Politicians, Regulators, Viceroys and 5G Auctions

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ABSTRACT

Under a positive view, underlying this paper, independent regulation has been widely accepted in the European Union to solve some problems created by the discretionary power of politicians. However, independent regulators also enjoy substantial discretion. This is constrained by widely accepted good regulation practices, at least in part enshrined in law. Failure to comply with good regulatory practices is a source of regulatory discretion that jeopardizes the case for independent regulation. It is argued that the process followed by Anacom to issue the 5G auction regulation misses important steps inherent to good regulatory practice and so it risks weakening, or wipe out, social support for regulatory independence in electronic communications markets. This outcome is not inevitable. Improving regulatory governance is still an option, eventually supported by the public, and some proposals are offered along these lines.

THE RISE OF INDEPENDENT REGULATION IN THE EUROPEAN UNION, over the last quarter of century, may be explained, under a positive analysis, as an attempt of the interest groups affected by regulation to avoid some of the shortcomings of the discretionary power of elected politicians. They include short termism, and eventual capture by vested interests.

Independent regulatory agencies are also endowed with discretionary power. It is necessary to fulfill their mission, but, of course, it has some shortcomings, so it is usually limited by widely accepted good regulation practices, in part enshrined in law. The objective is to ensure that interested parties are allowed to participate in the regulatory process and decisions are transparent, non-discriminatory, and proportionate – and consistent with the legal framework of the regulated industry.

Then, the problem is to assess if independent regulators implement good regulation practices and, if they fail to do it, to appraise the consequences of such failure.

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This paper contributes to this discussion, with a case analysis of the 5G auction regulation enacted by Anacom, the independent regulatory agency of electronic communications markets. First, it is argued that Anacom did not present well-reasoned arguments to support its decision and so it falls short of good regulation practices. However, if well-reasoned arguments do not explain regulatory decisions, the residual explanation is that they correspond to the regulator's preferences. In this context, a troubling question springs to mind: why replace elected politicians' discretionary power by the discretionary power of unelected officers, with their own sets of preferences?

Arguably, regulatory independence *raison d´être* may be at stake. A positive analysis highlights that interest groups support to independent regulation may well decrease, independent regulation may be threatened, and the decision-making power may be devolved to politicians. This is not inevitable. Several interest groups still see benefits in independent regulation. A new political equilibrium, with new limits on regulatory discretion, is possible.

In section I, we address the discretionary power of politicians, and, under a positive view, offer an explanation for it and for the delegation of executive power to independent regulatory agencies. "Discretionary power" here means the power of politicians, as legislators, to act independently of the "will of the voters". It implies that laws may be independent from voters' preferences. In the following sections, "discretionary power" has a different meaning. It means a power which leaves an administrative authority, either directed by politicians, or an independent agency, some degree of latitude as regards the decision to be taken, enabling it to choose from among several legally admissible decisions the one which it finds to be the most appropriate.[2] In section II we discuss the problems associated with the delegation of executive power by politicians to independent agencies, highlighting current legal constraints on regulatory discretion. In section III we discuss the regulatory process leading to the approval by Anacom of the 5G auction regulation, It is argued that it was not consistent with good regulation practices, and that it may well jeopardize the political equilibrium that led to independent regulation. Alternative political equilibria are discussed in section IV. Section V offers concluding comments.

I. Politicians and regulators

In a democracy it is assumed that public interest results from an aggregation of voters' preferences according to the majority rule. However, it may be difficult, or impossible, to know the preferences of the voters. For instance, voters may lack information on the benefits and costs of policies under discussion in the elections. Finding out the costs and benefits of political decisions is costly. The typical voters do not have the resources to assess them. They may choose rational ignorance.

[2] Council of Europe (1980).

Even if that is not the case, and voters have informed and rational preferences over election outcomes, their objectives may not be well defined. It is common knowledge that we cannot be sure that elections outcomes always deliver an unambiguous aggregation of voters' preferences.

One of the reasons is that usually voters choose a set of policies defended by a political party. Except in referenda, they do not choose specific policy options. This means that individual policies enacted by the winner of an election may not be supported by most voters, even if most voters support the set of policies in which they are included. Moreover, a set of policies does not cover all policy issues at the time of the election, and of course does not mention policy issues unknown at the time of the election but that become predominant in public policy during the term of office.

The second set of reasons is related to the paradox of voting, first noted by the eighteenth-century French philosopher Condorcet. It shows that, even if voters are informed, the outcome of voting may depend on the voting agenda and on the extent to which people engage in sophisticated voting. In 1951, K. Arrow proved that any voting rule that satisfies a basic set of fairness conditions could produce illogical outcomes. These results raise some doubts about the accepted view of voting outcomes as the "will of the voters".

Even if we were able to dismiss problems in voting, and elections revealed without any ambiguity voters' preferences on a given policy issue, politicians might not be committed to them. Voters' supervision costs are high, taking them back to rational ignorance.

In the end, politicians enjoy substantial discretionary power. It means that they can pursue their own objectives.[3] It is usually assumed that their objectives are to gain and keep political power.[4]

[3] For a survey see, e.g., Hillman (2003, chapters 1-3). The relationship between voters and elected politicians may also be seen in a principal agent-framework, The focus of this sort of analysis is on electoral institutions. Principal-agent models make the point that public accountability in electoral democracies is inherently limited, regardless of any imperfections exhibited by voters in their decision-making process. (Gailmard, p.94).

[4] Of course, it does not follow from this that a politician in a democratic system can act without any constraints. Typically, the public is protected from political discretion by several layers of legal constraints. First, criminal law protects the public from the most blatant abuses. Corruption is criminalized almost everywhere, even if the definition of corruption is not uniform. Second, the law may reduce incentives to opportunism. In some countries politicians are not expected to accept jobs in firms that were privatized or received benefits under policies supervised by them. This is supposed to decrease politicians' incentives to use discretionary power to implement policies that might benefit these firms, implicitly expecting to be rewarded with a well-paid job after leaving office. Third, legal constraints on policy making may be imposed. Perhaps the most famous are the constraints on public deficits and public debts enshrined in the Treaty of Lisbon. At the national level, Constitutions also impose some constraints on governmental discretion. In recent years, the Portuguese Constitutional Court has rejected some policy options in the state budget. Finally, every four years, or even less if elections are brought forward, voters can choose not to reelect politicians for a second term. However, under a positive view, we would need to explain why elected politicians accept these kinds of constraints and to check their effectiveness. These matters will not be addressed here as they are not essential to the issue under discussion, the delegation of politicians' power to independent regulators.

If so, several distortions are expected in policy making. Two of these will be addressed below.

The first is referred to as short termism. Democratic politicians have few incentives to implement policies whose success, if at all, is evident after the next election. And they have incentives to implement policies that bring short term rewards even if they rea outweighed by long run costs. This may have a negative effect on investment, e.g., whenever politicians looking to increase their popularity fail to create conditions for an adequate return to investment, even if that requires reneging on previous commitments to attract investors. A credibility problem is created.

Short termism is usually associated with a lack of credibility for another, more general, reason. As legislature or a majority coalition cannot bind a subsequent legislature or another coalition, public policies are always vulnerable to reneging and hence lack credibility.[5]

Second, elected politicians tend to favor interest groups that can overcome problems of collective action and overlook interest groups unable to overcome the costs of collective action. Big business is often assumed to be more effective in overcoming problems of collective action. If so, politicians are expected to deliver policies supporting big business, in exchange for political support whenever problems of collective action prevail and hinder the participation of diffuse interests in the political process. This often referred to as the capture of public decision makers by private interests.[6]

Given the potential benefits that politicians get from opportunism, it seems remarkable that, over the last 30 years, politicians in the European Union have been willing to delegate decision making to independent regulatory agencies, as part of a set of institutional innovations leading to a European regulatory state.[7] From the point of view of positive analysis, the problem is: why were self-interested politicians willing to delegate power to independent regulatory agencies?

This section will focus on explanations to solve the two problems mentioned above: credibility and capture by private interests.[8]

Concerning the credibility problem, a driver for independent regulation was to solve it at the national and at the European level. At a national level, independent regulatory agencies enhance the credible commitment of the state, e.g., vis-à-vis

[5] Majone (1999), p.4.

[6] Stigler (1971) and Becker (1983).

[7] Majone (1997).

[8] Other explanations for regulatory independence may be provided in the framework of principal-agent models, as part of finding out the best arrangements to overcome information problems. The politicians (the principal) sacrifice control because doing so gives bureaucrats (the agents) greater incentive to use their information because by doing so the agent is allowed to pursue its own interest. Moreover, when delegation is used by a principal to elicit an agent's information, the principal may be better off if it cannot oversee or review the agent's decision in any way. This is one of the foundations of regulatory independence, under this approach (Gailmard, 2014, pp.97-98). It is not pursued here.

industries that require high capital investment, reassuring private investors that they will recover their investment. Otherwise, they will not invest.[9]

In the EU, national policymakers may lack credibility not only domestically, but also in the eyes of policymakers from other member states. Even if regulations might be enacted through intergovernmental agreements, each member state does not know how political discretion will be exercised in the other member states and this is a matter for concern in the Single European Market. Given this, member states may well prefer regulatory agencies independent from national governments and accountable to the European Commission. Since the 1990s, delegation to independent institutions has been an important strategy for avoiding short termism and achieving policy credibility at both national and European level.[10]

Concerning the problem of capture by private interests, it has been suggested that with the implementation of independent regulation politicians were responding to the political pressure of interest groups, representatives of consumers and businesses. Regulatory independence was desired by most interest groups because it was in their interest. For instance, in liberalized industries entrants, or consumers' associations, might assume that former monopolists enjoyed better access to politicians than they did, and promoted independent regulation on the assumption that former incumbents would not have the same advantages of access to independent regulators. The idea was to level the playing field between entrants and incumbers, and between consumers and service providers. [11]

These insights, based on a positive analysis, are broadly consistent with results from a formal treatment of the problem of the delegation of power of elected politicians in unelected bureaucrats from a normative view. Delegation makes sense from a normative view, on economic efficiency grounds, to overcome problems related to time inconsistency in decision making, for technical tasks where ability is paramount, or where vested interests have large stakes in policy outcomes.[12]

II. Regulators and viceroys

Does the delegation of power of elected politicians to independent decision makers always solve the problems created by politicians' discretion? This is not the case. To highlight some problems associated with the delegation of political power I will use here a simple example, which was an old Portuguese institutional

[9] Thatcher (2002).

[10] Majone (1999, p.6). Independent regulation became popular. At the beginning of the 21st century, their spread might have more to do with their legitimacy in the international arena than with their actual consequences for regulatory policy making. Regulatory independence was required in one country because it had been adopted elsewhere (Gilardi, 2008, p. 4)

[11] Confraria (2003).

[12] Alesina and Tabellini (2007, 2008).

experience, initiated in the early sixteenth century, the delegation of royal power in the viceroys of India. By then, the Portuguese king Manuel I, was convinced that the creation of a new polity, the *Estado da India*, was necessary for the successful involvement of the Portuguese in the Indian spice trade. Royal power was delegated to a viceroy (or a governor). Viceroys would rule a political jurisdiction in a complex and evolving political and military environment. Due to the distance and navigation technology more than two years were necessary to send a letter and receive a reply. The delegation of power was inevitable, not a choice.

Viceroys were bound by a set of instructions, usually given to them at the beginning of their term in office. Of course, these instructions did not consider all possible contingencies during the term in office or subsequent remedies. It was not possible to do so. They needed some discretionary power. It seems that Manuel had great confidence in Francisco de Almeida, the first viceroy. According to the sixteenth century historian, Gaspar Correia, Manuel told Almeida "I give you all the power as if it was my own person, (…) and with it you shall do all that you will consider as the service of God and my own, in property as in justice".[13] As Almeida, in every situation, even if not explicitly mentioned in the instructions, later viceroys should always act according to the interests of the king.

The outcomes of this relationship depended on how viceroys complied with the instructions and used the discretion awarded to them, and on the effectiveness of the supervision of their activities by the kings.

It is likely that viceroys were able to take more discretionary power than what was envisaged by Manuel and his successors. About one hundred years after the creation of *Estado da India*, the late sixteenth century chronicler, Diogo do Couto, pointed out that viceroys and governors were focused on their own personal aggrandizement and acted as if they were allowed to do whatever they wanted in areas where no detailed royal instructions existed, without caring about the king's interests. Moreover, they used extensively legal advisers to adapt the implementation of many specific instructions to their own objectives, without jeopardizing their legal position. Their behavior in office often suggested that they were committing perjury, because when accepting the nomination, they swore that they would protect the interests of the king. [14]

The king's final assessment of job performance was also beset by some problems. First, he relied on third party information about the activities under inquiry. Third parties were not impartial observers. They had their own views and interests on the Indian spice trade – and the viceroy's job. The king's capabilities were also limited. Manuel, for instance, was too easily persuaded to adopt the views of the latest report he had read or the last person from whom he had received advice.[15] Serious misunderstandings happened. Sometimes viceroys engaged in extensive correspondence with the king, to defend themselves

[13] Correia (1859, p. 532).

[14] Couto (1980, p. 41.).

[15] Villiers (1990, p. 1)

against their critics. Eventually they might be puzzled by a king's turnabouts, or by his disapproval of actions that were undertaken with his interests in mind – or at least with their interpretation of his interests in mind.[16]

Viceroys were not passive victims of royal misunderstandings. They tried to influence the information conveyed to the king about their own job performance, even if that sometimes involved threatening people that might criticize them. After their term in office, or even before, kings used to conduct inquiries about their behavior. Anonymity of individuals providing evidence was not always kept and, apparently, some of these people have been subjected to threats and retaliation by viceroys and governors – who then went on to brag about it. [17]

Summing up, the interests of the king, were relatively well known. Power was delegated to a single person, the viceroy. They shared a religion, beliefs on the social and political system and similar social backgrounds. Even so, the interest of the king did not always prevail. This took place because there were supervision costs and the information received was distorted by the king's advisers and by the viceroys. If a king often changed his views, the relationship with the viceroy would be very complicated.

This example highlights major issues involved in the delegation of political power: trust, the scope of the powers to be delegated, supervision costs and discretion. They are relevant in the delegation of political power to independent regulatory agencies. Of course, there are substantial differences between viceroys and independent regulatory agencies. Some of them complicate the delegation of political power. Next, I will discuss accountability and the goals to be pursued by independent agencies, under the rules set by Law n.º 67/2013 (Framework Law).

Viceroys were accountable to the king. To whom regulators are accountable?

Common understanding is that they are accountable to consumers, regulated undertakings and other stakeholders that may be affected by their decisions: businesses upstream and downstream of the regulated markets, environmental or public health interest groups, regional associations, or even regional authorities. They are also accountable to their professional peers, based on the assumption that a good performance would enhance their career prospects after their term in office.[18]

This is a complicated set of accountability relationships. However, it may be an oversimplification. First, regulators may have several career prospects open to them after their term in office. Are they going back to their original careers, as lawyers, civil servants, academics, consultants, businesspeople? Will they change track, e.g., to a career in politics, or in lobbying, or from the civil service to business? Will they move to another regulatory job?

[16] Some incidents became part of history, or legend. The most famous involved Afonso de Albuquerque, Almeida's successor. A short time before his death, seriously ill, Albuquerque realized that he had been fired and replaced by a political opponent and he is said to have uttered the well-known words: "I am wronged by men for what I have done for the king; I am wronged by the king for what I have done for his men, now it is right to end" (Earle and Villiers, 1990, p. 275).

[17] Couto (1980, p. 24.).

[18] E.g., this is the assumption in Alesina in Tabellini (2007, 2008).

Second, the interests of different stakeholders are weighted according to the regulators' preferences. Eventually, the law may define consumers as the prime stakeholders, but it usually does not impose further constraints.

Third, independent regulators are accountable to politicians, even if they do not like the idea. The extent of accountability depends on each jurisdiction's legal framework, but accountability to politicians is inevitable. Elected representatives (government or parliament, eventually the president of the republic) create the independent agency and define the extent of the delegation of power, i.e., the scope of regulatory independence. They set the main goals of the agency, and implicitly or explicitly, its main stakeholders. They must also designate the board of regulatory agencies and approve their budgets, costs, and revenues. Usually, elected representatives cannot issue binding instructions to independent regulators, but they have the right to ask for information and justification of their actions. This may have obvious additional effects if the mandate of the members of the board may be renewed for a second term. Politicians may also have the power to initiate procedures to dismiss the board of regulatory agencies, not only if crimes or serious irregularities have been committed, but also if regulators have significant failures in their activities, missing important budgetary or regulatory objectives.

Summing up independent regulators may be accountable to a relatively wide set of social interests. They may well emphasize some accountability relationships and devalue others, according to their own preferences. This is a source of discretionary power.

The goals of independent regulatory agencies are defined by the government or by the parliament. Viceroys were given instructions, with a general clause empowering them to act in future unforeseen contingencies. The delegation of power to independent regulators is limited to the regulated industries and defined by framework laws, bylaws of regulatory agencies and sector specific legislation. Do these objectives give independent regulators discretionary power?

That is likely to be the case. A simple example highlights this point. It is often the case that the objectives given to regulatory agencies include the protections of consumers' interests, the promotion of efficiency and investment, and, in liberalized industries, the promotion of competition. There are at least three problems with this, which will be outlined below.

First, there may be conflicting objectives. For instance, protection of consumers' interests may jeopardize investment if there are sunk costs. In this case, regulators focused on consumers' interests may tend to set prices above the marginal costs, but below the average costs, which does not provide an adequate return on the capital invested.[19] Another problem is that strict price regulation of former monopolies may reduce the incentives to entry and decrease competition.[20]

[19] Newbury (1999, chapter 2).

[20] Littlechild (2010, pp-2-3)

Second, there may be different views about some objectives. For instance, the properties attributed to effective competition include allocative efficiency, productive efficiency and, in the Austrian tradition, discovering consumers preferences. Different regulators, or even the same regulator at different moments, may emphasize one of these traits over the others, leading to different regulatory outcomes.[21]

Third, typically different rules may be used to achieve a given objective. For instance, to implement price regulation there is a wide set of regulatory models that may be chosen by the regulatory agency. To assign radioelectric spectrum to private parties several options are available. Each option has different implications for different stakeholders. Independent regulatory agencies are given the power to choose.

Finally, independent regulatory agencies are also subject to lobbying. Not only different interest groups, but also politicians may try to influence the independent agency's decisions. Eventually politicians may prevail, or agencies may be totally independent from politicians, but outcomes somewhere in the middle are also possible, or even likely.[22]

In brief, independent regulators enjoy discretionary power. Its use may yield outcomes not much different from the outcomes created by politicians' discretion. So, it is important to determine if independent regulators operate in a framework that incentivizes and enables them to fulfill their mission.

The objectives of regulation seem to be relatively modest. The main goal is to improve an allocation of resources, according to objectives set in law. What can be done to ensure this outcome? This is part of a more general problem: What is good regulation? Suggested criteria for good regulation include the definition of a legislative mandate, the definition of rules of accountability and control, due process, access to relevant expertise and a focus on efficiency.[23]

Portuguese law sets constraints on regulatory discretion that are consistent with these criteria. The objective is to ensure that regulation addresses social concerns, that the interested parties are involved that regulation is credible for investors and consumers and capture by vested interests is avoided.

One set of legal constraints is the obligation to conduct public consultations on every regulation with an impact on external parties. Following a public consultation, regulatory agencies should explain why they accepted or rejected the public' s comments received, when issuing the final regulation.[24]

The second set of constraints is related to the proportionality principle, which applies not only to independent regulatory agencies but also to the regulatory

[21] Littlechild (2010, p. 2).

[22] See Spiller (1990), for a model based on US experience of Congressional oversight of US agencies.

[23] There is an extensive literature on the design of institutions to improve regulatory practice. See e.g., Baldwin, Cave and Lodge (2012), OECD (2014) or Brown et al (2006).

[24] This principle is set almost everywhere, in bylaws and sector specific regulation. In any case it is imposed on independent agencies by the Framework Law: Art. 41º Law nº 67/2013, of 28 august.

activity of the state. Under the proportionality principle a regulation must be adequate, necessary, and proportional.[25] The intuition is clear. If there is a regulation, there is a problem to be solved. The regulation must be adequate and necessary to solve the problem, otherwise it would not be useful. However, before the imposition of a regulation, the agency is supposed to check if the costs imposed are outweighed by the benefits created by the regulation.[26]

The imposition of constraints on regulatory discretion may be explained from a positive view. Private interest groups, businesses, consumer associations, are expected to lobby politicians to impose these constraints, because they want to protect themselves from eventual abusive behavior of the independent regulator. Without significant problems of collective action, in the spirit of Becker's model, we should expect that this lobbying is successful, and these constraints become law, enhancing social welfare.

The problem is then to assess how legal constraints and good regulation practices influence actual regulation. This will be addressed in next section, in the framework of electronic communications, with a high-profile regulatory process – the 5G auction regulation.

III. The 5G auction regulation

The 5G auction regulation has been issued by an independent regulatory agency, Anacom.[27] Anacom was empowered to do it under the electronic communications law.[28] Anacom' s powers include the allocation of radio frequencies to communications services and the assignment of rights-of-use to interested parties. Anacom must follow objective, transparent, non-discriminatory, and proportional criteria.[29] Regulations must be preceded by consultations with stakeholders.[30]

The new European Electronic Communications Code (henceforth known as EECC [31]) extends these principles. To comply with it, Anacom should consult all interested parties on proposed decisions, give them sufficient time to understand the complexity of the matter to provide their comments, and take account of their comments before adopting a final decision. Any proposal for the allocation of radio spectrum to specific technologies or services should be transparent and

[25] E.g. Oliveira et al (2010, p.104).

[26] There are several approaches to do that, usually grouped under the heading of regulatory impact analysis. One of these is cost benefit analysis. Its use implies the adoption of an economic efficiency criterion in regulation (Confraria 2020, p. 437).

[27] Regulation 987-A/2020, of October 30, henceforth known as the 5G auction regulation.

[28] Law 5/2004, of 10 february.

[29] Art. 15, 5 and Art. 30, 3 of Law 5/2004, changed by Law 51/2011 of 13 september. Law 5/2004 transposes the EU regulatory framework set in 2002 and updated in 2009.

[30] Art. 8 and art 31 of Law 5/2004, changed by Law 51/2011 of 13 september.

[31] Directive (EU) 2018/1972 of the European parliament and the Council, of 11 december 2018.

subject to public consultation.[32] Decisions on the management of radio spectrum and on granting individual rights-of-use for radio spectrum, must be based on objective, transparent, pro-competitive, non-discriminatory, and proportionate criteria.[33]

The EECC also states that the imposition of measures to boost entry, e.g., giving entrants access to incumbents' networks in the framework of spectrum assignment procedures, e.g., auctions, should depend on a careful analysis of effective competition in the marketplace. The point is to avoid distortions in competition. It is recognized that where unduly applied, certain conditions used to promote competition, can have other effects; for example, wholesale access obligations can unduly constrain business models in the absence of market power. The use of such measures should therefore be based on a thorough and objective assessment, by national regulatory and other competent authorities, of the market and the competitive conditions. This assessment should follow the procedures defined in the EECC.[34]

It is worth noting that, as the EECC was not transposed during the period leading to the 5G auction regulation, it was not strictly part of the legal framework applicable to the auction. However, it was approved on December 11, 2018, and it was known that it would become part of national law.[35] In any case, it had to be seen as an improvement from the previous directive, where the obligation to assess market competition was not imposed so directly. Taking the new EECC as a reference, if consistent with the legal framework that is still applicable before its transposition, should contribute towards effective regulation. Obviously, it would be a case of good regulatory practice.

With this framework, the regulatory process set up by Anacom to approve the 5G auction regulation involved the following major steps:

1. Decision of 1 March 2018. It approved the launch of a public consultation on the provision of the 700 MHz frequency band and other relevant bands.
2. Decision of 20 July 2018. It approved the report of the public consultation held on the availability of spectrum in the 700 MHz frequency band and other relevant bands.
3. Draft decision of 22 October 2019, on the designation of the 700 MHz band for terrestrial electronic communications services, on the limitation of the number of frequency usage rights to be allocated in the 700 MHz, 900 MHz, 1800 MHz, 2.1 GHz, 2.6 GHz and 3.6 GHz bands and on the definition of the respective allocation procedure and approving its submission to a general consultation procedure.

[32] Recitals 66 and 116 of the EECC.

[33] Art. 45 and art. 48 of the ECC.

[34] Recital 133 and art. 52, 2 of the EECC.

[35] The deadline for transposition set by the Code was 21 December 2020. However, in the beginning of 2022 Portugal had not yet transposed the code, being in a situation of non-compliance.

4. Decision of 31 October 2019. It approved the start of the procedure for drafting a regulation of an auction for allocation of frequency user rights in the bands of 700 MHz, 900 MHz, 1800 MHz, 2.1 GHz, 2.6 GHz and 3,6 GHz. Interested parties were invited to provide suggestions for issues to be included in the 5G auction regulation.
5. Final decision of 23 December 2019 on the designation of the 700 MHz band for terrestrial electronic communications services, on the limitation of the number of frequency usage rights to be allocated in the 700 MHz, 900 MHz, 1800 MHz, 2.1 GHz, 2.6 GHz and 3.6 GHz bands and on the definition of the respective allocation procedure.
6. Draft regulation of 6 February 2020, on the auction for allocation of frequency user rights in the bands of 700 MHz, 900 MHz, 1800 MHz, 2.1 GHz, 2.6 GHz and 3.6 GHz and approving its submission to a consultation procedure.
7. Approval of the 5G auction regulation, and the public consultation report to which the respective draft was submitted.

One of the most important features of the 5G auction regulation is a set of rules to promote entry. These rules are the focus of this section.

Using spectrum auctions to eliminate legal barriers to entry in mobile markets, was obviously a good idea. Spectrum was made available to entrants. They were rightly given the opportunity to enter the market according to their own evaluation of the viability of entry.

Entrants were also given preferential conditions in the bidding process, and extensive rights of access to the incumbents' networks. That included general rights of access given to mobile virtual network operators, and, more consequentially, rights to national roaming given to entrants that acquired rights-of-use in the 5G spectrum auction. These were rights of access to incumbents' 5G networks, as well as to their legacy networks.

These rights were a source of contention between the incumbent operators and the regulator. The problem in the end is to know if these conditions were proportionate and a case of good regulatory practice, or a simple case of regulatory discretion, dependent basically on the preferences of the regulator.

It is helpful to analyze first the regulatory process, second the merit of the decision.

Anacom seems to have mostly complied with the obligations to involve interested parties in the regulatory process, asking for suggestions, conducting the required public consultations, and publishing a report on these consultations as part of the decision-making process. These steps were consistent with the law and are part of what is considered good regulation.

The objective of involving interested parties is to identify claims that, after analysis, may be considered as market problems to be addressed using appropriate remedies. So, in this case, it was not enough to receive complaints from potential entrants, concerning access to mobile operators' networks. Further analysis was required under the proportionality principle, as well as under the

rules set by the new EECC, mentioned above. It was necessary to show that there was a competitive problem in the mobile market, and the problem should be solved providing entrants with the extensive rights-of-access to mobile operators' networks provided under the 5G auction regulation.

At the end of the regulatory process, it seems that Anacom believed that a competitive problem had been identified. It stated that one of the objectives of the regulation was to increase competition in electronic communications markets.[36]

However, Anacom draws this conclusion without conducting an assessment of the mobile market and its competitive conditions. During the regulatory process there is only a small piece of text that might be considered related to competitive issues. It is a 5-page text, called "Characterization of the current mobile market" and it is included in the annex of the draft decision of 22 October 2019, submitted to a general consultation procedure.[37] There are also some comments on competition in Anacom' s responses to issues raised by stakeholders in the public consultation report.

It may be argued that selected comments on prices and competition are not likely to be an assessment of competitive market conditions consistent with the EECC and with the proportionality principle. As stated in the EECC, on competition issues related to the allocation of rights of use of spectrum, national regulatory and other competent authorities shall, taking into account market conditions and available benchmarks, base their decisions on an objective and forward-looking assessment of the market competitive conditions, of whether such measures are necessary to maintain or achieve effective competition, and of the likely effects of such measures on existing and future investments by market participants in particular for network roll-out. In doing so, they shall take into account the approach to market analysis as set out in article 67(2).[38]

It seems difficult to suggest that Anacom made an analysis according to these principles. The 5-page text and Anacom' s report following the public consultation do not address any of the issues often used to evaluate competitive conditions, for instance the deviations of prices from costs, the level of economic profits, the level of investments and quality of service, not to mention a careful analysis of market structure. They are focused on some pricing practices and some international price comparisons. Even as documents on pricing, they have shortcomings, related to the incomplete treatment of the problems associated with the comparisons between different pricing plans, the role played by traffic growth in business strategies, and the problems of analyzing the trade-off between prices and quality of service.

According to this reasoning, a justification for the access obligations imposed consistent with what is considered good regulatory practice seems to be absent from the regulatory process.

[36] Explanatory note to the regulation, 5.

[37] Available at https://www.anacom.pt/streaming/SPD_Atribuica700outrasFaixas22102019.pdf?contentId=1488322&field=ATTACHED_FILE.

[38] Art. 52 (2).

Having said that, let's accept Anacom' s view, for the sake of this discussion. Then, the problem is to determine if the measures imposed by Anacom were adequate and necessary to solve the problem, according to the proportionality principle.

If the problem was lack of competition, the appropriate remedies should have depended on the concept of competition used by Anacom. Implicitly, the 5G auction regulation suggests that, for Anacom, competition means more competitors, and entry is facilitated to achieve that.[39] If so, how many competitors? Arguably, it is not the job of a modern electronic communications regulator to adjust the number of firms to the regulator's beliefs about market structure. But with this regulation Anacom is close to do this. The regulation is not neutral about entry. The number of firms coming out the auction is not decided only by business strategy, market opportunities and spectrum availability. It is also decided by the extensive regulatory measures to support entry. Were these measures enough, to overcome the alleged barriers to entry? Were they too much? Anacom did not provide reasoned arguments to enable the interested parties to evaluate these issues.

Let´s accept, again for the sake of this discussion, that the measures in the 5G auction regulation supporting entry are necessary and adequate to achieve an increase in the number of competitors. Under the proportionality principle it is still necessary to discuss if the benefits of these measures outweigh their costs. The 5G auction regulation and its explanatory note are singularly mute about this. Anacom did not conduct a reasoned discussion of the benefits and costs of the 5G auction regulation.

It may be argued that, given time and information constraints an in-depth analysis, like a cost benefit analysis, was not viable. The point seems reasonable. However, Anacom had time to prepare for the 5G licensing process. Moreover, the 5G auction regulation was not like a periodic regulatory process, reviewed every other year or every three years, when the regulator is able get additional information from experience and can review the decisions taken before. Rights-of-use of 5G spectrum were to be allocated for 20 years, rights of access of third parties to incumbents' networks were given for the same time and rights of national roaming to entrants buying rights-of-use in the spectrum auction were given for at least 10 years (eventually extended, following a reevaluation by Anacom). Given these constraints, and the salience of 5G auctions and their potential impact on the development of market communications, it seems obvious that Anacom was expected to provide an in-depth analysis and a rationale for this regulation under the proportionality principle.

Anacom did not provide it. However, can we say that even with these shortcomings in the regulatory process, the 5G auction regulation is a good regulation, its net benefits are obviously positive? If so, Anacom' s position might be accepted, not as a matter of principle, but as a matter of convenience. We might say that all's well that ends well.

[39] This is a simple, and restrictive idea of competition. Competition is a particularly rich concept. For a survey High (2001).

Some arguments raise serious doubts on this view.

First, let us consider arguments about the impact of entry on prices and welfare. It is usual to assume that prices decrease following entry. It is not necessarily the case.[40] Even assuming that it is the case, and prices decrease following entry, it does not follow that welfare always improves with entry. If entry has a negative impact on investment, there is a trade-off between the short run benefits of entry, the price decrease, and its long run costs, if reduced investment reduces quality and the value of the service for consumers.

Some evidence along these lines has been provided in a related case: the impact of mobile mergers on welfare. It was found that mergers are likely to have static price effects to the detriment of consumers, but also dynamic benefits for consumers to the extent that investments enhance their demand for services.[41]

From a different perspective, it has been highlighted that the exponential growth of mobile traffic is possible because of the investment undertaken by incumbents, increasing network capacity. Traffic growth has enabled a substantial decrease in revenues per megabyte. Assuming that with entry the nominal prices decrease, but that there is also a negative impact on investment that reduces traffic growth, the net effect of entry on revenues per megabyte is ambiguous.[42] The role of traffic growth in price comparisons has not always been recognized. And considering it might well change some perceptions. For instance, the merger between Hutchinson and Orange, in Austria, is often considered the source of substantial price increases, at least prior to the entry of MVNOs specified in their merger commitments. However, the price analysis published following the completion of the merger did not consider the growth in traffic, neither increases in traffic and capacity.[43]

Second, there is a related issue, the possibility of excess entry.

The discussion about this is not new in mobile communications. It has happened before in the framework of 3G licensing.[44] It has been noted that the consequences of new entry in the European mobile sector have been modest at best. Over a period of roughly 15 years, the award of 3G licenses has achieved very little by way of increased competition. Until 2018, the major company to have had any broadly based success was CK Hutchison Whampoa, yet it only managed to establish itself as the smallest operator in its markets and the losses that it incurred in so doing would be unsustainable for virtually any other potential entrant.[45]

[40] E.g., Csorba and Pápai (2015) estimated the impact of entry and mergers on the price of voice services. They found that the effect of entry depends on the number of operators and the type of entrant – big multinationals or disruptive players.

[41] Genakos, T. Valetti e F. Verboven (2018).

[42] Jeanjean (2015); Jeanjean and Hougbonon (2017).

[43] As noted by a former head of the Austrian regulatory agency, quoted in Curwen et al (2019, p. 19).

[44] See the report commissioned by the European Commission EC (2002). It was then argued that excess entry might be a feature of communications markets in some EU countries (Gruber, 2005).

[45] Curwen et al (2019, p.86).

The possibility that Anacom has been driving excess entry should not be dismissed without an explanation. There are two sets of reasons why Anacom may have been incentivizing excess entry. The most obvious, are the extensive measures to support entry in the 5G auction regulation. Another set of reasons is less obvious. It is well known that excess entry is influenced by the adaptive behavior of incumbents when entry takes place, leading to a business stealing effect, from the point of view of incumbents that increases their unit costs.[46] If incumbents expect Anacom to be focused on the success of entrants, they may well avoid a strategic reaction to entry, and adapt their prices to entry, for fear of regulatory retaliation if entry is not successful. If so, incumbents will be facilitating entry to accommodate the regulators' preferences, and this may be the source of excess entry. The regulators' retaliation may have many dimensions. In any case it should be kept in mind that the price of access to mobile networks was not defined before the auction and Anacom may well have the final word on it.

Third, there is the impact of the imposition of access obligations on investment. This has been extensively discussed in the literature, albeit with a focus on access to fixed communications networks, usually the focus of these types of obligations. Concerning mobile markets, that developed under competition, it was already argued twenty years ago that regulation of access should depend on the regulator's assessment of competitive conditions, including the identification of the operator with significant market power, if any.[47] This is still the prevalent view on the regulation of mobile markets through the imposition of obligations of access. If spectrum auctions are used to pursue the same goals care must be exercised not to create distortions in the market, as stated in the EECC.

Another reason for taking care in this area, is related to the results that suggest that the imposition of access obligations in electronic communications markets, over the last twenty years, had a negative impact on investment.

The theory of the ladder of investment has been used as a rationale to impose access obligations. The idea is that after benefitting from access to the incumbents' networks in their early years, entrants will move up the ladder of investment, investing in their own networks and promoting infrastructure-based competition. Empirical evidence does not support this view.[48]

The general conclusion of studies that cover copper-based broadband is that full competition between infrastructures is the 'gold standard': it yields better results than access- based competition.[49] On Next Generation Access networks (NGA), as the empirical literature indicates a negative impact of ex ante access regulations on NGA investment and NGA adoption, deregulatory approaches are supported.[50]

[46] Mankiw and Whinston (1986).

[47] Hausman (2002). This is also the approach prevailing in the EU regulatory framework.

[48] Bacache, Bourreau and Gaudin (2014). Martin Cave, who proposed the theory of the ladder of investment, has a more nuanced view and suggests that its application probably conferred benefits, at least in some markets (Cave, 2014).

[49] Cave, Genakos and Valetti (2019, p.53).

[50] Briglauer, Cambini., Fetzer, Huschelrath (2017, p.16).

Summing up, the experience from access regulation of fixed networks suggests that, at least, regulators should carefully assess the reasons and the consequences of the imposition of mandatory access to mobile networks. Arguably, Anacom did not provide an assessment along these lines.

This is a source of concern. Anacom should be expected to provide at least reasoned arguments on why the net effects of the imposition of access to mobile networks in the framework of the 5G auction are expected to be positive. They should have discussed the impacts of these obligations from a static view of competition, focused on prices, and from a dynamic view of competition, including the impact of the regulation on investment, quality of service, traffic growth and on the valuation given by consumers to mobile services.

If so, there are two consequences, concerning the 5G auction: one is related to the legality of the decision, the other related to its merit.

It was not surprising that legal action followed Anacom' s regulation. Mobile operators appealed against Anacom' s 5G auction regulation, and they might well have a point considering the previous arguments. However, in most cases, there were no court decisions before the scheduled 5G auction date and the auction took place, according to the regulation.[51]

Independently of the legality of the decision, the previous arguments focus on a different point: they suggest that Anacom did not always follow what may be considered as good regulatory practices and did not prove the merit of its decision. The decision on access obligations in the 5G auction regulation seems to be basically determined by the preferences of the regulator. It looks like an exercise in discretionary power. But if that is the case, the problem that independent regulation was supposed to avoid, the discretionary power of politicians, has merely reappeared in a different way.

This situation may the source of a breakdown of the political equilibrium that led to the creation of an independent regulatory agency in electronic communications markets. Incumbent operators, entrants, consumer associations, business users, regional groups were certainly not willing to simply replace politicians' discretion by regulators' discretion. If there is a breakdown of the political equilibrium on independent regulation in electronic communications markets, political consequences are to be expected. They will be discussed in the next section.

IV. Political consequences: improving regulatory governance?

We can consider two alternatives for a new political equilibrium on the delegation of powers to an independent regulator in electronic communications markets. The first is to assume that support for independent regulation is wiped out and regulatory power will be taken back by the government. The other is to assume that support for independent regulation is still strong. Independent regulation

[51] The judicial system possibly struggled with the appeals, eventually for lack of resources.

persists, but with a review of rules of governance to avoid at least some effects of regulatory discretion.

The first alternative seems unlikely. Arguably, the use of discretionary power by Anacom may have wiped out the consensus for having regulatory powers concentrated in an independent regulatory agency. With hindsight, incumbent mobile operators would prefer a different allocation of decision-making powers in the spectrum auction, eventually giving back to the government the power to take the final decision.

However, Anacom' s behavior did not wipe out all the political support for regulatory independence. There are other interest groups, with a view naturally different from the view of incumbent mobile operators. First, Anacom' s decision created a new constituency, the entrants with rights of access to incumbents' networks. They are likely to support regulatory independence, at least in the next few years. And there are two large constituencies, arguably the most important, that right now, are possibly hedging their bets by staying silent: final consumers and business users. In the short run they expect to benefit from entry, if entry leads to lower prices, but in the long run they may lose quality of service. And a huge question mark hangs over whether the new market structure is the best one for the development of 5G services, required by many business users. Anacom' s decision was undoubtedly focused on fostering competition on 3G and 4G voice and data services, but 5G services are in a different league, concerning spectrum requirements, product design, integration with customers' infrastructures, sales strategies, and customer service.

A situation like this may well lead to the maintenance of the current institutional arrangements for the near future. The final political outcome will depend on market outcomes. Here, Anacom may still has an essential role to play if it sets the prices of national roaming to be paid by entrants.

In any case, the likelihood of a new political equilibrium with a transfer of regulatory powers to the government should not be dismissed in electronic communications markets. The 5G spectrum auction was very important for the development of communications. It was also very salient. The regulatory process was extensively discussed in the media, and the auction regulation was subject to litigation after its approval.[52]

The probability that a new political equilibrium devolving power to the government will be required by some interest groups increases if the 5G auction regulation is not seen as an isolated process, subject to specific constraints, and Anacom' s decisions in other areas are also increasingly viewed as exercises in regulatory discretion.[53]

[52] There was further litigation over surprising decisions later taken by Anacom, as reviewing the 5G auction regulation when the auction was taking place.

[53] A recent government decision suggests that this may be more than an assumption taken for the sake of this discussion. In postal markets, substantial decision-making powers on price regulation, previously delegated to Anacom, have been taken back by the government (Decision of the Council of Ministers 144/2021, of 23 September).

However, interest groups may still appreciate in most cases the benefits of not falling back to the realm of politicians' discretion. Confronted with regulatory discretion, a preferred approach may be to exert political pressure to use the law to reduce the discretionary power of the independent regulator.

What can be done?

This approach would involve a detailed regulation of the regulatory process to be followed by the regulator, e.g., explaining clearly the type and the level of analysis required to justify major regulatory decisions, like spectrum auctions., i.e., a detailed specification of the legal standards applicable. These detailed regulations should be consistent with good regulatory practice. There should be no doubts on the level of analysis and justification required for each decision. The goal would be to facilitate the job of the courts when evaluating appeals against regulatory decisions. The focus should be on the regulatory process, and not on the merit of the regulatory decision. Otherwise, regulatory independence would be compromised.

More involvement of the parliament on the assessment of major decisions of independent regulatory agencies would be another contribution to improving regulatory governance.

Probably this would require some changes in the approach of the parliament to the activities of independent regulatory agencies. It would be necessary to improve the depth and the frequency of their inquiries and assessments of regulatory activity. There is an informational problem, of course. These agencies deal with different sectors of the economy (plus the competition authority) and evaluating many of their decisions may require a permanent focus and an appropriate level of expertise. Possibly, the creation of a specialized parliamentary commission on regulatory agencies might be useful to overcome some of these problems and enable the parliament to inquire on the regulatory process followed to approve major regulatory decisions. Before the approval of the final decision, the commission should be able to assess the regulatory process and issue a reasoned opinion on it. Independent agencies should take that opinion into account before approving the final decision

Finally, the role of the judicial system should be stressed. It is well known that an effective and functional judicial system is a prerequisite for an effective regulatory regime.[54]

Other obligations were imposed by the 5G auction regulation. They were not discussed before, as they were not directly related to the problem of access, but at least some of them deserve further consideration, when discussing the regulatory process and the powers of Anacom.

A major issue is related to the obligations of population and territory coverage imposed to operators that acquire spectrum rights-of-use. There is no doubt that it makes sense to impose this type of obligations when rights-of-use of a public asset are sold to private parties. In this case, Anacom' s decision, imposing

[54] Brown et al (2006, p. 103). Enhancing the technical capabilities of the courts should increase their effectiveness.

extensive coverage obligations, seems to be broadly aligned with EU objectives on enhancing fast and ultra-fast broadband penetration and cover all the population.

The problem to be discussed here is different. It is related to the delegation of political power. Is it the best option to delegate to Anacom all the decision-making power on the definition of coverage obligations, as it happened in the 5G auction?

Coverage obligations imposed on 5G networks have an obvious impact on access to fast and ultra-fast broadband in peripheric regions and rural areas. Arguably it makes sense that these decisions should be taken by elected representatives, accountable to the voters of these regions, and not by an independent agency, that has, at most, an indirect relationship with the voters. Coverage obligations in this case are not a technical issue, like access obligations used to promote competition, that may be addressed better by an independent regulatory agency to avoid politicians' failures (if the regulator complies with good regulatory practice!). They are a political choice. Should elected politicians, accountable to voters, be responsible for it? [55]

The preferences of the interest groups and the political coalitions involved here are different from those involved in the regulation of access to incumbents' networks. Local authorities and members of parliament representing rural districts might well prefer to have a stake in a decision on coverage obligations. Mobile operators would try to avoid something close to 100% population and territory coverage, because of the costs involved. Consumers and subscribers in the most populated areas would have to be prepared to pay higher prices to ensure universal access.

In the end, the status quo may well be the equilibrium, with a novelty. Something might be required by the interested parties to reduce regulatory discretion. An option would be an unambiguous definition of the legal standard required for any decision. For instance, the standard could be to achieve a net gain in social welfare. In this case given set of coverage obligations imposed by Anacom would require a cost-benefit analysis to prove that there was a net gain in social welfare. For the sake of convenience this analysis might be undertaken by Anacom, and reviewed by experts accountable to the parliament, eventually to the government. Again, the results of this review should be considered by Anacom, before approving the final decision.

V. Concluding remarks

Independent regulation is a policy option. Under a view based on positive analysis, it may be required by most interest groups to avoid government failures that jeopardize consumers' interests and business investment. Politicians accepted

[55] A similar point might be raised about the process of spectrum allocation. Choosing an auction has a fiscal impact relative to other methods of spectrum assignment. Even the type of auction may have a fiscal impact. Should these decisions be entirely left to an independent agency?

it to overcome these credibility problems and to keep the support of interest groups. Good regulatory practices, and legal constraints imposed on the regulatory process, are supposed to reduce risks associated with regulatory discretion.

Arguably, in the 5G auction regulation something failed, vis-à-vis what may be considered as good regulatory practices, and the jury is still out considering the legal standards applicable in the future. Policy responses may be required, as the political equilibrium on independent regulation was disturbed. Two alternatives for a new political equilibrium on independent regulation in communications markets were suggested.

There is no reason to assume that problems of regulatory discretion are an exclusive of the regulation of electronic communications markets. The framework suggested in this paper may be used to discuss decisions of independent regulatory agencies in other regulated markets, and the potential for politically driven changes in regulatory governance.

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