REGULATORY DESIGN CHOICES IN COMMUNICATIONS POLICY – INVESTMENT IN INFRASTRUCTURE AND NET NEUTRALITY IN THE USA AND THE EU

Pierre Larouche, Professor of Competition Law, Founding Director, Tilburg Law and Economics Center (TILEC), Tilburg University

Abstract

This contribution focuses on three dimensions of the design of regulatory policy. First of all, the substance of laws and regulations can be articulated around historical, technological, economic or functional concepts. Secondly, the enactment and enforcement of laws and regulations can be centralized or decentralized. Thirdly, enforcement can be entrusted to a regulatory agency or left to the executive branch.

This contribution examines communications policy in the two largest regulatory spaces, the USA and the EU, identifying the design choices that were made in the last major policy revisions, in 1996 and 2002 respectively. The discussion of infrastructure investment and network neutrality is used as a case study to highlight similarities and differences in regulatory design, and their consequences for policy development.

The USA traditionally chose for a technologically-based legislative framework, with strong, centralized enforcement in the hands of a regulatory agency (the FCC). The last major reform, in 1996, did not significantly stray from these design choices. The infrastructure investment and network neutrality debates highlight how the FCC has sought to free itself from technological shackles, with limited success. At the same time, the FCC has been able – willingly or not – to avoid Congressional intervention to legislate on network neutrality.

In the EU, the 2002 regulatory framework was expressly meant to be based on functional and economic concepts, as opposed to technological ones. At the same time, it relied on decentralized enforcement by regulatory agencies, albeit that the regulatory agency model is not firmly established in Continental polities. The infrastructure investment and net neutrality debates highlight the downsides of the EU regulatory design.

REGULATORY DESIGN CHOICES IN COMMUNICATIONS POLICY – INVESTMENT IN INFRASTRUCTURE AND NET NEUTRALITY IN THE USA AND THE EU

Since the beginning of this century, academic and policy discussions about communications regulation have been dominated by two interrelated issues, namely first how to foster investment in so-called next-generation infrastructure – FTTx in fixed and 4G in mobile communications – and secondly whether and if so, how to regulate the relationship between Internet Service Providers (ISPs) and the content providers using their infrastructure – the famous net neutrality debate.

Much has already been written on the substance of these two issues, and it is not the purpose of this paper to rehearse these arguments. Rather, this paper looks at the institutional aspects of the debates. First, we identify three institutional dimensions where design choices are available and where the US and the EU have made different choices. Afterwards, against the backdrop of these two substantive issues, we show how institutional choices played out in the US and the EU debates, and how they might have influenced the outcomes.

1. THREE INSTITUTIONAL DIMENSIONS IN THE DESIGN OF COMMUNICATIONS POLICY

Regulation literature² – outside of law – often suffers from overreliance on US law, sometimes assuming that US law exhausts the set of possible options in regulatory design. It suffices to compare US law and EU law to see that there are more design choices than US law alone would lead one to believe, and to discover new design options. In this paper, we will concentrate on three design options.

1.1. Articulation of regulatory framework: historical, technological or economic concepts

The first one relates to the choice of concepts around which the regulatory framework is articulated. Essentially, regulation can hinge upon historical, technological or functional/economic concepts. But this is more than just a choice of legislative technique. At a more fundamental level, the choice of concepts also points to the choice of lawmakers as to why regulate, or in other words, where to find the justification for regulation:³

- *History*: regulation aims to mitigate the ongoing consequences of the 'original sin' of monopoly rights, in which case it will typically be targeted at firms that used to hold such rights;
- *Technology*: regulation aims to ensure that a technological system performs in line with expectations as they might have been formulated in policy. For that purpose, certain elements or features in the system might require regulation;
- *Economics*: regulation aims to ensure that the operation of market forces in a given sector produces the desired effects, as defined in policy. Regulation is then required when there is a risk of market failure, and it will be imposed following

¹ {...}

² With the exception of Majone, Baldwin and Cave, etc. {...}

³ Assuming the absence of legal monopoly rights, which would provide a justification for regulation in and of themselves.

economic analysis, upon such firms and under such circumstances as required to address that risk.

The transitional regimes in the US and the EU, in the early days of market liberalization, both included historical elements, but by now these have outlived their usefulness and have been either abandoned or removed. The real choice is therefore between technological and functional/economic criteria.

In the USA, the Communications Act 1934 (which was not altered by the Telecommunications Act 1996 in this respect) rests heavily on technological considerations and on definitional issues. Broadly speaking, the Act distinguishes between telecommunications services (falling under Title II), radio services "commercial mobile services" which correspond telecommunications, falling under Title III) and cable services (falling under Title VI). The different titles of this Act create different regulatory regimes, and as such it is crucial to determine under which of these broadly defined categories a given offering falls. Of course, an offering can also fall outside of these definitions and therefore escape most if not all regulation under the Communications Act. Witness the concept of "enhanced service", which the FCC introduced in the 1970s in the course of the Computer Inquiry, so as to define a category of services which were not basic telecommunications services and therefore escaped regulation;⁴ this outcome was subsequently incorporated in the Telecommunications Act 1996 via the concept of "information services". These are but the main concepts: at subsidiary levels in the regulatory framework, a large number of other definitions come to bear.

The definitions of "telecommunications services", "commercial mobile services", "cable services" and "information services", sketched out above, are all based on technological considerations. In order to find out where a given offering falls, it is therefore necessary to study its technology.

The application of the US Communications Act therefore involves a definition game: the technology behind the offering in question in a given case is analyzed to see under which definition the offering falls, and the appropriate consequences are then drawn.

In contrast, in the course of the review of electronic communications regulation in 1999-2002, the EU decided to try to make its regulation "technology-neutral". It is still unclear precisely what technology-neutrality entails: ⁷ a weak version of that principle would probably not go much beyond a non-discrimination obligation, but a stronger version would entail that regulation be as much as possible framed without

⁴ These inquiries aimed at ascertaining the scope of FCC jurisdiction as regards then emerging telecommunications services which also relied on data processing (e.g., electronic mail). See Second Computer Inquiry, Docket 20828, Final Decision, FCC 80-189, 77 FCC 2d 384 (7 April 1980) and subsequent modifications, Third Computer Inquiry, CC Docket 85-229, Report and Order, FCC 86-252, 104 FCC 2d 958 (15 May 1986) and subsequent modifications. "Enhanced services" are not subject to the extensive sector-specific regulation concerning telecommunications in Title II of the Communications Act, but they remain subject to the general powers of the FCC under Title I of the Act.

⁵ Defined at 47 U.S.C. 153(20).

⁶ Of course, in practice, a feedback effect also arises: offerings can be designed in such a way as to fall within one definition or the other, if this is desirable.

⁷ See van der Haar (2007).

reference to technology. On the basis of the electronic communications regulatory framework, it can be argued that the EU chose the stronger version.

This choice is linked to the approach to the relationship between competition law and sector-specific regulation. Indeed turning away from a technology-based system does not obviate the fundamental need to articulate the regulatory framework along some basic lines in order to make it operational. This is why the use of economic criteria – market power, presence of network effects – appears both desirable and unavoidable if the stronger version of technology-neutrality is to be realized in practice. During the legislative process leading up to the new EU electronic communications framework, the choice was made to bank on a close relationship with competition law and import economics-based concepts taken from classical competition law analysis – market definition, market power, a certain set of remedies – into regulation, in order (among others) to articulate it along technology-neutral lines. The outcome was a much more general regulatory framework than the previous one, where a large number of issues were left to further stages of implementation and application.

To put it crisply, whereas the traditional technology-based approach of US telecommunications regulation leads to a definitional exercise to be carried out on an offering per offering basis, with an outcome largely determined by the "pigeonhole" in which the offering is deemed to fit, the EU aims for a strong version of technology-neutrality, where the examination of technological characteristics is replaced by an analysis based on more general functional/economic concepts, with a more openended outcome. The US approach probably fosters legal certainty, at least once the definitional game is over. The EU approach, on the other hand, is liable to be more flexible over time, again provided it is applied with sufficient discipline.

1.2. Division of powers: central or decentral

The second design option relates to the division of powers in a multi-level jurisdiction like the US or the EU. Powers can be either regrouped at the central (federal or Union) level, or left decentrally for each component (US state or EU Member State) to exert.

The advantages and disadvantages of each are well identified in the legal and economic literature: centralization offers more legal certainty throughout the jurisdiction and typically results in more efficient administration (if only because a single decision-maker is involved). Centralization can also be more effective in achieving public policy objectives, provided error risks are minimized.

In contrast, decentralization is believed to enable a better response to local preferences and circumstances. It can even allow a measure of experimentation or regulatory competition, depending on the regulatory design. Due to the larger number of authorities involved, the risk of capture for the overall jurisdiction is reduced, although individual authorities, being smaller, might be more easily captured locally. Finally, decentralization can lead to ineffective policy implementation, if the local authorities take insular or contradictory decisions.

In practice, the choice between centralization and decentralization is made more complicated by the large range of decisions involved, all the way from law-making

down to individual decisions, with all intermediate steps. Each of these steps can be centralized or decentralized.

US law follows a rather classical federal design, articulated around the division of powers found in the US Constitution. The federal powers are grounded in the commerce clause, ⁸ and they therefore extend to inter-state and foreign communications. On the basis of this legislative power, the US Congress enacted the Communications Act, 10 wherein it also took care of the implementation and enforcement of the Act, by creating the FCC.¹¹ When combined with the Executive and Judiciary branches, there is a complete and self-contained set of institutions to deal with those parts of telecommunications falling under the commerce clause. Similarly, intra-state communications are left to each of the US states to govern, ¹² and US states have enacted their respective statutes, with their respective authorities. In the end, therefore, the key element in the central – decentral trade-off is the ambit of the commerce clause, which delineates two separate orders. As could be expected, it has proven very difficult to draw a line between inter-state and foreign communications, on the one hand, and intra-state communications, on the other hand, since the two are so intertwined at the technical and economic level that state regulation risks upsetting the attainment of the objectives of federal law and regulation. In such a case, federal legislation can pre-empt conflicting state legislation (and thereby extend its reach into intrastate matters). 13 While the Supreme Court used to be reluctant to extend the scope of federal jurisdiction into intrastate matters, ¹⁴ it changed its view following the reform of 1996, in view of the manifest Congressional intent to allow the FCC to regulate much of local communications. ¹⁵ Accordingly, at this juncture, US telecommunications are mostly governed by federal law.

In the EU, the situation is more complicated, because of the distinction drawn, under EU constitutional law, between the division of legislative powers and that of implementation and enforcement powers. As a starting point under EU law, even when legislative powers are clearly at EU level, the EU relies on Member States to implement and apply EU law in their respective jurisdictions, with various mechanisms to report to the Commission (if only about implementing measures) and the usual threat of infringement proceedings.¹⁶

In the case of telecommunications regulation, the EU institutions took care to avoid encumbering the substantive law with an inter-state / intra-state distinction. The EU

11 47 ÚSC §151 and ff.

⁸ US Constitution, Article I, Section 8, Clause 3.

⁹ C.f. 47 USC § 151.

^{10 {...}}

¹² 47 USC §152(b).

¹³ Constitution, Article VI.

¹⁴ Louisiana Public Service Commission v. FCC, 475 US 355 (1986). The Court was influenced first and foremost by § 152(b), which expressly reserved state jurisdiction.

¹⁵ AT&T v. Iowa Utilities Board, 525 US 366 (1999).

¹⁶ Member States remain subject to general principles of EU law – including loyalty (now Article 4(3) TEU), effectiveness and equivalence (the two exceptions to the principle of national procedural autonomy) – when designing and operating the national-level institutions which are meant to give effect to EU law. Within the boundaries set by these principles, Member States retain a significant amount of discretion.

legislative framework for electronic communications¹⁷ applies to all communications, from the most local to the global. Even if that framework is made up of directives, which must accordingly be implemented by each Member State in its respective legal order, there is no room left for specific German, French or Estonian telecommunications legislation to apply below a given threshold which would be outside of the reach of EU law.

The high level of centralization at the legislative level stands in contrast with the implementation, enforcement and execution level. There every Member State retains its autonomy, as a starting point. Yet early on, it became clear that Member State autonomy would not work, if only because almost all Member States would find themselves in a conflict of interest, with a significant if not controlling interest in the former monopolist, on the one hand, and the obligation to implement EU legislation designed to introduce competition to that former monopolist, on the other hand. So the first set of directives enacted in 1990 already provided for the creation of a 'body independent of the telecommunications organizations' to administer regulation. 18 With full liberalization, in 1998, National Regulatory Authorities (NRAs) were introduced in EU legislation, in a way which already broke the separation between EU and national institutions, in that EU legislation required that Member States endow NRAs with powers to gather information and provide for a right of appeal against NRA decisions. ¹⁹ For the first time as well, EU legislation required that NRAs be separated from the rest of the administration (if Member States have ownership or control of one of the market players).²⁰

EU law continued to penetrate the design and operation of Member State institutions with the 2002 Framework. Provisions were added or expanded concerning the relationship of NRAs with national competition authorities, the appeal mechanisms from NRA decisions, transparency, confidentiality, information gathering and management as well as consultations.²¹ In addition, the objectives to be pursued by NRAs were set out in detail.²² In order to ensure that NRAs would exert their powers in the EU interest, an elaborate system of supervision was put in place, whereby NRA draft decisions concerning the SMP regime are submitted to the Commission for

¹⁷ EP and Council Directive (EC) 2002/19 on access to, and interconnection of, electronic communications networks and associated facilities (Access Directive) [2002] OJ L 108/7, EP and Council Directive (EC) 2002/20 on the authorisation of electronic communications networks and services (Authorisation Directive) [2002] OJ L 108/21, EP and Council Directive (EC) 2002/21 on a common regulatory framework for electronic communications networks and services (Framework Directive) [2002] OJ L 108/33, EP and Council Directive (EC) 2002/22 on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive) [2002] OJ L 108/51, to which one should add Commission Directive (EC) 2002/77 on competition in the markets for electronic communications networks and services [2002] OJ L 249/21 {add 2009 amendments}

¹⁸ Dir 90/388 {...} Art. 7.

¹⁹ Dir 90/387 {...} Art. 5a.

²⁰ Ibid.

²¹ Dir 2002/21 {...} Art. 3-6.

²² Ibid. Art 8. In fact, this detailed statement of objectives has been criticized for its open-endedness: the objectives listed therein will often point in contradictory directions, i.e. the promotion of investment in infrastructure and the lowering of consumer prices.

comment; the Commission can veto alternative market definitions or SMP assessments.²³

With the 2002 Framework, the separation between EU and Member States institutions was breached in the other direction as well. Not only did EU law specify in greater detail how Member States organize their NRAs, but these NRAs started to play a greater role in the development of EU policy. NRAs were brought together in a regulatory network, called ERG.²⁴ The ERG was created to advise the Commission, but also to bring NRAs together and to force them to look beyond their borders and take a European perspective on their respective activities. And indeed these networks soon began to conduct benchmark exercises, to form study groups and to issue policy documents and non-binding guidelines on various regulatory topics.²⁵ Following the 2009 reform, the ERG was further developed and turned into the Body of European Regulators for Electronic Communications (BEREC).²⁶

1.3. Implementation and enforcement: executive power or agency

When it comes to the implementation and enforcement of a regulatory framework, lawmakers typically choose to take these powers away from the executive – which would normally be entrusted with those tasks – and vest them into an independent agency, i.e. a regulatory authority. On this point, at first glance, the EU and the US appear to have made the same choice in their respective communications law: in the US, implementation and enforcement of federal communications law has been entrusted to the Federal Communications Communication (FCC), whereas in the EU, these tasks are given to Member State-level national regulatory authorities (NRAs), including among others the Office of Communications (Ofcom) in the UK, the Bundesnetzagentur (BNetzA) in Germany or the Autorité des communications électroniques et des postes (ARCEP) in France. All of these authorities are independent from their respective governments.

Yet there are differences between the design of the authorities, as regards independence. Under US law, independence implies that the FCC is a government agency separate from the Executive Branch. The independence of the FCC is reflected in the provisions concerning the commissioners: they are appointed by the President, with the advice and consent of the Senate, 27 and they cannot be removed except for misconduct. The commissioners cannot have other professional activities, and they cannot be linked with any of the firms they regulate. 28 Yet it would be wrong to think that the commissioners are apolitical: quite to the contrary, they have a political colour, and usually the FCC comprises three commissioners of the presidential party and two of the other party.²⁹ The independence of the FCC is also subject to certain

²³ Ibid. Art 7. The Article 7 procedure has given rise to a large decision body, with the Commission having so far reviewed more than 1000 draft NRA decisions (as of 1 January 2010) and issued 7 veto decisions over the years.

²⁴ See Commission Decision (EC) 2002/627 establishing the European Regulators Group for Electronic Communications Networks and Services [2002] OJ L 200/38.

Including the massive effort of the ERG to draw up a Common Position on Remedies, ERG (06) 33 (May 2006), available at berec.europa.eu.

⁶ {Ref.}

²⁷ 47 USC §154(a).

²⁸ 47 USC §154(b).

²⁹ 47 USC §154(b)(5).

limits. Formally, the FCC is bound to report to Congress every year.³⁰ In practice, it always carries out its mandate under Congressional scrutiny. Congress has many means to influence the FCC, ranging from holding a hearing to discuss the work of the FCC to steering the FCC via budgetary allotments, and ultimately short-circuiting the FCC via legislative intervention.³¹ These constraints are not necessarily compatible with the rationales generally advanced for the independence of the regulatory agency, which center around the avoidance

In the EU, building on the discussion above, the independence of NRAs must be seen against the background of the decentralized enforcement system. Whilst the legislative framework is set at EU level, enforcement is decentralized at Member State level. NRA independence is thus independence towards the Member State's own executive and legislative powers. As mentioned above, the starting point for this line of separation was the potential conflict of interest arising when the State both conducts the regulation of the sector and holds a significant interest in one of the players (the incumbent).³² In that sense, the independence of the NRA from the Legislative and Executive was an extension of the separation of regulatory and operational functions.

However, it soon became clear that expanding NRA autonomy beyond what is necessary to avoid conflict of interests ran into significant problems. In most Continental public law traditions, autonomous executive agencies can only be entrusted with the - presumably mechanical - implementation or application of higher-ranking norms, as opposed to policymaking.³³ Indeed, the delegation of normmaking power to an autonomous body would run against the separation of powers (to the extent that such norms would otherwise be set by the Legislature) or against the political accountability of the Executive (to the extent that such norms would otherwise be set by the Executive pursuant to legislative delegation). Accordingly, NRAs could enjoy considerable autonomy as long as their tasks were limited to the mere implementation or application of law and policy. It should be apparent that the range of tasks to be performed by a NRA does not lend itself easily to formalistic categories such as 'policy-making' and 'implementation'. Rather, regulatory decisions essentially involve policy trade-offs.³⁴ It seems more accurate to model the regulatory process as a chain of decisions, each involving a further refinement in the trade-offs, always with a view to deal with uncertainty as well as possible.

While it is not accurate to shrug off the issue as a clash between a regulatory model inspired by the common law and a Continental public law tradition,³⁵ it remains nevertheless that some theoretical foundation must be found to explain NRA

³⁰ 47 USC §154(k).

³¹ For instance, Congress has contemplated legislative intervention repeatedly in recent years with respect to network neutrality, but none of the bills put to discussion were successful.

³² Dir 90/387 {...} Art 5a; Dir 2002/21 {...} Art 3(2).

³³ M. Thatcher, *Internationalisation and Economic Institutions; Comparing European Experiences* (2007)

³⁴ For instance, short-term gains in consumer welfare from lower prices and increased competition routinely have to be weighed against longer-term gains from investments in new technologies and increased dynamic efficiency. Similarly, the interests of one category of customers often have to be balanced with those of another category.

³⁵ The same debate took place in common law systems when regulatory authorities were put in place, but that debate dates back from the mid-20th century.

independence. Recent developments point towards a generalization of the conflict-ofinterest rationale: in short, even if Member States have no direct interest in any of the market players, regulatory matters are high-stake games where market players will deploy considerable resources to try to influence the outcome (rent-seeking behaviour). Regulatory decisions must therefore be made in an environment which is shielded from undue influence as much as possible: this would imply transparency. independence of the decision-maker, openness, a duty to state reasons and the possibility of review, i.e. the characteristics of a regulatory agency.³⁶ By implication, the role of the Legislative and the Executive would be limited to issues where there is no clear controversy among market players, i.e. issues where a decision does not immediately make winners and losers. This would explain why, in a decision chain model, the Legislative and the Executive can deal with the highest levels – provide guidelines and set out policy objectives – but cannot go very far down the decision chain, since very rapidly market players will begin to hold diverging views on the outcome and will engage in rent-seeking behaviour.³⁷ The justification just set out was put forward by the ECJ in a recent ruling which enshrined the position of the NRA via-à-vis the Legislature. 38 Similarly, the recent directives on electronic communications invoke the need to avoid undue influence as a reason why the independence of NRAs should be strengthened.³⁹

Of course, the more NRAs are independent towards the national Legislative or Executive, the more accountability becomes problematic. Many commentators argue that the NRAs are not sufficiently accountable, all the more when they act under the cloak of BEREC. 40 Yet a good argument can also be made that NRAs are already subject to many measures designed to ensure accountability. First of all, ex ante, while as is clear from the above NRAs cannot be told how to decide, the Legislature and the Executive have nonetheless given them some directions, i.e. they have filled in the upper echelons of the decision chain. NRAs are given specific objectives, 41 their tasks are defined⁴² and their powers are also set out.⁴³ The Commission even tells them which markets to analyse and which methodology to apply. 44 Secondly, ex post, a number of mechanisms are in place. The NRAs are subject to the disciplines arising from good governance principles: transparency, openness, need to consult and give reasons, etc. Usually, they are also bound to file regular reports with the Legislature. The Commission also has means to exert pressure on them, including through its competition law powers. Within the networks, they are also accountable towards other NRAs. Last but not least, their decisions are subject to judicial review. If accountability means that the NRA must feel that it has to answer for its actions,

³⁶ L. Hancher, P. Larouche and S. Lavrijssen, "Principles of Good Market Governance" (2003) 4 Journal of Network Industries 355.

³⁷ This is not to say that NRAs are not vulnerable to rent-seeking behaviour as well, as public choice theory argues with regulatory capture, etc.

³⁸ See ECJ, 3 December 2009, Case C-424/07, *Commission* v. *Germany*, {...} in particular Rec. 91 and the Opinion of AG Maduro at Rec. 63. See also {*UPC/Hilversum*}

³⁹ Dir 2009/140 {...} Rec 13 and the new Art 3a added to Dir 2002/21 {...}.

⁴⁰ Hancher and Lavrijssen (n Error! Bookmark not defined. above).

⁴¹ Dir 2002/21 {...} Art 8.

⁴² Ibid.

 $^{^{43}}$ Throughout the Directives making up the 2002 framework $\{\ldots\}.$

⁴⁴ Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services [2002] OJ C 165/6.

then NRAs are accountable; of course, they are accountable to so many principals that the incentives on NRAs might be distorted.⁴⁵

In the end, in the EU, NRA independence cannot be conceived without accountability as well. 46 Yet towards the EU institutions – and in particular the Commission – NRAs are accountable but not necessarily independent. 47 In the end, when the design choices of the EU on all three elements are put together, the resulting picture is not entirely satisfactory: telecommunications regulation rests on economic categories, which suits the technocratic approach of the Commission. Legislation is centralized, but enforcement is decentralized. However, enforcement is in the hands of independent NRAs, enjoying a strong level of independence from the national executive and legislative powers, whilst being networked with the Commission at EU level. Accordingly, political debate on the policy direction of telecommunications regulation cannot really find an outlay at national level – NRAs are independent and cannot really respond to directions from national politics – and cannot find a forum at EU level – unless the Commission opens the debate by proposing legislative reform.

2. THE IMPACT OF DESIGN CHOICES ON INFRASTRUCTURE AND NET NEUTRALITY POLICIES

Against the background of the previous section, we now consider how the design choices made in the EU and US have influenced the course of substantive policy on the two main issues of this century, namely investment in infrastructure and net neutrality.

2.1. In the US

2.1.1. Escaping technology and introducing economics: broadband policy in the mid-2000s

In the early 2000s, the FCC was faced with four separate proceedings, all framed within the technology-based, pigeonholing paradigm of US telecommunications law. They concerned:

- (i) the treatment of broadband access over cable: is it a cable service, a telecommunications service or something else? (*Cable Modems*);⁴⁸
- (ii) the treatment of broadband access offered by the telecom incumbents: is it a basic service or an information service? (*ILEC Broadband*):⁴⁹
- (iii) the applicability to broadband of unbundling obligations imposed on incumbents for narrowband services, so that service-based competition can

⁴⁵ As was the case in *Commission* v. *Germany* {...} where one principal (the German Parliament) disagreed with another one (the Commission) on the proper treatment of emerging markets.

⁴⁶ {CERRE report on NRA independence and accountability}

⁴⁷ The principle of NRA independence does not extend to the relationship between NRAs and the Commission. As was seen earlier, through the creation of NRA networks, where the Commission plays a central role, the

⁴⁸ FCC, *Cable Modems*, GN Docket 00-185, Declaratory Ruling and NPRM, FCC 02-77 (14 March 2002).

⁴⁹ FCC, *Incumbent LEC Broadband Telecommunications Services*, CC Docket 01-337, NPRM, FCC 01-360 (20 December 2001).

- arise on broadband as well (as part of a broader proceeding known as the *Triennal Review*); ⁵⁰ to which the FCC added
- a general proceeding aiming to bring all these issues under one roof (Wireline (iv) Broadband).⁵¹

Remarkably, the FCC saw the opportunity to escape the technological categories of the Communications Act by bundling these proceedings together and attempting to rule consistently across all of them. It indicated that it would follow the same regulatory principles in all of these proceedings:⁵²

- first, the regulatory authorities must seek to promote the ubiquitous availability of broadband-capable infrastructure to all Americans:
- secondly, 'broadband' includes any platform where communications and computing converge to provide content requiring broadband capacity (i.e. not just cable modem or ADSL technologies);
- thirdly, the regulatory environment must foster investment and innovation;
- fourthly, regulation should be rationalized so that harmonized rights and obligations are applied to similarly-situated services across different technological platforms.

In the first proceeding (Cable Modem), the FCC had in 2001 already reached the conclusion that "cable modem services" (broadband access offered over cable) constituted "information services". 53 That conclusion was challenged before federal courts; ultimately, in June 2005, the Supreme Court confirmed the FCC order. 54 It is interesting to note that the main argument raised against the FCC order was that "cable modem services" comprised both "telecommunications services" and "information services" and should therefore have been subject also to Title II of the Act. 55 The Supreme Court was divided on this issue but upheld the reasoning of the FCC.56

That Supreme Court judgment prompted the FCC to conclude the second and fourth proceedings. In September 2005, the FCC issued an order finding that "wireline broadband Internet access services" (broadband access offered over DSL) also fell entirely under "information services" and therefore escaped Title II of the Act. 57 At the same time, the FCC relieved incumbents providing these services from any obligations (separation, non-discrimination, provision of special access forms such as bitstream, etc.) arising from the Computer Inquiry proceedings. In parallel to the

⁵⁰ FCC, Triennal Review of LEC Unbundling Obligations, CC Docket 01-338, NPRM, FCC 01-361 (20 December 2001).

⁵¹ FCC, Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, CC Docket 02-33, NPRM, FCC 02-42 (14 February 2002).

⁵² These objectives were confirmed in the FCC Strategic Plan 2006-2011, available at www.fcc.gov.

⁵³ Cable Modems, supra, note 68 at para. 34-59,

⁵⁴ National Cable & Telecommunications Ass'n v. Brand X Internet Services, 125 S. Ct. 2688 (2005).

⁵⁵ Which could have led to cable operators facing an obligation to offer competitors wholesale broadband access.

⁵⁶ Scalia, Souter and Ginsburg JJ. dissenting.

⁵⁷ FCC, Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, CC Docket 02-33, Order, FCC 05-150 (23 September 2005).

order, the FCC also made a policy statement claiming jurisdiction to regulate certain aspects of these broadband services under Title I of the Act.⁵⁸

Finally, the third proceeding has a complex story, since it extended to unbundling requirements for both narrowband and broadband services. A first order was issued in 2003, ⁵⁹ wherein the FCC sought to heed adverse Court decisions and limit the list of network elements to be unbundled through a more restrictive interpretation of the concepts of "necessity" and "impairment" found in the Communications Act. ⁶⁰ As far as broadband was concerned, the FCC concluded that the incumbents should be under limited unbundling obligations for Fiber-to-the-Home (FTTH) and hybrid loops. In order to reach that conclusion, the FCC referred to § 157 of the Act, ⁶¹ whereby it has the mandate to ensure that "advanced telecommunications capability" is deployed throughout the USA. Subsequently, that order was vacated in part by the DC Court of Appeal, but the parts concerning broadband were upheld. ⁶² On the strength of the latter finding, the FCC then lifted unbundling requirements as well for fiber loops serving apartment blocks ⁶³ and for Fiber-to-the-Curb (FTTC) deployments. ⁶⁴ Finally, using the regulatory forbearance provisions of the Act, ⁶⁵ the incumbents were also relieved from incumbent-specific unbundling obligations under § 271 of the Act. ⁶⁶

In the end, all wire-based broadband Internet services – whether provided over cable or DSL – were put in the "information services" pigeonhole and thereby subjected to light regulation only. Existing regulation was removed. If technological neutrality is achieved in the USA, it results thus more from an effort by the FCC to tie together those various strands at the implementation level – so that the different technology-based regimes reach similar outcomes – rather than from the deliberate design of the regulatory framework. At the heart of the FCC reasoning lies economic analysis: the deregulation of broadband services was based on market analysis which indicated that broadband markets would be competitive and that little if any regulation would be needed for them to work. The FCC approach was supported by the Supreme Court

_

⁵⁸ FCC, *Policy Statement regarding Internet Regulation*, FCC 05-151 (23 September 2005). The FCC set out therein four principles that it intends to implement in its activities: "(1) consumers are entitled to access the lawful Internet content of their choice; (2) consumers are entitled to run applications and use services of their choice, subject to the needs of law enforcement; (3) consumers are entitled to connect their choice of legal devices that do not harm the network; and (4) consumers are entitled to competition among network providers, application and service providers, and content providers." That policy statement eventually led to the network neutrality debate which is now taking the US by storm and has led the FCC to revisit the matter, perhaps with a view to take a more interventionist stance: see FCC, *Broadband Industry Practices – Notice of Inquiry*, WC Docket No. 07-52 (16 April 2007).

⁵⁹ FCC, *Triennal Review Order*, CC Docket Nos. 01-338, 96-98, 98-147, 18 FCC Rcd 16978, (2003).

⁶⁰ 47 U.S.C. § 251(c)(3) and (d)(2).

⁶¹ 47 U.S.C. § 157.

⁶² US Telecommunications Association (USTA) v. FCC, 359 F. 3d 554 (2 March 2004), cert. denied, 125 S.Ct. 313, 316, 345 (2004). The FCC went on to issue yet another order on narrowband issues: FCC, Triennal Review Remand Order, CC Docket No. 01-338, FCC 04-290 (4 February 2005).

⁶³ FCC, MDU Reconsideration Order, CC Docket No. 01-338, FCC 04-191, 19 FCC Rcd 15856 (8 September 2004).

 ⁶⁴ FCC, FTTC Reconsideration Order, CC Docket Nos. 01-338, 19 FCC Rcd 20293 (18 October 2004).
 ⁶⁵ 47 U.S.C. § 160.

⁶⁶ FCC, Broadband 271 Forbearance Order, CC Docket Nos. 01-338, 19 FCC Rcd 21496 (27 October 2004).

⁶⁷ The FCC analysis resembles competition/antitrust analysis, in that it examines the competitive situation in broadband. However, it is doubtful that the FCC analysis would measure up to the standards expected of competition/antitrust authorities.

in *Trinko*, and above all in *linkLine*, where the Court held that since the FCC had discharged what the Court called "the antitrust function", its conclusions could not be questioned through the application of antitrust law.⁶⁸

2.1.2. Technology comes back to haunt the FCC: net neutrality

There is no room in this contribution to cover in detail the academic debate concerning network neutrality which took place throughout the 2000s in the USA. At the legal and regulatory level, legislative initiatives floundered before Congress. The two main antitrust authorities, the Federal Trade Commission (FTC) and the US Department of Justice, saw no ground for intervention beyond existing law, including antitrust law. The sector-specific communications regulatory agency, the Federal Communications Commission (FCC), decided however to open regulatory proceedings on network neutrality, with a Notice of Proposed Rulemaking in 2009.

On 21 December 2010, following lengthy proceedings, the FCC released its *Open Internet Order*. ⁷¹ In this Order, the FCC sets out three basic principles that broadband ISPs are bound to follow:

- *transparency*, including in particular disclosure of "network management practices" and performance characteristics of their services;
- 'no blocking' principle, which applies differently to fixed and mobile ISPs. Fixed ISPs are prevented from blocking any lawful content or non-harmful device, whereas mobile ISPs are prevented only from blocking lawful websites or applications which compete with their own services;
- *'no unreasonable discrimination' principle*, here only for fixed ISPs, whereby they may not unreasonably discriminate in transmitting lawful traffic.

In its *Open Internet Order*, the FCC is constrained by the Telecommunications Act 1996, which is based on technological categories. When, as discussed just above, the FCC found that the broadband access market was competitive enough for regulation to be removed, in order to effectively translate this in policy it had to re-classify broadband access as an "information service", as opposed to a "telecommunications service", based on formalistic technological reasoning.

The conflict between economic and technological approaches is nicely illustrated in the treatment of discrimination. ⁷² Some proponents of network neutrality would prohibit any discrimination *between data packets*, meaning that ISPs would effectively be prevented from examining packets in order to determine if one or the

⁷² *Ibid.*, para. 68 and ff.

 $^{^{68} \; \{}Trinko, \, linkLine\}$

⁶⁹ For the FTC, see the FTC Staff Report *Broadband Connectivity Competition Policy* (27 June 2007), available on www.ftc.gov. As for the DoJ, it filed ex parte comments before the FCC in 2007, before the FCC launched the *Open Internet* proceedings, urging caution and restraint, while asserting the applicability of antitrust law to eventual problems (those comments are available on www.justice.gov/atr).

⁷⁰ Preserving the Open Internet; Broadband Industry Practices, GN Docket No. 09-191, WC Docket No. 07-52, Notice of Proposed Rulemaking, 24 FCC Rcd 13064 (2009) (Open Internet NPRM). This NPRM was expanded in 2010 with Further Inquiry into Two under-Developed Issues in the Open Internet Proceeding, GN Docket No. 09-191, WC Docket No. 07-52, Sept 1, 2010.

⁷¹ Preserving the Open Internet; Broadband Industry Practices, GN Docket No. 09-191, WC Docket No. 07-52, Report and Order, FCC 10-201 (21 December 2010) (Open Internet Order).

other deserves prioritization under any priority rule. Only random drop of packets in case of congestion would satisfy this very broad non-discrimination rule.

In its Open Internet Order, the FCC does not go that far, 73 and instead adopts the following non-discrimination rule: "A person engaged in the provision of fixed broadband Internet access service [...] shall not unreasonably discriminate in transmitting lawful network traffic over a consumer's broadband Internet access service". 74 ISPs are therefore permitted to engage into discrimination as long as it is 'reasonable'; recognizing the open-endedness of that standard, the FCC provides further guidance on the conditions under which discriminatory measures are more likely to be found reasonable:

- the measure is *transparent* to the end-user;
- the end-user controls the measure. The FCC therefore allows the introduction of differentiated QoS towards end-users;
- the measure is *use-agnostic*, meaning that it does not differentiate according to the choice made of the Internet as to which content, application or service to use.

The FCC specifies that any measure that would introduce differentiated QoS towards the edge providers is likely to constitute unreasonable discrimination.⁷⁵

In contrast, the FCC could also have construed 'reasonableness' from the vantage point of competition law, so that it would have focused on the market power concerns set out above (linked to vertical integration and exclusivity) and left the desirability of differentiated QoS for another day. Here 'unreasonable discrimination' would be interpreted as discrimination as between firms in a similar position, so as to produce an anti-competitive effect (i.e. exclude a competitor to the detriment of consumer welfare). 76 The point of comparison is therefore not packets, not content, services or applications, but rather firms: two firms in the same position, i.e. requesting the same service (same capacity, same QoS level) must be treated without discrimination by the ISP with significant market power (or dominance). A difficulty here is that US antitrust law might not support extending a non-discrimination obligation to include in the comparison the ISP's own operations, when they compete with those thirdparty firms. Nonetheless, the FCC could have found support in economics to make that extension in its *Open Internet Order*. ⁷⁷ According to this interpretation of 'unreasonable discrimination', as long as all third-parties (and the ISP's affiliated operations) can have access to the same differentiated QoS offerings on the same terms and conditions, no unreasonable discrimination would arise.

In the *Open Internet* Order, the FCC refused to construe 'unreasonable discrimination' along those lines. ⁷⁸ The FCC argued that the purposes of the *Order* "cannot be achieved by preventing only those practices which are demonstrably anticompetitive or harmful to consumers". 79 Taken at face value, this statement is

⁷⁵ *Ibid.*, para. 76.

⁷³ *Ibid.*, para. 77.

⁷⁴ *Ibid*.

⁷⁶ See Articles 101(1)(d) and 102(c) TFEU.

⁷⁷ In addition, the FCC could have referred to EU competition law in support of its position. As seen infra, heading 3.2.1., it is common under EU competition law to extend the prohibition on discrimination by dominant firms also to discrimination as between third parties and the dominant firm's own operations competing with these third parties.

⁷⁸ *Ibid.* at para. 78. ⁷⁹ *Ibid.*

stunning; it is hard to imagine why the FCC would want to prohibit conduct which is not hurting consumers. By construing 'unreasonable discrimination' in the *Open Internet Order* in technical terms, and more broadly than standard economic analysis under competition law would warrant, the FCC effectively but implicitly concluded that differentiated QoS offerings are undesirable, at least towards content providers.

Unsurprisingly, the *Open Internet Order* was challenged before courts, and the challenge proved successful. On 14 January 2014, the US Court of Appeal for the DC Circuit quashed the Order. 81 Specifically, the court found that the FCC, through the no-blocking and non-discrimination provisions in the Order, had attempted to impose common carrier regulation on broadband providers, even though it had previously reclassified their services as "information services". In the end, therefore, the FCC could not free itself from the technological shackles of the Communications Act: it floundered on a perceived mismatch between the "information services" category and the content of the obligations imposed on broadband providers. The best way to enact the impugned provisions of the Order would thus involve a re-classification of broadband services as "telecommunications services". This would represent an odd turn of events, a mere ten years after the momentous policy change which led to a characterization of broadband as an "information service". Furthermore, this would open the door to the full range of common-carrier regulation potentially being reintroduced on broadband providers, an outcome that does not seem desirable or desired by any stakeholders at the moment. The FCC has rather chosen to change its net neutrality policy and has now instead embraced a more flexible attitude towards differentiated Quality of Service agreements between content and broadband providers.82

2.2. In the EU

2.2.1. *Investment in infrastructure*

When faced with the same issue of how to generate investment in infrastructure, the EU essentially followed the logic of its own legislative and regulatory framework: the issue was to be handled through the use of economic categories and economic analysis. In principle, this could have led the EU to follow the same path as the US, i.e. to lift access regulation in order to spur investment in broadband networks.

However, in the EU, the injection of economic analysis into telecommunications regulation was made under the guise of bringing sector-specific regulation closer to competition law. Even if the claim that competition law concepts were imported into regulation is exaggerated, ⁸³ it remains that the economic analysis conducted under sector-specific regulation suffered from the same static bias that affects EU competition law. Static gains on price, and structural characteristics such as the

⁸⁰ A charitable explanation for the statement would be that the FCC finds that standard economic analysis is too static and wants to take greater account of dynamic efficiency. Then it would have been preferrable to state that 'anticompetitive conduct' and 'consumer harm' cannot be assessed strictly from a static perspective.

⁸¹ Verizon v. FCC, Docket No. 11-1355 (D.C. Circ., 14 January 2014).

^{82 {}New FCC proposal}

⁸³ Larouche, A Closer Look {...}

number of competitors and their market shares, were given priority over more dynamic aspects.

From the very start of the 2002 framework, the Framework Directive, ⁸⁴ the Commission's SMP Guidelines⁸⁵ and the ERG Common Position on Remedies⁸⁶ all relied on the concept of "emerging markets" to indicate that new technological developments, whatever they might be, can and must be dealt with within the technology-neutral framework. If the new services or networks do constitute separate relevant markets, where no SMP is present because of the nascent nature of the market, and then no regulation will be applied besides competition law and the non-SMP parts of electronic communications regulation. On the other hand, it could also be that the new services or networks do not arise on separate relevant markets, but rather represent an evolution of existing markets (for instance, a passage of local access from copper to fiber). In such a situation, there is no reason to absolve dominant players from sector-specific regulation simply because they are introducing new technologies on existing relevant markets.

The EU approach is reflected in the Recommendation on regulated access to Next Generation Access Networks (NGA). ⁸⁷ In the Recommendation, the Commission situates the locus of policy debate within the 2002 framework, i.e. NRAs, working with the Commission, are deemed competent to handle concerns relating to NGAs. Without wanting to go into details, the Recommendation advocates that operators deploying NGAs be nevertheless subject to access regulation (for passive and active infrastructure alike), whilst allowing for some flexibility as regards geographic variation (no regulation where there is sufficient infrastructure competition) and cost-based pricing (which can include a risk premium).

Accordingly, the political authorities of Member States – legislative and executive alike – are left outside of the policy loop, since they cannot individually influence the Commission or their own NRA. There is no better illustration of this than *Commission* v. *Germany*, where the Commission successfully took Germany to the European Court of Justice for having introduced a 'regulatory holiday' for emerging markets – on the FCC model – by way of legislation, by-passing the German NRA and the EU sector-specific regulatory framework. The ECJ held not only that a regulatory holiday was not permissible within the design of EU sector-specific regulation, but also that the German legislature could not short-circuit the NRA and deprive it of its competence to decide on such matters, as it arose from the EU regulatory framework.

It is quite possible that the regulatory approach set out in the NGA Recommendation is the most appropriate in the EU, given different circumstances than in the US, for

⁸⁴ Supra, note 38, Recital 27.

⁸⁵ Commission Guidelines on market analysis and the assessment of Significant Market Power [2002] OJ C 165/6, para. 32.

⁸⁶ ERG Common Position on the approach to appropriate remedies in the new regulatory framework, ERG (03) 30 rev 1, available at erg.eu.int, at pp. 14, 20-22, 89-90.

⁸⁷ Commission Recommendation of 20 September 2010 on regulated access to Next Generation Access Networks (NGA) [2010] OJ L 251/35.

^{88 {}Supra}

Where, in the presence of Significant Market Power (SMP), adequate regulatory measures must be taken, implying regulation in some form or another.

instance the absence of any competition in legacy fixed infrastructure in a number of Member States, which makes it unlikely that the shift to fiber-based access networks will lead to the emergence of competing fixed infrastructures. To some extent, the NGA Recommendation, in relying on economic analysis, enables differentiation between Member States, which can be seen as a strength following the design choice of relying on economic categories. Yet the EU is hampered by its two other design choices, namely decentralized enforcement combined with a strict independence of NRAs from national political authorities: the policing of differentiation is left to the European Commission, with the help of the NRAs within BEREC. These institutions might be too technocratic to respond to political signals.

The difficulties identified above haunt EU policy as regards network neutrality as well. As this point in time, the state of play in EU law is as follows. For ISP conduct falling within the narrow set of potentially anti-competitive conduct, such as blocking or discrimination, so far competition law is perceived as an adequate instrument. By and large, such conduct is thought to fall outside of the scope of sector-specific regulation. In addition, to some extent, the EU reaps on network neutrality the benefits of its more interventionist access regulation: the presence of a larger number of access providers (some of which rely on regulated wholesale products to be on the market) reduces the acuity of network neutrality concerns, compared to the US setting with a fixed infrastructure duopoly. The Commission and BEREC, however, have been investigating network management measures⁹⁰ taken by European ISPs, in order to assess whether further intervention is needed.⁹¹ At the same time, in the course of the 2009 review of electronic communications regulation, transparency provisions have been added to the relevant directives, with a view to ensuring that customers are informed about the network management practices of their ISP. 92 These provisions were thought sufficient to address ISP conduct falling outside of the narrow set defined above, and in the longer term to accompany the introduction of differentiated QoS offerings. Beyond that, NRAs were also given the power to introduce minimum QoS standards, should a 'dirt-road' scenario materialize.

Here as well, in substance the above approach might be the most appropriate one in the context of the EU, once again reflecting how the use of economic categories makes regulation both more flexible in handling new issues, yet robust enough to deliver a well-grounded answer. However, as was seen in the US as well, net neutrality has proven to have more political visibility in the EU than investment in infrastructure. Accordingly and unsurprisingly, some Member States decided to move ahead with more active net neutrality regulation, such as the Netherlands, in 2012.⁹⁴

⁹⁰ Including, but not limited to, the narrow set of potentially anti-competitive measures.

⁹¹ See European Commission, "The open internet and net neutrality in Europe", COM(2011)222 (19 April 2011) and the overview of BEREC actions given in BEREC, "Overview of BEREC's approach to net neutrality" BoR(12)140 (6 December 2012).

⁹² See Directive 2022/22 on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive) [2002] OJ L 108/51, as amended by Directive 2009/136 [2009] OJ L 337/11, Art. 20(1)(b) and 21(3)(d).

⁹³ Ibid, Art. 22(3). The 'dirt-road' scenario would arise if ISPs severely degraded the QoS of the bestefforts Internet, because of the prevalence of differentiated QoS offerings.

⁹⁴ The Dutch network neutrality legislation was introduced through the Wet van 10 mei 2012 tot wijziging van de Telecommunicatiewet ter implementatie van de herziene telecommunicatierichtlijnen, 2012 Sb. 235.

This raises the specter of a patchwork of network neutrality regulation across the EU, depending on the policy decisions made by each Member State. 95

Contrary to investment in infrastructure, where the Commission responded to political initiatives in Germany through legal means - the infringement procedure under EU law – the Commission chose not to follow the legal path to respond to Member States that broke away from the EU line - as defined by the Commission - on net neutrality. 96 Instead, the Commission chose to propose a new round of EU-level legislation on net neutrality in 2013, as part of its "Connected Continent" legislative package. 97 Therein the Commission attempted to regain political momentum, with a proposal on net neutrality that trumpets citizen rights but ultimately does not venture much beyond the line taken by the Commission in 2009. Since the debate had moved to the legislative arena, the European Parliament seized the opportunity, however, to amend the Commission proposals with a view to enacting a much stricter net neutrality rule. The EP amendments would leave almost no room for broadband providers to enter into differentiated Quality-of-Service agreements with their customers, on the end-user as well as on the content provider side. It is notable also that, already in the Commission proposal but more clearly even in the EP amendments, legislation is formulated in technological terms, which ignore the basis choices made 10 years before, in favour of economic categories. At this point in time, in the wake of the EP elections and the impending replacement of the Commission, the precise fate of the "Connected Continent" package is yet unclear.

Both the infrastructure investment and network neutrality issues show the limits of the EU design choices. On the one hand, reliance on economic categories helps in ensuring continuity and consistency in the policy analysis. On the other hand, however, the half-way house on centralization (centralized law-making, decentralized enforcement yet coordinated at EU level) leaves room for policy debates at Member State level. Yet, since NRAs are strictly independent from national political authorities, these policy debates cannot really be carried over into telecommunications regulation: either they lead to national initiatives that impair the consistency and integrity of EU law, or they lead to EU-level political initiatives which may or may not respect the first design choice (economic categories).

3. **CONCLUSIONS**

{Still to be written}

_

lifting of access regulation.

⁹⁵ See J. Sluijs, "Network neutrality and internal market fragmentation" (2012) 49 CMLRev 1647.
⁹⁶ For various reasons, an infringement procedure against the Dutch network neutrality legislation, for instance, would have been less likely to succeed than the procedure against Germany as regards the

⁹⁷ {Ref}. The "Connected Continent" initiative also addresses investment in infrastructure, although here the Commission continues to hold to its line of limited loosening of access regulation, as opposed to a wider-ranging regulatory holiday as in the US.