energy Liberalization Package, in (2009) vol. 10, no. 1, Competition and Regulation in Network Industries, 17-44.

same vertical foreclosure effects tend to be present in the electronic communications sector (even in the presence of *ex ante* regulatory measures and, for certain respects, after functional separation).

The main critics against functional and legal unbundling in the energy sector were that market concentration was still untouched. Quoting from the Energy Sector Report

‘at the wholesale level, gas and electricity markets remain national in scope, and generally maintain the high level of concentration of the pre-liberalised period. This gives scope for exercising market power’⁴⁵⁸.

Even though today in the electronic communications sector (almost 20 years after the beginning of the liberalisation process), we find lower levels of concentration than the levels identified in 2007 by the Energy Sector Enquiry in the electricity generation market and gas distribution market in the main European countries, still companies such as Deutsche Telekom, British Telecom (after functional separation) or Telecom Italia (after its attempt at functional separation) own very large market shares.

Another impediment to functional separation in the gas and electricity sector from the Energy Sector Enquire is the persistence of vertical foreclosure. The report says

‘The current level of unbundling of network and supply interests has negative repercussions on market functioning and on incentives to invest in networks. This constitutes a major obstacle to new entry and also threatens security of supply’⁴⁵⁹.

Another criticism to functional unbundling in the energy sector is the fact that the expected European market integration remained ‘on paper’. The

⁴⁵⁸ Energy Sector Enquiry, cited, p 7.

⁴⁵⁹ *ibid.*

Energy Sector Enquiry, for both the gas and the electricity sectors, notes how

‘cross-border sales do not currently impose any significant competitive constraint. Incumbents rarely enter other national markets as competitors. Insufficient or unavailable cross-border capacity and different market designs hamper market integration’⁴⁶⁰.

In electronic communications, we can say that functional separation in the United Kingdom did not lead to an increase of European cross-border sales.

As per the gas sector, we could argue that ‘available capacity on cross-border import pipelines is limited. New entrants are unable to secure transit capacity on key routes and entry capacity into new markets’ and ‘in electricity, integration is hampered by insufficient interconnector capacity and a lack of adequate incentives to invest in additional capacity to eliminate long-established bottle-necks’⁴⁶¹.

A further criticism of functional separation in the energy sector in 2007 ranged from a lack of transparency (‘there is a lack of reliable and timely information on the markets’) to difficulties with price formation (‘more effective and transparent price formation is needed in order to deliver the full advantages of market opening to consumers. Many users have limited trust in the price formation mechanisms, while regulated supply tariffs below market prices discourage new entry’).

In a direct analogy with the electronic communications sector, the focus of the Energy Sector Enquiry spots competition obstacles also within the downstream markets: ‘competition at the retail level is often limited. The duration of retail contracts for industrial customers and local distribution

⁴⁶⁰ *ibid*, p 8.

⁴⁶¹ *ibid*.

companies can have a substantial impact on the opportunities for alternative suppliers to successfully enter the market'⁴⁶².

The experience of functional and operational unbundling in the energy sector over the past few years should provide sufficient evidence to argue that it might not be sufficient to create the pre-conditions for the realisation of a 'level playing field' of competition in the electronic communications in the electronic communications market.

4.7. Conclusion

Chapter IV is a key chapter in answering the 'research question': what is the best remedy to address 'vertical integration–related' competition concerns?

It is divided into two parts: the first dealing with cases of margin squeeze conducts from European Commission practice and the European Courts' jurisprudence. Some of these cases have contributed to the evolution of the 'essential facilities' doctrine in recent years and to the extension of competition law enforcement by the European Commission: *Deutsche Telekom*⁴⁶³, *Wanadoo Interactive* (France Telecom)⁴⁶⁴, *Telefónica*⁴⁶⁵ and *TeliaSonera*⁴⁶⁶.

Analysing these cases I argued that fines probably were not sufficient to deter the former incumbents of the main European countries from abusing again in

⁴⁶² *ibid*, p 9.

⁴⁶³ Commission decision *Deutsche Telekom* [2003] OJ L263/9; on appeal, Case T-271/03 *Deutsche Telekom* and Case C-280/08 *Deutsche Telekom*.

⁴⁶⁴ Commission decision *Wanadoo Interactive* of 16 July 2003. On appeal, Case T-340/03 *France Télécom* and Case C-202/07 *France Télécom*.

⁴⁶⁵ Commission Decision *Telefónica*, appealed at the General Court: Case T-336/07 *Telefónica* (judgment on the 29 March 2012).

⁴⁶⁶ Case C-52/09 *Konkurrensverket v TeliaSonera Sverige AB* (TeliaSonera) of 17 February 2011, [2011] ECR I-000, [2011] 4 CMLR 982, See also Opinion of AG Mazák in Case C-52/09 *TeliaSonera*.

the future. To demonstrate my argument I considered the fines imposed comparing them with the total annual turnover of the company (of the year preceding the decision) or with the annual turnover generated in the relevant market where the abuse was made.

In both cases it was easy to show that the fines amounted to an infinitesimal part of the turnover of the group or of the company concerned. Therefore, fines for infringements having serious anticompetitive foreclosure effects such as margin squeeze or refusal to supply result to be not a serious deterrent for the companies.

In the second part of this chapter I looked at functional (operational) separation as firstly applied in the *Deutsche Post* decision in 2001. I then looked at how functional separation was the remedy, applied on the basis of undertaking in lieu of reference to the Competition Commission, in the United Kingdom.

The British experience leading to the functional separation of British Telecom in 2006 and the creation of a separate access division called *Openreach* was considered so successful to be adopted as a model of reference during the process of reform of the Telecommunications Package 2000, to the point that functional separation was adopted as a new *ex ante* remedy by Directive 2009/140/EC.

In this chapter I have also indicated that *Openreach's* functional separation still encounters some difficulties seven years after its implementation.

At the same time I have recalled the weaknesses that the Energy Sector Enquiry detected in 2007 with respect to operational unbundling in both the gas and the electricity sector.

These two sets of criticisms with respect to functional separation, associated with the argument that it is possible to rise against pecuniary fines in dealing

with abuses having anticompetitive foreclosure effects, led me to consider whether structural separation should now be seen as a suitable remedy.

As I will discuss in the next chapter negotiated solutions such as commitments in the last few years in the energy sector led not only to behavioural solutions but also to more invasive, intrusive, ownership-separation oriented, measures.

The *E.ON Electricity*, *RWE* and *ENI* cases show that the Commission at least in the energy sector is ready to adopt structural decision, applying the principles of proportionality and necessity in their entire extension.

It is possible to see these cases as part of a trend the power of which cannot be underestimated. The Commission, as a watchdog imposing (i) serious fines and (ii) behavioural remedies seems now to be more favourable to more structural, ownership oriented, solutions.

If it is true that the Commission (and, a fortiori, the NCAs and sectorial regulators with enforcement prerogatives) may adopt structural solutions on the basis of Article 7 of Regulation 1/2003/EC, it is now important to establish which further tests have to be put in place to opt for more draconian remedies.

In chapter VII (after having looked at the US experience in the AT&T case) I will discuss how the enforcer, before choosing the most suitable remedy, should be called to carry out a (i) competition law test and a (ii) cost/opportunity test (or 'economic efficiency of the remedy' test).

If these tests are satisfied, structural separation could be applied as a potentially suitable remedy, bearing in mind that structural separation should be applied in such a way as not to represent a mere 'shift of market power' from one company to another (for instance by transferring the ownership of the network to a competitor, allowing the purchaser to provide the same electronic communications services in direct competition with the expropriated incumbent).

Alternatively, I will discuss (and conclude) how the threat of divestiture may represent a serious deterrent that may lead the incumbent to offer functional separation as a 'second best' remedy.

CHAPTER V

Effects on competition of exploitative and exclusionary abusive conducts. Parallel with other vertically-integrated industries: the energy sector.

5.1. Introduction

A logical preliminary step is to demonstrate not only that some abuses in vertically-integrated network firms are similar, but also that the effects on competition for the same type of abuses can be considered identical.

If the abuses and the anticompetitive foreclosure effects are identical, for the same category of abuses (the so-called exclusionary conducts of the Guidance Paper 2008), there is good reason to believe that structural remedies such as divestitures of relevant parts of the network as enacted with respect to electricity generation and transmission, or gas transformation, transmission and distribution could be also applied to the electronic communications sector.

Once identified the similarities of the exclusionary conducts in both the electronic communications sector and in vertically-integrated firms in the energy sector (chapters I and II), and the analogy in terms of vertical foreclosure anticompetitive effects in both sectors, I can argue at least on a legal point of view, and on the basis of the current practice of the Commission, structural separation could theoretically be imposed also in the electronic communications sector, in particular when the exclusionary effects are the same. More difficult will be to demonstrate that structural remedies applied in the energy sector effectively led to more competition and to higher consumer welfare (lower prices, enhanced quality of the service). But the fact that in two countries such as Australia and New Zealand the competition authorities decided to impose structural remedies to enhance competition (Chapter VIII)

should constitute a good argument in showing that in those countries the structural remedies are already considered beneficial.

At that point I should be in condition to conclude that structural separation could be suggested also for the electronic communications sector, in the presence of similar types of exclusionary abuses with the same impact in terms of consumers' welfare.

A few examples may help to clarify this aspect.

In the energy sector⁴⁶⁷, the recent sector inquiry, launched on the basis of Article 17 of Regulation 1/2003/EC, reached the conclusion that energy markets in the EU were still not open to full competition, despite the 1990s directives that in both gas and electricity markets were aimed at increasing prices transparency and fairness⁴⁶⁸, but also at facilitating the transit of gas and electricity between Member States⁴⁶⁹.

The 2007 survey concluded that cross-border integration and cross-border competition was still embryonic; particularly with regard to insufficient unbundling of network and supply activities.

The European Commission adopted in 2009 a new package of legislative measures (the so-called 'third package' of energy legislative proposals adopted in September 2007)⁴⁷⁰, preceded, since 2007, by numerous

⁴⁶⁷ M. Pollitt, 'The arguments for and against ownership unbundling in energy transmission markets' (2008) 36 Energy Policy, 704-713, available at <https://www.repository.cam.ac.uk/bitstream/handle/1810/194717/0737%26EPRG0714.pdf?sequence=1>, accessed on the 20 September 2013.

⁴⁶⁸ R. Whish-D. Bailey, cited, p 989 ff. See Council Directive 90/377/EEC, OJ [1990] L185/16 (gas) and Council directive 90/377/EEC, OJ [1990] L185/16 (electricity). The second wave of reform dates 2003: Council Directive 2003/55/EC, OJ [2003] L 176/57 (gas) and Council Directive 2003/54, OJ [2003] L 176/37 (electricity).

⁴⁶⁹ *ibid.*

⁴⁷⁰ Regulation 714/2009/EC on conditions for access to the network for cross-border exchanges in electricity, OJ [2009] L 211/15; Regulation 715/2009/EC on conditions of access to the natural gas transmission networks, OJ [2009] L 229/29; Directive 2009/72/EC concerning common rules for the internal market in electricity, OJ [2009] L 211/55 and

investigations for alleged violation of Art. 102 TFEU. In certain cases the proceedings led to commitments that entailed structural measures to address the Commission's concerns. Some commitments were purely behavioural⁴⁷¹, as in the 2007 *Distrigaz* case. However in others the Commission accepted commitments whose nature was structural (cases *E.ON*⁴⁷², *RWE*⁴⁷³ and *ENI*⁴⁷⁴).

Considering the similarity in terms of vertical integration between the electronic communications and energy sectors, if the effects of this type of anticompetitive behaviours (exclusionary conducts) can be considered similar, then also the remedies could be in principle suggested for both sectors.

5.2. The Energy Sector Enquiry 2007 and the concerns expressed with respect to vertical integration in the energy sector.

The Energy Sector Enquiry of 2007 is adamant on the impact that vertical integration has in determining vertical foreclosure. Para 449 of the Enquiry expressly stresses as they can empirically demonstrate such an anticompetitive effect

Directive 2009/73/EC concerning common rules for the internal natural gas, OJ [2009] L 211/94.

⁴⁷¹ See the Case *Distrigaz*, published on the 5 April 2007, in which the company substantially offered to 70% of the gas sold to industrial entities will go back to the market every year, and time limitations for the exclusivity of the contracts signed up to five years (see Summary of Commission Decision of 11 October 2007 relating to a proceeding pursuant to Article 82 of the EC Treaty (Case COMP/B-1/37.966 — *Distrigaz*), [2008] OJ 2008/C 9/05.

⁴⁷² Commission Decision *E.ON* (Case COMP/38.388-38.389) of 26 November 2008, [2009] OJ C36/8 of 13 February 2009, accessible at http://ec.europa.eu/competition/antitrust/cases/dec_docs/39388/39388_2796_3.pdf.

⁴⁷³ Commission Decision *RWE (Gas Foreclosure)* (Case COMP/39.402) of 18 March 2009, Summary of the decision in [2009] OJ C133/10 of 12 June 2009 accessible at http://ec.europa.eu/competition/antitrust/cases/dec_docs/39402/39402_576_1.pdf.

⁴⁷⁴ Commission Decision *ENI* (Case COMP/39.315) of 29 September 2010 (2010/C 352/10), [2010] OJ C352/8 of 23 December 2010, accessible at http://ec.europa.eu/competition/antitrust/cases/dec_docs/39315/39315_3019_9.pdf

*‘Vertically integrated electricity companies have traditionally been active in generation, network and retail activities. This chapter [of the Sector Enquiry] assesses the effects of this vertical integration. It starts with vertical integration of generation and retail activities and continues with vertical integration of network and supply activities. The Sector Inquiry confirms that both forms of vertical integration, whilst also bringing about certain economic benefits, **have adverse effects** for the liberalisation process. The magnitudes of these adverse effects are empirically assessed’.*

The electricity market part of the Energy Sector Enquiry concludes⁴⁷⁵ that

*‘[In addition to excessive bidding] large operators can push up prices by **withdrawing capacity**⁴⁷⁶. In that respect, it appears that load factors of generation units have increased over time in Germany and in France suggesting higher efficiency levels and a tighter supply/demand balance’.*

With respect to Germany and France, in particular, the Enquiry pointed out how significant generation capacity – most of it with low marginal costs – had been **systematically withdrawn**⁴⁷⁷ despite the slowly increasing demand. Also, certain plants with rather low marginal costs **did not operate fully at all times**⁴⁷⁸.

The Energy Sector Enquiry had clearly identified the impact that withdrawal of wholesale capacity had on prices, showing the anticompetitive foreclosure effects that the allegedly abusive conduct carried out by E.ON, to make an example, could have had.

In terms of prices, the withdrawal of wholesale capacity determined an increase of prices, as shown by the chart⁴⁷⁹

⁴⁷⁵ See Electricity Sector Enquiry, page 150, chapter’s conclusion.

⁴⁷⁶ Emphasis added.

⁴⁷⁷ Emphasis added.

⁴⁷⁸ Emphasis added.

⁴⁷⁹ Figure from P. Hellström, F. Maier-Rigaud, F. Wenzel Bulst, Remedies in European Antitrust Law, in (2009) no. 1 Antitrust Law Journal, 55.

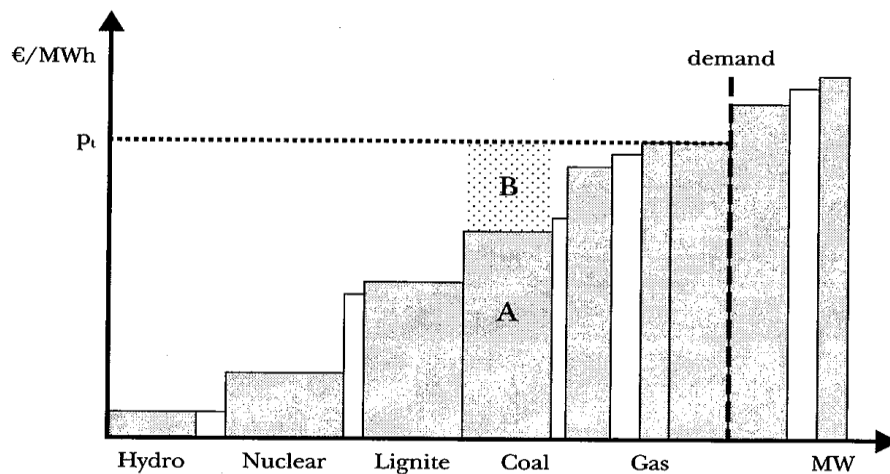


FIGURE 1:
MERIT CURVE BEFORE CAPACITY WITHDRAWAL

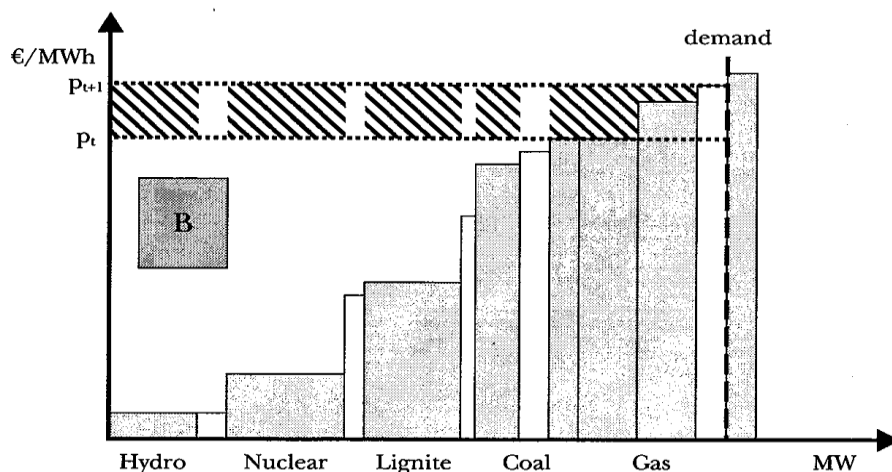


FIGURE 2:
MERIT CURVE AFTER CAPACITY WITHDRAWAL (COAL PLANT)
RESULTING IN HIGHER PRICES

In the picture it is shown how the reduction of capacity (as a consequence of capacity withdrawal) in a hypothetical market, equal to the reduction of energy production generated by a coal plant, determines an increase of price from p_x to p_{x+1} , considering the demand of energy as vertically rigid.

The Energy Enquiry Report is adamant in linking level of concentration, insufficient unbundling and, consequent, vertical foreclosure with the maintenance of prices above the equilibrium price in the presence of more

competitors with their own energy production facilities⁴⁸⁰. It clearly states that 'the current level of unbundling of network and supply interests has negative repercussions on market functioning and on incentives to invest in networks. This constitutes a major obstacle to new entry and also threatens security of supply'⁴⁸¹. The lack of new entries ultimately preserves the *status quo*. Cross-border competition is kept to a minimum. The national champions, incumbent of energy production from one Member State, rarely 'cross the border' to sale their own electricity and gas abroad, therefore the competitive pressure on the national incumbent is kept to a minimum, hampering market integration as one of the key-pillars of the European Union.

Before analysing the remedies that the European Commission had already identified in 2007 to address the concerns linked to the structural features of the energy market in Europe, it is worth mentioning some of the comments of potential new-entrants who contributed to the preparation of the Energy Sector Enquiry.

They are univocal in showing how the anti-competitive foreclosure effects seem directly linked to structural **and** behavioural factors.

In the gas distribution sector, for instance, some responses to the questionnaire distributed by the European Commission showed that in 2007 the wholesale market was poorly functioning, making difficult for competitors to access the gas to be distributed.

In Italy, a number of respondents highlighted the lack of import capacity by the national incumbent, ENI. In Germany the respondents pointed out not only the difficulties related to the network capacity, but also the difficulties arising by

⁴⁸⁰ P. Chauve, M. Godfried, K. Kovacs, G. Langus, K. Nagy, S. Siebert, The E.ON electricity cases: an antitrust decision with structural remedies, in (2009) no. 1 Competition Policy Newsletter, 51.

⁴⁸¹ Electricity Sector Enquiry, cited, p 7.

the booking capacity, thus identifying a combination of structural and behavioural obstacles⁴⁸².

The conclusion reached by the Energy Sector Enquiry for the gas sector was quite clear. It stressed how 'access to gas for new entrants is essential for the future development of European gas competition'⁴⁸³, and how access to gas capacity can be granted through three ways: imports, domestic production and wholesale trading. Focusing on the first and third forms of access to gas capacity, it is evident why the Commission decided to target vertical integration with a combination of behavioural and structural remedies in order to bring anticompetitive vertical foreclosure to an end.

On a legislative point of view, it must be remembered that the Energy Sector Inquiry was fundamental to introduce new forms of unbundling, going a step further with respect to the forms of separation envisaged, for instance, in the 2nd Gas Directive⁴⁸⁴, such as legal and functional unbundling to resolve the conflicts of interest or the risk of non-discriminatory access to the gas transportation and distribution networks⁴⁸⁵.

The 3rd package of liberalisation measures introduced at regulatory level the possibility of ownership unbundling. In particular, Directive 2009/72/EC, article 9 ('Unbundling of transmission systems and transmission system operators'), established that in the electricity production sector transmission, generation and supply should now belong to separate entities

'[T]he same person or persons are entitled neither:

⁴⁸² Energy Sector Inquiry, cited, points 111 and 112, p 45.

⁴⁸³ Ibid, p 46.

⁴⁸⁴ Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in the natural gas and repealing directive 98/30/EC, OJ [2003] L 176, 57-78.

⁴⁸⁵ A. Ming-Zhi Gao, 'The Third European Energy liberalization package: does functional and legal unbundling in the gas storage sector go too far', (2009) Vol10 issue no. 1 Competition and regulation in network Industries, 19.

(i) directly or indirectly to exercise control over an undertaking performing any of the functions of generation or supply, and directly or indirectly to **exercise control** or exercise any right over a transmission system operator or over a transmission system; nor

(ii) directly or indirectly to **exercise control** over a transmission system operator or over a transmission system, and directly or indirectly to exercise control or exercise any right over an undertaking performing any of the functions of generation or supply [...]⁴⁸⁶.

The position adopted with respect to the gas sector was similar. The Directive 2009/73/EC (article 9) establishes that

(a) each undertaking which owns a transmission system acts as a transmission system operator;

(b) the same person or persons are entitled neither:

(i) directly or indirectly to **exercise control** over an undertaking performing any of the functions of production or supply, and directly or indirectly to exercise control or exercise any right over a transmission system operator or over a transmission system; nor

(ii) directly or indirectly to **exercise control** over a transmission system operator or over a transmission system, and directly or indirectly to exercise control or exercise any right over an undertaking performing any of the functions of production or supply [...]⁴⁸⁷.

In other words, at regulatory level, in the energy sector was established that, for instance, the transmission assets could not be allowed to be controlled by the same vertically integrated company dealing with the supply business⁴⁸⁸.

⁴⁸⁶ Directive 2009/72/EC, cited, Article 9. Emphases added.

⁴⁸⁷ Directive 2009/73/EC, cited, Article 9. Emphases added.

⁴⁸⁸ A. Ming-Zhi Gao, cited, 22-23, for a reconstruction of the various forms and level of unbundling in the energy sector.

These legislative measures represent a courageous step in the process of liberalisation of the energy sector, considering that the Commission was aware of the costs and risks of ownership unbundling⁴⁸⁹, and had favoured in 2003 milder forms of unbundling (such as functional and legal unbundling).

The outcome of the Energy Sector Enquiry (and the third-parties responses in particular) as well as the first cases of commitments in the energy sector (case E.ON) played a key role in encouraging the Commission to adopt more invasive regulatory tools to favour liberalisation and enhance competition⁴⁹⁰.

5.3. Analysis of other energy sector cases: anticompetitive foreclosure effects of vertical integration in the energy sector.

In the aftermath of the Energy Sector Enquiry 2007 the European Commission launched a number of investigations in both the gas and electricity sectors. Some of them will be analysed more in depth in the following chapters because they provide examples of decisions aimed at addressing exclusionary conducts though commitments more structural than behavioural in nature. I will now focus exclusively on the anticompetitive foreclosure effects arising from some of these cases, exclusionary effects that could be considered similar to the exclusionary effects determined by some types of conducts of vertically-integrated electronic communications undertakings.

⁴⁸⁹ In 2003 the Commission expressed its view, favouring a case-by-case approach considering the high costs of functional and legal unbundling, as can be seen in the European Commission Note of DG Energy & Transport on Directives 2003/54/EC and 2003/55/EC on the internal market in electricity and natural gas: The unbundling regime, 16.1.2004, p. 1.

⁴⁹⁰ On the pros and cons of structural separation in the energy transmission sector see Pollitt, cited, above. Against structural separation is A. Ming-Zhi Gao, cited, in favour of the strengthening of functional and legal unbundling.

(i) Exclusionary effects in the E.ON case (commitments decision published on the 12.06.2008).

In the E.ON case of 2008 the anticompetitive foreclosure effects of the abusive conducts identified by the European Commission were of four different types. The Commission found that E.ON allegedly abused of its dominant position on the German electricity wholesale market (i) 'by withholding available capacity (for instance deliberately not offering for sale the production of certain power stations which was available and economically ration), with **a view of raising electricity prices to the detriment of consumers**'⁴⁹¹; (ii) E.ON would have also **deterred third parties** from making new investments in electricity generation; (iii) it would have also abused in the market of the 'secondary balancing energy' in the E.ON network area, by favouring its own production affiliates, therefore **'passing increased costs on final consumers'**⁴⁹² and (iv) by impeding **power producers from other Member States** from selling balancing energy⁴⁹³.

Looking at the anticompetitive foreclosure effects, in line with the criteria set in the Guidance Paper (para 19), establishing that the aim of the Commission enforcement in relation to exclusionary abuses is to make sure that 'dominant undertakings do not impair effective competition by foreclosing their competitors in an anti-competitive way'⁴⁹⁴, it is evident that the Commission aimed at obtaining commitments (entailing structural separation, or divestitures) from E.ON having identified not only a number of well-defined objective abuses (for instance, for withholding available capacity, as a form of flat refusal to supply), but also **potential foreclosure effects in the various conducts investigated.**

⁴⁹¹ European Commission, 'Antitrust: Commission market tests commitments proposed by E.ON concerning German electricity markets', MEMO/08/396, press release of 12 June 2008, accessible at http://europa.eu/rapid/press-release_MEMO-08-396_en.htm. Summary of the commitments decision was published in the EU Official Journal on 12 June 2008 (2008 C146/09) and is available at <http://ec.europa.eu/comm/competition/antitrust/cases>.

⁴⁹² *ibid.*

⁴⁹³ Emphases added.

⁴⁹⁴ R. Whish, cited, p 208.

This is particularly evident in the reluctance shown by E.ON in offering wholesale available capacity to competitors in order to keep prices for the final consumers higher. Similarly, the second abusive conduct, aimed at discouraging new investments to create new power generators, also had an evident anticompetitive foreclosure effect, since less energy produced meant less wholesale capacity available for the competitors, ultimately artificially keeping prices for the final consumers high.

Similar comments on the anticompetitive foreclosure effect of E.ON can be made with respect to conduct (iii) and (iv) listed at the beginning of this section. All behaviours that led the European Commission to discuss with E.ON the **possibility of divesting** part of their production capacity, therefore adopting a commitments decision entailing forms of structural vertical separation.

In February 2008 the European Commission hailed the proposal made by E.ON to undertake structural reforms (divestitures) to increase competition. E.ON offered to sell its electricity transmission system network to an operator which had no involvement with the electricity generation and/or supply businesses, also committing to divest 4800 MW of generation capacity to competitors⁴⁹⁵.

The European Commission suspected that the high prices in the electricity market in Germany could be linked to the artificially reduced wholesale capacity available, as can be found in the sector inquiry report of 2007⁴⁹⁶:

‘Generators, due to the characteristics of electricity markets, may also be able to influence prices through withdrawals of physical capacity. This can be done by fully withdrawing a plant or, more discreetly, by making it produce at less than its capacity (partial

⁴⁹⁵ European Commission press release MEMO/08/132 of 28 February 2008.

⁴⁹⁶ Electricity Sector Enquiry of 10 January 2007 available at http://ec.europa.eu/competition/sectors/energy/inquiry/full_report_part2.pdf.

withdrawals)⁴⁹⁷.

(ii) Exclusionary effects in the RWE gas foreclosure case (commitments decision published on the 26 November 2008)

In the RWE case⁴⁹⁸ the Commission found that the company had possibly been carrying out abuses as per Article 102 TFEU through refusal to supply and margin squeeze on the German gas transmission markets. An analysis of the decision shows that the preliminary assessment made by the investigation unit of the Commission took the view that RWE's gas transmission network could be considered as an essential facility 'since access to it was objectively necessary to carry out business in the gas supply markets within RWE's grid areas'⁴⁹⁹. In particular the Commission found that the company dealing with the access to the gas transmission network, RWE TSO, refused the access to its network through specific strategies of its management, trying to keep the transport capacities on its own network for itself⁵⁰⁰ (the analogy with similar conducts in the electronic communications is particularly evident). The competitors found it particularly difficult to access to the downstream markets since RWE had booked almost the entire capacity on its transmission network on a long term basis, behaviour that contrasts with the demand of third-party customers for transmission capacity on RWE's network⁵⁰¹. The effect of such a conduct was that third party shippers represented only a fraction of the transports on RWE's transmission grid, and could not compete in an 'effective manner in the downstream supply business'⁵⁰².

⁴⁹⁷ See Electricity Sector Enquiry, page 146, point 437.

⁴⁹⁸ Commission Decision *RWE (Gas Foreclosure)* (Case COMP/39.402) of 18 March 2009, Summary of the decision in [2009] OJ C133/10 of 12 June 2009 accessible at http://ec.europa.eu/competition/antitrust/cases/dec_docs/39402/39402_576_1.pdf.

⁴⁹⁹ *ibid*, point 4.3.1, para 22.

⁵⁰⁰ *ibid*, para 24.

⁵⁰¹ The Commission was able to demonstrate that the demand of third transport customers was largely higher than the offered capacity.

⁵⁰² Commission Decision *RWE*, para 25.

The second conduct ascertained by the Commission was that of a possible abuse by way of a margin squeeze. The Commission found that RWE

‘may have intentionally set its transmission tariffs at an artificially high level in order to squeeze RWE’s competitors’ margins. Such a behaviour has the effect of preventing even an as efficient competitor to compete effectively on the downstream gas supply markets or limiting competitors’ or potential entrants’ ability to remain in or enter the market’⁵⁰³.

The conduct described has strong analogies with the margin squeeze practices recorded in the most important decisions of the European Commission in the electronic communications sectors. The anticompetitive effect is the same, if we look at the words used (‘effect of preventing even an as efficient competitor to compete effectively on the downstream [...] market [...]’⁵⁰⁴) as well as the effect of excluding existing competitors that are forced to leave in the short run.

The conduct in particular consists in setting the transmission tariffs in such a way to be ‘even higher’ for the competitors (section ‘Asymmetric cost elements disadvantaging competitors’ of the decision⁵⁰⁵). The asymmetry consisted in applying part of the network tariff exclusively to third party users, indirectly offering a scheme of rebate for the incumbent.

Interestingly, the Commission decision here points out an ‘asymmetric effect of the already elevated network access costs’ forcing the downstream competitors to abandon the market.

As stated in the decision ‘the effect of the balancing regime was not limited to the actual high payment for imbalances. Already the *mere risk*⁵⁰⁶ of very high

⁵⁰³ *ibid*, para 30.

⁵⁰⁴ *Ibid*.

⁵⁰⁵ *Ibid*, paras 33ff.

⁵⁰⁶ *Italics* in the decision.

penalty fees may have caused many competitors to abstain from attempts to submit offers to downstream customers'⁵⁰⁷.

In addition to this, the RWE mentions the effect of the anticompetitive practices on the intra-European trade, where the Commission concludes that the behaviours were capable of affecting trade between Member States, 'notably by affecting import and export flows or hindering foreign competitors from competition with RWE within its grid area'⁵⁰⁸.

Here the analogy with the effect that similar exclusionary conducts can have on the intra-European trade in the electronic communications sector is particularly evident.

On the basis of the competition concerns expressed by the European Commission, RWE proposed to 'divest its current German gas transmission system business to a suitable purchaser which must not raise *prima facie* competition concerns'⁵⁰⁹.

The decision is particularly important, because RWE offered to divest the entire high-pressure gas transmission network for approximately 4000 KM, plus auxiliary equipment necessary for the operation of the transmission network and intangible assets necessary for the operation of the transmission network.

The same decision defines the measure accepted as a **structural remedy**, underlining that it 'does not only oblige RWE to behave in a certain manner, but consists in the divestment of its gas transmission activities, which effectively removes the possibility for RWE to engage in infringements of the same type'⁵¹⁰.

⁵⁰⁷ Commission Decision *RWE*, para 35.

⁵⁰⁸ *ibid*

⁵⁰⁹ *ibid*, para 38.

⁵¹⁰ *Ibid*, para 48.

The decision is particularly relevant because it shows the complexity of the decisional process, bearing in mind not only the efficacy of the measure, but also the necessity of accepting the proposal of a 'clear-cut' structural remedy rather than a potentially insufficient behavioural remedy.

This conclusion must be borne in mind whilst discussing the difficulty of choosing the most suitable remedy to deal with network-related abuses in the electronic communications sector.

The doctrine stressed how this decision was not directly linked to the political negotiations on the 3rd Energy Package, but was inspired by the conclusion reached by its Energy Sector Inquiry, showing the importance that sector inquiries as per Art. 17 of the Reg. 1/2003/EC should be particularly welcome not only to define the 'state of play' of competition in a specific sector, but also what might be the most suitable remedy⁵¹¹.

(iii) Exclusionary effects in the GDF foreclosure case (commitments decision published on the 26.06.2009)

Similar exclusionary conducts were detected in the Gaz de France (GDF) commitment decision⁵¹² of 2009. In its preliminary statements the European Commission stated that the company, dominant in the gas import and supply markets in each of the balancing zones of the GRTgaz transport network⁵¹³, could have abused its dominant position by foreclosing for a long period access to gas import capacity in each of the balancing zones of its network. Such a restriction for the Commission was a result of 'long-term reservation of

⁵¹¹ O. Koch, K. Nagy, I. Pucinskaite-Kubik, W. Tretton, The RWE gas foreclosure case: another energy network divestiture to address foreclosure concerns', in (2009) no. 2 Antitrust Policy, 34.

⁵¹² Commission Decision *Gaz de France (GDF)* COMP/39.316 of 3 December 2009.

⁵¹³ *ibid*, para 18ff.

most of the import capacity in the balancing zones, the determination of reception capacity and the procedures for allocating long-term capacity, and the strategic limitation of investment in additional import capacity'⁵¹⁴. Though formally disagreeing with the conclusion of the preliminary assessment put forward by the Commission, GDF nevertheless proposed various commitments that can be considered behavioural. For instance, GDF offered to release to third parties firm, long-term capacities at the GRTgaz pipeline entry points; that would release to third parties equivalent upstream transport capacities⁵¹⁵. As in similar decisions, the Commission accepted the proposed commitments on the basis of the principles of necessity and proportionality⁵¹⁶. However, it is worth noting that the same Commission defined the type of behavioural commitments as having 'an important **structural effect**' on the ability of other shippers to gain access to the gas supply markets⁵¹⁷. The importance of this decision is to show how behavioural remedies can have an added structural effect (their impact is equivalent to a structural divestiture), without the material change of ownership of the infrastructure or part of it.

In terms of anticompetitive effects of the described alleged abusive behaviour, the Commission pointed out the foreclosure of access to the supply market for competitors, with a reduction of quantity of gas supply and an increase of the final price for consumers.

The Commission showed that it was prone to adopt remedies with a structural effect (or impact), even adopting what would be considered a behavioural remedy as per Art. 7 of Regulation 1/2003.

In line with the finding of the Energy Sector Inquiry, in this case the Commission tried to reduce the impact of vertical foreclosure. By accepting the commitments offered by GDF the Commission aimed at reducing the duration

⁵¹⁴ Ibid, paras 24 and 25.

⁵¹⁵ Ibid, paras 42-50.

⁵¹⁶ Ibid, paras 63 ff.

⁵¹⁷ Ibid, paras 87 and 88.

of long-term contracts, one of the main causes keeping the final prices of gas consumption artificially high. Though the Energy Sector Inquiry acknowledged that the sector's secondary legislation deriving from the Second Gas Directive⁵¹⁸ had considerably opened the gas supply market, it expressed its concerns thus

‘the longer the duration of the contract, the greater the loss of scope for competition during its life. Furthermore, with concentrated markets, foreclosure through long-term contracts is a particular concern. For competition to develop, new entrants and existing competitors seeking to increase their market share must have the possibility to purchase the gas they require, to gain access to network and storage capacity and to contract with customers.’⁵¹⁹.

If the Second European Directive clarifies that ownership divestiture to favour unbundling of the transmission network is not the target of the directive (Art. 9)⁵²⁰, the Sector Inquiry of 2007 expressed substantial concerns about the process of liberalisation, and pointed out as the rigidity of control over the network by the vertically-integrated national incumbent was still an important factor of anti-competitive vertical foreclosure.

The GDF decision seems to be an important step forward in the adoption of a remedy that, though behavioural in form, has a structural effect as per the same definition given by the European Commission. A further move towards the adoption by the Commission, in its role of enforcer, of structural remedies when dealing with exclusionary conducts with anticompetitive foreclosure effects⁵²¹.

⁵¹⁸ Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC, in OJ [2003] L 176/57.

⁵¹⁹ Energy Sector Inquiry, cited, paras 118 and 119.

⁵²⁰ Art. 9 of the Second European Gas Directive: ‘Where the transmission system operator is part of a vertically integrated undertaking, it shall be independent at least in terms of its legal form, organisation and decision making from other activities not relating to transmission. *These rules shall not create an obligation to separate the ownership of assets of the transmission system from the vertically integrated undertaking*’ (emphasis added).

⁵²¹ I will discuss more in depth the personal opinion expressed by Dr Oliver Koch, deputy head unit at the DG Energy, on the 5 June 2013 in his presentation on ‘Creating competitive energy markets through joint enforcement of energy regulators and competition authorities’ (see

(iv) Exclusionary effects in the ENI case (commitments decision published on the 05.03.2010)

The E.ON cases must be analysed in conjunction with the commitments undertaken by the Italian company ENI two years later that led to another form of structural intervention in order to address the Commission's competition concerns.

The proceedings were closed on the 29 September 2010 through the acceptance by the European Commission of commitments as per Art. 9 of Regulation 1/2003/EC⁵²². ENI was suspected of having abused its dominant position through systematic constructive refusal to supply in its international pipelines transporting gas into Italy through three different networks, TENP, Transitgas and TAG⁵²³.

As per the Commission's decision, the 'systematic and constructive refusal to supply strategy might have reduced ENI's competitors' opportunities to transport gas into Italy in its international network'⁵²⁴. The Commission points out that the constructive refusal was carried out by 'hoarding capacity, by offering it in a less attractive manner and by strategically limiting investments in additional capacity'⁵²⁵. The Commission in other words found that ENI's behavior was aimed at discouraging competitors from using its network, and limiting the capacity (and the downstream provision of gas to end consumers) in order to avoid to increase competition, in full analogy with the refusals to supply already identified in the electronic communications sector.

presentation accessible at <http://www.energy-community.org/pls/portal/docs/2106186.PDF>, final slides in particular). The Author expressly suggests that the Competition Authorities (primarily the European Commission) should be entitled to adopt structural remedies, in line with the most recent commitments decisions (E.ON, ENI, RWE).

⁵²² Summary of the Commission decision *ENI* of 29 September 2010, relating to a proceeding under Article 102 TFEU [...], Case COMP/39.315 *ENI* (2010/C 352/10), [2010] JO C352/8 (23 December 2010), para 5.

⁵²³ The TENP/Transitgas pipelines allows to import North European gas to Italy through Germany and Switzerland; the TAG pipeline allows to import gas from Russia to Italy.

⁵²⁴ Commission decision, *ENI*, cited, para 6.

⁵²⁵ *ibid.* Emphasis added.

The commitments signed with ENI have a structural nature. They are aimed at obliging ENI to remove the competition concerns through a series of divestitures of its stakes in the network in favor of the competitors. The Commission stresses that structural commitments are necessary because ‘no behavioral measure would be as effective as the divestment of ENI stakes in the [network] to remove the concerns expressed’. The commitments decision says that ‘[a]bsent this structural remedy, the incentives for a vertically integrated gas company to further adopt the alleged anti-competitive behavior would not have been removed, resulting in a risk of not effectively bringing the alleged infringement to an end’⁵²⁶.

This case is particularly relevant to support the idea that in the presence of recurrent network-related abuses with a structural nature, only a structural remedy can be successful to grant not only the removal of the main reason of the abuse (the exclusive control of the access to the network) but also to adopt a forward-looking approach that may lead to real innovation, growth and development of the interested markets. In the ENI case the commitments decision led to divestiture of the ENI stakes in the three interested networks across Italy and Europe. But it should be also able to pave the way to investments that had been delayed by the incumbent with the aim of discouraging access and, therefore, further competition on the network.

ENI’s management orientation of hindering further competition is clearly stated in many parts of the Commission’s decision. After having stressed that the import of gas from Russia to Italy represents a huge portion of the entire gas consumption in the entire European Union⁵²⁷, the Commission points out as the refusal to supply

⁵²⁶ *ibid*, para 11. See by F. Maier-Rigaud, F. Manca, Ulrich v. Koppenfels, ‘Strategic underinvestment and gas network foreclosure – the ENI case’, (2001) 1 Antitrust, p 18ff, accessible at http://ec.europa.eu/competition/publications/cpn/2011_1_4_en.pdf

⁵²⁷ *ibid*, para 37: ‘Gas consumption in Italy is one of the highest in the European Union, with national demand in 2007 (of about 85 bcm) exceeding 15% of total consumption in the EU. Of this, around 87% (or around 74 bcm) constituted imports, thereby demonstrating the particular importance of the import infrastructures, access to which is essential. In this respect, the TAG

‘[...] relates to a product or service that is indispensable to the exercise of a particular activity on a downstream market’ and ‘[...] is likely to lead either to the elimination or the prevention of the development of effective competition on the downstream market resulting in consumer harm’⁵²⁸.

The Commission declares that having established that ENI ‘may’ have systematically reduced ‘access to capacity’ for third parties on its gas transport infrastructure in Italy, and *deliberately*, to use its own words, ‘understated the capacity that was technically available to third party customers’⁵²⁹. The aim of this being the exclusion of new entrants or of limiting the quantity of gas to be transported in Italy in order to hinder competition, with evident detriment to final consumers (the price of gas for end-users in Italy being one of the highest in the European Union).

The evidence gathered during the first inspections carried out by the Commission in ENI’s premises showed that ENI was aware of the necessity of making new investments to further develop the network. Among the evidence gathered it emerged that ENI had also refused the co-operation of its competitors that proposed to invest money in ENI’s network to innovate the infrastructure and to increase capacity. Quoting from the decision

‘ENI did not even gauge capacity demand from third party shippers, for instance via ‘open season’ procedures, *and also neither explored the willingness of third parties to commit financially to an expansion project nor explored specific co-financing offers made by some shippers*’⁵³⁰.

The Commission denounced the constructive refusal to supply under its multi-faceted reality, not only for ENI’s refusal to give access (or, obstruct access) to

and TENP/Transitgas pipelines account for more than 50% of gas imports– respectively about 30% and 20%—and are indispensable for the import of gas from Northern Europe and Russia’.

⁵²⁸ Ibid, para 40, points (i) and (ii).

⁵²⁹ Ibid, para 45.

⁵³⁰ Ibid, para 57. Emphasis added.

competitors, but for ENI's refusal to accept cooperation with competitors, in terms of financial aid to develop a new infrastructure.

This cooperation, in competition law terms, might turn into a situation that might encourage collusion, in terms of price fixing and market sharing, in violation of Article 101.1. But the Commission in this decision seems to let prevail the concerns for future innovation and growth.

5.4. Conclusion

This chapter is aimed at completing the analysis of cases regarding vertically-integrated firms with an eye to the anticompetitive foreclosure effects that exclusionary conducts can have. I decided to focus on the energy sector considering the similarity of the anticompetitive effects with the electronic communications sector (looking, for instance, at the consequences in terms of consumer welfare of refusal to supply at wholesale level). Other vertically-integrated industries could be taken into consideration (in the postal sector I will analyse the decision *Deutsche Post* of 20 March 2001⁵³¹ in which the Commission ordered Deutsche Telekom the creation of a legal separated entity for business parcel services), but the peculiarity of the energy sector is the fact that in both gas and electricity markets recent directives were adopted introducing forms of structural unbundling as an *ex-ante* remedy to favour the process of liberalisation.

It represents a step further with respect to the previous chapters, because it shows how in the last few years the European Commission for the first time has been prone to adopt a number of commitments decisions in the energy sector, in which both behavioural and **structural** measures (such as divestitures) were adopted, anticipating already in 2008 the changes in the regulatory scenario represented by the 3rd energy package (2009).

⁵³¹ Commission Decision *Deutsche Post AG* (Case COMP/35.141) of 20 March 2001, [2001] OJ L125/27.

In chapter III I analysed the different perspective, at regulatory level, adopted by the European Commission with respect to the electronic communications in the same years, favouring functional remedies rather than structural. That chapter is a key element of the thesis in showing the nature of functional remedies.

On the contrary this chapter is particularly important because shows how in three fundamental cases, E.ON (2008), RWE (2008) and ENI (2010), the commitments decisions looked at the gravity and seriousness of the anticompetitive effects of the exclusionary conducts carried out by the national incumbents in Germany and Italy, not only in terms of increased (or excessive) prices for the final consumers, but also in terms of limited investments to innovate the infrastructures (ENI, in particular).

In other words, the importance of these decisions is in the fact that they show how the European Commission, after having promoted the Energy Sector Inquiry in 2007, was able to identify not only short-run competition concerns, represented by the pathology of high prices in the gas and electricity sector, but also the impact, the anticompetitive foreclosure effect, that some exclusionary conducts, such as network underinvestment (in the ENI case), could determine in the long-run, opting for more radical remedies.

The analysis (i) of the various cases in the electronic communications sector, (ii) of the position adopted by the Commission and by the European Courts in sanctioning the electronic communications operators with fines even in the presence of ex-ante regulation as in the *Deutsche Telekom* and *Telefónica* cases, and (iii) of three commitments decisions in the energy sector that accepted the proposal of ownership separation by the electricity and gas incumbents in major European States, confirm that the Commission at least in principle is fully entitled to stretch the provision of Article 7 of Regulation no. 1/2003/EC up to the point of imposing structural remedies also in the electronic communications sector.

The next three chapters will discuss how this solution has been considered applicable (and beneficial) also in the electronic communications sector.

CHAPTER VI

THE US APPROACH TO VERTICAL SEPARATION IN THE ELECTRONIC COMMUNICATIONS SECTOR.

6.1. Introduction.

With respect to the structural separation of AT&T, over the last decade the economic-efficiency oriented approach of the Chicago School raised strong doubts about whether structural separation can be considered a suitable remedy to address competition concerns⁵³².

The creation in 2003 of the new telecoms regulatory authority, OFCOM, and the implementation of the new European Directives of the 'Telecom Package 2000' in the United Kingdom, led OFCOM to announce its intention to hold a review of the telecommunications market by 2004. The perception that BT had abused its dominant position in the wholesale market to enhance its retail competitiveness⁵³³ triggered a search for the best remedy to address the competition concerns. The background scenario was that of widespread criticism with respect to structural separation as imposed on AT&T in 1983 in the US⁵³⁴. However, at the same time the OECD had published in 2001 its

⁵³² One of the most critical scholars of competition law in the US is Robert W. Crandall. Against structural separation in the telecommunications sector, and very critical with respect to AT&T break-up, see 'The remedy for the 'bottleneck monopoly' in telecoms: isolate it, share it, or ignore it', (2005) Vol. 72 no.1 University of Chicago Law Review, 3-25. More open to various approaches is Prof. Martin Cave, who inspired the functional separation of BT and the creation of Openreach's division: see in particular Martin Cave, Six Degrees of Separation – Operational Separation as a Remedy in European Telecommunications Regulation, (4th quarter 2006) no. 64 Communications & Strategies, p 89 ff, and Martin Cave and Chris Doyle, Network separation and investment incentives in telecommunications, (2007) University of Warwick, MEC1521, paper accessible at http://www.kigeit.org.pl/FTP/ap/sot/07_11_12_podzial_2.pdf.

⁵³³ J. Wilsdon and D. Jones, The politics of Bandwidth – network Innovation and Regulation in Broadband Britain, (2002) London, Demos.

⁵³⁴ See Robert W. Crandall, After the Breakup – U.S. Telecommunications in a More Competitive Era, The Brookings Institution, Washington D. C, 1991. Against structural separation was also Michael H. Ryan, 'Structural Separation: A Prerequisite for Effective Telecoms Competition?', (2003) issue 6, European Competition Law Review, 241ff. Leonard Waverman and Kalyan Dasgupta, 'Mandated Functional Separation: Act in Haste, Repent in Leisure?', (2007), available at www.etno.be express concerns *vis á vis* both structural and functional separation, and are more in favour of price cap policies.

report on vertical separation, arguing that structural separation could be still considered as a suitable remedy not only in the energy but also in the telecommunications sector.

The telecoms market review (2004) led to the publication of two consultation documents, identifying three possible options to enhance competition in electronic communications in the UK: one was based on deregulation; a second option was to trigger a market investigation reference under the Enterprise Act 2002 to the Competition Commission, and the third was to negotiate undertakings with the incumbent, BT, aimed at creating 'real equality of access' through behavioural measures⁵³⁵.

As soon as OFCOM announced that it was ready to launch a consultation in June 2005, to determine whether it should accept the undertakings offered by BT to bring an end to the strategic review, BT preferred to avoid triggering the reference for market investigation by the Competition Commission, as per the Enterprise Act 2002, and agreed to give a number of enforceable commitments leading to the operational/functional separation of the group; the creation of Openreach as a new division dealing with the access to the 'last mile'. In other words, by negotiating the undertakings in lieu of reference, OFCOM and BT were able to avoid the market investigation and the risk that the Competition Commission would have ordered more draconian remedies.

In other words, an efficiency-oriented, costs-oriented, non-structural, remedy was adopted⁵³⁶ even though, at least theoretically, also a structural remedy could have been proposed.

⁵³⁵ See J. Whalley & P. Curwen, *Is Functional Separation BT-Style the Answer?*, University of Strathclyde, Glasgow, published (2008) no. 71 Communications & Strategies, 145ff. accessible at http://strathprints.strath.ac.uk/15424/1/CS71_WHALLEY_CURWEN.pdf. See in particular p 1148-150.

⁵³⁶ For the modalities of functional separation of BT, see OFCOM, 'Undertakings given to Ofcom by BT pursuant to the Enterprise Act 2002', Section 'Separation of Upstream and Downstream Divisions' (Sect. 8), accessible at <http://stakeholders.ofcom.org.uk/binaries/telecoms/policy/bt/consolidated.pdf>.

As I will discuss in a while, a structural remedy in the electronic communications sector had been imposed in the AT&T case only in 1982/1984 in the US and even though the doctrine was divided before and after the 'break-up', a positive outcome in term of increased competition was overall recorded.

The AT&T 'break-up' substantially was a form of local vertical structural separation aimed at containing the monopolistic position of AT&T⁵³⁷, while in the *BT/Openreach* case the main issue at stake was the discriminatory conduct held by the access division with respect to new entrants at wholesale level.

The AT&T experiment was not as disastrous as many observers, inside and outside the US government has feared before the break-up, in terms of degradation of quality of service, diminution of the reliability of communications services vital to national defence, and loss of profit for shareholders⁵³⁸.

According to W. Kovacic, for instance, most commentators concluded that the net effects of the AT&T consent decree (at the basis of the 'break-up') were positive⁵³⁹. From the conclusion of a paper by Crandall (in 2012)

'The Reagan administration's record on telecommunications has been remarkable. The breakup of AT&T and the attempt to bring some rationality to telephone pricing will surely look better and better in the coming years. Competition in telephone equipment and services are growing rapidly. Equipment prices are falling. With private users free to choose among various equipment suppliers and service venders, service offering are proliferating. It

⁵³⁷ W.E. Kovacic, cited, p 1302.

⁵³⁸ Ibid, 1303.

⁵³⁹ The literature on this specific aspect is vaste. See among others P. Huber, *The Geodesic Network '1987 Report on Competition in the Telephone Industry'*, US DoJ, 1987, 1.20-.35, reporting positive comments in term of enhancement of efficiency after the AT&T break-up. Negative comments from P. W. MacAvoy – K. Robinson, 'Loosing by Judicial Policymaking: The first Year of the AT&T Divestiture, (1985), 2 *Yale Journal on Regulation*, 225 and 261-62.

is no accident that Japan and the United Kingdom are now following our lead in telecommunications policy'⁵⁴⁰.

AT&T management desisted after a while, and preferred settlement and accepted the break-down of its vertically-integrated local operating systems rather than risking being fined with treble the damages for anticompetitive conduct.

The divestiture was facilitated by the pre-divestiture structure at regional, local, level of AT&T. Since the entire structure of the Bell system was a product of regulation and public intervention, 'there were fewer concerns that the decree would sacrifice economic performance by tampering with market structures that had emerged through a natural, market-driven search for superior efficiency'⁵⁴¹. Even the companies that succeeded to AT&T as well as their shareholders benefited from the relaxation of the regulation that followed the break-up.

The case is particularly interesting, and can be considered a key point of reference for the aim of the present thesis, since it shows the difficulty of combining the action and the aims of the regulatory authority with the achievement of a fully competitive scenario, when inefficiencies of the administrative bodies, on the one hand, and the strategic subtleties of corporate management, on the other hand, indicate that a draconian remedy would be preferable.

To understand the *AT&T* case, one has to distinguish the 'inter-city' traffic (national and international) and the 'intra-city' traffic (or local and state traffic) within the US. The increase in importance of other technological platforms (such as those based on digital, satellite and microwave technology), eroding the traditional cable/wire circuits presence of AT&T, must be borne in mind too. On the same level, the development of a wide range of high tech

⁵⁴⁰ R. W. Crandall, 'Telecommunications Policy in the Reagan Era', Dec 2012, Magazine of Regulation, Cato Institute, 1-8, accessible at <http://www.cato.org/sites/cato.org/files/serials/files/regulation/1988/10/reg12n3-crandall.html>

⁵⁴¹ W. E. Kovacic, cited, 1303.

products, such as 'wireless telephones, answering machines, automatic diallers and switchboards for connection by customers into the Bell network or for purchase by the local Bell operating companies' should be taken into account⁵⁴². All these products, combined with new technologies, brought a direct challenge to the natural monopoly of AT&T. Local companies could provide the same services of AT&T at lower costs, reflected in prices, facilitating interconnection by customers into the Bell network.

AT&T fiercely tried to obstruct the presence of competitors, in particular MCI. The formerly State-controlled company also tried to obstruct the provision of new services (such as digital business data transmission networks), alleging that it was financially and technically impossible to put in place different industrial policies⁵⁴³. AT&T tried to obstruct the interconnection of 'interlopers' lines' with its local distribution facilities. In fact AT&T was in a position to provide long distance services with lower prices in comparison to intra-city services.

The FCC suspected that AT&T was breaching Federal antitrust laws. MCI finally filed a formal antitrust complaint with the Department of Justice in 1974 for breach of Section 2 of the Sherman Act. In the *MCI Communications Corp. v. American Telephone & Telegraph ('AT&T')*⁵⁴⁴ case that resulted by the complaint, MCI claimed that AT&T had illegally refused interconnection to the fixed voice network owned by AT&T on a national basis through its subsidiaries, the Bell Operating companies, by charging excessive prices for the interconnection to the local exchanges carriers or simply impeding MCI the access to the Bell's local network. MCI stated that such interconnection would have been necessary to provide international telephony services in competition with AT&T. The Court accepted MCI's position, stating that:

⁵⁴² F.M. Scherer-D. Ross, cited, ch 'Antitrust Policy Towards Monopoly Market Structures', p 462.

⁵⁴³ Antitrust investigations showed that the AT&T internal staff had reached completely different conclusion.

⁵⁴⁴ *MCI Communications Corp. v. American Tel. & Tel. Co.*, 708 F.2d 1081, 1132-3 (7th Circ., 1983), 464 U.S. 891 (1983).

‘A monopolist’s refusal to deal under these circumstances is governed by the so-called essential facilities doctrine. Such a refusal may be unlawful because a monopolist’s control of an essential facility (or ‘bottleneck’) can extend monopoly power from one stage of production to another, and from one market into another. Thus, the antitrust laws have imposed on firms controlling an essential facility the obligation to make the facility available on non-discriminatory terms’⁵⁴⁵.

Therefore, the Court affirmed in particular that the refusal to provide access would be illegal when

1. An essential infrastructure is controlled by the monopolist;
2. The competitor requiring the interconnection is not able, practically or in reasonable terms, to duplicate the infrastructure;
3. There is a clear denial to provide the access to the infrastructure;
4. The access to the infrastructure must be technically available.

The FCC suggested that AT&T used part of the profits made on long distance services to reduce the local rates, as well as encouraged a common identical rate policy in highly and sparsely populated areas. The possibility of using new technologies (cheap new switches, etc.) allowed further competitors to operate in the most profitable areas of AT&T, which was, however, called to grant the universal service in less populated areas, and in inter-city traffic (links between smaller cities).

AT&T management did not know whether it would have been better to keep interconnection prices high, losing those profits that it would have used to subsidise the local and low-level traffic; or to keep interconnection prices low, losing part of the revenues used for cross-subsidisation (an alternative being that of reducing the costs).

⁵⁴⁵ *ibid*, 1132-3.

Even though AT&T judicially challenged the government's conclusions that AT&T had abused its dominant position, district judge Harold Greene 'concluded that the evidence demonstrated that the Bell System has violated the antitrust laws in a number of ways over a lengthy period of time'⁵⁴⁶. Interestingly, the judicial part of the investigation demonstrated that the regulatory burdens had been partially responsible for reinforcing the dominant position of AT&T⁵⁴⁷. Judge Greene demonstrated that the FCC 'may realistically be incapable of efficiently regulating a company of AT&T size, complexity, and power'⁵⁴⁸.

In order to avoid the pecuniary fines (treble damages), in 1984 AT&T accepted to divest its seven local Bell operating companies⁵⁴⁹, a vertical separation of the nation-scale operator 'into smaller network, each connected to a group of consumers (such as the splitting up of an incumbent company into several regional companies, each providing local services to a group of consumers)' ⁵⁵⁰, to use the same words of the 2001 OECD Report on structural separation based on the analysis of the most important cases of the previous decades.

The vertical structural separation of AT&T has to be taken into consideration not only as the first case of antitrust remedy imposed by the judicial authority in the telecommunications sector, but also because it provides a rare natural experiment that allows us to compare the conduct of separate companies and

⁵⁴⁶ *U.S. v. American Telephone and Telegraph Co. et al.*, 524 F. Supp. 1336, 1381 (1981)

⁵⁴⁷ See R.H. Bork *The Antitrust Paradox* (Free Press, 1978) p. 347. In particular, the Author states '*Predation by abuse of governmental procedures presents an increasingly dangerous threat to competition [with] almost limitless possibilities*'.

⁵⁴⁸ *U.S. v. American Telephone and Telegraph Co. et al.*, 524 F. Suppl. 1336, 1359 (1981).

⁵⁴⁹ An arbitration jury in Chicago liquidated the damages suffered by MCI for indirect refusal to supply by AT&T in \$ 1.8 billion. The seven local Bell operating companies 'born' from the break-up were: Ameritech, Pacific Telesis, South-Western Bell Corporation, BellSouth, U S West, NYNEX and Bell Atlantic.

⁵⁵⁰ OECD, Report on 'Restructuring Public Utilities for Competition', Paris, 2001, p 44. As I will discuss infra, this form of separation is one of the three possible options in the telecommunications sector as identified by the OECD Report' experts, the other two being the separation of non-competitive parts ('last mile') from the competitive parts (long-distance services) and the separation of the operators on the basis of the technology used (for instance, copper-wire operators from cable operators).

vertically-integrated companies in the same market⁵⁵¹. In other word, it provides an empirical test of the competitive scenario in the aftermath of structural separation of a vertically-integrated communications operator (such as AT&T).

This unique coincidence happened because, after the break-up from AT&T, the regional Bell companies were only allowed to provide state-wide services and not long-distance services. Only GTE (also previously part of the AT&T 'galaxy') was authorised to remain vertically-integrated with the long distance network, operating in direct competition with the 'Baby Bells' at local level, but also providing long-distance communications services.

After the 1996 Telecommunications Act came into force, the long-distance operators could operate at local level in direct competition with the local operators, therefore AT&T triggered negotiations with the Baby Bells and with GTE. Empirical evidence showed that access negotiations by AT&T with (still long-distance network vertically-integrated) GTE took longer and were not always successful, in comparison with the negotiations at local level with the Baby Bells. GTE was systematically more aggressive, and entry in regions serviced by GTE was systematically lower⁵⁵².

The reasons for such a difference of behaviour were investigated on the basis of empirical data by the researcher Federico Mini, an economist, at Georgetown University. Firstly, he found that after the AT&T's break up, AT&T's negotiations for interconnection agreements with the Bells companies were successful in 20 States out of 22, while failed in 10 States out of 22 with GTE. Similarly, the incumbent GTE, was systematically more aggressive: GTE offered higher prices for residential service in 12 out of 18 States, and a higher price for business service in 13 out of 18 States; GTE offered a discount off the retail price of residential service of \$ 1.20, while the Bells offered, on

⁵⁵¹ *ibid*, 45.

⁵⁵² *ibid*. The findings are based on a paper of Federico Mini, 'The role of incentives for opening monopoly markets: comparing GTE and BOC cooperation with local entrants', (2001) vol. XLIX no. 3 The journal of Industrial Economics, 379-414.

average, a discount of \$ 1.98. Similar conclusions were reached looking at the number of days required to close an agreement with GTE and with the Bells, substantially higher in the first case.

The explanation that Federico Mini gave was two-fold. On the one hand, the 1996 Telecommunications Act gave the possibility for the local Bell companies to get long-distance service licences if they would have favoured local access (new entries) in the local market. Therefore the 'carrot' was counterbalanced by their acceptance to negotiate new interconnection agreements (the 'stick').

On the other hand, GTE, being vertically-integrated with the long-distance network, was less interested to open its local market to a potential competitor on the long-distance services, such as AT&T. The risk was to lose not simply a local distance customer but rather a customer served both at local and long distance level.

The study is particularly interesting because it is based on the analysis of ex post (post break-up) incentives for two sets of companies, integrated and non-integrated with the long distance network. The empirical study definitively looks in favour of vertical separation, as a factor determining more competition, with less incentive to resist new entries. In other words, the same rationale that a few years later, in 2009, the European Commission adopted to mandate structural separation in the energy sector or to negotiate the commitments discussed in Chapter III of the thesis.

The main hope of the judges in the AT&T case of 1983-84 was that the artificial creation of a competitive scenario could liberate the 'invisible hand' of Adam Smith's where the regulatory authorities had failed⁵⁵³. The result of the above-mentioned study seems to confirm that the judges were right.

⁵⁵³ AT&T from 2004 renounced to provide phone services for resident users. On 31 January 2005 Baby Bell SBC Communications announced its plans to acquire AT&T Corp. for \$16 billion. SBC announced in October 2005 that it would shed the 'SBS' brand and take the AT&T brand along with the 'T' NYSE ticker symbol. Finally on 18 November 2005 the merger was approved. The original AT&T corporate entity, founded in 1885, became a subsidiary of the new AT&T Inc.

The next section provides a discussion of how, during the past decade, part of the doctrine, influenced by the economic-efficiency oriented Chicago School, claimed that such an invasive intervention by the Courts as in the AT&T case had to be mitigated, in particular because structural separation of the network would have discouraged further investments and innovation, on the one hand, and determined costly restructuring of the incumbent, on the other⁵⁵⁴.

The case *Verizon v Trinko* can be taken as an example of a resistance to the adoption of enforcement remedies by the judiciary, when the communications authority appears to be best positioned to adopt the most suitable remedies, with the aim of preserving the contractual autonomy and independence of the incumbent.

These criticisms of the application of the essential facilities in Europe are certainly well grounded, but cannot be shared in their entirety. With respect to the essential facilities doctrine, the European scenario appears quite different, less prone to leave the national regulators, for instance, to decide what ex ante remedy is best positioned to ensure a 'level playing field' of competition. The Commission retains a large margin of discretion in deciding when access to an essential facility can or cannot be mandated.

The Commission in the *Deutsche Telekom* and *Telefónica* margin squeeze decisions restated the supremacy of antitrust enforcement over the regulatory *ex ante* intervention, as I argued in Chapter II and IV where I showed how the Commission and the European Courts rejected DT and Telefónica arguments that local access tariffs had been approved or established by the national regulators (therefore, could not favour anticompetitive practices).

⁵⁵⁴ The issue of whether the perspective of a structural separation may discourage further investments by the incumbent is dealt in depth by the recent OECD Report *Experiences with Structural Separation 2011*, OECD-Competition Law and Policy Paper, p 109ff, accessible at <http://www.oecd.org/daf/competition/50056685.pdf>

If the regulator approved tariffs that ultimately led the competitors to leave the market, there is no reason to impede the intervention of the European Commission.

A similar approach was adopted by the Commission in the energy sector. As I discussed in the previous chapter, the seriousness of the exclusionary effects of the anticompetitive conducts carried out by E.ON, ENI and RWE, led the Commission to accept commitments that *de facto* led to structural separation.

This approach was in line with the criticisms made by the Energy Sector Inquiry 2007 that ultimately led to the review of the Second Energy Sector Package, reformed in 2009 with the expression provision that both in the gas and in the electricity sector the ownership of the generation plants had to be separated from the distribution/transmission network.

Dr O. Koch (deputy head of unit at the DG competition, in charge of the energy sector) in a presentation given in Athens in June 2013 reaffirmed the supremacy of competition law over the regulator activity. With respect to the importance of creating a competitive energy market in Europe through the cooperation of regulators and competition authorities, stressed the concept that where regulators do not adopt measures that prevent or deter abuse of dominant position (such as refusal to supply, excessive prices, margin squeeze), the competition authorities through their enforcement activity have to take action⁵⁵⁵. In other words, he very clearly confirmed the supremacy of European Competition law over the regulatory activity, also in terms of remedies (behavioural and also structural) that can be adopted to create a 'level playing field' of competition.

He underlines how it may happen that regulators (for instance in the energy sector, but similar conclusion can be drawn with respect to the communications sector) may have insufficient competencies or independence,

⁵⁵⁵ Dr Oliver Koch (deputy head of unit at DG Energy, European Commission), 'Creating competitive energy markets through joint enforcement of energy regulators and competition authorities', conference held in Athens on the 5 June 2013.

while competition law could be more efficient, applied faster and with stronger investigative powers.

The most important consequence from this reasoning, in favour of the supremacy of competition enforcement over the sector regulator's activity, is that the Commission can also use the tools established by Art. 7 of Regulation no. 1/2003/EC. Not only fines or behavioural remedies, but also structural remedies, would be applicable under EU law.

6.2. What lesson can the EU learn from the AT&T experience? Structural separation in the energy sector.

If we look at the doctrine most favourable to the approach indicated by the US Supreme Court in the *Verizon v Trinko* case, in favour of direct intervention of the regulatory authorities, there are scholars that admit that where the regulator is reluctant to intervene the enforcement authorities should take action.

Geradin in 2004 admits that 'as the Commission has done in the majority of cases it initiated in the telecommunications sector, it should transfer the case to the NRA(s) to have them take a decision on the basis of the sector-specific legislation. Such a transfer [of authority] should, however, only take place when the Commission is confident that the matter will be sufficiently addressed by the NRA(s) on the basis of sector-specific rules. This apparently was not the case in *Deutsche Telekom* where the Commission investigated the case, adopted remedies, and imposed a penalty'⁵⁵⁶.

Similar conclusion can be inferred from the recent preliminary ruling of the European Court of Justice in the *Prezes Urzedu Ochrony Konkurencji I*

⁵⁵⁶ D. Geradin, cited, p 28.

Konsumentow v Tele 2 Polska sp. z o.o. case⁵⁵⁷, where the Court reaffirmed that the national competition authority can adopt a decision in which it decides that there are no grounds for action on its part, but cannot adopt a decision stating that Art. 102 TFEU has not been infringed: '[e]mpowerment of NCAs to take decisions stating that there has been no breach of Treaty provisions on abuse of a dominant position would call into question the system of cooperation established by Regulation 1/2003 and would undermines the power of the Commission'⁵⁵⁸. In other word, the Commission and the European Courts' competence in ascertaining an infringement of Art. 102 (and in adopting the optimal remedy) cannot be affected by a decision adopted at (competition law or regulatory) national level.

Similar conclusion can be reached also looking at the *Telefónica* case⁵⁵⁹, where the Commission decision also took into consideration the role played by the *Comisión del Mercado de las Telecomunicaciones* ('CMT') in establishing the 'cost model' on which Telefónica should have set the wholesale access prices for its competitors, arguing that the calculations based on estimates rather than on historical data had to be considered 'not appropriate', to use the same words of the judgment of the General Court in March 2012, substantially upholding the Commission Decision⁵⁶⁰.

⁵⁵⁷ Case C-375/09 *Prezes Urzędu Ochrony Konkurencji i Konsumentów v Tele 2 Polska sp. z o.o.* (now Netia SA), judgment of 3 May 2011, press release of the ECJ Memo 42/11 of 3 May 2011.

⁵⁵⁸ See press release of the European Court of Justice 42/11 and para 32 of the judgment: 'It follows [...] that a national competition authority cannot take a decision stating that there has been no breach of Article 102 TFEU. According to the second paragraph of Article 5 of the Regulation, such an authority may, however, decide, in cases where, on the basis of the information in its possession, the conditions for prohibiting a practice under Article 102 TFEU are not met, that there are no grounds for action on its part'.

⁵⁵⁹ Summary of the Commission Decision *Wanadoo España v Telefónica* [2008] OJ C83/6 ('Telefónica'), appealed at the General Court: Case T-336/07 *Telefónica and Telefónica de España v Commission* [2007] OJ C269/55, ECR I-0000, judgment on the 29 March 2012. On appeal at the Court of Justice, Case C-295/12.

⁵⁶⁰ Commission Decision *Wanadoo España v Telefónica* of 4 July 2007. See in particular para 494: 'As will be established below, the cost data used by the CMT in its *ex ante* decisions is inappropriate for the assessment of the compatibility with Article 82 EC of Telefónica's prices for broadband access in the present case because (i) the CMT's cost model does not rely on Telefónica's historical costs but rather on estimates made by the external consultants on the basis of information provided with by the company in October 2001 and (ii) those estimated costs are significantly lower than Telefónica's historical costs and lower than the costs forecasted by Telefónica in its initial business plan'. Since the costs of Telefónica were actually higher, the prices set by Telefónica would have not actually covered the costs. See

The General Court⁵⁶¹ confirmed that the Spanish incumbent had abused of its dominant position through a margin squeeze practice relying on the calculation of costs made by the Spanish regulator based on estimates rather than on the actual costs of the company. The Court reaffirmed in its judgment the duty by the incumbent to comply with European competition law:

As regards the role of ex ante regulation, the Court confirms the position taken in the *Deutsche Telekom* judgment [...] that national legislation concerning telecommunications– in this case, compliance with the decisions taken by the national telecom regulator CMT on the basis of the regulatory framework – does not release dominant firms from their obligation to respect EU competition law. In any event, Telefónica had sufficient discretion to determine its pricing policy. Importantly, the Court confirms that Telefónica must have known that the regulator never examined the existence of a margin squeeze in relation to the regulated regional wholesale access product on the basis of the actual costs of the undertaking, but rather on the basis of estimates which had not in actual fact been confirmed by the developments of the market⁵⁶².

The General Court is adamant in stating that ‘the existence of that measure therefore has no effect whatsoever on the powers which the Commission derives directly [...] from Article 7(1) of Regulation No 1/2003 to find infringements of Articles 81 EC and 82 EC’⁵⁶³ and in reaffirming that the Spanish regulator (CMT) is not a competition authority but a regulatory authority with no powers of enforcing competition law⁵⁶⁴. The General Court

also sect. 1.4. of the mentioned decision (para 499: ‘Therefore, the costs indicated in the model implemented by the external consultants are not those that were effectively incurred by the company but only estimates on the basis of information relating to a network with a capacity of [...] lines’). The Commission therefore found that *Telefónica* set its wholesale access price at such a level to put in place a margin squeeze conduct.

⁵⁶¹ Case T-336/07 *Telefónica and Telefónica de España v Commission* [2007] OJ C269/55, judgment on the 29 March 2012.

⁵⁶² Case T-336/07 *Telefónica and Telefónica de España v Commission* [2007] OJ C269/55, press release of the General Court, Memo 12/233 of 29 March 2012.

⁵⁶³ Case T-336/07 *Telefónica and Telefónica de España v Commission* [2007] OJ C269/55, para 293.

⁵⁶⁴ *ibid*, para 301.

underlines how the Commission cannot be bound by a decision taken by a national authority pursuant to Art. 82 EC and expressly recall the fundamental judgment, on this particular aspect, *Deutsche Telekom v Commission*⁵⁶⁵ affirming how the incumbent has a duty to comply with competition law even though the national sector regulator set wholesale or retail prices that *per se* would lead to a margin squeeze practice.

Therefore, even the supporters of the ‘regulatory’, economic-efficiency oriented, approach, have to admit that, when competition law is at stake, the Commission is indeed the ‘best positioned’ authority to adopt the most suitable measure to create a ‘level playing field’ for competition, the ‘measure’ being a pecuniary fine, or a structural or behavioural remedy as per Article 7 of Regulation 1/2003.

Looking back to the US experience, the *AT&T* precedent of structural separation has been severely criticised over the years. Doctrine mainly influenced by the Chicago School could not see with favour State (judiciary) intervention in the economy, the adoption of a remedy costly and potentially disruptive.

In 1991 Robert W. Crandall published ‘After the Breakup’⁵⁶⁶, and more than a decade later a seminal article with J. Gregory Sidak, in which the negative aspects of AT&T’s break-up were analysed, and the same structural separation as a remedy was put in doubt, as costly and ineffective⁵⁶⁷. The article by Crandall-Sidak is focused on the suggestion made in 2001 to policy makers by the CEO of AT&T to adopt mandatory structural separation of the incumbent local exchange carriers (‘ILECs’), putting the wholesale and retail division in structurally separated divisions, in order to allow the so-called

⁵⁶⁵ Case T-271/03 *Deutsche Telekom v Commission* [2008] ECR II-477 (para 185).

⁵⁶⁶ Robert W. Crandall, *After the breakup – U.S. Telecommunications in a more competitive era*, (The Brookings Institution, Washington DC, 1991).

⁵⁶⁷ Robert W. Crandall – J. Gregory Sidak, ‘Is structural separation of incumbent local exchange carriers necessary for competition?’, (2002) Vol. 19, no. 2, *Yale Journal on Regulation*, 335-411.

competitive local exchange carriers ('CLECs') to countervail the anticompetitive strategies put in place by the ILECs.

Crandall and Sidak have no doubt that such a mandatory structural separation 'would harm consumer welfare and reduce resources for investment by facilitating an anticompetitive strategy by the ILECs' largest rivals to raise the ILECs' costs of providing local telecommunications services'⁵⁶⁸. In line with the idea of 'consumer welfare' imperative and of short term economic efficiency, echoing two concepts of the Chicago School.

The question is whether, at European level, competition law enforcers can go beyond short term consumer welfare or rising costs issues, looking at structural separation with a different eye, for instance putting first the 'deterrence effect' that such a measure could have, or looking at the possibility of negotiating commitments with behavioural nature (combined or not with structural remedies) to address the competition concerns, on the example of the commitments negotiated in recent years in the energy sector (chapter III).

Crandall and Sidak use economic efficiency arguments in showing that *ex-ante* regulation is best positioned to address competition concerns than an *ex-post*, invasive, draconian remedy such as structural separation. They consider, for instance, the 'substitution effect' that cable telephony (on cable television network) and wireless telephony have been playing in the last decade, in order to show that the decline in revenues of the CLECs in the US could be demand-side determined more than by the ILECs abusive behaviours⁵⁶⁹. Similar considerations can be made with respect to the cable (broadband) communications: 'looking to the future, cable companies offer another method of substitution away from the ILEC as provider of network access. The combination of Internet protocol telephony with instant messaging technology has the potential to create an Internet-based alternative to the ILEC

⁵⁶⁸ *ibid*, 335 (preamble).

⁵⁶⁹ *ibid*, 360.

network⁵⁷⁰. In 2002 the two authors correctly identified one of the main factors of erosion of the CLECs' turnover erosion for fixed telephony, showing that the problem of survival for the competitors would have not been solved through mandatory structural separation.

Continuing the discussion around economic efficiency, the authors argue that behavioural remedies could deal with the restriction of competition issues in a more efficient way⁵⁷¹. They argue that the costs of mandatory structural separation are likely to go beyond the benefits, and support the idea of adopting behavioural remedies in order to achieve the same goal in a less costly way.

The negative aspects that they identify are well-known. Separation would create difficulties of coordination of investments and hamper the production decision process; making it more difficult to identify the accountability for product quality, tougher to offer 'bundled' communications services, lead to dispersion of 'indivisible' and intangible assets (such as customers' loyalty), and have very high enforcement costs⁵⁷². All these criticisms are logical and empirically well-grounded. However, the same authors confirm that even in the US the hypothesis of mandatory structural separation at the heights of the Chicago School's economic efficiency imperative, it was not *a priori* excluded as a remedy to increase network competition, to countervail the power of the ILECs or, at least, to represent a serious deterrent.

The authors underline how various types of separation can be proposed in the electronic communications sector: two structural forms of separation and one that should be rather defined functional⁵⁷³. According to the authors, the first type is the 'divestiture of the retail service division from the wholesale network

⁵⁷⁰ *ibid*, 362.

⁵⁷¹ *ibid*, 364, the author say 'even if one could document in a systematic way that discrimination by the ILECs is undermining local competition, it does not necessarily follow that mandatory structural separation would be an efficient remedy'.

⁵⁷² *ibid*, 367-369.

⁵⁷³ *ibid*, 340.

division'⁵⁷⁴. A second form of structural separation is put in place when 'one company owns and operates the telecommunications network, while other companies provide the services to end users'⁵⁷⁵ (I will discuss in the last chapter how this form of structural separation is that at present under implementation in the Australian telecommunications, where the company ruling the network, publicly funded, will be separated by the company providing electronic communications services). A third form, functional separation, 'requires the incumbent local exchange carriers ('ILECs') to form separate divisions that interact at arm's length'⁵⁷⁶.

The 2002 Crandall-Sidak's seminal article is particularly important because the conclusion is that in the balance of the advantages and disadvantages of both structural and functional separation should lead the competition and regulatory authorities to be more inclined to favour pro-competitive solution based on functional separation.

They argue that the Competitive Telecommunications Association ('ComTel')⁵⁷⁷ and the OECD in 2001, arguing in favour of structural separation, taking the AT&T break up as a successful model of antitrust intervention, somehow idealised the final outcome.

A study presented in 2001 by ComTel states

'Opening the local network to competitors is unquestionably complex, but the magnitude of the problem has grown exponentially because the entity responsible for implementing non-discriminatory

⁵⁷⁴ *ibid.*

⁵⁷⁵ If we look at the European experience of structural separation in the energy sector, we can identify a combination of the first two types of (structural) separation, either between services companies (for instance, generation and transmission) and between services and network companies (for instance, in the electricity sector, separation between companies providing the services and companies owning the so-called 'grid').

⁵⁷⁶ Crandall-Sidak, cited, 340.

⁵⁷⁷ Competitive Telecommunications Association, 'Structural incentives: the simpler, more efficient path to local competition', study presented at the National Association of Regulatory Utilities Meeting, 14 July 2001.

access is itself the sole beneficiary of the exclusive access that exists today. The past five years have shown that attempting to overcome these incentives through a series of regulatory orders- reached only at the conclusion of protracted and expensive litigation- is not producing the necessary results. Indeed, the competitive sector of the telecommunications industry is in serious jeopardy as several CLECs have declared bankruptcy, missed revenue targets, curtailed entry into new markets and laid off employees. Moreover, these impacts are not limited to CLECs (and their customers); these effects are also being felt upstream with the manufacturers of telecommunications equipment themselves'⁵⁷⁸.

The CompTel's study quored by Crandall and Siday points out that the two main abusive conducts put in place by the ILEC were based on (i) preferential treatment by the ILEC of its own retail operations when providing network access and (ii) insufficient discounts offered by the ILEC when selling its wholesale services to the CLECs⁵⁷⁹.

The solution proposed by CompTel, structural separation, would 'place the ILEC's retail operations in the shoes of a CLEC-ordering Unbundled Network Elements (UNEs), establishing customers' accounts, and incurring UNE charges just like any other provider'⁵⁸⁰.

Similarly, the OECD, in its 2001 report 'Structural Separation in Regulated Industries'⁵⁸¹ lists six remedies that would increase competition, and among them ownership separation (structural separation of the ILEC's wholesale and retail divisions, the first type of structural separation identified by Crandall and Sidak) and horizontal divestiture (separation of the ILEC into smaller, vertically integrated carriers, including part of the network and part of the service provision company, as in the 1982 AT&T break-up) were strongly recommended. The OECD, furthermore, promoted further separation between

⁵⁷⁸ Competitive Telecommunications Association, *ibid*, p 4. .

⁵⁷⁹ Crandall-Sidak, *cited*, 341.

⁵⁸⁰ Competition Telecommunications Association, *ibid*, 6.

⁵⁸¹ OECD, *Structural Separation in Regulated Industries Report*, tbl A 8 (April 2001) 160.

local fixed wire services from mobile and broadband services, though admitting that separation of the various services may slow down research and innovation⁵⁸².

Crandall and Sidak focus on the first type of structural separation ('divestiture of the retail service division from the wholesale network division') and, on the basis of empirical evidence gathered over the years, reach the conclusion that the structural separation solution was not advisable.

They take the example of Pennsylvania Public Utility Commission ('PUC') proposal of structural separation on Bell Atlantic-Pennsylvania in 2001, to show that the same Commission decided that it was too complex and would have required conduct remedies⁵⁸³. In September 1999 the PUC had instructed Verizon to structurally separate its wholesale operations from its retail operations, as not only the most efficient tool to ensure local service competition, but also necessary to accomplish full competition⁵⁸⁴. Even though the Pennsylvania's Commonwealth Court upheld the PUC's plan of structural separation, with Verizon failing to demonstrate that structural separation would have been 'unreasonably costly, unduly burdensome, or confiscatory'⁵⁸⁵, later in 2001 the same Pennsylvania PUC 'acknowledged in its March 2001 Opinion and Order that either full or functional separation would require substantial implementation costs and complementary behavioural remedies, and that neither would reduce regulatory oversight: 'Anything less than full structural separation would require continuing regulatory oversight, even though part of our goal in deregulating the industry is to reduce oversight. However [...], even with the implementation of structural separation of Verizon's wholesale and retail arms, no less regulatory oversight than that currently prevailing will be

⁵⁸² OECD report, 158-167; Crandall-Sidak, cited, 344.

⁵⁸³ Crandall-Sidak, cited, 347.

⁵⁸⁴ *ibid.*

⁵⁸⁵ *ibid.*, Structural Separation of Verizon Pennsylvania, Inc., Retail and Wholesale Operations, Dkt. No. M-00001353, at 10, Pa. Pub. Util. Comm'n, Jan 2001.

required to ensure compliance⁵⁸⁶. Iconic is what Commissioner Terrance J Fitzpatrick in that occasion said: '[structural separation] didn't look like as much of a silver bullet when we looked at the details of it'⁵⁸⁷.

The PUC in that circumstance opted for a combination of functional and structural separation, mandating the functional separation of the wholesale and retail divisions of the Incumbent Local Exchange Carrier ('ILEC') in a way that 'provides for non-discriminatory access to its wholesale division by all CLECs'⁵⁸⁸. Secondly, the PUC ordered the ILEC to 'create an advanced-services affiliate, separate from the retail division of its business'⁵⁸⁹. In other words, the Pennsylvania PUC's decision 'to impose a full complement of behavioural remedies in conjunction with functional separation demonstrates that it was not confident that such separation would quickly diminish the need for regulation'⁵⁹⁰. The Pennsylvania PUC dismissed its own project of structural separation of the ILEC as the 'most efficient tool to ensure local telephone competition where a large incumbent monopoly controls the market'⁵⁹¹.

6.3. Conclusion

Looking at the US experience, it can be said that in the last thirty years the tendency of the Courts has been that of limiting the level of intervention of the antitrust authorities in the economy. Scholars of the Chicago School, in

⁵⁸⁶ Structural Separation of Bell Atlantic-Pennsylvania, Inc., Retail and Wholesale Operations, Dkt. No. M-00001353, at 24, Pa. Pub. Util. Comm's, 22 March 2001.

⁵⁸⁷ Chris Sewell, *Still together*, Telephony, 2 April 2001, quoted in Crandall – Sidak cited, fn 42, 348.

⁵⁸⁸ Structural Separation of Bell Atlantic-Pennsylvania, Inc., Retail and Wholesale Operations, Dkt. No. M-00001353, at 59, Pa. Pub. Util. Comm's, 22 March 2001.

⁵⁸⁹ Crandall-Sidak, cited, 348.

⁵⁹⁰ Ibid, 349.

⁵⁹¹ Structural Separation of Bell Atlantic-Pennsylvania, Inc., Retail and Wholesale Operations, Dkt. No. M-00001353, at 222, Pa. Pub. Util. Comm's, 22 March 2001.

particular, in line with the concept of not undermining economic efficiency and short term consumer welfare with excessive State intervention, heavily criticised, *ex post*, the draconian approach that led to the structural separation of AT&T, advocating less invasive remedies, such as the recourse to *ex ante* measures (for instance, reviewing the tariffs system in dealing with access-related abuses, as suggested by Crandall-Sidak in their seminal article against structural separation), or to *ex post* enforcement based on pecuniary fines or behavioural remedies.

If the *AT&T* case of 1983/84 represented the most interesting case of structural separation aimed at enhancing competition ever recorded in the telecommunications sector, the US antitrust jurisprudence in the following two decades went in a completely different direction.

The 2001 OECD Report on 'Restructuring public utilities for competition'⁵⁹² took the AT&T case as one of the possible forms of structural separation⁵⁹³, and proposed this form of separation of the incumbent into regional operators as one of the most effective technique for promoting competition between rival vertically-integrated networks. The Report underlines how as a consequence of that break-up, today 'the US telecommunications regime is currently one of the most competitive in the world'⁵⁹⁴.

However, the difference of approach between the US antitrust authorities (in the public utilities sector in particular, demanding to the regulators the adoption of the most suitable remedy, as shown by the Supreme Court

⁵⁹² OECD report 'Restructuring Public Utilities for Competition', 2001, p 44.

⁵⁹³ The OECD Report 2001 lists three types of structural separation: (a) separation of network operators into smaller networks, each connected to a group of consumers (such as the slitting up of an incumbent company into several regional companies, each providing local services to a group of consumers; (b) separation of the non-competitive parts of network operators (particularly, the 'last mile' of the connection to the customer) from the competitive parts (such as long-distance services), and (c) separation of network operators on the basis of technology used to connect to consumers (such as the separation of local telecommunications companies based on copper-wire from companies using cable TV networks or those using cellular services).

⁵⁹⁴ *Ibid*, p 44.

judgment in the *Verizon v Trinko* case) and the EU enforcers, in the last decade has become particularly relevant.

However, several antitrust scholars in the US, in particular those in line with the economic-efficiency based Chicago's School (Milton Friedman, but also Richard Posner and Robert Bork) argued that the State should not interfere with the natural evolution of a successful and efficient company. It was held that consumer welfare, in particular, would be unnecessarily harmed should the antitrust authorities protect or preserve the existence of a not 'as efficient' competitor.

The question is whether more radical remedies might be imposed to address competition concerns, and to see whether from the US experience, but also from the most recent commitments experience in the energy sector analysed in Chapter III, any lesson can be learnt by the European Commission with regards its future enforcement activity in the electronic communications sector.

In other words, the European Commission (or NCAs) has (have) shown readiness to impose fines that may constitute a serious deterrent for the incumbent. But the question now is whether the Commission is ready for more invasive remedies, such as structural separation; and if so, when and in what circumstances.

CHAPTER VII

Doctrinal divisions *vis á vis* functional or structural separation to deal with vertical foreclosure effects.

7.1 Introduction

This chapter tackles the discussion about vertical separation in the electronic communications sector, in its two main forms functional and structural, and will argue how mandatory structural separation under certain conditions could be a possible option.

After having seen in the previous chapter the US approach to structural remedies, and the important case-study of AT&T as the most clear sample of structural separation in a vertically-integrated company dominant in the electronic communications sector, the focus now shift on how the doctrine theorised answering the difficult question: what remedy is best positioned to address competition concerns? Among the various forms of separation, what is the most suitable?

I have discussed in the previous chapter how in the last decades the hypothesis of adopting structural remedies in the electronic communications sector, at least at US level, lost the favour recorded in the 1980s.

The Harvard School advocates in favour of antitrust intervention to deal market structure hindering competition, and how separation may actually reduce the structural competitive advantage that the incumbent may have in the market. The Chicago School, looks instead at economic efficiency reasons, is generally keener to adopt less invasive solutions and put behavioural remedies on top of the competition enforcement agenda, only if and after regulatory tools have shown their inadequacy.

This chapter starts with the position that the Organisation for Economic Cooperation and Development ('OECD') recently took in a Recommendation on structural separation adopted on the 13 December 2011 (published in January 2012), showing how, at inter-governmental level, the position changed in the last decade, in favour of '*à la carte*' enforcement solutions, departing from the position expressed in 2001, more favourable to structural separation.

It is a very useful document that, alongside with a Report on structural separation published at the same time, stresses how the choice of the most suitable form of (horizontal or vertical) separation should follow a case-by-case approach, on the basis of the evaluation of two main factors:

1. The advantages and disadvantages that the separation may determine in competition terms;
2. The costs and benefits that the separation may determine.

If this two-fold approach is correct, I am prone to add a third, decisive, factor to be borne in mind in favour of structural separation: the importance of deterrence. The threat of structural separation could be dropped at a later stage (for instance while negotiating commitments), finally adopting behavioural-based solutions.

The current 'case-by-case' position of the OECD represents an evolution of previous findings encapsulated in the OECD Report 2001 and in the interim report of 2006.

After having discussed the evolution of the OECD approach, I will analyse the current position of the doctrine, both at legal and economic level.

Among various authors, Prof. Martin Cave played a decisive role in the United Kingdom in explaining how 'replicability' of infrastructures is of paramount importance to boost network-based competition, going beyond the pressure on

the local access incumbent to open its network (i.e. through *ex ante* regulatory tools), or through mandatory divestiture of the network (through *ex post* enforcement tools). Martin Cave's 'ladder of investments' scheme⁵⁹⁵ influenced the current debate at European level on access to networks, in addition to the influence that OECD reports on separation might have had on regulators and competition authorities. All these positions were kept in consideration during the debate preceding BT's functional separation and the creation of the separate access division, Openreach⁵⁹⁶.

In this chapter I will also make reference to recent experiences such as the creation of Openreach as a separate division within BT's group for the electronic communications sector, and to the commitments decisions in the cases *EO.N*⁵⁹⁷, *RWE*⁵⁹⁸ and *ENI*⁵⁹⁹ in the energy sector that led to structural separation, as discussed in Chapter III.

After a short analysis of the OECD position on functional and structural separation, the following sections highlight the reasoning behind the choice of functional separation rather than structural separation when British Telecom

⁵⁹⁵ M. Cave, 'Six Degrees of Separation, Operational Separation as a Remedy in European Telecommunications Regulation', in (2006) no. 64 Communications & strategies, 89ff. See also M. Cave and C. Doyle, 'Network separation and investment incentives in telecommunications', (2007) University of Warwick, MEC 1521, 1-32.

⁵⁹⁶ See in particular OECD, *Restructuring Public Utilities for Competition*, (2001) Competition Law and Policy, 1-95; OECD, *Competition and Regulation Issues in Telecommunications*, (2002) Competition Law and Policy; OECD, *Report on Structural Separation*, (2006) Vol. 8 no.2 Journal of Competition Law and Policy, 1-65; OECD, OECD Report 2011 'Report on Experiences with Structural Separation', OECD pub. 2012, p 10, accessible at <http://www.oecd.org/daf/competition/50056685.pdf>.

⁵⁹⁷ Commission Decision *E.ON* (Case COMP/38.388-38.389) of 26 November 2008, [2009] OJ C36/8 of 13 February 2009, accessible at http://ec.europa.eu/competition/antitrust/cases/dec_docs/39388/39388_2796_3.pdf.

⁵⁹⁸ Commission Decision *RWE (Gas Foreclosure)* (Case COMP/39.402) of 18 March 2009, Summary of the decision in [2009] OJ C133/10 of 12 June 2009 accessible at http://ec.europa.eu/competition/antitrust/cases/dec_docs/39402/39402_576_1.pdf

⁵⁹⁹ Commission Decision *ENI* (Case COMP/39.315) of 29 September 2010, [2010] OJ C352/8 of 23 December 2010, accessible at http://ec.europa.eu/competition/antitrust/cases/dec_docs/39315/39315_3019_9.pdf.

negotiated the undertakings that led to the creation of Openreach as a separated division within the same group. The section on Openreach is aimed at clarifying the advantages and the disadvantages that functional separation entails, and is preparatory to next conclusive chapter, focused on the advantages and disadvantages of structural separation, on the basis not only of the AT&T case discussed in the previous chapter, but also looking at the remedies adopted with respect to the energy sector and to a recent case of structural separation adopted in Australia dealing with the national incumbent: *Telstra*.

The last section contains conclusive remarks on structural separation and an analysis of the doctrine of Martin Cave on 'degrees of separation', opening the path to a new approach towards structural separation, as a remedy that can be considered to be the most convincing form of deterrent that the enforcer, the European Commission, can put forward in exercising its prerogatives on the basis of Art. 7 of Regulation 1/2003/EC.

7.2. The OECD position in the last decade. From the 2001 Recommendation on structural separation to the 2011 Report and amended Recommendation.

In 2001 the OECD issued a 'Recommendation [of the Council]⁶⁰⁰ on structural separation in regulated industries' stating that policies aimed at boosting competition can be broadly divided in two types: (i) those primarily addressing the 'incentives of the regulated firms' (such as vertical ownership separation), called 'structural policies', and (ii) those primarily addressing the ability of the regulated firms to deny access (for instance, imposing access separation), which may be called 'behavioural policies'.

In 2001 the OECD forum recognised that 'structural' policies, though the most difficult to adopt, could be the most suitable. Later in 2011 the same forum

⁶⁰⁰ Recommendation of the Council concerning structural separation in regulated industries, 26 April 2001, C (2001) 78/FINAL, OECD, Paris.

admitted that in certain circumstances ‘behavioural’ remedies (accounting separation, functional separation) *may play a useful and important role in supporting certain policies such as access regulation*, somehow modifying the approach held one decade earlier⁶⁰¹.

On the one hand, the decision-making process in favour of a structural remedy in regulated industries often requires high-profile and sensitive trade-offs, independence from the regulated industry, high expertise, and transparency in assessing the competitive effects. On the other hand, behavioural remedies may not entirely eliminate *‘the incentive of the regulated firm to restrict competition and therefore **may be less effective** [...] at facilitating competition than structural remedies*⁶⁰².

In 2001 the OECD recommended⁶⁰³ the *‘[...] Member States [to] carefully balance the benefits and costs of structural measures against the benefits and costs of behavioural measures’*, considering the costs and benefits in terms of ‘effects on competition and effects on the quality and cost of regulation; the transition costs of structural modifications, and the economic and public benefits of vertical integration, based on the economic characteristics of the industry in the country under review’. It also stressed that the benefits and costs to be balanced should be those recognised by the relevant agencies including the competition authorities, based on principles defined by the OECD’s member country⁶⁰⁴.

The OECD Recommendation 2001 and the related OECD report of the same year on ‘Restructuring public utilities for competition’⁶⁰⁵ (the ‘OECD Report 2001’) paved the way for a new theoretical approach towards pro-competition remedies by both regulatory and competition authorities.

⁶⁰¹ Ibid, p 3.

⁶⁰² Ibid.

⁶⁰³ Ibid.

⁶⁰⁴ *ibid*.

⁶⁰⁵ OECD, Report on ‘Restructuring public utilities for competition 2001’ (OECD 2001 Report).

The OECD Report 2001, in particular, stressed how on a 'case by case' basis the authorities have to carefully balance the advantages and the disadvantages, both in competition law terms and in economic terms, of any remedies that they might be tempted to recommend or to impose.

Interestingly, it stressed how behavioural or functional remedies should be seen in conjunction with the implementation of further actions, since no remedy is sufficient *per se*. An excerpt from the conclusion can clarify this approach:

'Policy makers have a variety of tools for promoting and protecting competition in utility industries. It is possible to broadly rank these approaches in order of preference. [Accounting separation or corporate separation] affect neither the incentives nor the ability of the regulated firm to act in an anti-competitive manner. Although these forms of separation have merit in supporting other approaches, they cannot be used as stand-alone techniques in their own right'⁶⁰⁶.

Without expressly suggesting or recommending more invasive forms of separation (for example vertical structural separation) the OECD Report 2001 considered that

'the most appropriate form of separation in any given industry will depend on a variety of factors which must be balanced. These factors include the magnitude of economies of scale from integration, the one-off costs of separation, the benefits of and scope for competition and the public policy objectives for the industry in question'⁶⁰⁷.

It is worth recalling the submission of the French government to the OECD in preparation of the OECD Report 2001. It underlined how

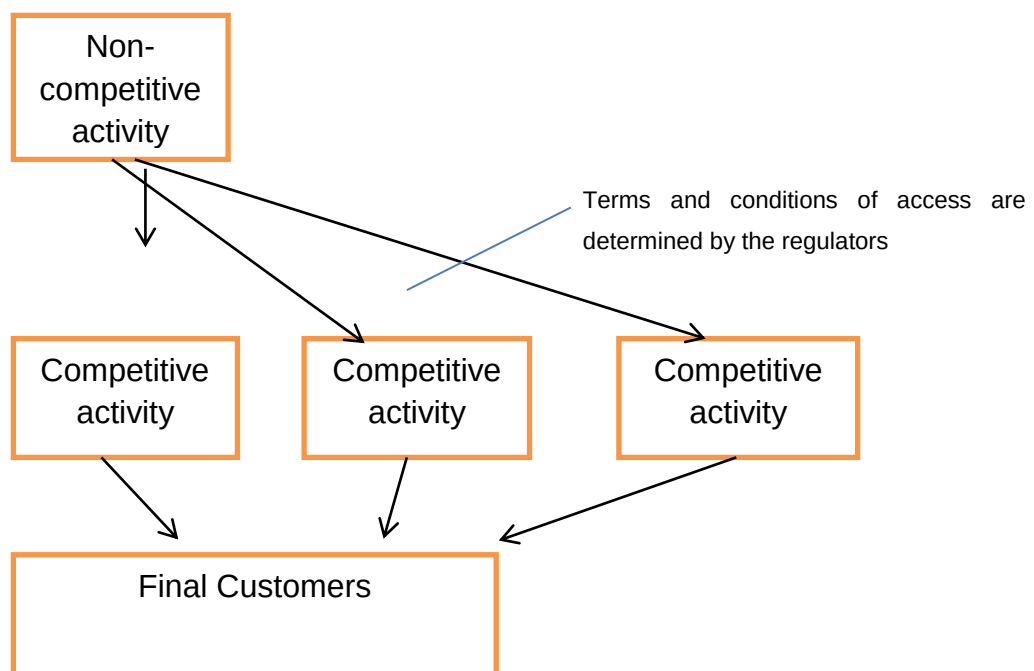
⁶⁰⁶ Ibid, p 19.

⁶⁰⁷ Ibid.

‘In this context, structural measures, which are likely to involve dismantlement of sizeable economic enterprises, demand delicate and complex trade-offs. While vertical integration must not harm competition, it is also necessary to take into account the efficiency gains and the benefits from universal service [that might arise from integration]. Conversely, disintegration may increase the transaction costs borne by the consumer. For this reason it is not appropriate to adopt a dogmatic position but rather, to consider the benefits and costs of separation on a case-by-case basis’⁶⁰⁸.

First of all, the OECD Report 2001 identifies the tools for protecting and promoting competition, applicable to all the regulated industries (electronic communications, energy, railways, postal sectors) distinguishing the so-called (i) ‘access regulation’ from (ii) ‘ownership separation’, (iii) ‘club ownership’ and (iv) ‘operational separation’⁶⁰⁹.

Access regulation (regulatory approach) follows the following scheme:



⁶⁰⁸ Ibid.

⁶⁰⁹ Ibid p. 11-15

Figure 7.1: Access Regulation (source: OECD Report 2001, p 12)

The regulator intervenes to fix the prices of access to the non-competitive activity, i.e. the access to the infrastructure ('the regulator sets these terms and conditions to facilitate competition downstream between rival firm and the competitive component of the integrated firm'⁶¹⁰).

But what if the regulatory approach (as in the case *Deutsche Telekom* or *Telefónica* where the incumbent put in place margin squeeze practices even applying the tariffs set by the German telecoms regulator), does not work?

The possibility offered now by Directive 2009/140/EC in the electronic communications sector is functional separation; in the energy sector since 2009 the alternative is structural, ownership separation.

The OECD Report 2001 had already foreseen these two possibilities. The following figures depict how both ownership separation and club ownership work.

The first (ownership separation) is implemented through the vertical separation of the non-competitive activity and the competitive activity: 'under this approach the owner of the non-competitive part has no incentive to discriminate or distinguish artificially between competing firms in the competitive activity'⁶¹¹.

⁶¹⁰ *ibid*, p 11.

⁶¹¹ *Ibid*, p 12.

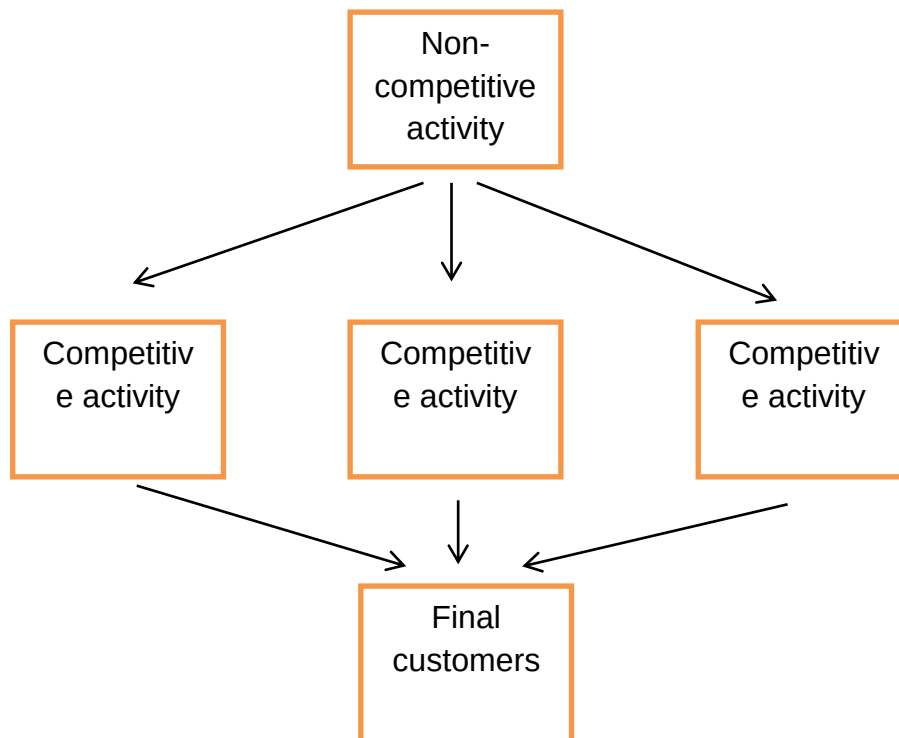


Figure 7.2: Ownership Separation (energy sector, for instance, cases E.ON, RWE and ENI) (source: OECD Report 2001, p 13)

This form of separation has one main advantage: it removes the incentive to discriminate downstream competition. The main disadvantage would be the potential loss of economies of scope from integration.

This form of separation (for instance company controlling the network and company/ies controlling the services) is the most suitable at European level, considering that the AT&T form of separation (also called 'club ownership separation'), dividing the group into local vertically-integrated companies can be considered equivalent, in size, to the co-existence of vertically-integrated telecoms groups in each European Member State.

With regards club ownership separation, the network of one vertically-integrated company is structurally separated on a local basis, preserving, in scale, vertical integration services/network (example: the creation of the 'Baby Bells' after the AT&T's break-up).

The scheme is as follows:

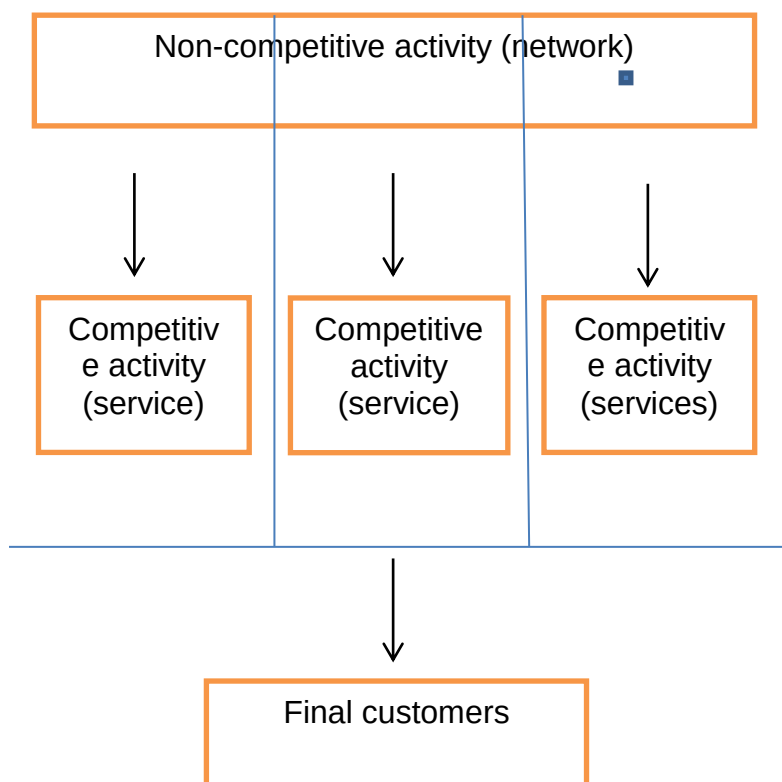


Figure 7.3: Club ownership separation (case AT&T) (source: OECD Report 2001, p 13)

A fourth form of separation suggested by the OECD Report is the 'operational separation'. It is also described as a hybrid of the previous three forms of separation, depending on the body which assumes the control of the non-

competitive component (network)⁶¹². Therefore, if the governance is in the hands of the regulator, it is equivalent to regulatory separation (access regulation); if the governing body has representatives of the downstream firms, can be compared to joint or club ownership separation.

This approach takes this form:

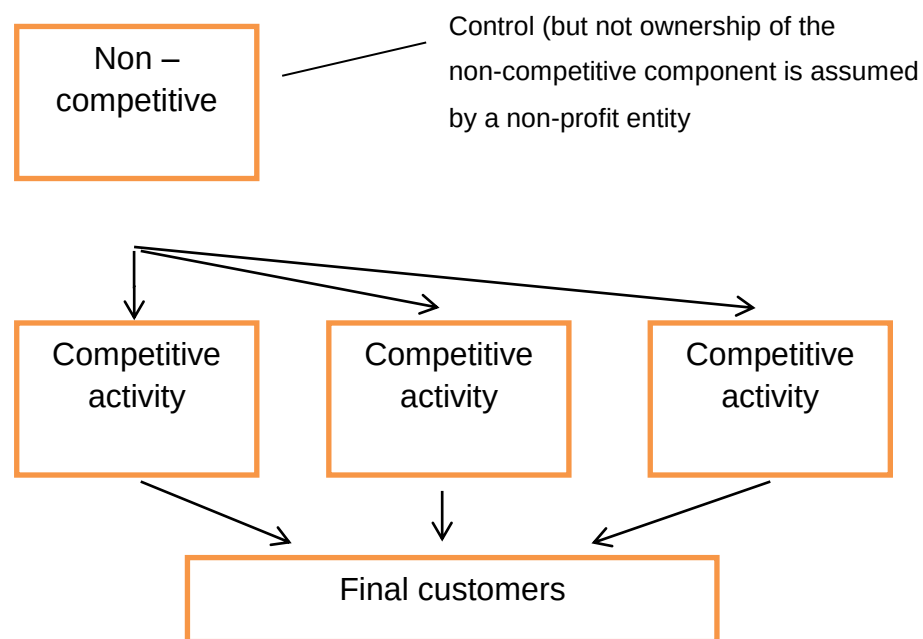


Figure 7.4: operational separation (source: OECD Report 2001, p 15)

This form of ‘operational separation’ or ‘operational unbundling’ was adopted in the electricity industry in the US. The Federal Trade Commission defined this form of operational separation as follows:

‘[it] has taken the form of an entity independent of the [electricity] utility operating the transmission and distribution grids to ensure open access and transparent pricing, although the monopolist retains ownership of the physical assets. The operational unbundling plan may work to preserve economies of vertical integration, internalise loop flow externalities (caused by the fact that electricity does not follow a contract path, but rather the path of least

⁶¹² ibid, p 14.

resistance), and assure transparent investment signals for potential investors while eliminating the strategic opportunities of the monopolist to subtly favour its own generation capacity'⁶¹³.

As per the OECD Report 2001 operational separation (or 'unbundling') is that adopted in the US electricity industry. In electronic communications sector the OECD Report 2001 identifies a more complex form of separation: separation into reciprocal parts. The benefits for competition arise from the possibility of interconnection between the incumbent's network and other networks, adding to the traditional economy of scale of the incumbent's network the demand-side economy of scale of the consumers, prepared to pay more to be connected to a network on which they can contact more people⁶¹⁴.

The scheme of separation into reciprocal parts is as follows:

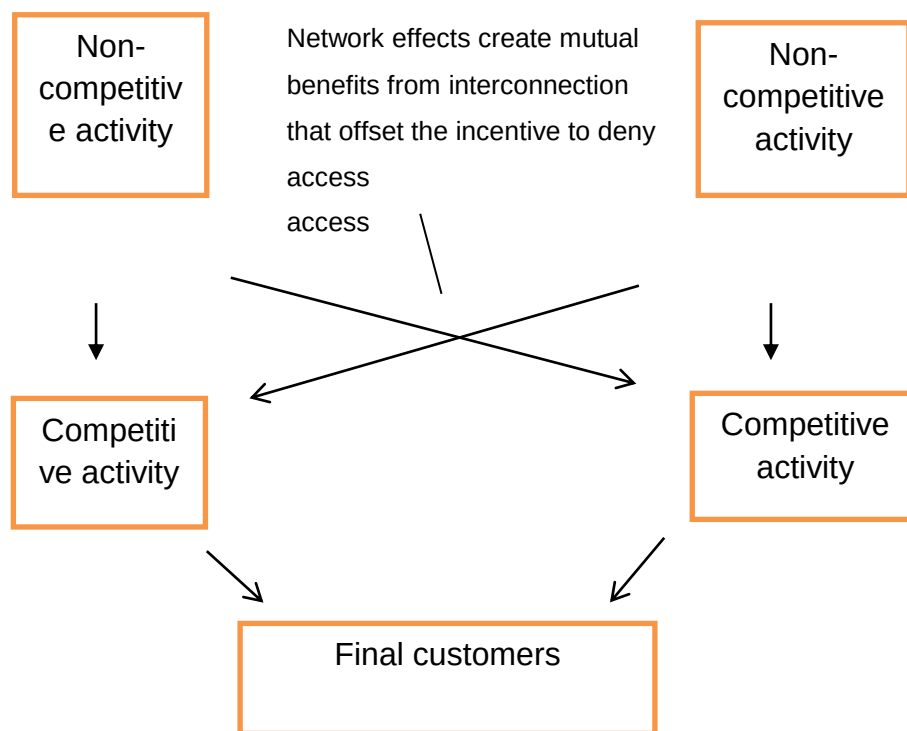


Figure 7.5: separation into reciprocal parts (source: OECD Report 2001, p 17)

⁶¹³ Federal Trade Commission, Prepared Statement of the FTC before the Committee on the judiciary US of representatives, 28 July 1999.

⁶¹⁴ OECD, Report 2001, p 16.

The pro-competitive effects of this form of separation are linked to the modification of the difference of bargaining weight (or power) of the traditional incumbent. When the incumbent has a large network, it is easier to obstruct the interconnection negotiations with a small new entrant. The OECD Report 2001 points out that

‘if the incumbent expects that the customers of the entrant will return to the incumbent’s network in the event that the two companies fail to reach an interconnection agreement, the entrant will have relatively little ability to affect the terms demanded by the incumbent. On the other hand, in the case of two large established networks competing for the same group of customers for which each could not be sure to expand (or even survive) in the event of failure to reach an interconnection agreement, each firm can use the threat to call off negotiations as a real discipline on the terms and conditions that are offered’⁶¹⁵.

Through the (reciprocal) vertical structural separation of the non-competitive assets (the network), ‘whenever the customers of the downstream competitive activity value being connected to more than one non-competitive activity and when competitive and non-competitive activities are integrated into a series of vertical firms, each firm can be made better off by negotiating reciprocal access to the non-competitive activities of another firm’⁶¹⁶. Here the threat for the incumbent is evident: if its network is structurally ‘limited’, and can be completed only providing its services on the network of its competitors, it will be impossible to withdraw from negotiations. The regulatory intervention will not be required anymore.

If these are the main forms of structural separation foreseen by the OECD Report 2001, functional separation (separation of different services into different divisions of the same firm, under different management) was seen as

⁶¹⁵ *ibid*, 16.

⁶¹⁶ *ibid*.

a residual possibility, entailing a reduced level of intervention by the authority⁶¹⁷.

It is important to point out that the OECD published a second report on structural separation in 2006⁶¹⁸. While it re-affirmed the benefits/costs dichotomy of the various forms of separation, it showed a very careful approach with respect to structural separation of the local loop, underling that in the United Kingdom, for instance, OFCOM preferred to accept undertakings that led to the creation of Openreach as a functionally separated legal entity within the same telecoms group.

Even though it showed that functional separation was prevailing at academic and institutional level, nevertheless the OECD Report 2006 still underlines some clear benefits of structural separation⁶¹⁹

- Separation limits the needs for certain regulations that are difficult, costly and only partially effective;
- Separation may stimulate innovation and efficiency in the competitive services; and,
- Separation helps to eliminate cross subsidisation.

On the other hand, the costs of structural separation, for the OECD Report 2006 would be

- Separation forces a loss of economies of scope from integrated operation;
- Transaction costs for consumers increase;
- Direct costs of separation can be high;

⁶¹⁷See the position adopted by Crandall and Sidak in 2002 in their seminar article 'Is structural separation of incumbent local exchange carriers necessary for competition?' discussed in the previous chapter.

⁶¹⁸ OECD, Report on Structural Separation, (2006) Vol, 8(2) OECD Journal of Competition Law and Policy 1-65 ('OECD 2006 Report').

⁶¹⁹ Ibid, 11.

- System reliability may fall when investments are not made jointly; and
- Accountability for interface problems may be difficult to assign.

At least one forum, represented by the Telecommunications and Information Service Policies ('TISP'), filed a submission⁶²⁰ to the OECD Report 2006 in which suggested that 'the potential benefits of ownership separation, such as reduced regulation and stimulation of innovation, may not apply in the case of the local loop'⁶²¹.

The positions cited above are partially accepted by the most recent OECD Report 2011 on structural separation⁶²² published in conjunction with the amendments to the OECD Recommendation 2001⁶²³ on structural separation in regulated industries, adopted on the 13 December 2011.

The OECD Report 2011 states that 'structural separation is a remedy of continued relevance, which can both advance the process of market liberalisation and address some of the difficulties inherent to behavioural remedies and more complex and intensive sector regulation [...]. Nevertheless, structural separation may not be necessary or appropriate in all industries or markets [and] the impact of structural separation or the lack thereof on corporate incentive to invest in the network industries has become

⁶²⁰ The 'TISP' Report was declassified by the ICCP Committee in October 2003.

⁶²¹ OECD 2006 Report, p 30. See in p 31 the position of the TISP. The 2003 TISP report with respect to structural separation of the local loop concluded that 'vertical separation is a significant intervention in the market place with substantial and [...] irreversible costs. Seemingly simple in concept, structural separation of the local loop is in practice complex with uncertain outcomes and many questions to be answered. The benefits of structural separation of the local loop are uncertain while the costs are certain and appear potentially large [...]. Only if regulatory authorities can show that the benefits are in excess of the costs, and that alternative regulatory approaches, would not work, should consideration be given to the structural separation of the local loop (OECD, 2003b, p.32)'.

⁶²² OECD, 'Report on Experiences with Structural Separation', OECD pub. 2012, p 10 (fn 6) ('OECD 2011 Report'), accessible at <http://www.oecd.org/daf/competition/50056685.pdf>.

⁶²³ OECD Recommendation 2011 on structural separation in regulated industries, C(2011) 135 and CORR1, accessible at <http://www.oecd.org/regreform/liberalisationandcompetitioninterventioninregulatedsectors/recommendationconcerningstructuralseparationinregulatedindustries.htm>.

a prominent issue⁶²⁴. To conclude; ‘the choice of structural versus behavioural measures, in a given set of circumstances, therefore remains a matter that requires careful evaluation’⁶²⁵.

The Report stresses how at European level during the 2001/2011 decade there have been many successful examples of functional and structural separation. Some of them have been discussed in previous chapters, implemented on the basis of voluntary commitments (or undertakings, in the UK experience)⁶²⁶: to make a few examples, BT’s functional separation in Chapter IV and structural separation of *E.ON*, *RWE* and *ENI* mentioned in Chapter V.

It also underlines that functional and ownership (divestiture) vertical separation was implemented in various Member States with respect to the electricity and gas sectors; while in the electronic communications markets vertical functional or structural separation ‘is presented as an exceptional measure for implementation only in cases of persistent market failure’⁶²⁷. The most interesting new aspect of the OECD Report 2011 is that it stresses how, before choosing structural separation as a remedy, the regulatory or competition authorities should bear in mind the ‘trade-off between efficiency and competition’⁶²⁸. In other words, whilst there is a vast literature that shows that profit-maximising vertically-integrated firms make efficient decisions, there are also arguments that underline how a bottle-neck monopoly can create major problems for competition.

This dichotomy, competition versus efficiency, can be considered the main obstacle to support the opportunity of structural separation in vertically-integrated telecommunications companies. The OECD 2011 Report stresses

⁶²⁴ Ibid, p 8.

⁶²⁵ Ibid.

⁶²⁶ Ibid, p 10.

⁶²⁷ Ibid. p 10.

⁶²⁸ Ibid. p 12.

that in any case in which structural or functional separation had to be decided the authorities faced the issue ‘whether separation measures will impact negatively on investment incentives’⁶²⁹.

The OECD Report 2011 also underlines how, on the one hand, behavioural remedies are by their very nature more respectful of proportionality and of the rights of the parties, and are obviously more flexible, since they can be tailored to the specific conducts that need to be addressed. On the other hand, they tend to be too weak *vis à vis* highly concentrated industries and require monitoring by a large amount of people and resources.

Structural remedies are the most ‘effective’, in legal terms. Once adopted they can only with difficulty be brought to the *status quo ante*, therefore they do not require high monitoring resources and can be put in place in the short term. However, they might have high transactional costs; they can be inefficient, in economic terms; they could potentially damage third party and could interfere with the technological development of the company, whilst reducing the incentive to competition.

If wrongly applied, they can recreate the same anti-competitive situation, simply changing the actor(s) in a specific market.

7.3. A doctrinal approach: ‘replicability’ of telecommunications infrastructures or remedies on the existent infrastructure based on the ‘essential facilities’ doctrine? Cave’s ‘Ladder of investments’.

I now need to tackle a crucial aspect: I need to look at the advantages and disadvantages that structural separation can have, before adopting my conclusions on what measure is the most suitable for the specific market and the undertaking under scrutiny. If structural separation is imposed, what type

⁶²⁹ Ibid p 109.

of structural separation is more suitable in the electronic communications sector?

With respect to this specific sector, the OECD Report 2001 identified three main forms of structural separation. Quoting from the OECD Report 2001, one form of separation is based on (a) 'the separation of network operators into smaller networks, each connected to a group of consumers (such as splitting up of an incumbent company into several regional companies, each providing local services to a group of consumers)' on the AT&T model; whilst another form of separation (b) is that of 'the non-competitive parts of network operators (the 'last mile' of the connection to the customer) from the competitive parts (such as long-distance services)'⁶³⁰; and (c) a third form of separation involves 'the network operators, on the basis of technology used to connect to consumers (such as the separation of local telecommunications companies based on copper-wire from companies using cable TV networks or those using cellular services)'⁶³¹.

In chapter VIII we will look in more detail which of these three forms of structural separation could be taken as a model of reference in the EU system in the telecommunications sector.

Before analysing the various options of structural separation, an important caveat needs to be borne in mind. Vertical separation of the network is a form of authoritative intervention in order to 'artificially' create the conditions for competition at network level. In reality, dealing with anticompetitive conducts with vertical foreclosure effects (for instance refusal to supply unbundled access to a network, or margin squeeze in the provision of wholesale access), the European Commission has first to establish whether the infrastructure is essential or, rather, replicable.

'Replicability' of the infrastructures, on the one hand, and regulatory (and competition law) remedies, on the other hand, are in fact the two extremes of

⁶³⁰ Separation of network from services. An example will be discussed in Chapter VIII, the *Telstra* case in Australia.

⁶³¹ OCED Report 2001, p 44.

an ideal scale through which access to an essential facility can be granted. The creation of competing separated networks, each of them providing electronic communications services, reciprocally interconnected, would create optimal condition of direct competition, to the point that regulatory intervention would not be required. In other words, replication of networks would create the conditions as per the model of separation depicted in figure 7.5, above.

In 2004, the former European Commissioner Erkki Liikanen⁶³² gave a speech focused on the necessity of 'creating a predictable legal environment for competitive and innovative electronic communications in the European Union'⁶³³.

For Liikanen competition was the key driver in delivering greater choice, quality, innovation and services at lower prices. The availability of networks for competitors might play, in certain cases, a key role. As per his words, 'new entrants must be allowed to have access to the incumbent's infrastructure. However, they must also continually strive to reduce this dependence wherever feasible'⁶³⁴.

In other words, leveraging on the 'essential facilities' doctrine, it should always be possible to get access to the incumbent's network; though, theoretically, the optimum should be the replication of infrastructures, boosting innovation (i.e. in term of capacity) in the long run. The recourse to the essential facilities doctrine entails the risk of discouraging further investments by the incumbent⁶³⁵.

⁶³² Former member of the European Commission responsible for Enterprise and the Information Society.

⁶³³ Public speech SPEECH/04/38, for the public hearing on remedies under the new regulatory framework for electronic communications networks and services, Brussels, 26 January 2004.

⁶³⁴ Ibid.

⁶³⁵ The incumbent would find himself in the paradoxical and awkward position of investing huge amounts of money in innovating in infrastructures that would be ultimately shared with its own competitors. In Chapter II I examined the Commission decision ENI (Case COMP/39.315 – ENI) where the Commission at para 57 of the decision underlines the lack of willingness by ENI to accept proposals from the third parties to co-financing investments to enhance the duct capacity: '[i]n fact, ENI did not even gauge capacity demand from third party shippers, for instance via 'open season' procedures, and also neither explored the willingness of third parties to commit financially to an expansion project nor explored specific co-financing offers made by some shippers'.

One of the key principles of competition in economic theory holds that in the medium run the dominant position will be eroded, and that today's high market shares are not granted in the future, since new entrants will have strong incentives to enter the existing markets, where barriers to entry are not excessively high. Therefore, 'replicability' of networks (see here below Cave's 'ladder of investments') is one of the possible options, even though in the short and medium term is certainly the most expensive.

However, if the 'replicability' of the network is not economically sustainable and affordable by the competitors, because the revenues would never cover the costs of the creation of the alternative network, the only alternative is to adopt remedies favouring the access to the network.

As I discussed in Chapter IV, the remedies may be regulatory, but they are not necessarily successful (the *Deutsche Telekom* and *Telefónica* cases show that even in the presence of an efficient national electronic communications regulator establishing *ex ante* the financial conditions for wholesale broadband access, the former incumbent can establish wholesale rates, through margin squeeze conducts, at such a level to force the competitor to leave the market).

Alternatively, the Commission or the national competition authority may fine (as per Article 23 of Regulation 1/2003/EC) the former incumbent; or, on the basis of Art. 7 of Regulation 1/2003/EC it might impose behavioural remedies (see the *Microsoft* case, and the behavioural remedy imposed to deal with the refusal to supply abusive conduct). Going further, the competition authority, on the same legal basis, may decide to adopt a decision imposing a structural measure, i.e. imposing the ownership separation of the network. The samples of commitments I provided in Chapter V with the *E.ON*, *RWE* and *ENI* cases are exactly in this latter direction.

In the European Union, dominant undertakings generally have control of fixed (and mobile) telephony infrastructure and of broadband facilities access. Downstream, the landscape is more fragmented and competitive. In fact at infrastructure level the incumbent faces two possible outcomes.

One is that the incumbent in the fixed telephony will replicate its dominant position also at the broadband level, maintaining its dominant position in both markets.

However, another possible outcome is that increasing effective competition in broadband, i.e. providing VoIP telephony, will eliminate the current voice telephony dominance, leading in the long-term to fierce competition in the provision of the same services and, potentially, also at infrastructure level (when the competitors raise enough profits to invest in their own infrastructures)⁶³⁶.

An alternative could come from further investments in DSL technologies, but this requires long-term initiatives⁶³⁷. The European Regulatory Group (hereinafter, 'ERG')⁶³⁸, based in Brussels, deems that

'[...] new entrants can decide on their investment in a step-by-step way and can establish a customer base (critical mass) before they go to the next step of deploying their own infrastructure. In those areas where infrastructure-based competition is feasible, such interventions have as their long-term objective the emergence of self-sustaining effective competition and the ultimate withdrawal of regulatory obligations'⁶³⁹.

⁶³⁶ See M. Cave (professor at the Warwick Business School, Warwick University) 'Investment and competition in electronic communications services markets: lessons from Europe and elsewhere', speech held at the EETT conference on 'From Telecommunications to electronic communications' in Athens, 28 March 2005.

⁶³⁷ M. Monti, European Commissioner for Competition: 'Competition would never be able to develop, in the short term, if entrants were not able to gain access to the incumbent operator's network to start offering services. In order to reconcile access-based and facilities-based competition it is necessary to take account of the time dimension [...]. European Commission, speech/03/604 'Competition and Regulation in the Telecom Industry The way forward' ECTA Conference, Brussels, Conrad Hotel, 10 December 2003.

⁶³⁸ The European Regulatory Group was created on the basis of the Commission decision 2002/627/EC (2002/627/EC) of 29 July 2002 [2002] OJ L 200/38.

⁶³⁹ Excerpt from a paper entitled '*ERG Common Position on the approach to appropriate remedies in the new regulatory framework*', published by the ERG in November 2004, contained in M. Cave 'Making the ladder of investment operational', accessible at <http://www.ictregulationtoolkit.org/en/Publication.2916.html>. See Commission decision 2002/627/EC (2002/627/EC) of 29 July 2002 [2002] OJ L 200/38. The European Regulatory Group was created on the basis of the same decision.

This is what professor Cave calls ‘escalating the **ladder of investments**’. Competitors first should be allowed to penetrate a market largely controlled by the incumbent (for instance through functional separation).

Cave’s ‘ladder of investments’ in broadband services can be schematised in the following manner:

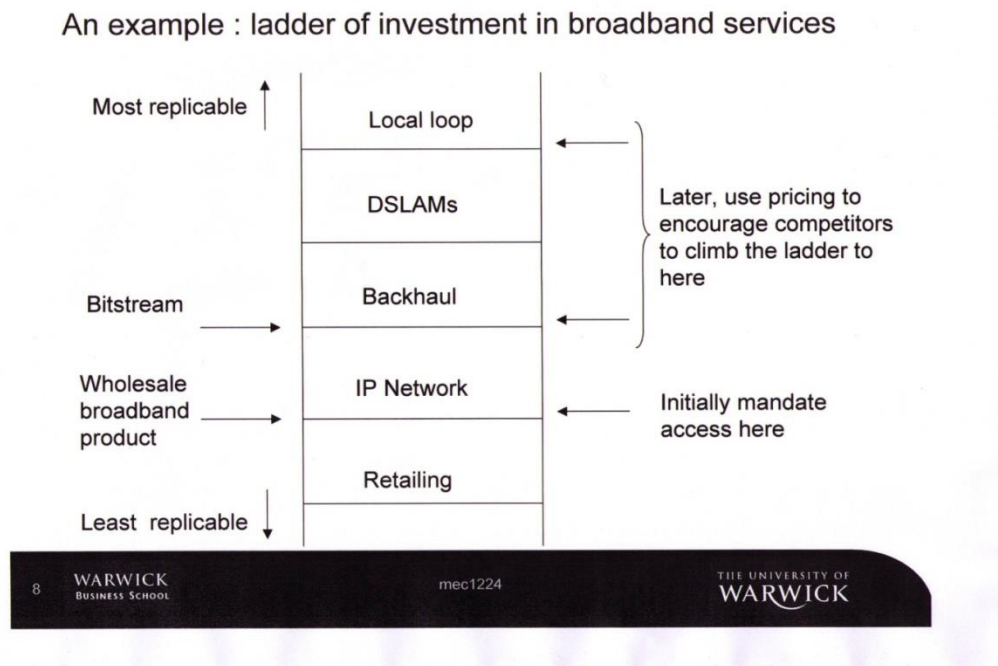


Figure 7.6 – Martin Cave’s ‘Ladder of Investments’

On the basis of empirical evidence, firstly feasible investment opportunities must be identified. Access to the incumbent infrastructures must be then encouraged, withdrawing or making less attractive the terms of such access as replication becomes practicable. Finally, regulatory tools must be modified and adapted to competition law tools.

Leveraging their take-off market share, they should be then in a condition to create their own infrastructures, where replicable⁶⁴⁰.

In Cave's view, duplication of investments in those markets where the incumbent could easily cut the prices, undercutting the competitors, must be avoided⁶⁴¹.

7.4. The role of the legal ('effectiveness') and economic ('efficiency') tests in choosing the best remedy, within the boundaries of competition law.

In recent years there has been wide debate on what remedy is the most suitable, with respect to merger remedies as well as with respect to Art. 102 TFEU enforcement.

Legal effectiveness means the capacity for a divested entity to remain a viable and effective competitor⁶⁴², while economic efficiency measures the grade of efficacy of a proposed remedy pre-and post-merger; in other words, the effective impact that the remedy has on examined markets (in terms of level of prices, level of supply, survival of competitors, impact on the final consumers with respect to quality and level of prices).

It is interesting to analyse and compare the remedies adopted in the presence of a proposed (or implemented) merger with the remedies that could be adopted in order to enhance the competitive environment in the presence of violations of Art. 102 TFEU (or adopted at the end of a 'market investigation' as per the UK Enterprise Act 2002). In fact, only taking into consideration both factors (effectiveness and efficiency of the remedies) it is finally possible to

⁶⁴⁰ 'Replicability', for M. Cave, is governed by the interaction of cost and demand conditions (costs: economies of scale and scope, degree to which costs are sunk; demand: growth projections of the final services and availability of competing infrastructures).

⁶⁴¹ As known, in the USA in 1980s the 1996 Communications Act authorised the access to the local network of the Bell Companies by the competitors. They installed their own switches (easily replicable) and leased the unbundled loops. Then the FCC allowed the incumbent (AT&T and MCI) to lease all the assets at discounted prices. The competitors were therefore forced to ask the FCC to repeal the authorisation. This factor in the end discouraged further investments.

⁶⁴² On the point see the excellent paper published by A. Tajana and P. Papandropoulos, 'The merger remedies study: in divestiture we trust?' (2006) Vol. 26(8) ECLR 443-354 (para 2.2).

decide which remedy will have the most suitable impact on a specific economic scenario.

For a long time the European Commission has been arguing that only 'structural remedies' can be really effective, considering the difficulties deriving from *ex post* monitoring of a behavioural remedy. In reality the most recent studies have largely re-habilitated behavioural, and less invasive, remedies to the point of having opted out of functional separation in the Directive 2009/140/EC. Functional remedy, however, is directly linked with the idea of appointing a trustworthy monitoring trustee, both in mergers and in art. 102 TFEU enforcement.

Monitoring trustees are widely used figure heads (both at EU level, and at national level) and ensure that the 'undertakings' signed by the merging parties (or the party that has accepted to divest or to carry out a certain number of obligations to address the competition authority concerns) are effectively implemented.

The Commission (or the national competition authority), as correctly noted by A. Tajana and P. Panadropoulos in their excellent article, may have a lack of expertise in a specific market⁶⁴³. Therefore, only a highly competent monitoring trustee could be a sufficient guarantee for the adoption of a less invasive remedy such as functional separation, sufficient to avoid a structural remedy also in Art. 102 TFEU cases. Whilst preserving the integrity of the company, it may grant that over a certain time-frame the competition concerns are duly addressed, through the adoption of the measures that the Commission or the National Competition Authority and Regulators may have suggested as urgent to make the market under review more competitive.

⁶⁴³ A. Tajana-P. Papandroupolos, cited: 'A third party, independent and with the necessary expertise, is needed to oversee the activities of the parties and effectively monitor compliance with the conditions set out in the Commission's clearance decision'.

Leaving aside the effectiveness of the remedy, probably the most important aspect, still under-estimated, is the assessment of the economic impact of a long-term remedy (either structural either behavioural with a functional nature).

Taking an economic perspective, a structural remedy might not be the most efficient. There is a possibility that if the undertaking is forced to divest, it will dismiss the less economically vital part of its business⁶⁴⁴.

I have explained in various parts of the thesis that there are good reasons in favour of behavioural remedies, that may be more effective in those economies (in chapter IV I analysed both the advantages and disadvantages of functional separation, as a form of advanced behavioural remedy, in the Openreach experience) where the competition authorities work in combination with highly skilled Regulatory entities.

Depending on the type of industry (certainly the utilities industries must be included in the number) behavioural remedies may turn to be less intrusive disruptive.

US 'Law & Economics' scholars⁶⁴⁵ have for instance suggested that, when

'divestitures are not possible because they would deprive the merger from desirable cost savings, their proposal is to design a contract between the merging parties and a 'contractor' (third party). Under this contract, the merging parties would commit to paying the contractor a per-unit penalty for lowering production but would be paid a per-unit reward for increasing production'.

In analogy with utilities, and with the communications sector in particular, a viable hypothesis is to foresee a panoply of incentives, paid by a 'third entity', as well as a number of financial penalties that would grant the effective

⁶⁴⁴ M. Motta stressed the risk that 'inappropriate divestments may actually facilitate collusion by restructuring an industry in a more symmetric way or multiply multi-markets contacts'. M. Motta, M. Polo, H. Vasconcelos, cited, p. 106.

⁶⁴⁵ See Werben, Froeb, Tschantz, 'Incentive Contracts as Merger Remedies', Vanderbilt University Law School, Law and Economics, Working Paper no. 05-27 (2005).

implementation of a number of behavioural remedies in order to avoid intrusive draconian remedies⁶⁴⁶.

In 2000 US scholars such as Shelanski and Sidak, pending the *United States v Microsoft*⁶⁴⁷ proceedings for abuse of dominant position against Netscape, proposed a three-fold test to assess the validity of a proposed divestiture, in order to try to assess *ex ante* the impact that a (legally effective) remedy may have had in terms of economic efficiency⁶⁴⁸. For them the remedy (i) should produce a net gain in static economic efficiency; (ii) net gains in static economic efficiency should overcome potential losses in dynamic efficiency; (iii) enforcement costs should be taken into account.

In the first case, the remedy is seen in the perspective of creating new competitors, or isolating an infrastructure that is finally opened up to multiple operators. The pro-efficiency gains might be evident. Then the antitrust authority must take into account the risks that 'dynamic efficiency' is jeopardised by the presence of multiple players, on the one hand, and by the risk of disruptions pending on the head of the separated industry (network), on

⁶⁴⁶ On remedies in the merger policy, see also Vasconcelos and a number of recent studies in the US on the economic impact of merger remedies. In particular, see T. Duso, K. Gigler, B. Yuroglu 'EU merger remedies: A preliminary Empirical Assessment', Discussion Paper no.81, Governance and Efficiency of Economic Systems, September 2005 accessible at <http://www.cepr.org/meets/wkcn/6/6638/papers/Duso.pdf>. See also H. Vasconcelos 'Efficiency Gains and Structural Remedies in Merger Control', (2010) Vol. 58(4) The Journal of Industrial Economics, 742-766.

⁶⁴⁷ The Judge T. Jackson in his conclusion filed on the 3 April 2000 at the US District Court of the District of Columbia acknowledged the attempt of monopolising by Microsoft and ordered as a remedy the separation of the company in two entities, one to produce the operating system, and one to produce other software components. It is famous the opinion expressed in his 'findings of fact' filed on 5 November 1999: 'Most harmful of all is the message that Microsoft's actions have conveyed to every enterprise with the potential to innovate in the computer industry. Through its conduct toward Netscape, IBM, Compaq, Intel, and others, Microsoft has demonstrated that it will use its prodigious market power and immense profits to harm any firm that insists on pursuing initiatives that could intensify competition against one of Microsoft's core products. Microsoft's past success in hurting such companies and stifling innovation deters investment in technologies and businesses that exhibit the potential to threaten Microsoft. The ultimate result is that some innovations that would truly benefit consumers never occur for the sole reason that they do not coincide with Microsoft's self-interest'. As known the judgment was partially overturned by the District Court of Appeals and remanded the case for consideration of a proper remedy under a more limited scope of liability. The case was ultimately settled and the separation was avoided.

⁶⁴⁸ H.A. Shlansky and J.G. Sidak, 'Antitrust Divestiture in Network Industries', (2001) 68 U. Chicago Law Review, 1.

the other. The enforcement costs of a structural remedy may also be taken into account and depending on the market conditions (type of industry), might be high or low.

As Farrell and Shapiro discuss in their paper 'Intellectual Property, Competition, and Information Technology'⁶⁴⁹, network effects may play a crucial role in deciding which remedy should be suggested.

It must be said that authors like A. Tajana correctly stressed the risks that a draconian remedy may also have on third parties (shareholders, employees), and takes also into consideration the impact of 'general interest'⁶⁵⁰.

He pointed out how the Commission, or a national authority, rather than pursue the effectiveness of a legal remedy, should take into consideration the 'thermometer' provided by economic, efficiency oriented, tests, which may be able to foresee the disruptions that a rather draconian remedy may cause.

Finally it must be stressed that there are a limited number of studies on the impact of structural remedies in article 102 TFEU cases, because there are very few decisions which have adopted a structural separation in Europe⁶⁵¹.

⁶⁴⁹ J. Farrell-Shapiro, 'Intellectual Property, Competition, and information Technology', Berkeley Competition Policy Centre Working Paper no. CPC-04-45, 2004.

⁶⁵⁰ A. Tajana, Structural Remedies and Abuse of Dominant Position, TILEC Discussion Paper, Tilburg University, December 2005. These concerns raised by several parties. See R. Litan, R.G. Noll, W.D. Nordhaus and F. Scherer, Remedies Brief of Amici Curiae, United States v. Microsoft Corp., 27/4/2000, p 64.

⁶⁵¹ The main concern in Europe, since the creation of the early EEC, and until today, was the weakness of the national champions rather than their 'dominant position' or level of concentration.

7.7. Potential advantages (and disadvantages) of structural separation.
Cave's 'Degrees of Separation': Conclusive remarks.

'I believe that the policy option of structural separation could answer many of the competition problems that Europe's telecoms markets are still facing today. Perhaps we have to be as radical as regulators were in the USA in the 1980s to make real progress? Of course, we will have to find our own European solutions, adapted to the needs of our continent. But 'a European way of structural separation' is certainly a policy option that needs to be discussed intensively in the forthcoming months'.

V. Reding, former European Commissioner for the
Information Society and Communications, 2006

The choice of the best remedy is far from simple and clear-cut. Reasons against structural separation come from the US experience in the AT&T structural separation of 1984 (i.e. for the re-creation of a monopolistic situation in the long-distance communications, or the creation of form of high-concentration at regional/local level). The structural separation of railways in the UK that finally forced the State to purchase back the infrastructure company, *RailTrack*, is an argument often put forward against structural separation or divestiture of assets in vertically integrated industries.

However, the idea of structural separation as a draconian remedy is in line with the idea of intervening directly at the source of potential unfair behavior. Structural separation, imposed as a remedy by the regulator on the model of the reform of electronic communications implemented in 2009, may be an answer to consumers (and competitors') concerns⁶⁵². This could be even more efficient and long lasting than any solution based on *ex ante* price control or, in certain economies, simple functional separation. Rather than focusing on the

⁶⁵² M. Cave 'Six Degree of Separation, Operational Separation as a Remedy in European Telecommunications Regulation' (2006) 64 (4) Communications & Strategies, 89 ff.

artificial compression of the final price, it would be preferable to allow competitors to enter the market therefore automatically forcing prices down.

If functional (or even account) separation can end discrimination in wholesale or retail final prices, due in particular to the trust and reliability of the incumbent's managers behavior, this form of separation may succeed. But if this outcome cannot be reached then structural separation might be the best remedy to suggest.

Martin Cave, in his 2006 seminal article on the topic, identified two forms of potential discrimination carried out by the incumbent controlling the network: price and non-price discrimination.

As mentioned above, accounting (and even functional) separation is aimed at granting 'parity between transaction prices paid by competitors for access and accounting prices paid by the separated entity's downstream affiliate'⁶⁵³.

But non-price discrimination follows a different path, which requires remedies that are much more cogent and stringent than simple account separation⁶⁵⁴.

It is sufficient to look at the conclusion reached in 2005 by OFCOM, and in an article by same author, with Correa and Crocioni (published in 2006), to see how the UK incumbent, BT, persisted for long time, in carrying out non-price discrimination mainly based on the provision of products such as 'unbundled loops, wholesale line rental and bit-stream', all products that are today provided by the separate entity Openreach.

The question is whether functional separation is more efficient than other remedies, and whether in certain economic and historic contexts, as well as in

⁶⁵³ *ibid*, 91. Interestingly, it must be said that in the presence of account separation, the final cost/price of access should be lower than in the absence of account separation, in consideration of the absence of average incremental costs calculated on the entire company business.

⁶⁵⁴ *ibid*.

the presence of technical/technological gaps, it is preferable to instead opt for the structural separation.

Can structural separation be recommended in certain conditions? M. Cave identified a 'ladder of separations'⁶⁵⁵, ranging from mere accounting separation to ownership separation (in whole or in part). The scheme he proposed is the following:

Figure no. 7.8 - Separation options

Ownership separation (in whole or in part)
6 – Legal separation (separate legal entities under the same ownership)
5 – Business separation with separate governance arrangements
4 – Business separation with localised incentives
3 – Business separation (BS)
2 - Virtual separation
1 – Creation of a wholesale division
Accounting separation

Figure no. 7.8. Source: M. Cave 'Six Degree of Separation, Operational Separation as a Remedy in European Telecommunications Regulation' (2006) 64 (4) Communications & Strategies, 89 ff.

Is it realistic to think that the first steps of the described ladder would be ineffective in those countries where a deeply rooted presence in the territory of a former State controlled incumbent would inevitably lead to interferences between the different divisions of the same company/group? If one climbs up the described ladder bearing in mind the very factual conditions of a specific economy, will see that almost all the prospective solutions would not be successful.

Starting from accounting separation (with separate profit and loss balance-sheets for each separate division, wholesale, retail, access), there is no

⁶⁵⁵ Ibid, 94.

guarantee of non-interference between the management of the separate divisions, as I showed in Chapter V (as I indicated discussing the recent report 2013 issued by the Equality of Access Board on Openreach's activity⁶⁵⁶). Even in trying to create a 'level playing field of competition' creating a 'wholesale' unit division, the efforts of the incumbent would disappear because of the 'absence of a clean target level of equivalence' and 'the fact that the incumbent's network, IT system and business processes were broadly designed within the context of a fully integrated firm supplying end users directly, but not supplying access services to third parties'⁶⁵⁷.

Another possibility outlined by Cave is 'virtual separation', i.e. the possibility of degrading the services offered to 'internal customers' or upgrading the services offered to external customers (i.e. alternatively downgrading or upgrading the speed of interconnection). Needless to say that the first aspect (downgrading) would be *per se* inefficient; the second is difficult to obtain without a constant monitoring of effective speed in the various regional/national areas.

Coming back to forms of 'physical separation', the first possible form of separation consists of creating firewalls among the various divisions, physically separating premises, staff, operational support systems, labor force in general, brand, management information systems and above all, the strategies. The risk is that without effective 'functional separation', still the highest levels of management would coordinate their decision-making process, adopting agreed strategies (either price, or non-price oriented).

The example given by professor Cave is that of a non-European incumbent that avoided making further investments to upgrade the network in order to make it non-viable for broadcasting services, in order to hinder the access to

⁶⁵⁶ BT Equality of Access Board ('EAB'), Annual Report 2013, published in November 2013.

⁶⁵⁷ M. Cave, cited, 94. He also mentions the creation, in Australia, of an operational (structural) separation for the wholesale division that in 2006 was proposed by Telstra and accepted by the Government, dealing exclusively with access seekers. It will be implemented by 2018, and is discussed in the last chapter. For M. Cave this solution appears to be well-equipped when trying to avoid discriminatory behaviours between 'internal or external customers' of the same company (existence of 'institutional arrangements between them', using Cave's same words).

potential competitors already able to provide both telephony and broadcasting services⁶⁵⁸.

The fourth type of separation identified by Cave may be achieved through targeted incentives to senior management. If the target for a manager is to maximise the group's profits, and satisfy stakeholders to ensure career progress, it is obvious that only an incentive for the senior management of a specific division (for instance, of the 'access division') may counter-balance the incentive to promote the group's interests.

A similar target may be achieved by creating a division of the board where any executive-member of the group must be present (fifth form of separation, under Cave's idea). Finally, the highest form of operational separation is that of creating a 'separate board' with 'separate statutory accounts'.

The here-listed operational (and account) separations rely on the existence of an effective and efficient regulatory and enforcement authority, or on the creation of an internal (of the company/group) entity aimed at supervising the effective separation.

The question is: what would happen where regulatory bodies may not operate with that independence and effectiveness required by the importance of the economic and social interests at stake?

Here the conclusion of M. Cave:

'the company [BT] now denies that it benefits in the UK from advantages of incumbency. Instead it sees as its key strategic advantage its ability first to succeed in a more symmetrical home market for corporate telecommunications services in Europe and the wider world, where it will face incumbents still enjoying, but

⁶⁵⁸ A similar complaint was made to the Italian ENI for not having upgraded the gas/oil distribution network even though the clients (competitors in the retail market) had offered to financially contribute to the works required to increase the duct's capacity (see European Commission Decision published on the 22 December 2010, accepting ENI's proposal of commitments) and the analysis in Chapter IV of ENI's commitments.

about to lose, the fruits of continued discriminatory behavior⁶⁵⁹. Hence its incessant support for regulatory interventions, which draw down the benefit of incumbency elsewhere and create level playing fields everywhere. It is reasonable to suppose that the outcome of operational separation in the UK will be the joint product of regulation and this strategic shift'⁶⁶⁰.

M. Cave seems to approve operational separation, taking into consideration the need for adjustments, which have been listed above. However the key factor of this architecture is the effectiveness of regulatory supervision.

In the presence of historically weak (or weakened) regulatory powers, when the same regulatory powers may be influenced by a wide range of factors, structural (or ownership) separation seems to represent the most effective remedy, in particular where operators of other European countries might be interested in entering into a national or regional market and face undue resistance to competition from the former national incumbent.

The advantages and disadvantages of functional or structural separation have been discussed in depth by the European Regulators Group (ERG)⁶⁶¹. On the basis of the UK *Openreach* experience, ERG acknowledged that the account or administrative separation may not be sufficiently efficient⁶⁶². This is why ERG promoted, on the basis of the UK experience in the *Openreach* case, the amendment of the EC Access directive. This was exactly the outcome obtained through Directive 2009/140/EC, introducing functional separation as an ex ante remedy.

According to the ERG, the '*equality of inputs*' is a key factor to create a level playing field for competition, and it had to be mentioned in Article 10 of the Access Directive. Furthermore, ERG wanted that the amended Directive would have provided for: (i) the obligation of separation for SMP undertakings that

⁶⁵⁹ Emphasis added.

⁶⁶⁰ M. Cave, cited, 99.

⁶⁶¹ In conjunction with IRG, Independent Regulatory Group.

⁶⁶² See *Decision AGCOM 208/07/CONS*, Attachment B, p 98.

are vertically integrated, so as to avoid the ability to control and potentially limit or obstruct the access services for competitors; (ii) the obligation for SMP vertically-integrated companies to grant 'equivalence of access' in order to allow the same condition of access for its own commercial units/divisions and the retail units/divisions; (iii) the obligation to protect and control the stream of information detained by SMP vertically integrated companies, to avoid any form of illicit advantage by the use of 'insider knowledge'⁶⁶³.

ERG acknowledged that in some European countries there was a constitutionally protected right to integration and non-dissolution of the undertakings by an external or authoritative input.

Vivian Reding, European Commissioner for the Information Society, in a speech on 5 March 2007 in Brussels, confirmed that in line with the European approach held in the energy sector, measures which combine functional and structural separations of network and services had to be considered possible, showing, in line with the Energy Sector Inquiry 2007, to be in favour for a more radical approach⁶⁶⁴, punctually mirrored in the new set of directives adopted in 2009 (discussed in Chapter IV).

This approach was also in line with the OECD 2001 Recommendations (and the OECD Reports issued in 2001 and 2006), as confirmed by the 2011 review, discussed at the beginning of this Chapter.

The competition or regulatory authority is called to carry out a case-by-case approach, balancing (i) competition with (ii) (economic) efficiency reasons before choosing the most suitable remedy.

Very serious competition concerns seem to be necessary (but may be not sufficient) to lead to the adoption of structural separation as a form of deterrent.

⁶⁶³ Reasoning recalled the Decision AGCOM 208/07/CONS, Attachment B, p 98.

⁶⁶⁴ *ibid*, p 99.

Deterrence could represent a valid reason to waving the tool of structural separation, bearing in mind that in a 'game theory', non-cooperative, scenario, threatening structural separation could ultimately lead to a rapid implementation of effective functional separation.

This reasoning would not conflict with the wide range of enforcement activity authorised by Article 7 of Regulation 1/2003/EC that the European Commission can put in place to reach the targets of the European treaties.

In this respect, the drift with the US legal system appears clear. If that system, as demonstrated by the *Verizon v Trinko* case, favours the regulatory approach when dealing with regulated firms (for instance in the energy and in the electronic communications sector), in the EU legal system the Commission has enforcement tools authorising both behavioural and structural measures in the presence of abusive conducts. We have discussed how until now structural remedies were never applied in the electronic communications sector, even though recently in the energy sector they were at the basis of a few Art. 102 commitments decisions. The next, conclusive, chapter will discuss why, how and in which form structural measures could be enforced or, at least, threatened.

CHAPTER VIII

Structural separation in the electronic communications: an option to be considered by the European enforcer. Conclusion.

8.1. Introduction.

In the previous chapters I discussed how functional and structural separation was applied in the European context, in particular on the basis of Art. 9 Reg. 1/2003/EC commitments (in Chapter V, I analysed the recent E.ON, RWE and ENI Commission's decisions, leading to structural separation through divestiture of assets in both electricity and gas markets), undertakings on the basis of Section 154 EA02 in the United Kingdom (leading to functional separation of access services, and creation of a new access division, Openreach, within the BT Group)⁶⁶⁵ and as a consequence of competition enforcement activity (functional separation as a remedy, imposed in the *Deutsche Post*⁶⁶⁶ decision in 2001).

The comparison between abuses and **same anticompetitive foreclosure effects** in the electronic communications and in the energy sectors suggested the idea that **same ex post remedies** (including the remedies based on Art. 9 of Regulation 1/2003/EC commitments) could be in principle applied to both sectors. I also stressed how recent decisions and European Courts judgments in the *Deutsche Telekom*⁶⁶⁷ and in the *Telefónica*⁶⁶⁸ cases confirmed the key

⁶⁶⁵ J. Whalley & P. Curwen, 'Equality of access and local loop unbundling in the UK broadband telecommunications market' (2008) 25 *Telecommunications and Informatics* 280-291. It provides an account of the initial phases of implementation of BT's functional separation.

⁶⁶⁶ Commission Decision *Deutsche Post AG* (Case COMP/35.141) of 20 March 2001, [2001] OJ L125/27

⁶⁶⁷ Commission Decision *Deutsche Telekom AG* (Case COMP/C-1/37.451, 37.578, 37.579), [2003] OJ L263/9; on appeal, *Deutsche Telekom AG v. Commission*, Case T-271/03, [2008] ECR II 477; before the ECJ, *Deutsche Telekom AG v European Commission*, Case C-280/08, [2010] ECR I-09555, [2010] 5 CMLR 1495.

⁶⁶⁸ Commission Decision *Wanadoo España v Telefónica* [2008] OJ C83/6 ('Telefónica'), appealed at the General Court: Case T-336/07 *Telefónica and Telefónica de España v*

role that the Commission can play in selecting *ex post* remedies (fines, or functional and structural separation as per Article 7 of Regulation no. 1/2003/EC) that can be imposed even in the presence of *ex ante* regulatory tools (such as price caps, or other *ex ante* remedies such as functional separation as per Directive 2009/140/EC). Therefore, in Chapter IV, I demonstrated how both pecuniary fines imposed on telecoms operators for access-related abuses, and functional separation in the *Openreach* example, were still far from sufficient to impede the recurrence of behaviours that could actually or potentially lead to abuses of dominant position, in particular with respect to access-related issues.

In Chapter V I also considered the criticisms that emerged during the Energy Sector Review in 2007 to explain how between 2008 and 2010 the European Commission decided to negotiate forms of structural separation going beyond mere functional separation in both electricity and gas sectors.

Outside Europe, in Chapter VI I analysed the AT&T case of local vertical structural separation on the 1980s and the criticisms that some scholars such as Crandal and Sidak expressed a decade ago against forms of structural separation in the electronic communications sector. I also discussed how in the last decade of the 20th century and in the first decade of the 21st century, on the one hand, the approach of the US Supreme Court (in part influenced by the idea of economic efficiency deriving from the Chicago School), *de facto* avoided draconian measures even when, as in the *Microsoft v Netscape*⁶⁶⁹ case, the pressure from the lower courts would have been in that direction (the Judge Jackson expressly requested the break-up of *Microsoft* in that case). On the other hand, the US Supreme Court underlined and confirmed the competence of the telecom regulator in access-related abuses of dominant

Commission [2007] OJ C269/55, ECR I-0000, judgment on the 29 March 2012. On appeal at the Court of Justice, Case C-295/12 (see opinion of the Adv Gen Wathelet, 26 September 2013 accessible at <http://curia.europa.eu/jcms/upload/docs/application/pdf/2013-09/cp130117en.pdf>).

⁶⁶⁹ See fn 647.

position, as per the Supreme Court judgment in the *Verizon v Trinko* case⁶⁷⁰. I also argued that the AT&T case must be borne in mind as a precedent of structural separation in the electronic communications sector, but it is hardly applicable to the European scenario, considering that local fragmentation of networks (among Member States) in Europe is already a reality.

Chapter VII analysed the position expressed by the OECD in 2001, 2006 and 2011 *vis á vis* structural separation, showing how the OECD in its most recent report⁶⁷¹ (2011) was less favourable to structural separation and more prone to suggest a 'case-by-case' approach. In that context, I discussed the different forms of functional (also called 'operational' by some scholars) separation, and the types of structural separation on the basis of the most recent experience. I focused on how, at the European level, some scholars recently analysed the problem of remedies to address competition concerns on the basis of their experience with horizontal and vertical divestitures as a merger remedy. I underlined how the mergers assessed by the European Commission pursuant to the European Union Merger Regulation (EUMR)⁶⁷² may provide examples with respect to the best remedies to be adopted in order to get a merger cleared⁶⁷³.

In this respect, the doctrine identifies two main tests on which the choice of the best remedy should be based: 'legal effectiveness' and 'economic efficiency'. Similar tools can be used when the enforcer is called upon to choose which remedy and, within this category, which form of separation has to be enforced

⁶⁷⁰ *Verizon Communications Inc. v. Law Offices of Curtis Trinko, LLP*, 540 US 398, 124 S. Ct. 872, decided on 14 January 2004 by the US Supreme Court.

⁶⁷¹ OECD Report 2011 'Report on Experiences with Structural Separation', OECD pub. 2012, accessible at <http://www.oecd.org/daf/competition/50056685.pdf>, to be read in conjunction with OECD Recommendation 2011 on structural separation in regulated industries, C (2011) 135 and CORR1, accessible at <http://www.oecd.org/regreform/liberalisationandcompetitioninterventioninregulatedsectors/recommendationconcerningstructuralseparationinregulatedindustries.htm>.

⁶⁷² Council Regulation (EC) no 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EC Merger Regulation), in OJ L 024 of 29 January 2004

⁶⁷³ Commission notice on remedies acceptable under Council Regulation (EC) No 139/2004 and under Commission Regulation (EC) No 802/2004 [2008] OJ C267/01 ('Merger Remedies Notice 2008).

as per Article 102 TFEU. I concluded that in choosing the best form of separation multiple factors need to be taken into consideration. Both functional and structural separation require that the competition authority establishes *ex ante* what the *ex post* scenario will be. Legal, competition law-based, and economic factors need to be considered both under the category of advantages and disadvantages. Econometric evaluations and economic projections play a key role in predicting not only whether the market will be more competitive or less concentrated (legal assessment) after the break-up but also whether wholesale and retail prices will go down or whether the costs will decrease or not.

This chapter builds on all the previous chapters and is aimed at showing how structural separation not only is legally grounded (topic of the first chapters of the thesis) but also beneficial to competition.

First of all, structural separation may represent a serious deterrent for the recurrent abuser. It may represent a preliminary step for a change of ownership of the network. However, under certain circumstances, the right form of structural separation (among the various options discussed in the previous chapter) in the electronic communications sector can also represent a valid option to increase competition: for instance in the case of (i) a separation between the network division and services division (as shown in the electricity market, in the E.ON case⁶⁷⁴, and in the gas market, in the ENI⁶⁷⁵ and RWE⁶⁷⁶ cases) or the (ii) reciprocal non-competitive asset separation among parts of network (one of the applicable forms of separation at least in the largest EU Member States)⁶⁷⁷.

⁶⁷⁴ Commission Decision *E.ON* (Case COMP/38.388-38.389) of 26 November 2008, [2009] OJ C36/8 of 13 February 2009.

⁶⁷⁵ Commission Decision *ENI* (Case COMP/39.315) of 29 September 2010, [2010] OJ C352/8 of 23 December 2010.

⁶⁷⁶ Commission Decision *RWE (Gas Foreclosure)* (Case COMP/39.402) of 18 March 2009, Summary of the decision in [2009] OJ C133/10 of 12 June 2009.

⁶⁷⁷ At the same time, considering the specific characteristics of the electronic communications in Europe, where there are geographically fragmented markets, with national incumbents for each Member State whose dimension is equivalent (or smaller) to that of the 'after break-up' Baby Bells in the US scenario, I would exclude the possibility of (local) vertical structural

To show that structural separation can be considered beneficial to competition, in this chapter I will look at two very recent cases of structural separation in the electronic communications sector. Looking at the example of structural separation of the Australian incumbent, Telstra, I will discuss how it might be a possible option at European level. In addition to this I will analyse the structural separation of services and parts of the network in the New Zealand Telecom case.

I will also discuss (although cautiously, given its recentness) the aftermath of divestitures in the energy sector in Europe on the basis of commitments (the ENI case, for instance, was implemented in 2011).

I will conclude that structural separation represents the most evident expression of the enforcement capacity of the European Commission, above and beyond regulatory intervention. Such a radical form of intervention may be considered as a form of threat that may lead to the adoption of less invasive, cooperative, solutions, such as functional separation. Structural separation in theory may enhance competition as expected in the energy sector with the divestitures analysed in Chapter V, with a positive impact on prices and costs management.

The solution adopted in Australia represents the most important model of structural intervention that the European Commission (and the NCA) could take into consideration. The national telecoms incumbent Telstra on the basis of the commitments in March 2012 signed with the Australian Competition and Customers Authority ('ACCC') aimed at progressively fully separate Telstra's network by 1st July 2018. After a period of operational (functional) separation from 2006 to 2012, Telstra is currently putting in place a migration plan aimed at implementing the structural separation plan. The entire process of separation will be completed when the government will take direct responsibility of the wholesale-only New Broadband Network from 2018,

separation into (local) sub-sections of the network as carried out in the US in 1982-1984, splitting the AT&T network between regional and long-distance networks.

leaving the provision of advanced services (broadband services, for instance) and fixed telephony services to the incumbent in competition with other providers⁶⁷⁸.

The most important conclusion is the fact that currently in some countries the concept of structural separation as a way of enhancing competition in the provision of services is attracting new interest, probably in consideration of the importance of the New Generation Networks in the electronic communications in particular, and the end of (often inefficient) State-controlled networks in other sectors (electricity, gas, oil transmission and distribution, to make a few examples).

If this is true, structural separation should be suggested as an enforcement tool in the electronic communications as well, considering that until now it has been applied either as a complementary tool of merger control, or on the basis of commitments exclusively in the energy sector.

8.2. From functional separation to structural separation in the electronic communications sector.

Experience shows that functional separation as implemented in the United Kingdom with the creation of Openreach, as a functionally separated entity, represented only one of the possible forms of separation. It was tailored to the specific features of the company, to the alleged anticompetitive behaviours and to the features of the British market.

After having analysed in Chapter VII the various possible forms of separation as identified by the OECD report 2001⁶⁷⁹ we can now look at (and compare)

⁶⁷⁸ On 29 July 2011 Telstra submitted a structural separation undertaking and draft migration plan to the Australian Competition & Consumer Commission (ACCC) on the basis of Sections 577A and 577BDA of the Telecommunications Act 1997. After a supplement of negotiation, the ACCC accepted on the 27 February 2012 Telstra's structural separation undertaking and approved the draft migration plan. On the 6 March 2012, Telstra's Structural Separation Undertaking and Migration Plan came into force. Detailed chronology and milestones are available at <https://www.accc.gov.au/regulated-infrastructure/communications/industry-reform/assessment-of-telstras-ssu-draft-migration-plan>.

three forms of separation: (i) functional, (ii) structural (internal corporate separation) and (iii) ownership separation, starting with the *Openreach* experience in the UK, looking at the progressive passage from operational to full structural separation of the national telecoms incumbent in Australia (*Telstra*) by 2018, and at the also recent ownership separation in New Zealand (*New Zealand Telecom*).

Functional separation represents a tighter form of operational separation, with the creation of internal ‘walls’ mainly hindering exchange of information within retail, wholesale and access divisions of the same company. The various divisions still belong to the same company, but each division acts as if it was a separate company. A very good synthesis: ‘they have to buy and sell services between each other in an ‘internal market’⁶⁸⁰.

The model adopted in the UK with Openreach follows this scheme:

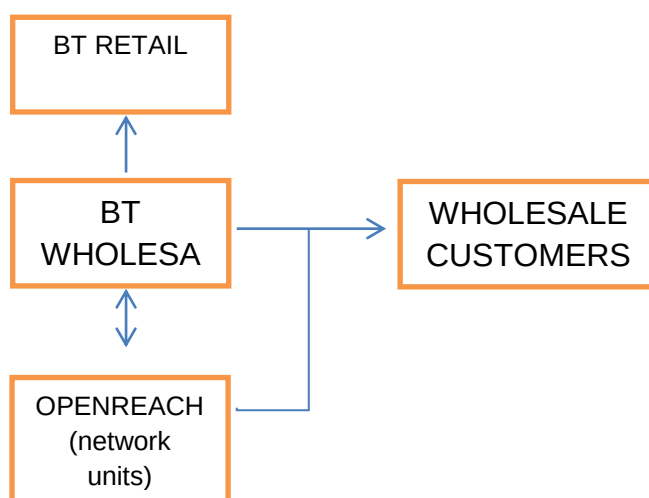


Figure 8.1, functional separation of BT, United Kingdom (2006)⁶⁸¹

⁶⁷⁹ OECD, ‘Restructuring public utilities for competition’, Report on Competition and Regulatory Reform, 2001, accessible at <http://www.oecd.org/regreform/liberalisationandcompetitioninterventioninregulatedsectors/19635977.pdf>.

⁶⁸⁰ See the overview on separation by lawyers P. Waters and O. Damian, ‘Separation regulation of dominant telecommunications operators in today’s legacy networks and tomorrow’s next generation networks. One separation model does not fit all – key design issues and lessons learned’, accessible at <http://www.gtlaw.com.au/wp-content/uploads/Separation-regulation.pdf>, p. 2.

⁶⁸¹ *ibid*, 4.

Openreach, the access division, deals with the local network infrastructure, the fibre extension in local loop and the regional backhaul networks. It provides various services: ULLs services, ISDN, PSTN resale. On the other hand, BT Wholesale deals with (i) the electronics used on the network (including DSLAMS in local loop and regional backhaul network), (ii) all the other regulated services not provided by Openreach, and (iii) other most advanced communications services (e.g. wholesale local switched calls, layer 3DSL). BT Wholesale division, as shown in the chart, deals with its own wholesale customers and with BT retail customers, while Openreach provides access services to BT Wholesale division and to Wholesale customers on an equal footing.

Matters developed differently in Australia. After a long debate⁶⁸² about the opportunity of adopting structural separation as recommended by the Australian government since 2007⁶⁸³, in 2012 undertakings were signed by Telstra leading to structural separation of the company⁶⁸⁴. As per Telstra website,

‘on 28 February 2012, the Australian Competition and Consumer Commission (ACCC) accepted Telstra’s Structural Separation Undertaking (SSU) and draft Migration Plan. The SSU commenced operation on 6 March 2012, while the Migration Plan took effect from 7 March 2012.

⁶⁸² Plans for structurally separate Telstra, the Australian incumbent, were discussed by a Senate committee since 2003. Telstra objected that structural separation would have led to class actions from shareholders.

⁶⁸³ For the debate preceding structural separation of Telstra, see ‘Telstra Faces Enforced Split’, by Katharine Murphy and Jesse Hogan, *The Age*, 3 October 2007 accessible at <http://www.theage.com.au/news/business/telstra-faces-enforced-split/2007/10/02/1191091114582.html>.

⁶⁸⁴ On 29 July 2011 Telstra submitted a structural separation undertaking and draft migration plan to the Australian Competition & Consumer Commission (ACCC) on the basis of Sections 577A and 577BDA of the Telecommunications Act 1997. After a supplement of negotiation, the ACCC accepted on the 27 February 2012 Telstra’s structural separation undertaking and approved the draft migration plan. On the 6 March 2012, Telstra’s Structural Separation Undertaking and Migration Plan came into force. Detailed chronology and milestones are available at <https://www.accc.gov.au/regulated-infrastructure/communications/industry-reform/assessment-of-telstras-ssu-draft-migration-plan>.

The SSU fulfils two roles:

- It commits Telstra to structural separation by 1 July 2018, through the progressive disconnection of **fixed voice and broadband services** from Telstra's copper and Hybrid Fibre-Coaxial (HFC) **networks**, while the New Broadband Network (NBN) is being rolled out [by the government⁶⁸⁵]; and,
- It sets out the various measures which Telstra will put in place to provide for equivalence and transparency in the supply of **regulated fixed network services** to its **wholesale** customers and the supply of comparable services to its **retail** customers during the transition to the NBN⁶⁸⁶.

To understand how the Australian Competition & Consumers Commission ('ACCC') led the negotiations to the point of accepting undertakings leading to full structural separation (by 2018) of Telstra, it is important to consider that as per 1st December 2006 the company was subject to operational separation, forcing it to keep separate retail, wholesale and key network services business units⁶⁸⁷ (see, on this respect, M. Cave's criticism in chapter VII).

The Parliament of Australia however expressed serious concerns about the capacity of Telstra to grant full competition by simply implementing an operational separation scheme:

⁶⁸⁵ Brackets added.

⁶⁸⁶ Australian Competition Authority (ACCC), Structural Separation Undertakings offered by Telstra on the 23 February 2012, accepted by ACCC on the 28 February 2012, accessible at <http://www.accc.gov.au/system/files/Structural%20Separation%20Undertaking.pdf>. An outlook of Telstra's structural separation undertaking is available both on the website of Telstra accessible at <http://www.telstrawholesale.com.au/structural-separation-undertaking/index.htm>, and from the website of the Australian Competition & Consumer Commission (ACCC). Particularly useful is the Telstra's Structural Separation Undertaking Annual Compliance Report 2011-12, accessible at <https://www.accc.gov.au/system/files/Telstra's%20structural%20separation%20undertaking%20annual%20compliance%20report%202011-12.pdf>.

⁶⁸⁷ OECD Competition Committee, 'Report on Experiences with Structural Separation', p 109-110, January 2012, available at <http://www.oecd.org/daf/competition/50056685.pdf>

‘Telstra’s integrated position across all the telecommunications platforms has led to longstanding and widespread concerns that the existing telecommunications structure is failing consumers, businesses and the economy in general’⁶⁸⁸.

Structural separation of Telstra (with the creation of a structurally-separated state-funded New Broadband Network) was conceived as a step further than functional (operational) separation.

An excerpt from ‘Telstra’s structural separation undertaking – Annual Compliance Report 2011-2012’ issued by the ACCC clarifies how the government found that functional (operational) separation was not enough. This has to be borne in mind, since the same reasoning might be applied to the European scenario, within single Member States:

‘In late 2010, the Australian Government introduced legislation which created a framework for reforming the telecommunications industry—effecting structural separation of Telstra by the progressive migration of Telstra’s fixed line access services to the wholesale-only National Broadband Network (NBN) as the NBN fibre is rolled out⁶⁸⁹. This reform recognised that Telstra, as the vertically integrated access provider to the ubiquitous copper network, operates at all levels of the supply chain and competes with the businesses that it supplies to. **This has given rise to long standing competition concerns around Telstra’s ability and incentive to favour its retail business over other service providers accessing its network to the detriment of consumers.**

Prior to the commencement of the SSU, Telstra was subject to an **operational separation** framework which was intended to promote equivalence between Telstra’s wholesale and retail customers. **The ACCC has previously publicly stated that the operational separation regime, and the ACCC’s limited role in investigating and reporting matters to the Minister, was largely ineffective in addressing Telstra’s ability and incentive to discriminate**

⁶⁸⁸ Parliament of the Commonwealth of Australia, House of Representatives, Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Bill 2009. Explanatory Memorandum, p 8.

⁶⁸⁹ Emphasis added.

against its competitors⁶⁹⁰. Upon the coming into force of the Structural Separation Undertaking (SSU) on 6 March 2012, the operational separation regime ceased to operate⁶⁹¹.

The operational separation (for the period 2006-2012), preliminary to the structural separation of the NBN [New broadband Network] from Telstra's wholesale and retail services, had been conceived in the 'separation of the business units formalised through subsidiaries, so that each separated business unit is a subsidiary of a holding company rather than being an organisational unit within the one company. [A] common set of shareholders still owns the structurally separated subsidiaries'⁶⁹².

The chart that follows shows how operational (functional) separation (within the same group) had been put in place from 2006 to 2012:

⁶⁹⁰ Emphasis added.

⁶⁹¹ Australian Competition & Consumer Commission (ACCC), Telstra's Structural Separation Undertaking – Annual Compliance Report 2011-2012, a Report to the Minister for Broadband, Communications and the Digital Economy, with letter of 13 April 2013, accessible <http://www.accc.gov.au/publications/telstras-structural-separation-undertaking>. With respect to the instructions that the ACCC gives to Telstra in order to address competition concerns during the current migration period, see ACCC press release of 7 February 2013, 'ACCC directs Telstra to amend measures developed under the Migration Plan', accessible at <http://www.accc.gov.au/media-release/accc-directs-telstra-to-amend-measures-developed-under-the-migration-plan>.

⁶⁹² See the overview on separation by lawyers P. Waters and O. Damian, Separation regulation of dominant telecommunications operators in today's legacy networks and tomorrow's next generation networks. One separation model does not fit all – key design issues and lessons learned, accessible at <http://www.gtlaw.com.au/wp-content/uploads/Separation-regulation.pdf>, p. 3.

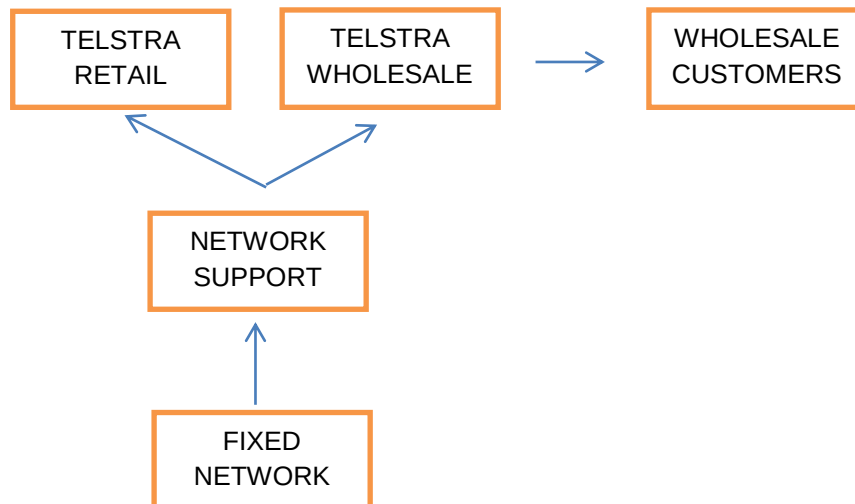


Figure 8.2, operational separation of Telstra, Australia (2006-2012)⁶⁹³

In this case, the fixed network is operationally separated from the provision of services. Telstra Wholesale does not operate the infrastructure, but supplies all wholesale services. An intermediate entity, ‘network support’, deals with the ‘operations support systems’ (‘OSS’), and supports both retail and wholesale units. This first phase of operational separation can be compared to functional separation as per the BT’s Openreach model, and constitutes a preliminary step towards the current structural separation migration plan. During the phase of progressive structural separation 2012-2018 the functional separation model *de iure* ceases to exist⁶⁹⁴.

The interesting aspect of the Australian ‘restructuring plan’ launched in 2011 is that the deployment of the New Generation Network (New

⁶⁹³ *ibid*, 5.

⁶⁹⁴ See from TelstraWholesale’s website, ‘High level summary of Telstra Structural Separation Undertaking and Migration Plan’, page 1, accessible at <http://www.telstrawholesale.com.au/download/document/ssu-and-mp-briefing-summaries-1.pdf>. It expressly says that ‘consistent with the Government’s decision to frame structural separation as an alternative to functional separation for Telstra under the legislative scheme, the Interim Equivalence and Transparency measures in the Structural Separation Undertakings (SSU) **do not constitute functional separation**’. See in particular the detailed migration plan outlined from page 3ff.

Broadband Network or 'NBN') is conceived through the creation of a new infrastructure directly deployed by a separate, government owned, company⁶⁹⁵, so that all the players are put on an equal footing in the future provisions of wholesale services, including Telstra.

This shows that since the New Generation Network substantially differs, from a technological point of view, from the traditional fixed-line copper networks on which broadband services are provided enhancing bandwidth through ADSL technology, the model of functional separation as implemented in the British telecommunications with Openreach is considered insufficient and not applicable in the Australian context. The Australian competition authority has adopted structural separation as a way of favouring the intervention of the government to create a 'New Broadband Network' (the entire operation should be completed by 2018), so that Telstra 'must not supply services to those premises [customers] using the copper or HFC networks (other than pay TV services in the case of the HFC). Telstra will satisfy this commitments by progressively decommissioning its copper customer access network ('CAN') and HFC broadband service on an area by area basis as the NBN rolls out'.⁶⁹⁶

The new characteristics of the NBN are:

- (a) It will be realised as the largest civil works projects for decades;
- (b) There is still uncertainty on the future demand of services that will be provided by the NGNs;
- (c) There will be a constant and substantial investment to upgrade the networks;
- (d) NGNs are layered, open standard networks, compared to the vertically-integrated technology of copper networks, barriers to

⁶⁹⁵ Ibid, 12.

⁶⁹⁶ TelstraWholesale's paper cited above (fn 693), page 1.

entry at the connectivity layers are lower and there is limited technological capability to leverage between layers⁶⁹⁷.

Therefore the role of regulation, with respect to NGNs, will be much more linked to the creation of incentives to develop new infrastructures, than to the application of the traditional regulatory tools to deal with access-related bottlenecks⁶⁹⁸.

In the Australian scenario, matters are going in a different direction with the progressive passage from functional to structural separation. The ACCC first tried to implement functional separation within the Telstra group (separating wholesale and retail services, while still operating the traditional network). When it was clear that discrimination between its own retail customers and wholesale customers, was still taking place, the ACCC pushed for the signature of undertakings preliminary to the creation of a structurally separated entity, funded by the State, that will be the main New Generation Network on which Telstra will provide its wholesale services in competition with any other telecommunications operator.

In this respect, the creation of the New Generation Network as a separate entity represents a measure that is set to avoid once for all any access-related anticompetitive conducts. Quoting from the mentioned 'Telstra's Structural Separation Undertaking ('SSU') - Compliance Report 2011-2012'

'[i]n introducing structural reform of the telecommunications industry, the government recognised that the ACCC would need stronger enforcement mechanisms that those under the operational separation regime to ensure transparency and equivalence. The SSU measures are a substantial improvement upon the previous operational⁶⁹⁹ separation framework and more effectively promote equivalence and transparency. The SSU provides for stronger enforcement mechanisms, which are particularly important for

⁶⁹⁷ Ibid.

⁶⁹⁸ Ibid.

⁶⁹⁹ Here the word operational and functional is a synonym.

protecting competition and delivering outcomes in the interests of consumers and businesses, during the rollout of the NBN⁷⁰⁰.

Unfortunately, it is still premature to analyse quantitative data to see whether structural separation currently under implementation in Australia will have a positive impact on competition, prices and quality of the services provided. In that context the SSU were signed as a preliminary step towards the creation of a NBN, with the idea of putting Telstra and its competitors on a equal foot in the provisions of telecommunications services. Seen from a European perspective, it looks like the ACCC, suggesting complete structural separation by 2018, wants to create the pre-conditions for the realisation (mainly at government's costs) of a New Generation Network. Considering that the new network is technically different from the traditional copper wire network, it allows the presence of more players over the same infrastructures, and should *de facto* represent an opportunity of growth and development for that country.

It is important to note that during the implementation of the structural separation undertakings (also called the 'migration plan' phase) Telstra is under constant scrutiny by the ACCC. Regulatory tools such as price caps will be still put in place during the transitional phase. However some features of the undertakings can be directly enforced by the ACCC before the Australian Federal Courts, through remedies that range from 'fines to compensation orders and any other orders that the Court considers appropriate'⁷⁰¹.

If the ultimate scope of the undertakings signed by Telstra is that of structurally separate its network by 1st July 2018 by progressively disconnecting fixed telephony services on its copper network and broadband services on its hybrid fibre-coaxial (HFC) network, migrating these services onto the (wholesale-only) NBN rolled out by the government, Telstra management is aware that during the transitional phase the objective of the undertakings is to ensure equivalence and transparency in how Telstra treats retails and wholesale

⁷⁰⁰ Telstra's USS Compliance Report 2011-2012, p 4. Emphasis added.

⁷⁰¹ TelstraWholesale's action plan, see fn 693.

customers of regulated services on the copper network⁷⁰², a clear indication of the concerns raised by the ACCC during the phases of negotiation of the structural separation undertakings⁷⁰³. The incumbent recently showed that is confident to respect the roadmap set in 2012 with the ACCC, and will be able to complete structural separation by 2018⁷⁰⁴.

The New Zealand Telecom experience is a third model of separation to be considered. They went a step further than in other jurisdictions, with the national incumbent de-merging into two listed entities: Chorus and Telecom New Zealand, with different share ownership⁷⁰⁵.

In 2005 the New Zealand government launched a review of the telecommunications sector⁷⁰⁶, with a particular focus on broadband development. On the basis of the review, on December 2006 the government passed the 'Telecommunications Amendment Act' ⁷⁰⁷ requiring a 'robust operational separation' of the vertically-integrated, privatised telecommunications incumbent, Telecom New Zealand, into at least three business units, to provide wholesale, retail and local access services⁷⁰⁸.

The operational separation proposed in 2006 envisaged three pro-competition targets:

⁷⁰² See Telstra's SSU Compliance in 2012-2013, introduction, accessible at <http://www.telstrawholesale.com.au/download/document/telstra-commitment-ssu-compliance-2012-2013.pdf>.

⁷⁰³ To follow the developments of the undertakings signed by Telstra before the ACCC, a useful link is <http://www.accc.gov.au/regulated-infrastructure/communications/industry-reform/telstras-structural-separation-undertaking>.

⁷⁰⁴ Supratim Adhikari, 'Telstra ready to push on with structural separation', Technology spectator, 18 March 2014, accessible at <https://www.businessspectator.com.au/news/2014/3/18/technology/telstra-ready-push-structural-separation>.

⁷⁰⁵ Waters & Damian, cited, p 5.

⁷⁰⁶ Ministry of Economic Development, 'Stocktake Process, stakeholder Input and Supporting documents' (POL/1/27/10/2/1), published on 20 April 2006.

⁷⁰⁷ New Zealand, Telecommunications Amendment Act (No2) 2006.

⁷⁰⁸ *ibid*, sect. 32, inserting a new Part 2A into the Telecommunications Act2001. See OECD Report 2012, cited, p 77-78.

(i) To promote competition in telecommunications markets for the long-term benefit of end users of telecommunications services in New Zealand; (ii) to require transparency, non-discrimination, and equivalence of supply in relation to certain telecommunications services; and (iii) to facilitate efficient investment in telecommunications infrastructure and services⁷⁰⁹.

Operational separation was implemented on 31 March 2008. Telecom New Zealand therefore comprised five customer-facing business units:

- (i) a retail unit providing fixed line, mobile and internet services to consumers and small and medium business customers;
- (ii) an operationally separate wholesale business unit providing next generation wholesale network products to service providers;
- (iii) an operationally separate unit that manages Telecom's local access network;
- (iv) a specialised unit that provides technology services for larger business customers; and,
- (v) an Australian subsidiary providing telecommunications services in Australia'⁷¹⁰.

The model of operational separation of Telecom New Zealand was summarised by the following chart

⁷⁰⁹ New section 96A of the New Zealand Telecommunications Act 2001.

⁷¹⁰ OECD Report 2011 'Experiences with Structural Separation', cited, p 78-79.

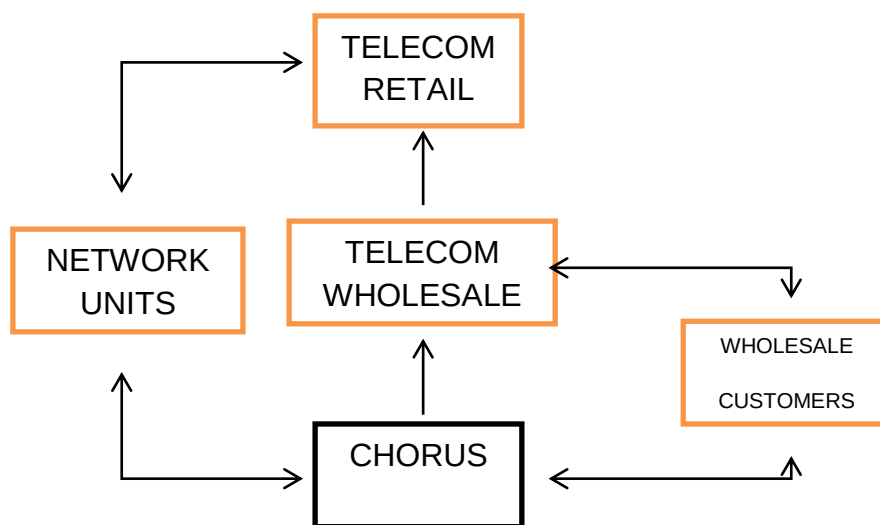


Figure 8.3 – New Zealand MARK I operational separation model, preliminary to ownership (structural) separation of CHORUS (local network) from 1st December 2011⁷¹¹.

In the chart Chorus represented the business unit managing the local network (not necessarily fibre-network), the regional backhaul networks (not the electronic equipment) and the information system to support Chorus's services (but not to support shared services). The Telecom Wholesale, on the other hand, did not own assets, since these belong to the Network Units⁷¹².

This process of operational (functional separation) finally resulted in ownership separation of the network from the core wholesale and retail business, bringing the monopoly of New Zealand Telecom to an end. On 30 November 2011 the 'de-merger' process was complete, with Telecom New Zealand and Chorus becoming separate listed companies⁷¹³ (in literature also referred as Telecom New Zealand 2 and Chorus 2):

⁷¹¹ Waters & Damian, cited, p 5.

⁷¹² *ibid*.

⁷¹³ Sarah Putt, After Structural Separation – New Zealand telecommunications a year after Telecom New Zealand and Chorus became separate companies, (ComputerWorld New Zealand, November 2012), pp 6-7. See also New Zealand Herald, 1st December 2011, accessible at

‘On December 1, 2011 New Zealand telecommunications created a world first when the incumbent provider, Telecom, structurally separated and its network access division, Chorus, became a stand-alone, publicly listed company’⁷¹⁴.

This is the sole case of (voluntary) full ownership structural separation already implemented that I was able to identify. As I will discuss later, on an empirical point of view, also in this case the time-window to assess whether in New Zealand structural separation led to (i) increase in competition, (ii) reduction in costs and (wholesale and retail) prices and (iii) enhanced quality of services is too short.

In September 2010 structural (and ownership) separation of Telecom New Zealand was preceded by the launch of a sector inquiry by the New Zealand Ministry of Economic Development, on the basis of its ‘discussion document’ on ‘Regulatory implications of structural separation’⁷¹⁵.

The document states that the national incumbent announced (2010) its intention to consider structural separation through the demerger into two companies of its assets, within the framework of the Government’s ultra-fast broadband initiative⁷¹⁶. The Ministry made clear that any change in the existing regulatory regime should have been consistent with the principle of ‘promotion of competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand’⁷¹⁷, in the hope that ‘the likely model of structural separation would lower barriers to entry at the

http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=10769994. See also Tom Pullar-Strecker, ‘Telecom split first in world’, Fairfax NZ News, 27 October 2011, accessible at <http://www.stuff.co.nz/business/industries/5858284/Telecom-split-first-in-world>.

⁷¹⁴ Sarah Putt, cited, p 6.

⁷¹⁵ Ministry of Economic Development, ‘Discussion document – Regulatory Implications of Structural Separation’, September 2010, accessible at <http://www.med.govt.nz/sectors-industries/technology-communication/pdf-docs-library/communications/telecom-separation/regulatory-implications-of-structural-separation-september-2010.pdf>.

⁷¹⁶ Ibid, p 8.

⁷¹⁷ Ibid.

retail level, by removing incentives to discriminate against competitors who operate at the retail level. There is scope in these circumstances for removing regulatory provisions which deal with the interface between wholesale and retail levels of the market. However there would be some residual vertical integration between the network and the wholesale layers of the business, so some incentives to discriminate against competitors would likely to remain⁷¹⁸.

The voluntary structural separation of the network company Chorus from its mother company Telecom New Zealand in reality was the only way to ensure that Telecom New Zealand could take part of the roll out of the new ultra-fast broadband (UFB) network mainly rolled out at government's expenses. One of the main advantages for the mother company was to be 'relieved' by the sector regulations, while Chorus would have continued to control the local copper and fibre network, dealing with wholesale business complaining with the sector regulations⁷¹⁹.

Therefore, in the Telecom New Zealand voluntary structural separation example we face a combination of industrial strategy (make possible for Telecom New Zealand to be part of the roll-out of the New Generation Network (UFB) without controlling the existing network too) and of government's support for what was considered a pro-competitive initiative⁷²⁰, also considering that Chorus would have continued to be subject to sectorial regulation. At the same time also Chorus, in the after break-up scenario, would have been allowed to participate to up to 70% of the new UFB, receiving de facto a (interest-free) loan from the government of NZ\$ 929 million, to be repaid between 2025 and 2036⁷²¹.

⁷¹⁸ Ibid, p 11.

⁷¹⁹ Sarah Putt, cited, pp 8-23. In May 2011 the managers of Telecom New Zealand announced that they would have been partner of the government's UFB network (p 22).

⁷²⁰ Ministry of Economic Development, 'Discussion document – Regulatory Implications of Structural Separation', September 2010, accessible at <http://www.med.govt.nz/sectors-industries/technology-communication/pdf-docs-library/communications/telecom-separation/regulatory-implications-of-structural-separation-september-2010.pdf>.

⁷²¹ According to S Putt book, during the transitional phase preceding the complete roll-out of the UFB network, 99% of Chorus revenues still come from fixed telephony services provided over the traditional copper network.

In the first year from the break-up (November 2011/November 2012) 100,000 households (urban users) have been already connected with the new ultra-fast broadband network⁷²², demonstrating that structural separation did not cause disruption.

For the purposes of the thesis, it is important to highlight here that in some highly dynamic OECD economies, such as Australia and New Zealand, structural separation in the electronic communications, in the form of separation of the network from communications services, was not considered a taboo and was adopted as a valid option by the respective competition authorities, sector regulators and governments.

Even though the Australian and New Zealand scenarios are different under a competition law point of view (Telstra signed structural separation undertakings before the Australian competition authority as a remedy to enhance competition, while Telecom New Zealand voluntarily decided to break-up from its own network in order to be put in condition to strategically invest in the new generation network), they must be borne in mind as two examples that contradict the claims of inefficiency and impracticability of the structural remedy.

8.3. Functional or structural separation: two possible options also for the Italian scenario.

In Italy the recurrence of network-related abuses, offers a good case to ask the question of whether high pecuniary fines (often substantially reduced after two levels of administrative court scrutiny) may represent a serious deterrent for national incumbents.

The question is whether the electronic communications regulator ought to pursue a more invasive measure, such as functional separation, now possible

⁷²² Sarah Putt, cited, p 24.

under the Directive 2009/140/EC. Alternatively, is it possible to suggest that in the presence of recurrent abuses the national competition authority should adopt a more draconian remedy such as structural separation? If so, what type of structural separation would be most suitable among those discussed?

The Italian Communications Authority (*Autorità per le garanzie nelle Comunicazioni*, 'AGCOM') on 2 May 2007, launched a public consultation process⁷²³ in order to discuss the possibility of introducing into the Italian legal system structural or functional separation of the communications infrastructure at present still controlled by the incumbent. During the 2007 consultation process, the AGCOM pointed out that, as per AGCOM decision no. 152/02/CONS of 2002, two set of provisions had been already introduced in the Italian legal system establishing (i) general measures to grant full application of the principle of non-discrimination; and (ii) specific duties (or remedies) for all the relevant markets. AGCOM claimed that in line with the fundamental targets of competition law at European level it had already established the 'administrative separation' of Telecom Italia, in order to facilitate non-discriminatory access to the network resources held by the dominant operator. However, mere accounting separation did not impede Telecom Italia from carrying out a series of (network) access-related abuses, sanctioned with pecuniary fines with a very low deterrence impact, considering the recidivism, as shown in Chapter IV of the thesis.

AGCOM decision 208/07/CONS states that the Italian Competition Authority, before the adoption of the above-mentioned AGCOM decision no. 152/02/CONS, had issued a non-binding opinion theoretically favourable to structural (company or ownership) separation. It actually stated that the best remedy would have been structural separation, since it would have produced: (i) the greatest fairness in the attribution of joint costs to the separate entities, facilitating the interpretation of the access rate to the infrastructure or for the provision of wholesale or retail services; (ii) the elimination of incentives to

⁷²³ AGCOM decision no. 208/07/CONS of 2 May 2007 (entitled '*Avvio di una consultazione pubblica sugli aspetti regolamentari relativi all'assetto della rete di accesso fissa ed alle prospettive delle reti di nuova generazione a larga banda*'), available at http://www.agcom.it/provv/d_208_07_CONS/d_208_07_CONS.htm

continue anticompetitive behaviours, since the two legal entities (network and service provider) would have had two different and separate business targets⁷²⁴. The AGCOM decision 208/07/CONS, triggering the consultation process, pointed out that one of the most relevant forms of abuse is the possibility for vertically-integrated operators to lower ('squeeze') the competitors' profit margins by raising the access cost or reducing retail prices. In both cases, it is difficult for the competitor to survive within the same market, since its profits are either cut by excessively high entrance costs (access price) or by excessively low retail prices⁷²⁵.

The issue at stake here is whether functional separation would have been successful in the long term (i) in all those countries where the incumbent is prone to repeat the same type of abuse, (ii) in those countries where it can be demonstrated that administrative judiciary reviews routinely lead to a substantial reduction of fines imposed by the NCAs or (iii) where the difficulty of monitoring 'functional separation' of the incumbent through the creation of a (truly) separated access division may put in serious doubt the effectiveness of the remedy (as we have just discussed in the Telstra case above).

The main objective of the Italian Communications Authority today is to achieve enhanced facilities-based competition. The key problems are much the same as those existing at the beginning of the process of liberalisation:

(i) dominance of the incumbent, Telecom Italia, in the fixed telecommunications wholesale and retail markets; (ii) the very high market share of Telecom Italia in the broadband services market⁷²⁶; (iii) insufficient

⁷²⁴ Ibid, p 54-55.

⁷²⁵ Ibid p 75.

⁷²⁶ Here a substantial difference must be taken into account with the UK scenario: BT's broadband wholesale market share is of just 27%: OFCOM, 'The Communications Market 2009', August 2009. This is a factor that may justify a lower interest of BT to invest in the further enhancement of the New Generation Access network, and also a progressively reduced need of functional (and, a fortiori, structural) separation for the British incumbent.

(or, in some areas, non-existent) diffusion of broadband services; (iv) the large 'digital-divide' for a significant share of Italian population⁷²⁷.

The competitive scenario in terms of the fixed line network is nearly identical to that observed at the start of the liberalisation process. Amongst the most significant (and recent) instances of abusive conducts decided against Telecom Italia, it is useful to recall a case tackled by the Italian Competition Authority⁷²⁸ in which it was acknowledged that Telecom Italia, from 2001 to 2003, abused its dominant position through margin squeeze conducts, in particular by offering low-price broadband services to public administration premises and business clients. Telecom Italia violated the principle of non-discrimination and favoured its commercial divisions, damaging the commercial divisions of its competitors by charging excessive prices for the wholesale services (i.e. unbundling services)⁷²⁹. Similar conclusions were reached by an arbitration panel settling litigation between Telecom Italia and Fastweb⁷³⁰ in 2007. The panel ascertained that Telecom Italia had obstructed access to the local loop (ULL) in at least 10.000 cases between 2001 and 2004.

It must be noted that on 14 February 2008, pending the review/consultation carried out by the Italian regulator regarding the best remedy (functional v. structural separation) to deal with the access to Telecom Italia's network, the management of the latter published the decision adopted by the board of

⁷²⁷ AGCOM decision no. 208/07/CONS, p 80.

⁷²⁸ Italian Competition Authority (AGCM), decision no. 13752, Case A351 – Abusive conducts of Telecom Italia, of 16 November 2004, in Bulletin no. 47/2004 of the Italian Competition Authority.

⁷²⁹ It must be noted that also the *Consiglio di Stato*, the Italian highest administrative court, reached the same conclusions, as may be inferred reading the judgment of 10 February 2006, quashing the appeal judgment of the Administrative Tribunal (*Tribunale Amministrativo del Lazio*). In particular it recommended for the Italian Communications Authority to adopt new regulations underpinning the principle of non-discrimination.

⁷³⁰ The litigation between Telecom Italia and Fastweb was settled through recourse to an arbitration panel chaired by prof. Guido Alpa on 27 January 2007 with the payment of EUR 60 million by Telecom Italia to Fastweb for negligence in obstructing the unbundling of local loop in the period of time 2001-2004 for at least 11.000 clients. See press release issued by the damaged company at <http://company.fastweb.it/index.php?sid=19&idc=1109>.

directors to (spontaneously) implement in the following months a 'form of functional separation. Telecom Italia created a separated division called 'Open Access' (clearly tailored on the *Openreach* model), within the Direction 'Regulatory & Network' aimed at dealing with the access issues. In reality the 'separation' proposed could be considered as an advanced form of 'accounting separation' rather than a complete 'functional separation', since Telecom Italia's 'Open Access' Division could not be considered functionally or legally separated from the parent company Telecom Italia. In the following months (11 December 2008) AGCOM accepted the 'undertakings' proposed by Telecom Italia and considered the creation of the separate division 'Open Access' in line with the European directives (in line with the obligations of accounting separation, neutrality, non-discrimination). In March 2011 Telecom Italia officially announced that the 'Open Access' division was fully operational⁷³¹. However the measure appears to be still some way from addressing the competition concerns, and certainly does not interfere with the control of the network, and in particular, with the decision-making process with respect to new investments⁷³².

For the sake of completeness, in May 2009 the so-called 'Caio Report'⁷³³ was published. It suggested various measures to enhance competition while helping innovation in the network. The measures in the report range from simple functional separation to structural separation, for certain respect anticipating the initiatives adopted in Australia and in New Zealand only a few years later (on the 1st December 2011 structural separation of Telecom New Zealand and Chorus, while on the 27 March 2012 in Australia Telstra's

⁷³¹ On 9 March 2011 also the French competition authority announced that was in talk with the national French regulator (Autorité de Réglementation des communications électroniques et des Postes, or 'ARCEP') aimed at functionally separating France Télécom's network, on the model of the British Openreach. ARCEP had already anticipated this intention in an informal publication on its periodic newsletter (La Lettre, no. 55, April 2007).

⁷³² On the 25 July 2013, the Italian Communications Authority (AGCOM) accepted the proposal of (functional) separation of the access network offered by Telecom Italia, alongside with the creation of an 'Equivalence of Input' (EOI) access mechanism. The next step is to launch a market study interviewing all the Italian telecoms operators. The press release is available at <http://www.agcom.it/default.aspx?message=visualizzadocument&DocID=11566>.

⁷³³ After the name of the manager, Francesco Caio, who presented the report to the Italian government in 2009.

management signed the undertakings triggering the transitional phase leading to full structural separation by 1st July 2018).

In September 2010 the President of the Italian Competition Authority⁷³⁴ declared that he was not *a priori* against the intervention of the a State-controlled financial entity (*Cassa Depositi e Prestiti*⁷³⁵) to create the New Generation Network structurally separated from the national incumbent, and that he would have been also theoretically favourable to the creation of a joint-venture of Telecom Italia with its main competitors if the target was to bridge the digital divide of the country. Structural separation for the time being was not considered a viable option⁷³⁶, but was at least discussed for the first time with respect to one of the largest European telecoms players.

In certain respects, the solutions considered in Italy mirror the solutions adopted both in Australia and in New Zealand analysed above. In both cases competition law concerns and the government's agenda to innovate the communications infrastructure in these three countries (New Zealand, Australia and Italy) are behind the idea of infrastructure separation from the body of the telecommunications incumbent providing wholesale and retail services. The substantial difference is that in New Zealand and, by 2018, in Australia, structural separation is a reality, supported also by the competition authorities.

⁷³⁴ Antonio Catricalà. I had the opportunity to discuss about this hypothesis with the former President of the Italian Competition Authority in October 2008 at the Italian Competition Authority, illustrating how a draconian remedy over the network (structural separation) could be theoretically combined with a subsequent joint take-over by competitors of the incumbent, also with the aim of investing in the creation of a NGN. In a different scenario, structural separation of its European network is what ENI proposed to the European Commission in the commitments accepted by the latter in September 2010.

⁷³⁵ State-controlled entity partially funded by deposits collected by the Italian postal incumbent Poste Italiane Spa).

⁷³⁶ See the report filed at the Italian Ministry for the Economic Development and at the Ministry of Communications on the perspectives of deployment of a electronic communications New Generation Network (*'Portare l'Italia verso la leadership europea nella banda larga, Considerazioni sulle opzioni di politica industriale Presentazione sulle conclusioni del progetto al Ministero dello Sviluppo Economico – Comunicazioni*), 19 March 2009.

In the next section I will discuss what type of structural separation could be applicable at European level among those considered by the scientific literature, outlined in Chapter VII.

8.4. Types of structural separation applicable to the European context.

As discussed in Chapter VII, the four main forms of structural (ownership) separation, enforceable as per Article 7 of Regulation 1/2003/EC, are

1. Horizontal platforms separation (for instance, coaxial cable, fibre broadband, hybrid fibre-coaxial, mobile networks)⁷³⁷;
2. Separation between the company providing wholesale and retail services and the company running the network (vertical), as per the Telstra's and New Zealand Telecom examples⁷³⁸;
3. Reciprocal network / services separation⁷³⁹;
4. Vertical local separation (as per the AT&T model)⁷⁴⁰.

From the analysis of the cases discussed in Chapter II/IV (abuses in the telecommunications sector) and V (abuses in the energy sector), and the various approaches to facilitate competition through intervention on the network, discussed in Chapter VII in particular, it is evident that the above-listed solution no. 1 (horizontal platforms separation), would be better aimed at reducing the level of market concentration than at addressing a specific (access-related) abusive conduct. The separation of the various platforms into two or more companies, does not remove the problems deriving from vertical integration, such as the foreclosure effects discussed in Chapter II and IV. However, structural separation of the various platforms simply breaks up the unity of the incumbent, but the alleged abuses of dominant position put in

⁷³⁷ See Chapter VII, Sect. 3, and the OECD Report 2001, p 44.

⁷³⁸ See Chapter VII, figure 7.2., 'ownership separation', from the OECD Report 2001.

⁷³⁹ See Chapter VII, figure 7.5., from the OECD Report 2001.

⁷⁴⁰ See Chapter VII, figure 7.3., so called 'club ownership' separation.

place through the control of the network simply ‘follow’ the new owner of the platform.

The other three forms of structural separation are more relevant to answer the thesis’ question. From the analysis of the above-mentioned cases, both in the energy sector and in the electronic communications sector, as well as looking at the above-mentioned case Telstra, the most suitable solution to remove the anticompetitive foreclosure effects appears to be structural (ownership) separation of the non-competitive part of the company (the network) from the competitive portion of the group (the provision of wholesale and retail services), in particular when operational (or functional) separation demonstrates of not being beneficial and effective (and without mentioning the inefficacy showed by the system of price caps, on the basis of the Commission’s decisions and European Courts judgments in the *Deutsche Telekom*⁷⁴¹ and *Telefónica*⁷⁴² cases)⁷⁴³.

For the time being in Europe the most evident examples of structural separation as a further step beyond functional separation are those adopted in the energy sector after the Energy Enquiry 2007, namely in the E.ON, RWE and ENI cases⁷⁴⁴, discussed in Chapter V. These are all cases of commitments negotiated with the European Commission and the main European energy players while the European Commission, European Parliament and European Council were negotiating or had just adopted the new pieces of legislation in the electricity and gas sector. In this respect the most recent reform of directives in the energy sector discussed in chapter V shows that also at regulatory level the European Union decided to go a step

⁷⁴¹ Commission Decision *Deutsche Telekom AG* (Case COMP/C-1/37.451, 37.578, 37.579), [2003] OJ L263/9 (14 October 2003). On appeal at the General Court, Case T-271/03 *Deutsche Telekom AG v. Commission* [2008] ECR-II-477, [2008] 5 CMLR 631; *Deutsche Telekom AG v European Commission*, Case C-280/08, [2010] ECR I-09555, [2010] 5 CMLR 1495.

⁷⁴² *Telefónica* [2008] OJ C83/6; Case T-336/07 *Telefónica*. At present on appeal at the Court of Justice, Case C-295/12.

⁷⁴³ See the Telstra’s Structural Separation Undertaking discussed in the previous section.

⁷⁴⁴ *E.ON*, [2009] OJ C36/8; *RWE*, [2009] OJ C133/10; *ENI*, [2010] OJ C352/8.

beyond mere operational or functional separation, adopting in 2009 the ‘third package’ of regulations introducing the possibility of imposing ownership separation at generation and transmission level in the electricity and gas sectors⁷⁴⁵.

For completeness, reciprocal structural separation has to be mentioned, and might also be appealing, even though it could theoretically be implemented only in the largest Member States. The separation of the non-competitive assets (network) in two or more portions, with the cross-negotiation of contracts authorising the access to those parts of the network to provide the same services, should put the communications operators (former incumbent and competitors) on an equal footing.

The fourth hypothesis, vertical structural separation leading, for instance, to the AT&T scheme, vice versa, does not seem applicable to the European reality. Local vertical structural separation of a vertically-integrated monopolist as in the AT&T case is simply not applicable to the European scenario because the plurality and fragmentation of the networks already reflect the national boundaries of the Member States. Only in a few, larger, States (for instance Germany, France or Italy) vertical break-up of the network into two parts would be economically viable and sustainable.

In the next section I recall the effects that ownership separation have already registered, for instance in Germany, Italy and New Zealand in the energy sector, the only sector in which I found some empirical data.

8.5. Positive effects of structural separation in the energy sector.

Examples of removal of vertical foreclosure effects.

⁷⁴⁵ Regulation 714/2009/EC on conditions for access to the network for cross-border exchanges in electricity, OJ [2009] L 211/15; Regulation 715/2009/EC on conditions of access to the natural gas transmission networks, OJ [2009] L 229/29; Directive 2009/72/EC concerning common rules for the internal market in electricity, OJ [2009] L 211/55 and Directive 2009/73/EC concerning common rules for the internal natural gas, OJ [2009] L 211/94.

The analysis of cases discussed in the body of the thesis, both in the electronic communications and energy sectors, can help to reach some conclusion about the positive effects of structural separation in competition law terms.

In the previous section I identified what forms of structural separation are more likely to be applicable in the European context: (i) break-up between services and network and (ii) reciprocal structural separation.

In chapter VII I discussed the relevant literature and business practice that show the difficulties that can arise from an invasive remedy such as the structural ownership separation.

However, if we look at the few cases in which structural separation took place in the energy sector, we observe that some positive effects have been recorded. In electronic communications the rapidly changing scenario, also in terms of technology with the creation of New Generation Networks, forms a convincing argument that a remedy such as structural separation is possible and advisable both on the basis of Art. 9 of Regulation 1/2003/EC and on the basis of Art. 7 of the same regulation.

At the level of Commission practice, I have extensively discussed in Chapter III how between 2008 and 2010 the Commission and national incumbents negotiated commitments entailing structural separation as a remedy aimed at enhancing competition. The separation between services and networks (infrastructure) is already a reality, and formed the basis of commitments decisions in three cases: E.ON in 2008, RWE in 2009 and ENI, in 2010.

These three examples drawn from the practice are not isolated. They must be analysed in the wider framework of the process of regulation of the energy sector as a whole in the past decade. Those examples of structural separation on the basis of commitments were preceded by the Energy Sector Inquiry

(2007)⁷⁴⁶. One of the main outcomes of the Energy Sector Inquiry was to collect proposals from several energy operators in Europe to address the competition concerns of the Commission. These proposal, encapsulated in the final report of the Energy Sector Enquiry showed that they were strongly in favor for 'ownership unbundling as the most effective way of separating energy transmission networks from other stages of the energy value chain'⁷⁴⁷. Furthermore, if the Energy Sector Enquiry mainly focused on the restriction to competition at generation and transmission level, now the new frontier is the possibility of structural separation at distribution level also⁷⁴⁸.

M. Pollitt goes a step further: taking the example of the electronic communications sector **suggests that ownership separation of part of the electricity network can be beneficial to competition**. Quoting from the conclusion of an article with comparative approach between electronic communications and energy sector, Pollitt argues

'(New forms of energy asset ownership) The emergence of innovative forms of ownership of electricity assets such as via local public-private partnerships or customer trusts (possibly facilitated by new types of energy company licences), based on carve-outs of local distribution assets and private wires, would reduce the need to regulate wholly privately owned network monopolies and mitigate the need to regulate long term contracts for locally produced electricity and heat services'⁷⁴⁹.

However, for the time being the Commission has a more cautious viewpoint with respect to induce further divestitures in the energy sector:

⁷⁴⁶ Impact Assessment, Accompanying Report to the DG Competition Report on Energy Sector Inquiry, SEC (2007)1179, Brussels, accessible at http://ec.europa.eu/energy/gas_electricity/interpretative_notes/doc/2007_09_19_impact_assessment.pdf.

⁷⁴⁷ See P. Nillesen – M.G. Pollitt, 'Ownership unbundling in electricity distribution: empirical evidence from New Zealand', (2011) 38 Review of Industrial Organisation, 61-93.

⁷⁴⁸ M. Pollitt - ESRC, 'The arguments for and against ownership unbundling in energy transmission markets' (2008) 36 Energy Policy, 704-713. A paper presented by the Electricity Policy Research Group of the University of Cambridge to OFGEM on the 7th August 2007.

⁷⁴⁹ M. Pollitt, 'Does electricity (and heat) network regulation have anything to learn from fixed line telecoms regulation?', (2010) 38 Energy Policy, 1360-1371, at 1370.

‘[...] the benefits from further unbundling at the distribution level are not overwhelmingly higher than costs. Due to recent entry into force of the last liberalization date in a number of Member States, it would seem to be disproportionate to go a step further in forcing unbundling in this activity’⁷⁵⁰.

In the energy sector there is a need to collect more empirical data before deciding to go a step further with structural separation of the electricity or gas networks, reaching the lower levels of the vertical production chain: distribution and retail.

Here an example of distribution network unbundling occurred in New Zealand in the electricity sector in 1998 may provide some useful information for European observers. The forced ownership separation of the distribution networks in New Zealand already in 1998 represents at empirical level a case study that should be taken into serious consideration, particularly for its logical impact on the telecommunications sector, as it represents a serious challenge to what until very recently was considered an untouchable taboo: intervention in vertical integration of public utilities.

A recent study made by professors Nillesen and Pollitt in Cambridge shows that forced break-up at distribution level (therefore, forced separation at ownership level of distribution and commercial activities from the ownership of the rest of the network) had positive aspects that outweigh the costs. These two authors went beyond a theoretical discussion and looked at empirical data in order to establish the economic consequences of ownership unbundling at the electricity distribution level. They looked at (i) the one-off transaction costs incurred by integrated utilities, (ii) the structural effect on unit distribution costs, and (iii) the development of competition in the retail market⁷⁵¹. They gathered and analysed data from 1995 to 2007. It is interesting to study the method they used, because it could be applied to the communications sector, for instance

⁷⁵⁰ European Commission, Impact Assessment, Accompanying Report to the DG Competition Report on Energy Sector Inquiry, 2007, Brussels, p 4.

⁷⁵¹ P. Nillesen – M.G. Pollitt, ‘Ownership unbundling in electricity distribution: empirical evidence from New Zealand’, (2011) 38 Review of Industrial Organisation, 8, accessible at <http://ideas.repec.org/p/cam/camdae/0836.html>.

looking at the New Zealand Telecom example, where network/services ownership unbundling already took place. Unfortunately though, data from New Zealand Telecom separation are still too recent (separation occurred on the 30 November/1st December 2011⁷⁵²). At the same time, the Australian telecoms operator (Telstra) ownership unbundling, with migration on the (separated) New Broadband Network of its services, will take place only from 2018, therefore no empirical test are applicable in this case.

Looking at the electricity sector unbundling in New Zealand, Nillesen and Pollitt found that many scholars are still against structural separation, even looking at positive experiences. Bolle and Breitmoser⁷⁵³, for instance, keep suggesting that legal (functional) unbundling (separation) is superior to ownership unbundling for utilities in general. However they mainly look at allocative efficiency reasons and at the negative consequences of so-called 'double marginalization', the duplication of costs between the formerly integrated incumbent's separated businesses⁷⁵⁴. As Nillesen and Pollitt point out, such an approach is unrealistic. Among other arguments, the detractors of ownership separation do not take into account the increase of competition when businesses are unbundled⁷⁵⁵, nor other positive factors on an economic point of view.

With respect to the risk of double-marginalisation, this requires the existence of a 'one-part price' (for instance, in the production chain of manufactures, to split the production chain means to duplicate the costs of some

⁷⁵² On 30 November 2011, Telecom demerged into two entirely separate, publicly listed companies; a retail services provider (Telecom) and a network services operator (Chorus). Structural separation of Telecom's retail business from the business (wholesale) that owns and operates the Fibre-To-The-Premise (FTTP) network was a pre-requisite for participation in the Government's Ultra-Fast Broadband scheme (UFB). Source: <http://www.telecom.co.nz/content/0,8748,200633-1548,00.html>.

⁷⁵³ F. Bolle – Y. Breitmoser, 'On the Allocative Efficiency of Ownership Unbundling', European University Viadrina Frankfurt (Oder), Department of Business Administration and Economics, Discussion Paper, no. 255, accessible at http://www.researchgate.net/publication/45131970_On_the_Allocative_Efficiency_of_Ownership_Unbundling/file/60b7d51e4500c8dcd1.pdf.

⁷⁵⁴ Nillesen – Pollitt, cited, 6.

⁷⁵⁵ Joskow - Tirole, 'Transmission rights and market power on electric power networks, RAND Journal of Economics, (2000) 31(3), 450-87.

infrastructures). According to Nillesen and Pollitt, this is not the case in network service pricing, 'where multi-parts pricing is practiced and marginal prices often equal marginal cost'⁷⁵⁶. These authors criticise the assumption that regulators only look at the reduction of prices: regulators, through their intervention, can also induce actual productive efficiency savings, as a result of tighter price regulation (through ownership unbundling).

The two authors analyse transmission unbundling also at European level. In the Netherlands by 1st January 2011 the government decided to put in place ownership separation (unbundling) of the networks, for both gas and electricity: according to the Government, a separate network company would have been easier to regulate because inter-company relationships would have been removed (cross-subsidisation, for instance, would have become much more difficult if not impossible)⁷⁵⁷.

As anticipated, it is worth reminding that a similar perspective is currently under discussion also at UK level in the electricity and gas sector. On the 27 March 2014 the energy regulator, OFGEM, proposed a reference to the imminently created Competition and Markets Authority (operative since 1st April 2014) to investigate the energy market as a whole⁷⁵⁸, in order to ascertain whether the main energy players maintain barriers to effective competition through the control of their networks. OFGEM found that in the last few years in the UK the profits increased from £ 233 million in 2009 to £ 1.1 billion in 2012 'with no clear evidence of suppliers becoming more efficient in reducing their own costs, although would be required to determine whether firms have had the opportunity to earn excess profits'⁷⁵⁹. The same Chief

⁷⁵⁶ Nillesen-Pollitt, cited, 3-4.

⁷⁵⁷ Nillesen-Pollitt, cited, 7, referring to the findings of various authors: B. Baarsma, M. de Nooij, W. Koster and C. Weijden, 'Divide and rule: the economic and legal implication of the proposed ownership unbundling of distribution and supply companies in the Dutch electricity sector, in (2007) vol. 3 (Energy Policy), 1785-94. Data collected from the Ministry of Economic Affairs website in the Netherland (www.minez.nl).

⁷⁵⁸ See, press release of OFGEM accessible at <https://www.ofgem.gov.uk/press-releases/ofgem-proposes-reference-cma-investigate-energy-market>.

⁷⁵⁹ Ibid.

Executive of OFGEM, Dermot Nolan, in a recent statement declared that 'OFGEM believes a referral offers the opportunity to once and for all clear the air and decide if there are any further barriers which are preventing competition from bearing down as hard as possible on prices. The Competition and Markets Authority has powers, not available to OFGEM, to address any structural barriers that would undermine competition. Now consumers are protected by our simpler, clearer and fairer reforms, we think a market investigation is in their **long-term** interests'⁷⁶⁰.

On this respect it is premature to say whether the six main energy players risk to be forced to 'break-up'⁷⁶¹. However from different sources it appears that the argument has been tackled. A report presented by NGT⁷⁶² analyses the current organizational and operational separation between the transmission and distribution network of the British National Grid, and suggests that structural separation should be mandated if 'there are significant risks and there are inadequate alternative controls'⁷⁶³. The energy inquiry just launched will investigate (i) the price chain from production to the end consumer (ii) the impact of vertical integration (iii) the influence of green policies on final prices (iv) the extent, if any, of inappropriate behaviour by any of the companies involved⁷⁶⁴. Among the possible conclusions of the inquiry there is a possibility that it will be ascertained that 'there is a structural problem within the industry which requires the break-up of some or all the existing integrated companies so that retail operations are quite separate from production'⁷⁶⁵.

⁷⁶⁰ Excerpt from OFGEM press release, see fn 754. Emphasis added, to underline the importance of long-term targets.

⁷⁶¹ The six companies that control 95% of the United Kingdom energy sector are: Southern Electric (SEE), Centrica-owned British Gas, German-owned Npower, French-owned EDF, Spanish-owned Scottish Power and German-owned E.ON. SEE has just announced that will 'freeze' the retail prices until 2016 (www.see.com).

⁷⁶² NGT (National Grid Transco Group) in 2014 published a paper on 'Structural separation between transmission and distribution', accessible at <https://www.ofgem.gov.uk/ofgem-publications/50241/7419-ngtpaperdisg12structuralseparation.pdf>.

⁷⁶³ Ibid, 8 (Summary).

⁷⁶⁴ Source, Nick Butler, 'A competition inquiry is right for UK energy', Financial Times, 26 March 2014.

⁷⁶⁵ Ibid.

The most obvious positive effect in competition law terms is that separating the network ownership from the wholesale and retail activities (as seen in the Telstra case of structural separation, this form of separation is possible for both the energy and the telecommunications sector), is also removed the incentive to abuse for the dominant undertaking controlling the network, in particular with respect to third parties seeking access to the network in order to provide retail services in competition with the incumbent.

Quoting from Nillesen and Pollitt's paper

'[...] Separating ownership of the network and commercial activities will remove the incentive for the network operator to discriminate. Possible cross-subsidisation of commercial activities using the stable cash flows from the network business will also no longer be possible if the two activities have different owners. Separating the network business from the commercial activities will also remove the financing advantage of commercial activities relative to non-integrated companies [...]. Separating the two activities will remove the 'holding discount' and should unlock value by increasing focus and therefore the competitive drive. By separating the ownership of commercial [wholesale and retail] and network activities the contestability of customers will increase and is likely to benefit competition. This increase in competition can also spur innovation in the sector'⁷⁶⁶.

These two authors also look at the positive impact in terms of quality of the service and also in terms of impact on the costs. The removal of cross-subsidies and cross-financing in the distribution of energy will have a structural influence on costs⁷⁶⁷. Here the authors look at empirical evidence collected since the structural separation of New Zealand's electricity distribution network and argue that the costs (and the prices) were reduced as a consequence of the break-up.

⁷⁶⁶ Nillesen-Pollitt, cited, 8.

⁷⁶⁷ *ibid*, 9.

In New Zealand the structural reforms took place between 1998 and 2000, through the Electricity Industry Reform Act 1998. It determined that (i) corporate separation of lines and energy businesses had to be achieved by 1st April 1999 and full ownership separation no later than 31 December 2003, (ii) the company ECNZ (electricity) was split into three competing state-owned generators (Genesis Power, Meridian Energy, and Mighty River Power), while (iii) the Electricity (Information Disclosure) Regulations 1999 came into force, to make possible the acquisition of new generation or retail assets⁷⁶⁸.

The aim of Nillesen-Pollitt's study was to measure in economic terms the impact of ownership unbundling in New Zealand. Technically, the same exercise that would be required to underpin hypothetical structural separation (in the two forms I suggested) in the electronic communications in Europe.

They focused on three hypotheses: (i) impact on competition, (ii) impact on the quality of network, and (iii) impact on 'one-off' and structural costs⁷⁶⁹.

First of all, the authors looked at the result of ownership unbundling in terms of increased competition. The main positive impact expected in terms of competition was the removal of potential financial (cross-subsidies) and structural (access restriction) barriers on the retail market. However, the authors admitted that in New Zealand's electricity sector they could not rely on empirical data to 'quantify' the impact on competition.⁷⁷⁰

While the second hypothesis discussed by the two authors does not reach univocal conclusion, the analysis of the third hypothesis ('as a result of ownership unbundling we expect one-off transaction costs but subsequently lower unit costs'⁷⁷¹) is more interesting for the purposes of my thesis. Nillesen and Pollitt found that ownership unbundling led to an increase in focus within

⁷⁶⁸ *ibid*, 18.

⁷⁶⁹ *Ibid*, 25.

⁷⁷⁰ *Ibid*.

⁷⁷¹ *Ibid*, 28.

the network business and a reduction of possible cross-subsidisation of commercial activities. This appears as the most obvious positive outcome deriving from separation of network from services. Similar conclusion can be drawn with respect to the electronic communications sector.

With respect to costs, they looked at three factors: (i) so-called 'one-off' costs, (ii) structural costs and (iii) price-cost margins.

In the first case, they found that the company bears the 'one-off' transaction costs associated with ownership unbundling (these can be easily identified also in the electronic communications structural separation). They also looked at the 'unit operational costs' for the distribution companies as an indicator of their efficiency. They found that they tend to decrease over time. Finally they looked at the price-cost margins in distribution as a measure to quantify the available profits for the network companies. Having assumed that in a more transparent market the price-cost margins will decrease to competitive levels, they found a decrease in price-cost margins for the sector after ownership unbundling.

Their conclusions are particularly interesting. Overall they found that ownership unbundling could be considered positive for a good number of reasons, but not all the empirical data were univocal in relation to the various questions that they answered to build up their study.

They found that the quality of the networks improved substantially over time and concluded that at least under a qualitative perspective:

'Ownership unbundling has been beneficial and has resulted in better performance. The network loss statistics show an increase during the brief increase in competition, suggesting increased switching and subsequent reconciliation issues'⁷⁷².

⁷⁷² Ibid, 54.

Similarly, they concluded that the ‘operation costs have decreased significantly as a result of unbundling⁷⁷³’, finding that a 17 percent decrease in unit operational costs can be attributed to structural separation as can be seen below.

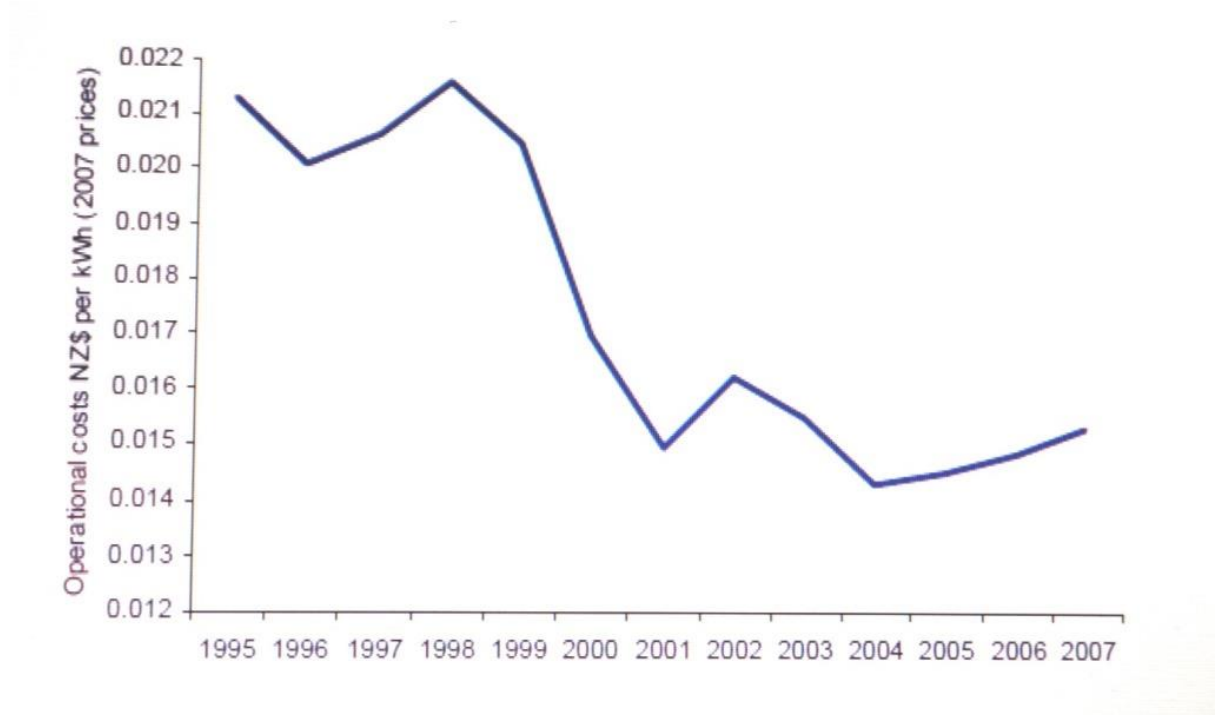


Figure 8.1 ‘Operational costs (NZ \$) per kWh over time (2007 prices)’⁷⁷⁴

Their ultimate conclusion is that ‘empirical evidence [...] does not provide a complete picture from which we can judge the success of ownership unbundling [...], [h]owever, empirical evidence from New Zealand does offer some useful policy recommendations for distribution ownership unbundling’⁷⁷⁵.

⁷⁷³ Ibid, 55.

⁷⁷⁴ Ibid, 87.

⁷⁷⁵ Ibid, 55.

The most important lesson from the analysis of this study is the technique through which they approached the question: ‘what pro-competitive effects have structural unbundling?’, and how they proceeded to verify the correctness of their hypotheses.

The same technique could be used to look to other sectors, in completely different contexts.

I will now look at the consequences of structural unbundling in the energy sector in the last few years in Europe.

8.6. What lessons can be learned from structural unbundling in the energy sector for the electronic communications sector after the commitments E.ON, RWE and ENI?

I need now to look at the impact that structural separation might have had in the three cases E.ON (electricity), RWE (gas) and ENI (gas) on the basis of the commitments negotiated with the European Commission in the last few years. Even though, as Nillesen and Pollitt concluded, we can only make comparison regarding different industrial and economic scenarios with extreme care, nevertheless it is worth trying to look at the impact that in Europe the adoption of structural remedies may have had in the energy sector.

One of the cases discussed in Chapter V in the electricity generation sector was the commitments signed in 2008 in Germany between E.ON and the European Commission. These led to a number of divestitures that can be compared to those adopted in New Zealand and analysed in the previous section. Looking at the recent sector inquiry into electricity generation in Germany⁷⁷⁶, and following the same approach Nillesen and Pollitt adopted in

⁷⁷⁶ Bundeskartellamt, Sector Inquiry into Electricity Generation and Wholesale Markets, Report in accordance with Section 32e (3) of the German Act against Restraints of Competition - January 2011, accessible at http://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Sector%20Inquiries/Sector%20Inquiry%20Electricity%20Generation%20and%20Wholesale%20Markets.pdf?__blob=publicationFile&v=2

examining the effects of structural unbundling in New Zealand, we can reach some interesting conclusions.

The sector inquiry was launched in March 2009 by the German *Bundeskartellamt* in order to ascertain the situation regarding competition and the price-forming mechanism in the German electricity and electricity wholesale markets in 2007 and 2008. The enquiry represented the follow-up of proceedings carried out against many German electricity undertakings by the European Commission, proceedings that focused on the possibility of abusive withholding of capacity⁷⁷⁷. Proceedings involved E. ON, RWE (electricity) and Vattenfall. As discussed in Chapter III, only in the first case commitments were adopted in 2008, with E.ON committing itself to divest 5,000 MW of electricity generation capacity. In order to prepare the 2011 inquiry, the *Bundeskartellamt* carried out an extensive investigation, collecting data related to 80 undertakings, analysing 340 electricity generating units for 2007 and 2008, equal to 93.6% of the total amount of electricity generated in 2007 and 92.9% of the total amount generated in 2008⁷⁷⁸. The data collected provide a picture of the competitive scenario in the electricity generation and transmission at the time of the signature of E.ON's undertakings (2008), and show how, in the following three years, competition in the German electricity generation and transmission market evolved.

Taking the data as a starting point, I make the same hypotheses that Nillesen and Pollitt discussed in their analysis of the New Zealand electricity distribution sector after the break-up.

Firstly, I take into consideration the impact that divestiture might have had on competition, looking both at the market power of the incumbent and at the abusive conducts after the 'break-up'.

⁷⁷⁷ *ibid*, p 2.

⁷⁷⁸ *ibid*.

On this respect the German report states that the 'results of the analysis of competition suggest that at least three undertakings in the German first-time sales market, probably even four, are in a position to behave to an appreciable extent independently of their competitors, customers and ultimately of their consumers and to restrict competition on the first-time sales market'⁷⁷⁹. E.ON, RWE, Vattenfall and EnBW were all essential for meeting Germany's electricity demand in a considerable number of hours. The report, however, admits that the market power of the four large generators declines in 2009 as a result of the reduced demand in the wake of the economic crisis and E.ON's divested generation capacity. The report therefore confirms that at least an impact on **market power** can be recorded after the implementation of the E.ON commitments.

With respect to the abusive conduct of capacity withholding, the report suggests that in the two years taken into consideration (2007 and 2008) the abusive practice was still ongoing. It underlines that, even though

'it cannot be proved that generation capacity was withheld to any significant extent on the basis of the data on power plant operations and on the cost situation of individual generating units [...], the market structure continues to provide scope and an incentive to influence pricing through the unjustified withholding of capacity'⁷⁸⁰.

The authors of the German electricity sector report admit that it might be very difficult to prove this kind of practices, since it would require the collection of extensive data on the operations of each of the 340 electricity generating units over very long periods, with checks on the information on the marginal costs subject to frequent variation. However, the overall conclusion is that 'on the basis of these findings, various means may be taken to improve the competitive conditions in the electricity markets. This applies both in relation to improving the effectiveness of abuse control under competition law and **with regard to market structure**'⁷⁸¹.

⁷⁷⁹ Ibid, p 8-9.

⁷⁸⁰ Ibid, p 19.

⁷⁸¹ Ibid.

With respect to the first point (more effective control on abuses and impact on competition), the suggestion of setting up a '*Markttransparenzstelle*' at the German competition authority aimed at supervising the fluctuations of prices is an admission by the authors of the German report that their sector inquiry had 'an exclusively retrospective analysis of the price-formation mechanisms in the electricity generation and wholesale markets that involves many difficulties on account of the special features of these markets; [...] the validity of the data suffers from the fact that the undertakings are not always in a position to provide retrospectively the required data quality or to explain special features of power plant generation'⁷⁸².

Even considering the difficulty of gathering empirical data, for the demonstration of my thesis is useful the conclusion reached by two economists, Weigt and Willems⁷⁸³, in 2011 with respect to German electricity divestiture. Their theoretical models seem to confirm that the break-up, at least in the energy sector, had a positive impact on (i) consumer welfare and (ii) on prices and costs (the second and third hypotheses, respectively, that Nillesen and Pollitt made looking at New Zealand's electricity sector divestiture). They simulated the market outcome in different divestitures scenarios. Firstly, they assumed that the assets are bought by new market participants (large utilities or foreign firms), increasing the number of total players. Secondly, the assets are assumed to be bought by fringe companies (several small companies, or 'Large Fringe scenario')⁷⁸⁴.

Applying these two theoretical models, they found that the second simulation ('Supply Function' model) predicts an increase of consumer welfare and a reduction of prices in Germany after the divestiture.

⁷⁸² *ibid*, p 20.

⁷⁸³ H. Weigt – B. Willems, 'The Effect of divestitures in the German Electricity Market', Discussion Paper of the Center for Economic Research, Tilburg University, (2011) 20-2011, accessible at <http://arno.uvt.nl/show.cgi?fid=114122>.

⁷⁸⁴ *ibid*, 2-3.

The two economists looked at the scenario preceding E.ON's break-up (i.e. 2006). Then, they made a first hypothesis: a divestiture with '6 Strategic Firms', with a break-up of the dominant duopoly of E.ON and RWE (electricity) into four separate companies, each owning a half of the pre-divested company, respectively⁷⁸⁵. In this scenario six companies share the market of electricity.

In the second scenario (Large Fringe scenario) the duopoly of E.ON and RWE is broken forcing them to divest half of their capacities⁷⁸⁶, but this time these being acquired by several small companies, with no buyer retaining significant market power. They showed that the HHI decreases from 2150 (2006 scenario) to 1050 in the post break-up scenario with six firms, and from 2150 to 700 in the large fringe scenario.

They argued that since divestitures increase the number of firms and reduce the market share of the strategic companies, prices decrease. They found that overall, the average peak prices can be reduced by about 6 Euro per MWh in the 'six firms' scenario and by an additional 2 Euro per MWh in the 'Large Fringe' scenario. Quoting from the paper:

'The lower prices lead to an increase in consumer surplus and a reduction of producer surplus. In sum the first effect exceeds the second leading to an **overall welfare increase** for Germany. However, revenues for importers decline as both the amount they import as the price at which they sell, is reduced. Welfare abroad is therefore negatively affected by the divestitures. [...] Although the German welfare increase in the Large Fringe case is higher, this is offset by a larger welfare reduction abroad leading to nearly similar overall welfare effects in both cases'⁷⁸⁷.

The conclusion of the study is that the reduction of the market concentration as a consequence of the break-up of the incumbents (E.ON and RWE)

⁷⁸⁵ *ibid*, 9.

⁷⁸⁶ *Ibid*.

⁷⁸⁷ *Ibid*, 10.

provides welfare benefits. They confirmed their conclusions by applying two different economic models: in both cases they empirically demonstrate that divestiture leads to similar peak-price reductions and welfare gains⁷⁸⁸.

8.7. Conclusion.

The analysis of cases taken from various jurisdictions (United Kingdom, Italy), including the European Union approach expressed by the European Directive 2009/140/EC, shows that functional separation, although difficult to implement and monitor, could have some positive aspects such as (i) preservation of the structure and allocative efficiency of the dominant undertaking, (ii) avoidance of the so-called ‘double marginalisation’ (e.g. the duplication of administrative and organisational costs) and could enhance (iii) consumer welfare in the short and medium term, in particular reducing the risk of lack of coordination among separated network and companies providing services.

The British experience of functional separation (*Openreach*) was adopted in 2009 as European benchmark of pro-competitive remedy in the electronic communications directives reform bearing in mind the risks that a more intrusive remedy could have determined.

However, in this pro-‘functional separation’ scenario, the thesis tried to answer the question whether, among the antitrust remedies applicable to regulated industries, structural separation may also have a potential pro-competitive impact and be considered beneficial more in the long-run than in the medium or short-term.

First of all, structural (ownership) separation can have a major deterrent effect. Deterrence might be sufficient *per se* to justify a draconian and invasive measure in the presence of recurrent network-related abuses. As seen above, as soon as the in the United Kingdom OFGEM referred (on the 27 March

⁷⁸⁸ Ibid, 14.

2014) the energy sector to the newly created Competition and Markets Authority for a market investigation (inquiry) that, among various possible outcomes, may lead to structural separation of the six operators, Southern Electrics (SEE) has announced that the retail prices will be ‘frozen’ until 2016⁷⁸⁹, after having gathered exceptional profits in just three years between 2009 and 2012.

However, the most important outcome of structural separation mandated by the European Commission or by the National competition authorities would be that of stating with clarity that the enforcer, in the European legal system, has the ultimate word in ascertaining whether competition law was infringed, imposing a remedy that goes beyond the range of action of the regulator, a present entitled to impose either ex ante prices or functional separation as per Regulation 2009/140/EC.

As discussed in the first chapters of the thesis, and in chapter II in particular, two important cases as *Deutsche Telekom*⁷⁹⁰ and *Telefónica*⁷⁹¹ play a crucial role to show that the enforcer has more than a theoretical legal ground represented by Article 7 of Regulation 1/2003/EC when called to enforce competition law. **These two precedents show with clarity that the incumbent cannot rely on the measures suggested or approved by the regulators, such as price-caps** (or mere functional separation, after the 2009 telecommunications directives reform) to justify their exclusionary conduct and avoid the imposition of enforcement remedies (pecuniary fines in the mentioned examples).

The legal grounds represented by the provision of Article 7 of Regulation 1/2003/EC and of the two mentioned cases should be analysed in conjunction with the examples of structural separation already adopted through

⁷⁸⁹ Home page of www.see.com, accessed in 1st April 2014.

⁷⁹⁰ Commission Decision *Deutsche Telekom AG*, [2003] OJ L263/9; Case T-271/03 *Deutsche Telekom AG v. Commission* [2008] ECR-II-477, [2008] 5 CMLR 631; *Deutsche Telekom AG v European Commission*, Case C-280/08, [2010] ECR I-09555, [2010] 5 CMLR 1495.

⁷⁹¹ *Telefónica* [2008] OJ C83/6; Case T-336/07 *Telefónica*. At present on appeal at the Court of Justice, Case C-295/12

commitments as per Article 9 of Regulation 1/2003/EC, contained in the Commission Decisions *E.ON*, *RWE* and *ENI*⁷⁹² adopted between 2008 and 2010 in the aftermath of the Energy Inquiry 2007.

These legal premises have also an empirical pillar, showing that structural separation has been considered beneficial and positive by the national competition authority also in the electronic communications sector.

I found two recent examples in Australia and in New Zealand.

In Australia structural ownership separation of the telecommunications incumbent, negotiated through undertakings in March 2012, will be completed by 2018, with the Australian government engaged in creating a New Broadband Network, and Telstra, the incumbent, providing wholesale services in competition with other telecom operators.

Similarly, even though voluntarily enacted, Telecom New Zealand break-up (30 November/1st December 2011), creating a separated publicly listed company Chorus (owner of the existing copper and fibre network), represents the first case of structural separation already put in place with the aim of favouring the roll out of the new ultra-fast broadband network with substantial aid from the government⁷⁹³. This case can provide empirical evidence in the next few years of the effects on competition of structural separation.

As discussed in Chapter IV, the competition authority (or the regulator with competition law jurisdiction) should carry out an assessment of the advantages and disadvantages of both functional and structural solutions.

In order to make the correct choice, the sector regulator or enforcer should answer the question whether the abusive conduct to be prevented or

⁷⁹² *E.ON*, [2009] OJ C36/8; *RWE*, [2009] OJ C133/10; *ENI*, [2010] OJ C352/8.

⁷⁹³ New Zealand, Telecommunications Amendment Act (No2) 2006, section 32, inserting a new Part 2A into the Telecommunications Act 2001. See OECD Report 2012, cited, p 77-78.

sanctioned originated due to specific management choices and/or is linked to (or favoured by) structural deficits.

An obsolete network, either for electronic communications, railway transport, electricity, or gas and oil transmission and distribution, for example, might be the first reason leading to abusive behaviours such as access (direct and indirect) refusal to supply.

A structural remedy, if interpreted in a dynamic perspective, may offer advantages for the entire sector and for the economy of a country as a whole. The idea is to promote remedies that have a long-term value, shifting attention from the specific remedy to be applied (fine, functional or structural remedy) to the ultimate objective to be achieved.

Most importantly, an intervention of the competition law enforcer going beyond the 'espace de manoeuvre' established by the national regulator (in line with the recent positions adopted by the European Courts in the above-mentioned *Deutsche Telekom*⁷⁹⁴ and *Telefónica*⁷⁹⁵ cases) could find full legitimization in the practice of the European Commission and in the most recent case-law. The European jurisprudence confirms that at least theoretically, the European enforcer and the NCAs can adopt the remedy that they consider most suitable to address competition concerns and to create a 'level playing field of competition', going beyond the regulatory remedies, including the most advanced regulatory tool represented today by functional remedy as per Directive 2009/140/EC.

In certain contexts, the network (either the main backbone or the local one) may turn out to be insufficient even if, *ex principis auctoritate*, access to competitors is mandated, and even in presence of reiterated pecuniary fines by the competition authority. In its enforcement powers the recent precedents

⁷⁹⁴ Commission Decision *Deutsche Telekom AG*, [2003] OJ L263/9; Case T-271/03 *Deutsche Telekom AG v. Commission* [2008] ECR-II-477, [2008] 5 CMLR 631; *Deutsche Telekom AG v European Commission*, Case C-280/08, [2010] ECR I-09555, [2010] 5 CMLR 1495.

⁷⁹⁵ *Telefónica* [2008] OJ C83/6; Case T-336/07 *Telefónica*. At present on appeal at the Court of Justice, Case C-295/12.

in the energy sector show that the Commission could impose also structural remedies when dealing with network-related abuses.

From an idea of European market in which competition policies have been inspired, in line with the principles of the Freiburg School, by the objective of facilitating the fair and competitive play among undertakings, the new centrality of the consumers' welfare as both final user and European citizen may impose more forward-looking pro-competition measures⁷⁹⁶.

The experience from the energy sector shows that, in the last decade, the European Commission was prone to adopt both behavioural and structural remedies.

Chapter III shows how the European Commission, during the reform of the Telecommunications Package Directive in 2007-2009, adopted the model of functional separation on the basis of the precedent represented by the creation of a separate division called *Openreach* within the BT Group as an ex ante model applicable now in the entire European Union territory. However, in Chapter V, I have also shown how in the last five years the European Commission has been negotiating commitments that led to structural (ownership) separation, particularly in the electricity (*E.ON Electricity*) and in the gas (cases *ENI* and *RWE*) sectors⁷⁹⁷, preferring behavioural remedies (*E.ON Gas*) only when they had been considered sufficient to address the competition concerns. In Chapter VI I took the *AT&T* case as the main example of structural separation in the telecommunications industry until today. However, I also argued that that example of local vertical structural

⁷⁹⁶ I think here of the statement made by Professor C. Koenig of the Bonn University in the International Conference on State Aids held at King's College London in November 2009 underpinning the idea that broadband all over Europe should be considered a European Union citizen's right implemented not just through the free play of market forces, or with the exceptional intervention of direct State Aids but expressly achieved through a European Directive or other primary European legislation. The conference followed of just two months the adoption by the European Commission of the Communication from the Commission 'Community Guidelines for the application of State aid rules in relation to rapid deployment of broadband networks 30 September 2009 (2009/C 235/04).

⁷⁹⁷ *E.ON*, [2009] OJ C36/8; *RWE*, [2009] OJ C133/10; *ENI*, [2010] OJ C352/8.

separation it is only partially applicable to the European reality, considering that the geographic separation of the AT&T network actually coincides with the fragmentation of the various national networks in the Europe Union. Only in the major member States local vertical structural separation could be economically sustainable.

Chapter VII was aimed at analysing on the basis of what questions ('tests') and legal and economic arguments the European Commission and the NCAs base the choice of the optimal remedy.

Chapter VII also tackled the recently adopted OECD Recommendation (2011), published in 2012, concerning 'Structural Separation in Regulated Industries'. The Report attached to the OECD Recommendation 2011 provided experiences from various OECD countries that showed how it is impossible to say a priori what remedy should be preferable. The OECD Recommendation 2011 acknowledges that

'there are differences in the characteristics of industries and countries, differences in the processes of regulatory reform and differences in the recognition of the effectiveness of structural measures, behavioural measures and so on, and that such differences should be taken into account when considering structural issues'⁷⁹⁸.

It also recognises that

'the degree of competition which can be sustained in the competitive complementary activities varies, but that when these activities can sustain effective competition it is desirable to facilitate such competition as a tool for controlling costs, promoting innovation, and enhancing the quality of the regulation overall, ultimately to the benefit of final users and consumers'⁷⁹⁹.

⁷⁹⁸ OECD Recommendation of the Council concerning Structural Separation in Regulated Industries, 13 December 2011 C (2011)135 and C (2011)135/CORR1, preamble.

⁷⁹⁹ Ibid, preamble.

I agree even more with the conclusion reached by the OECD when, considering the pros and cons of behavioural (and, within this category, functional) or structural remedy, in both cases the costs and the benefits have to be assessed.

The OECD therefore stresses that

‘When faced with a situation in which a regulated firm is or may in the future be operating simultaneously in a non-competitive activity and a potentially competitive complementary activity, [OECD] Members should carefully balance the benefits and costs of structural measures against the benefits and costs of behavioural remedies’⁸⁰⁰

Concluding that for ‘costs and benefits’ to be balanced the following should be taken into account:

- effects on competition
- effects on the quality and cost of regulation
- effects on corporate incentives to invest
- transactional costs of structural modifications and the economic and public benefits of vertical integration, based on the economic characteristics of the industry in the country under review.

As discussed in Chapter VII, these criteria were applied by the European Commission in the cases mentioned in Chapter V (in particular, in adopting the commitments decisions at European level in the energy sector) , but also in dealing with the choice of the best remedy when dealing with the clearance of a concentration operation. Similar approach was followed by the British regulator, OFCOM, when dealing with the undertakings signed by British Telecom that led to the creation of the separate division *Openreach*.

The OECD reports also provide a useful overview of various forms of functional and structural separation in regulated industries, and in the

⁸⁰⁰ Ibid, Part I, recommendations.

telecommunications sector in particular. In Chapter VII I outlined the various forms of structural separation that could be applicable in the telecommunications sector in Europe.

In that chapter I excluded the applicability of the 'AT&T model' of break-up, since it was a form of structural separation tailored on the necessity to increase inter-State competition in the USA by breaking up, at local, State, level, the AT&T network. In Europe we can say that the post 'break-up' scenario is already a reality if we look at the plurality of national incumbents.

Two other forms of structural separation were also discussed, both probably applicable at national level in Europe: (i) one leading to the break-up of the non-competitive part of the undertaking (the network) from the competitive part (the services); (ii) another leading to the break-up of the network in two parts on which both operators shall be put in condition to provide their services (as per the so-called 'reciprocal structural separation').

The form of structural separation between network and services is at present the only one for which I found a relevant example in the divestiture of the network by Telstra in Australia that will be fully operational from 2018. A similar form of divestiture was also voluntarily enacted in New Zealand.

These two examples unfortunately do not provide sufficient empirical data to demonstrate that structural separation are having or will have a particularly positive effect in competition law terms. However, I used other available examples of structural separation, such as the distribution network divestiture in the electricity sector in New Zealand in 1998, and the analysis of the *ex post* effects of three cases of structural remedies in the energy sector in Europe represented by the E.ON, RWE and ENI commitments decisions⁸⁰¹, to demonstrate that some positive effects in terms of enhanced competition, reduction of costs and prices, and enhancement of consumer welfare could be, at least partially, empirically demonstrated.

⁸⁰¹ E.ON, [2009] OJ C36/8; RWE, [2009] OJ C133/10; ENI, [2010] OJ C352/8.

The analysis of the *Deutsche Telekom*⁸⁰² and *Telefónica*⁸⁰³ cases demonstrates that the European Courts recognise the supremacy of competition law provisions, and the possibility for the enforcers (Commission and NCA) to adopt sanctions (and behavioural or even structural remedies, as per Art. 7 of Regulation 1/2003/EC) even in the presence of regulatory tools (wholesale, retail or access rates pre-established by the regulators, in the here-mentioned cases). Similarly, also functional separation adopted on the basis of Directive 2009/140/EC, as a regulatory tool that might be imposed by the national telecoms regulator, could be ‘overtaken’ by more draconian remedies adopted by the enforcers.

My contribution to this reasoning cannot go much further. It is aimed at avoiding dogmatism and taking a pragmatic approach in dealing with the electronic communications network, without excluding a priori that vertical structural (ownership) separation may lead to an outcome that might be more favourable for the final consumer in a long-term perspective than functional separation or the imposition of pecuniary fines in the short-run.

Functional separation can reach crucial targets in the short-run: removal of the conditions that led to abusive practices, such as margin squeeze or refusal to supply, but also predatory pricing or excessive pricing. Vice-versa a long-run perspective *derives* from (is directly linked to) innovation and enhanced technology, but these in certain conditions could be achieved only after structural remedies are adopted, as it is expected to happen in the Australian scenario when the new broadband network (NBN) will be rolled out with government’s funds from 2018.

⁸⁰² Commission Decision *Deutsche Telekom AG*, [2003] OJ L263/9; Case T-271/03 *Deutsche Telekom AG v. Commission* [2008] ECR-II-477, [2008] 5 CMLR 631; *Deutsche Telekom AG v European Commission*, Case C-280/08, [2010] ECR I-09555, [2010] 5 CMLR 1495.

⁸⁰³ *Telefónica* [2008] OJ C83/6; Case T-336/07 *Telefónica*. At present on appeal at the Court of Justice, Case C-295/12.

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ANNEX I

Article 7 of Framework Directive 2009/140/EC 'Consolidating the internal market for electronic communications'

(1) In carrying out their tasks under this Directive and the Specific Directives, NRAs shall take the utmost account of the objectives set out in Article 8, including in so far as they relate to the functioning of the internal market.

(2) NRAs shall contribute to the development of the internal market by cooperating with each other and with the Commission in a transparent manner to ensure the consistent application, in all Member States, of the provisions of this Directive and the Specific Directives. To this end, they shall, in particular, seek to agree on the types of instruments and remedies best suited to address particular types of situations in the market place.

(3) In addition to the consultation referred to in Article 6, where a national regulatory authority intends to take a measure which: a) falls within the scope of Articles 15 or 16 of this Directive, Articles 5 or 8 of Directive 2002/19/EC (Access Directive) or Article 16 of Directive 2002/22/EC (Universal Service Directive), and b) would affect trade between Member States, it shall at the same time make the draft measure accessible to the Commission and the NRAs in other Member States, together with the reasoning on which the measure is based, in accordance with Article 5(3), and inform the Commission and other NRAs thereof. NRAs and the Commission may make comments to the NRA concerned only within one month or within the period referred to in Article 6 if that period is longer. The one-month period may not be extended.

(4) Where an intended measure covered by paragraph 3 aims at: a) defining a relevant market which differs from those defined in the recommendation in accordance with Article 15(1), or b) deciding whether or not to designate an undertaking as having, either individually or jointly with others, significant market power, under Article 16(3), (4) or (5), and would affect trade between Member States and the Commission has indicated to the NRA that it considers that the draft measure would create a barrier to the single market or if it has serious doubts as to its compatibility with Community law and in particular the objectives referred to in Article 8, then the draft measure shall not be adopted for a further two months. This period may not be extended. Within this period the Commission may, in accordance with the procedure referred to in Article 22(2), take a decision requiring the NRA concerned to withdraw the draft measure. This decision shall be accompanied by a detailed and objective analysis of why the Commission considers that the draft measure should not be adopted together with specific proposals for amending the draft measure.

(5) The NRA concerned shall take the utmost account of comments of other NRAs and the Commission and may, except in cases covered by paragraph 4,

adopt the resulting draft measure and, where it does so, shall communicate it to the Commission. (6) In exceptional circumstances, where a NRA considers that there is an urgent need to act, by way of derogation from the procedure set out in paragraphs 3 and 4, in order to safeguard competition and protect the interests of users, it may immediately adopt proportionate and provisional measures. It shall, without delay, communicate those measures, with full reasons, to the Commission and the other NRAs. A decision by the NRA to render such measures permanent or extend the time for which they are applicable shall be subject to the provisions of paragraphs 3 and 4.