ORIGINAL ARTICLE



The political economy of 'ordered competition' in European telecoms

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Abstract

This article discusses the current efforts of policymakers to spur development of telecommunications infrastructure. It argues that the policy of 'ordered competition', widely implemented in this sector, has formed a highly beneficial environment for major players, who have the ability to influence the regulatory machine. The system protects the status quo, impedes the efficiency of the market process and allows unnecessary public subsidy of the industry's development. The main alternative to this regulatory regime is structural reform of the industry and the formation of a genuinely competitive market-place which could function without *ex ante* regulation.

KEYWORDS

Competitive order, ordered competition, private interests, regulation, telecommunications

JEL CLASSIFICATION

B53; L51; L96; P16

1 | INTRODUCTION

There have been many attempts to study the efforts of European telecommunications policymakers from a political economy perspective. The peculiarities and importance of the industry, as well as the persistent presence of the state in the governance of the area, make the field "highly interesting for students of politics, political economy, and public policy"

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(Levi-Faur, 1998, p. 666). Clifton, Díaz-Fuentes, and Revuelta (2010), for example, have observed that among the main beneficiaries of the 'liberalisation' reform are the former national monopolies of the strongest economies of the European Union. There are claims that the main drivers of the European 'liberalisation' in its initial stage were US interests (see, e.g., Mueller, 2010), and that these interests were backed by international institutions and powerful European manufacturers of telecommunications equipment (Schneider, 2001).

There are also many claims that 'deregulation' – the term which has been widely used in the discourse of modern telecoms policy – is a misleading label for the actual processes (see, e.g., Grande, 1994; Levi-Faur, 1998; McChesney, 1999). As a result, commentators have preferred to describe the existing market environment of the industry as a 'competition state' (Levi-Faur, 1998) or 'managed competition' (see, e.g., Lehman & Weisman, 2000; Hancher & Larouche, 2013), terms which resemble Hayek's notion of 'ordered competition', which he contrasted with 'competitive order' (Hayek, 1949). By the end of the 1990s, it had already become apparent that the industry was in 'ordered competition' mode (Burton, 1997), and this has not been solely a European phenomenon. Almost everywhere in the world, indeed, governments have put the telecoms sector into the 'ordered competition' box.

'Deregulation' in the telecommunications industry did not, therefore, signify 'more competition' (Levi-Faur, 1998). A free-market environment is, according to policymakers, an environment which is susceptible to what orthodox thinking sees as 'market failure'.² At the same time, a totally opposite outlook has also been presented in the academic literature, according to which telecoms markets "seem fully capable of resolving most of the potential market failures" (Spulber & Yoo, 2013, p. 16), while inadequate understanding of the competitive process leads regulators to over-regulate (Littlechild, 2018). Moreover, another view examines the private interests which shape regulation in light of the needs of particular interest groups (see, e.g., Abbott & Brady, 1999; McChesney, 1999; Brady, 2002; Trubnikov, 2017a).

The main aim of our article is to contribute to this discourse and to look at state interventions in telecommunications infrastructure from political economy and public choice perspectives. The article begins with an analysis of the causes of the creation of the ordered competition environment of telecommunications markets and possible alternatives. This section also highlights the theoretical framework that is used in this study. We then focus on the role of telecommunications infrastructure in the competitive process in the industry and on regulatory efforts to cope with the problem of promotion of rivalry. Particular attention is paid to the issue of control over the infrastructure: the main debate is concentrated on the view that a genuine competitive order cannot be formed when crucial resources are controlled by industry leaders. The ordered competition regime, ostensibly promoting service-based competition, is in fact highly beneficial for rent-seeking actors. The article then examines the phenomenon of public subsidy of private means of production, and points out possible alternatives for public participation in network development, which, by contrast, could potentially have a pro-competitive character rather than consolidating the positions of industry leaders.

2 | ORDERED COMPETITION IN TELECOMS POLICY AND POSSIBLE ALTERNATIVES

There are different ways to look at the nature of regulation. While the mainstream explanation of regulatory efforts is mainly based on the assumption that policymakers aim to promote the 'public interest', critics maintain that the public interest is never defined, and that regulation

is more likely determined by the private goals of individual economic actors (Buchanan & Tullock, 1962). George Stigler (1971) in his seminal paper 'The theory of economic regulation' noted that the machinery of the state is a valuable resource that market participants are tempted to capture, and this insight has become an essential part of public choice scholarship.

According to the public choice view, the actors seeking ways to benefit in the 'regulatory goods market' include not only market leaders but also bureaucrats, politicians, new market entrants, players in contiguous markets, labour unions and even particular groups of customers. The main feature that allows them to obtain a competitive advantage in this peculiar market sphere is cooperation with other participants of this game, where organised groups obtain higher benefits from regulatory goods than do individual actors (Croley, 1998).

The liberalisation movement of the last decades of the twentieth century has forced some scholars to assert that "social developments seemed to refute" the private interest views on regulation (Den Hertog, 2010). It is interesting to note that both sides - the public interest and the public choice views - shared the same opinion about the underlying force of this 'deregulatory' agenda, arguing that the main cause of these reforms is technological development (Stiglitz, 1999; Laffont & Tirole, 2000; Brady, 2002). Nevertheless, the actual experience of deregulatory efforts has not changed the public choice perception of regulation - even when apparently in a 'deregulatory' form - as an outcome of rent-seeking activities. The public choice theorists remain concerned that "[t]echnology alone ... is unlikely to outpace regulation in order to produce the immense cost savings in telecommunications that would be feasible in the absence of regulation" (Abbot & Brady, 1999, p. 65). Moreover, it seems that only the public choice approach is able to give a convincing explanation of the chosen methods of the reformers. The deregulatory changes in many instances, instead of freeing markets from government interventions, created new regulatory environments where market forces continued to be suppressed through various regulatory devices. Even during the most active phases of deregulatory change, many scholars of the public choice camp expressed scepticism about the possibilities of real deregulation. Some of these scholars applied their analysis to the telecommunications industry (Kaserman, Mayo, & Pacey, 1993; McChesney, 1999).

Liberalisation of telecommunications at the end of the twentieth century transformed what was previously a set of monopolistic state-owned industries into a global arena for powerful players. These players acquired opportunities to extend their empires into territories where the former local monopolists were too weak to compete with global capital (Clifton et al., 2010). It is not surprising that the adopted policy could not evolve further without regulation, but this regulation has not been a response to any kind of market failure – because the market has had no chance to fail in this area.

Market forces were already suppressed during the early days of the industry development at the end of the nineteenth and the beginning of the twentieth centuries (Thierer, 1994; DiLorenzo, 1996; Mueller, 2013; Janson & Yoo, 2013; Trubnikov & Trubnikova, 2018); and when the liberalisation campaign could finally have brought a competitive order into the field, policymakers in different countries seem to have chosen in unison to prevent its appearance. The new institutional arrangements that have been adopted in the industry constitute the ordered competition (or 'managed competition') regime where the state is an active participant in the industry's performance and governs the field according to its perception of how the market works and how competition might be facilitated (Lehman & Weisman, 2000). Moreover, the evolution of the 'post-deregulatory' telecommunications policy has embraced many other objectives besides market opening and market access (Hancher & Larouche, 2013).

The public choice camp has often emphasised that monopolies are usually the result of rent-seeking activities (Tullock, 1967; Brady, 2002). However, monopolies of the pre-liberalisation epoch were in many instances not private, and one of the main achievements of the 'deregulation' movement is their transfer to the private sphere. The slowness and negativity of the reforms during its first stages³ have been the main means that not only allowed the public–private transformation of the monopolistic fields, but also protected incumbents from the creative destruction process of technological revolution, which had the potential fundamentally to rearrange the structure of telecommunications markets (see, e.g., Trubnikov, 2017b).

Meanwhile, the 'public interest' justifications for the chosen reform methods have been based on the mainstream understanding of the economics of telecommunications. According to this, various parts of telecommunications networks represent examples of natural monopolies, which have appeared in the modern orthodox view as a 'bottleneck' problem (see, e.g., Laffont & Tirole, 2000). This bottleneck idea has been supported by the belief that the presence of sunk costs leads to underinvestment in telecommunications infrastructure. As a result, policy within such a theoretical framework should promote the technological efficiency of the field and avoid wasteful duplication of telecommunications facilities (Bourreau, Cambini, & Dogan, 2011).

However, a reading of other economic theories could justify a completely different choice. For many Austrian economists, the natural monopoly paradigm is a delusion, its emphasis on equilibrium and perfect competition being inconsistent with the real world (see, e.g., Rothbard, 2004; DiLorenzo, 1996; Thierer, 1994). Moreover, empirical evidence of the earlier days of the telephone industry rather points to the phenomenon of diseconomies of scale (Thierer, 1994; Mueller, 2013), which suggests the absence of a key characteristic of natural monopolies even from the standpoint of the neoclassical approach.

Another aspect of the problem is that the distribution of the means of production in telecommunications markets was not an outcome of a system where the champions won their spurs through the market process. It was regulatory-granted market power that could have been dismantled at the very beginning with removal of all barriers to rivalry in all sub-fields of the industry in order to turn the industry into a genuinely competitive marketplace and force market mechanisms to work. Even some prominent critics of the 'free market' agenda advocated such solutions (Stiglitz, 1999). The competitive order could have been a real alternative to the ordered competition system, which is not a result of spontaneous order of free and voluntary interactions of economic actors (Sautet, 2010).

From the public choice perspective, there is one obvious reason why the competitive order view has been entirely rejected by public policy: the main beneficiaries of such a system are less organised and have less power to affect the policymaking process than beneficiaries of the 'ordered competition' alternative. In the following sections we analyse the various groups who benefit from the current regulatory regime and their ability to control telecommunications infrastructure. It is this infrastructure which has become the main source of the rents generated in the new regulatory environment.

3 | TELECOMMUNICATIONS INFRASTRUCTURE AND RENT-SEEKING

As noted above, the main theoretical justification for the ordered competition system has been found in the bottleneck idea. The bottleneck issue, in turn, is closely intertwined with such economic concepts as sunk cost and economies of scale. The crucial part of telecoms networks that,

according to mainstream thinking, fits these criteria is infrastructure. Public choice analysis of regulatory efforts in the area of telecommunications infrastructure allows us to distinguish various goals pursued by rent-seekers.

The notion of a high level of sunk costs, and its supposed disincentive effect on private investment, allows businesses to obtain access to public spending for infrastructure construction. The assumption of economies of scale is used to justify state-sanctioned barriers to entry, supported by the necessity to avoid unnecessary duplication, and, at the same time, to support access to facilities controlled by rivals, incorporated in the regulatory idea of 'local loops unbundling' and promotion of service-based competition.

Telecoms infrastructure has become the main source of the rent in the 'liberalised' era. Thus, opportunities for rent-seeking in the industry have very often relied on the power of economic actors to control or to get access to infrastructural assets. The ordered competition regime from this point of view allows various actors to participate in this game – from public officials and the bureaucracy of the former monopolists to new market entrants – through the notion of the social importance of the telecommunications ecosystem. The analysis of the regulatory practices in this sphere clearly suggests that they have been aimed at stifling genuine competitive forces, thereby undermining the efficiency of telecoms markets.

The importance of telecommunications for economic development has very often been compared with the general importance of public infrastructure for the economy (see, e.g., Röller & Waverman, 2001). Sometimes the telecommunications infrastructure is even considered an integral part of the wider concept of public infrastructure (see, e.g., Pradhan, Arvin, Norman, & Bele, 2014), and this might be explained by the social value of this asset. However, if the demarcation criterion is property rights to the asset, then the application of the term 'public' to private property seems questionable, even if such property plays a highly important role in the life of society. Private property is not open to the public in the same way as common or public goods. It might be regulated in order to achieve some public goals, but it is controlled by private entities, and this control allows them to find ways to exclude others or to determine the way it will be used.

When the telecommunications industry was totally in the hands of the state, it could indeed be considered a part of public infrastructure, and in fact was treated in this way (Grande, 1994). The process of privatisation erased this public property connection between the public and telecommunications networks. However, while not a part of the public infrastructure in this sense, telecommunications require the use of public assets, and competition in the industry heavily relies on opportunities for market participants to get this access. It is therefore reasonable to distinguish between telecommunications infrastructure and utilities that are necessary for the placement of elements of telecoms networks. In the former case the resource has private rather than public characteristics, while in the latter case, especially when the public has invested in the creation of the utility, we are possibly really dealing with the phenomenon of public infrastructure.

The problem of the telecommunications infrastructure and its role in the competitive process is that rivalry and development of telecoms networks depend on understanding what constitutes this infrastructure and whether it should be in the public or the private domain. It might be argued that the problem of bottlenecks was generated by the reforms in the first place, when they yielded to the incumbents' property rights not only to the network equipment and cables, but also to ducts and other elements used for cable placement, as well as to the land where these elements are located. Regulation of other network industries and their monopolistic structures impeded possibilities of using other kinds of public utilities for telecoms networks by independent providers, and exacerbated the bottleneck issue.

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The alternative to mandatory local loops unbundling and promotion of service-based competition could have been preservation of public control over the infrastructure necessary for placement of cables and other vital elements of the networks, coupled with the creation of open access for all interested parties. Moreover, public spending on telecommunications infrastructure could take the form of enhancements and enlargements of the capacity of such elements, and provision of them for the common use in the same way as other kinds of public infrastructure such as public roads, bridges, and parks. If the liberalisation movement had taken into account that the sunk cost and economies of scale arguments are mainly relevant to these elements, which could have remained in the public domain, rather than to telecommunications infrastructure as a whole, this could have worked in favour of competitiveness and the encouragement of investment in telecommunications infrastructure, and better served general social needs. Instead, regulatory initiatives expressed explicit concerns about efficient use of resources of the networks from unnecessarily holistic perspectives and tried to avoid what was seen as wasteful duplication of telecommunications facilities. From this point of view, the local loops unbundling policy, while apparently aimed at preventing waste (Bamzai, 2004), has also generated opportunities for rent-seeking.

European Union policy since the end of the 1980s has proclaimed as its objectives the strengthening of competition, stimulation of investment, fostering of consumers' freedom of choice and enabling them "to benefit from innovative services, quality and lower rates" (Summaries of EU legislation, 2015; see also Commission of the European Communities, 1987). Nevertheless, the richest economies of the EU, such as Germany, France, the UK, Italy, and Spain, failed to achieve these goals if we compare their industry indicators with their counterparts in other places of the world. There are the opposite examples of eastern Europe, where such territories as Russia, Slovenia, Bulgaria, Slovakia, Lithuania, Estonia, and Latvia are among the continent's leaders in fibre optic networks development (see, e.g., FTTH Council Europe, 2016; Serdarević, Hunt, Ovington, & Kenny, 2016). Subscribers in these countries had betterquality services, at least according to the figures for 2016, at significantly lower prices than subscribers in western Europe, while having, at the same time, more advanced infrastructure.

Some authors argue that the superiority of the broadband development of east European countries to that of west European countries is to a great extent explained by the neglect of aesthetic issues in eastern Europe, which, eventually, had allowed aerial hanging of fibre optic cables (Lemstra, 2014; Rood, 2010). But this explanation oversimplifies the issue. Strictly speaking, the costs of aerial hanging are of the same order as the costs of the underground deployment of fibre optic cables. What really makes a difference between the aerial and the underground methods of the deployment is the costs of construction of ducts and other elements that are used for the cable placement, and, as discussed above, these elements during the 'liberalisation' period had been put under the control of private monopolies.

Construction of fibre optic lines is significantly cheaper than construction of copper lines, and this is the main explanation of why technologies based on the implementation of fibre have become dominant in the telecommunications markets of the less advanced economies of eastern Europe. The possibility of aerial deployment of the infrastructure provided newcomers with the opportunity to operate independently from the networks capacity of their main rivals, and this independence, not the areal wiring per se, was the main factor that facilitated the development of the fibre optic networks (Trubnikov, 2019).

Already in the 1990s, Crandall and Ellig (1997) pointed out a straightforward connection between competition and development of fibre optic infrastructure, while the European regulators refused to put the infrastructural aspect at the front of the deregulatory queue (Larouche, 2000). Instead they vigorously protected former monopolists during the most important period of the industrial technological change, and this mainly explains why the costs of construction of the infrastructure in the most developed European countries have sometimes been an order of magnitude higher than in eastern Europe (for the figures see Finnie, 2012; Briglauer & Gugler, 2013). Moreover, because of insufficient competitive pressure, the European telecommunications incumbents have not had much incentive to be efficient; the inefficient performance of the industry has provided many direct and indirect benefits for various interest groups.

First of all, it has given incumbents in advanced economies opportunities to engage in expansion of their foreign business empires, while relying on public spending to support their domestic development. The clear private beneficiaries of this situation are shareholders, management and even some groups of employees of these corporations, as well as an army of government bureaucrats who, true to Niskanen's (1968) analysis, are never backward in pursuing budgets and power.

Moreover, it has provided opportunities for other industry players to 'free ride' on public spending. Even when they are not among the owners of the facilities, the mandatory access to subsidised telecommunications infrastructure provides an indirect benefit. From this point of view, the beneficiaries may be newcomers to particular markets, or more precisely those individuals who benefit from their activity (shareholders, management, employees), and again public officials who receive private gains from the opportunity to govern the industry's performance.

This regime is also highly beneficial for leading players in neighbouring markets, such as those for telecommunications equipment or the construction of telecoms infrastructure. The concentrated structure of the telecommunications sector affects the structure of these neighbouring spheres and allows their actors to participate in the benefits of the public spending which is poured into the industry in the guise of pursuing various socially desirable objectives, such as universal access. In Section 4 we analyse the effects of public subsidies to private means of production in telecommunications infrastructure.

4 | PUBLIC SUBSIDY OF PRIVATE MEANS OF PRODUCTION

An interesting phenomenon observed during the liberalised period in telecommunications development across totally different economies is public spending on the development of private means of production. These subsidies are not examples of government aid to the poor; on the contrary, they represent direct investment of public resources in the creation of private assets that generate profits for rich and successful individuals, although the main political justification for this activity is always a need to achieve socially desirable goals which allegedly cannot be achieved by the market. In order to highlight the issue, we can look at the practice of state participation in network development in the European Union and the goals that underpin decision making.

The European approach to the public support of telecommunications development is the consequence of a 'liberalisation' that has retained power in the hands of the giants. On the one hand, the approach is warranted by the inability of the regulation-generated (and highly concentrated) market to develop the industry sufficiently. On the other hand, it reflects European Union policy, which, as we have argued, is based on the idea that infrastructure represents a bottleneck and access to the infrastructure must be regulated. As we have suggested, there are many beneficiaries of this ordered competition system.

Over the period 10 December 2003-30 June 2016, the European Commission made 148 decisions on state aid to broadband, and the vast majority of them were approvals. The total amount of aid approved exceeds €20bn. For example, the 'high-speed broadband in Portugal' project is justified by the opinion that the "measure will offset a geographical and commercial handicap and ... address the lack of availability of very high speed broadband services due to the commercial unattractiveness of upgrading existing broadband services" (European Commission, 2011a, p. 13). At the same time, the document claims that market mechanisms are unable to work in the field because "in the targeted areas only one basic broadband infrastructure is present (belonging to the incumbent operator, Portugal Telecom)" (p. 3) and, as a consequence, the market share of "the median proportion of customers that are currently served by alternative operators (via bitstream access products) is a mere 1.63% of the population" (p. 4). The alternative to providing 'very high speed broadband services' could be to change the market structure, and instead of the 'one basic broadband infrastructure' belonging to Portugal Telecom, the intervention could be aiming to provide multiple infrastructures which could establish a real competitive marketplace. But in the document, we predictably read that one of the numerous "necessary conditions" is "[t]o avoid unnecessary and wasteful duplication of resources" (p. 12).

Similar pictures emerge in a number of other decisions approved by the European Commission. The same claim about the need to avoid wasteful duplication is made, for instance, in the Greek project of 'Metropolitan Area Networks (MAN)/Fibre To The Home (FTTH) Greece' (European Commission, 2012). In this document, we find that the objectives are expressed not only in the desired speed characteristics of the broadband network, but also in the requirements for particular technological solutions. Greece (where the largest shareholder of the main telecommunications asset is German giant Deutsche Telekom AG) has participated in state assistance of broadband development since 2000 when the Operational Programme 'Information Society' was adopted. Within this programme the Greek government financed the rollout of 72 fibre optic networks in the main cities, rather than rural areas where it might be thought a stronger argument could be made. Then there have been projects of broadband deployment approved by the European Commission in 2006 (European Commission, 2006) and 2011 (European Commission, 2011b). And in 2012 the European Commission asserted that private operators "besides the incumbent ... lack the appropriate infrastructure" for service provision for public needs (European Commission, 2012, p. 3).

Notions of 'wasteful duplication' are also common in the homeland of the main shareholder of the Greek telecommunications network and the largest European economy, namely Germany (see, e.g., European Commission, 2014). About 21 per cent of the aforementioned decisions on state aid to broadband (31 of 148) relate to Germany, where the former state-owned monopolist, lacking real competitive pressure, has not had enough incentive either to upgrade its own network or to provide sufficient services throughout the whole country. However, the company has been able to invest billions of euros in foreign assets, while substantial support for development of the home infrastructure (as well as for the development of the acquired overseas assets) has effectively been provided by the public.

An interesting example of state measures in broadband development might be also found in Spanish Programa Avanza Nuevas Infraestructuras de Telecomunicaciones, for which in 2013 the European Commission approved an extension (European Commission, 2013). The peculiar characteristic of this state measure is that the contention that rural areas are not commercially interesting for market participants is extended in the programme to areas where population "must be inferior to 50.000" (European Commission, 2013, p. 4). In such a case, the state aid

policy assumes that people in these areas should have "very high speed (above 100 Mbps) broadband" (p. 2). The measure, in the same way as our earlier examples, assumes that wasteful duplication must be avoided and, thereby, "expressly foresees that *existing infrastructures* will be used wherever available for the deployment" (p. 5; emphasis in original). The budget for the measure is €360m over a three-year period, and for the authors of the document it is clear that such amount "has the potential to distort competition ... and ... may discourage other competitors to deploy or expand their own networks in the targeted areas" (p. 8). However, as the aid is consonant with the objectives of the EU policy expressed in the Digital Agenda, with potential 'to bridge the digital divide', the decision of the Commission was that the programme is compatible with the objectives of the internal market.

Arguably, the alternative to this approach might be the development of a public part of telecoms infrastructure, as was determined in Section 3, without establishing any goals and limitations for market participants. It is reasonable to conclude that the existing approach is better explained by the private interests of market players. It is possible to distinguish three main general issues in the state measures we have analysed which support this claim.

The first problem is that after government subsidy the newly created infrastructure is placed under the control of particular market participants, and use of the publicly funded assets is not open to all. Even if the government tries to facilitate openness, the lack of independence and the necessity of relying on government actions stifle the ability of real market forces to govern the field.

The second problem is that policymakers assume that the existence of underdeveloped regions implies market failure, while the real issue is the inability and unwillingness of governments to create a real competitive marketplace. The lack of a competitive order is the consequence of the policy, and, therefore, subsidies are really an attempt to mitigate *government* failure by means that cannot contribute to the formation of a sustainable competitive market.

The third problem is the concern to avoid 'unnecessary' duplication. Even if we were to accept that this aim is reasonable, it again provides privileges for the giants. When an incumbent already possesses an infrastructure, but needs investment in order to upgrade or enhance the existing asset, this means that construction of a new network from zero starting conditions puts newcomers at an immediate disadvantage vis-à-vis the established players. Even when the regulator tries to force the incumbent to share the facility, and thereby allow others to participate in the market, it does not create a competitive form of market because of the lack of opportunities for independent activity.

Interestingly, the European projects mentioned above are all ostensibly aimed to promote openness and competitiveness, but they assume this openness must be under the control of private entities and government regulation. This only cements the 'ordered competition' environment, while independent rivalry could better fit the objectives of development and innovation. This independent activity should not be controlled either by incumbents or by governments. The entire European experience of the ordered competition regime has sadly preserved the market for a long period within the confines of legacy (inferior) technology, high prices and inadequate development.

From a public choice perspective, it is easy to infer that state participation in network development is a deliberate result of the 'liberalisation' policy, which has envisaged an oligopolistic environment for transnational markets, favourable to foreign expansion of the business of the giants; and current subsidisation practices not only allow these giants to indirectly use public resources for their expansion, but also protect the status quo from any threats that could be brought into telecommunications by the market process.

5 | CONCLUSION

When the key resources of an industry are under almost total control by the former monopoly, yet regulators claim to be trying to introduce a competitive marketplace in this field, the regime can be considered as 'ordered competition', a 'competition state' or 'managed competition'. The crucial difference of this environment from an open and free marketplace is that this type of regime is highly beneficial for those who have ability to affect the regulatory machine. The system protects the status quo, impedes the efficiency of genuine market processes and subsidises private businesses.

The telecoms sector of the most developed parts of Europe represents a vivid example of this kind. The alternative to the 'deregulatory' approach most of Europe has adopted was alteration of the structure of the industry. There were sound and established arguments from the academic community that this should have preceded privatisation of state monopolies (see, e.g., Burton, 1997; Stiglitz, 1999). If their advice had been followed, the industry would have had a chance to eliminate the need for regulation and have a competitive form. But this was not in the interests of the most influential industry groups.⁸

The current condition of the European telecommunications infrastructure, where the most advanced economies are apparently not at the frontier of network development despite governments pouring billions into infrastructure, is the direct consequence of the approach adopted by regulators. The focus of European policymakers on the promotion of service-based competition within the established regulatory regime has allowed incumbents to preserve control over the most important parts of the telecoms infrastructure. When the market has a real competitive form, when no one possesses power in the market and no one entity controls the crucial resources, there are no justifications for the state to use its coercive and arbitrary power, and it should allow market mechanisms to determine the use of available resources. The need to use state funds to incentivise investment arises only when a genuine competitive order has not been allowed by the government to emerge. In such a case, 'ordered competition' forms a fertile environment for rent-seeking behaviour.

The distinctive consequence of current policy towards public participation in the network development is the formation of private means of production at the expense of European tax-payers. Even if general social goals do indeed demand some public support of the network development, there are alternative methods to use this intervention in a pro-competitive way without allocating control over the subsidised assets to private entities. There are robust reasons to assume that the choice of contemporary public policy in the field of telecommunications network development is a result of vested private interests in the regulatory machine that have played the dominant role over the entire period since the beginning of 'liberalisation'.

NOTES

¹The reference by Lehman and Weisman (2000, p. 2) to "managed competition – the antithesis of true competition" is very similar to Hayek's (1949, p. 111) statement that "'ordered competition'. .. almost always restrict[s] the effectiveness of competition".

²Many scholars have been sceptical about the possibility of creating a real competitive marketplace in the industry and abolishing *ex ante* regulation (see, e.g., Stern, 2003; Armstrong & Sappington, 2006).

³The European regulatory model of the 1987 Green Paper that was in place until the end of the 1990s (Commission of the European Communities, 1987) did not envisage competition by infrastructure. For the details of the reform, see, for example, Larouche (2000).

⁴ Local loops unbundling' refers to the mandatory requirement for incumbents to share their subscriber access lines (local loops) with new entrants.

⁵In this sense it is very interesting to note the tremendous discrepancy in the costs of infrastructure construction in different regions of Europe. Finnie (2012), for example, notices that the costs vary "from €150 per household in Russia's FTTB builds, to as much as €1.500 per household in some Danish builds" (as quoted in Briglauer and Gugler, 2013, p. 823).

⁶Some examples are given in Section 4.

⁷For public choice analysis of the use of the 'digital divide' concept, see Trubnikov and Trubnikova (2018).

⁸Burton (1997, p. 169), for example, points out that the possible divestiture of BT before its privatisation was precluded in part by "the power of BT's management – who opposed any break-up of it".

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