

## BEREC Report on Oligopoly analysis and regulation

### PT Portugal's contribution

*"Extraordinary claims require extraordinary evidence" – Carl Sagan*

#### I. Introduction

PT Portugal welcomes this new opportunity to contribute to the preparation of BEREC's report on oligopoly analysis and regulation.

In our previous contribution to this work stream last January<sup>1</sup>, we expressed our concern that a misinterpretation of oligopolies and of the competitive market structure of the electronic communications sector might lead to equivocal analysis and inappropriate recommendations to reform the regulatory framework.

Overall, BEREC's draft Report has aggravated this concern.

On the one hand, PT welcomes the acknowledgement by BEREC that oligopolies are compatible with competitive outcomes, as well as the focus put on dynamic efficiency and the declaration that BEREC is not seeking a "regulatory joker" to be used by NRA when analysing oligopolies.

However, these positive references are overbalanced by other parts of the draft report where BEREC privileges hypothetical (rather than empirical) assessments in the analysis of joint dominance cases (in practice reducing the burden of proof) and pushes for a new type of ex-ante intervention outside and beyond the SMP framework, based on the concept of tight oligopolies (as defined by BEREC).

Such an evolution would be unsupported and would defraud the legitimate expectations created by the current regulatory framework, which foresees the deregulation of markets once the three criteria test is no longer satisfied or market dominance following well established competition law rules and criteria can't be determined.

It would also go against the long standing principle behind public intervention in market driven economies according to which private property and the freedom of contract are fundamental rights that can only be compromised in exceptional and well-defined situations. A state of regulatory uncertainty and arbitrariness is to be expected

---

<sup>1</sup> See MEO's (PT Portugal) contribution of January, 30, 2015.

if this principle is put at jeopardy and regulatory decisions are to be based on ill-defined concepts and loose criteria.

PT is hopeful that the present contribution will help BEREC to reflect further on this matter, particularly in what concerns reassessing the merits and the opportunity of introducing in the framework new tools designed to extend the scope of regulatory intervention to situations in which market dominance is absent.

PT reaffirms its view that deregulation, handover to competition law and overall simplification, with a clear focus on dynamic (long term) competition and on the establishment of a level playing field between all players, must be primary objectives of the upcoming and much needed framework review. This is the evolution path that can better promote the infrastructure investments necessary for this sector to fulfil its key role in the digitalization and modernisation of the European economy.

This document is structured with two more sections, one regarding joint dominance, the other regarding “tight oligopolies”, containing PT’s detailed comments on BEREC’s draft report. The following bullet points summarize these comments:

- While there might be justification to streamline the SMP guidelines around the Airtours case and to explain in more detail how each key factor is to be assessed, the high burden of proof for the imposition of ex-ante regulation must not be relaxed in order to facilitate intervention in markets where single SMP is not found anymore.
- Otherwise, core regulatory principles like the transitory nature of ex-ante regulation and the handover to competition law will be defrauded and more Type I errors are to be expected.
- There are no founded reasons to deviate from the current concept of “effective competition” which is equivalent to the absence of dominance (single or collective) and from the principle that ex-ante regulation is not warranted unless dominance can be determined.
- The concept of “tight oligopoly” as defined by BEREC doesn’t have proper support neither in competition and case law nor in economic theory. In fact the concept characterized by BEREC is rather inconsistent and implausible and it is even questionable that it might correspond to a market.
- Additionally, even if there is a gap stemming from the “limitations” of the principle of dominance, which is preventing both NRA and NCA from intervening in “ineffective tight oligopolies”, it doesn’t seem realistic or advisable to ask the Commission to address this alleged problem in the electronic communications regulatory framework instead of resolving it at its origin (directly in competition law, to which ex-ante regulation is tributary).

- If that were to happen the telecommunications sector would be put under a stricter control vis-à-vis the many others economic sectors that also present oligopolistic market structures.
- The new concept introduced raises concerns also regarding its practical implementation: competitive, “tight” and collusive oligopolies are hard to distinguish, even in conceptual terms (as BEREC itself recognizes in various parts of the document). It follows that ex-ante intervention in these situations increases both the likelihood of Type I regulatory errors and the importance of submitting these analysis to an especially high standard of proof based on empirical evidence and observable effects over the long run.
- Furthermore, some of the factors BEREC associates with “tight oligopolies” are either not observable in the telecommunications sector (capacity constraints, low growth of demand, poor innovation, high prices, high level of product differentiation allowing firms to raise prices close to the monopoly level) or can be addressed using the existing tools in the framework (e.g. high switching costs can and are already addressed by consumer protection legislation).
- More work needs to be done to fully understand the competitive long term dynamics that are unfolding from the fundamental trends identified by BEREC in the electronic communications markets: technological convergence, bundling, consolidation and widespread inter platform competition (even if focused primarily in certain geographical areas). PT encourages BEREC to investigate these trends and their effects further (for instance regarding the fact that oligopolies are often geographically fragmented) before concluding for the need of establishing a new regulatory trigger to address “tight oligopolies”.

## II. Joint dominance

The current regulatory framework already provides the necessary tools for intervention if a NRA finds evidence of a non competitive market dominated by coordinated firms, by means of declaring joint dominance according to the SMP guidelines.

The fact that there have been relatively few cases of ex-ante joint dominance analysis in the electronic communications sector is not an indication of any inadequacy of the instruments available but rather that the electronic communications markets are not prone to coordinated behaviour.<sup>2</sup>

---

<sup>2</sup> In PT Portugal’s contribution of last January we identified the most important factors that make the electronic communications markets fundamentally unstable: the fast pace of technological innovation and change, low barriers to entry and expansion (e.g. symmetrical regulated access to civil

However, as mentioned in BEREC's draft report, many NRA suggest they would like more assistance in how to conduct this type of analysis. BEREC considers that the Airtours' criteria are the relevant framework for assessing the risk of tacit collusion and proposes to recommend the Commission a review of the regulatory framework in order to structure the criteria to be used to assess joint dominance around the criteria used in the Airtours case and to provide more clear guidance to NRA on how each criteria should be assessed.

PT agrees with BEREC that the Airtours case constitutes the right reference to be upheld. We also recognize that in a sector which has been fundamentally characterized by single SMP, NRA may lack experience and agility to analyse joint dominance cases and could thus benefit from the existence of more detailed and clear guidelines reflecting the Airtours jurisprudence.

BEREC's proposals in this regard seem justified and PT doesn't have strong objections to them.

Whatever form of guidance is chosen, the most important aspect to consider is that the required burden of proof can't be relaxed, in order to avoid unwarranted regulation. In this respect, PT doesn't agree with BEREC's view that in markets with existing single SMP based regulation in place a joint dominance case should rely more on a hypothetical rather than factual analysis.

Although some of the effects associated with tacit collusion might be prevented by existing single SMP based regulation (e.g. collective denial of access), hard empirical evidence must be provided to prove the existence of observable joint dominance effects and of the processes by which these not only could but also would materialize once single SMP regulation is lifted. Any relaxing of the burden of proof for ex-ante joint dominance examination will jeopardize core regulatory principles currently enshrined in the regulatory framework like the transitory nature of ex-ante regulation and the handover to competition law.

In fact, the difficulties that NRA may have in gathering empirical evidence to corroborate a joint dominance case when ex-ante regulation is already in place is one very strong argument supporting the handover to competition law (where ex-post effects based scrutiny occurs).

---

infrastructures like ducts and poles), potential for growth, reduced switching costs (symmetrical consumer protection regulation), existence of excess capacity (coverage vs penetration), product differentiation (speeds, TV channels, apps, number of services bundled, NGA) and increasing potential (and real) competition from OTT.

It must also be referred that the tacit collusion theory has little predictive accuracy, as explained by Nicolas Petit.<sup>3</sup>

Many observable factors can either facilitate or undermine the satisfaction of tacit collusion conditions making it complex to anticipate – without concrete ex-post evidence – which of those effects will likely prevail in a given oligopoly. According to this author:

*In light of the vagaries of the applied theory of tacit collusion, anticipating that a given factor will lead to one effect rather than another, invariably entails a degree of over-generalization and arbitrariness.*

*Given that economics does not (yet?) provide more than a crystal ball to forecast future equilibriums in oligopolies, decision makers should err on the side of caution, and only exceptionally enforce ex ante remedies in oligopolies.*

To conclude, PT stresses that the standard of proof for joint dominance must remain high given the low probability of its existence and the likely occurrence of type I errors.

It is not enough to identify the market conditions that potentially favour the emergence of a collective dominant position by checking a set of criteria. On the contrary, it is necessary to demonstrate rigorously that the observed market equilibrium is collusive instead of competitive.

### **III. Tight oligopolies**

#### **A. Rationale for public intervention in the economy and regulatory certainty**

The rationale behind the concept of “tight oligopolies” presented by BEREC seems very weak to justify a public intervention in the economy.

As mentioned before in the Introduction, there is a long standing principle behind public intervention in market driven economies according to which private property and the freedom of contract are fundamental rights that can only be compromised in exceptional and well-defined situations. Furthermore, a state of regulatory uncertainty and arbitrariness is to be expected if this principle is put at jeopardy and regulatory decisions are to be based on ill-defined concepts and loose criteria.

The introduction of a concept of “tight oligopolies” warranting ex-ante regulation without requiring dominance would frustrate expectations and cause regulatory

---

<sup>3</sup> The “Oligopoly Problem” In EU Competition Law (2012) - Nicolas Petit.  
Available at <http://ssrn.com/abstract=1999829>.

uncertainty in view of the current regulatory framework which provides for the deregulation of the market when SMP ceases to be found.

There are no founded reasons to deviate from the current concept of effective competition which is equivalent to the absence of dominance (single or collective) and from the principle that ex-ante regulation is not warranted unless dominance can be determined.

It is very doubtful that a company without dominance in the market and without being involved in collusive action becomes a regulatory target uniquely because it acts in an imperfectly competitive market which produces a sub-optimal outcome (even if in theory the regulation can lead to a better outcome), not to mention the difficulties in making these assessments and judgments.

Additionally, even if there is a gap stemming from the “*limitations*” of the principle of dominance, which is preventing both NRA and NCA from intervening in “*ineffective tight oligopolies*”, it doesn’t seem realistic or advisable to ask the Commission to address this alleged problem in the electronic communications regulatory framework instead of resolving it at its origin (directly in competition law, to which ex-ante regulation is tributary).

If that were to happen the telecommunications sector would be put under a stricter control vis-à-vis the many others economic sectors that also present oligopolistic market structures.

## **B. Lack of economic and legal support**

The market structure characterized as “tight oligopoly” in BEREC’s consultation doesn’t have enough support neither in competition and case law nor in economic theory.

The definition of tight oligopoly presented by BEREC is discordant with the very definition of oligopoly of the Guidelines on horizontal mergers (2004 / C 31/03, footnote 29):

*“An oligopolistic market refers to a market structure with a limited number of sizeable firms. Because the behaviour of one firm has an appreciable impact on the overall market conditions, and thus indirectly on the situation of each of the other firms, oligopolistic firms are interdependent.”* (emphasis added)

The Court of First Instance, in the Gencor/Lonrho judgement, provides a definition of tight oligopoly in the same sense of collusive oligopoly:

*“ [...] there is no reason [...] in legal or economic terms to exclude from the notion of economic links the relationship of interdependence existing between the parties to a tight oligopoly within which, in a market with the appropriate characteristics, [...] those parties are in a position to anticipate one another's behaviour and are therefore strongly encouraged to align their conduct in the market, in particular in such a way as to maximize their joint profits by restricting production with a view to increasing prices.’*

In economic texts we found the concept of “tight” oligopoly in contrast to “loose” oligopoly, used in the context of measurement or quantification of the oligopoly, which is different from the meaning of BEREC (a specific market structure).<sup>4</sup>

### **C. Inconsistencies with market analysis fundamentals**

The “tight oligopoly” as defined by BEREC is a market structure rather inconsistent and implausible and it is even questionable that it might correspond to a market.

According to the Commission<sup>5</sup>:

*“Market definition is a tool to identify and define the boundaries of competition between firms.... The main purpose of market definition is to identify in a systematic way the competitive constraints that the undertakings involved face.... The objective of defining a market in both its product and geographic dimension is to identify those actual competitors of the undertakings involved that are capable of constraining those undertakings' behaviour and of preventing them from behaving independently of effective competitive pressure.”*

By contrast, BEREC characterizes a “tight oligopoly” as a market structure in which firms operate in the absence of tacit collusion, with the aim of maximizing their

---

<sup>4</sup> William G. Shepherd explains: *“The distinction between tight oligopoly (a four-firm ratio above 60%) and loose oligopoly (a ratio below 40%) has come to be regarded as particularly important. In tight oligopoly, collusion is likely to crystallize effectively into strong cooperation, as the oligopolists' common interests overwhelm the rewards from cheating. Loose oligopoly, by contrast, is seen as a setting for disintegration, where the many oligopolists with low market shares are jointly unable to avert the endemic price-cutting. This reasoning, which is broadly confirmed by the common run of experience in actual markets, suggests that a threshold value of concentration in the 50-60% range should present a clear divide between the effective competition seen in loose oligopoly and the high market power that tight oligopoly may create”* (Market Power Handbook, competition law and economic foundations, 2005 – chapter Market shares and concentration statistics, footnote 301)

*“Market definition will determine, in effect, whether the market is a “loose” oligopoly, a “tight” oligopoly, or indeed, an oligopoly at all. “* (Oligopoly under attack: new approaches to an old problem, Don Hibner jr, dec 2012)

<sup>5</sup> Commission Notice on the definition of relevant market for the purposes of Community competition law.

individual profit, taking their competitor's behaviour as given and not influenced by their own actions.

In fact, it follows from BEREC definition of "tight oligopoly" that each oligopolistic firm is independent from the other, has the power to increase prices profitably because it does not suffer competitive constraints neither on the demand side (it offers a differentiated product compared to other oligopolistic firms and switching costs are high) nor on the supply side (there are capacity constraints and high barriers to entry). This matches with the behaviour of the hypothetical monopolist, i.e. the existence of several relevant markets in which each firm is monopolist (which means the SSNIP test would then not be verified for the oligopolistic market).

#### **D. Practical implementation and the burden of proof**

The new concept of "tight oligopolies" raises concerns also regarding its practical implementation: competitive, tight and collusive oligopolies are hard to distinguish, even in conceptual terms (as BEREC itself recognizes in various parts of the document). It follows that ex-ante intervention in these situations increases both the likelihood of Type I regulatory errors and the importance of submitting these analysis to an especially high standard of proof based on empirical evidence and observable effects over the long run.

Like BEREC states in its draft report (p. 45), *"it is accepted that the more speculative the theory of harm is, the more plausible evidence is needed to prove this theory."* Therefore the burden of proof in these cases must be necessarily higher than what is required for joint dominance cases.

As a result, the examination of "effective competition" involving the assessment of the balance between static (short term) and dynamic (long term) efficiency of an oligopoly implicitly requires an analysis based on multi-period factual evidences that can robustly support the long term dynamic assessment.

#### **E. Parallelism with the SIEC test**

BEREC refers in the draft report (p. 55):

*"The parallelism of the problematic issue of gap cases in the current context is obvious: Just as the criterion of significant market power at some point was not adequate any longer to handle unilateral, i.e. uncoordinated effects in tight oligopolies concerning merger cases, the regulatory evolution of telecommunication markets may lead to in the presence of market structures and economic outcomes*



*that are not explicitly covered by the concept of significant market power even though unfortunate results are to be expected. ...” and*

*“...the above mentioned SIEC-Test (...) is an adequate starting point to define the test to be applied when identifying tight oligopolies in the context of ex ante regulation.”*

This parallelism with the SIEC test seems exaggerated and misplaced.

First, the merger law doesn't define a market structure as a “tight oligopoly”, nor does it seek to prevent its emergence. The concept of “tight oligopoly” is even discordant with the definition of oligopoly of the Guidelines on horizontal mergers (2004/C 31/03) (as said above).

Second, the vision that the SIEC emerged to fill a gap relative to unilateral effects in tight oligopoly appears distorted.

With the adoption of the new Guidelines on horizontal mergers in 2004, the “significant impediment to effective competition” test has supplanted the “dominance” test, as mentioned by BEREC.

However, the main shift is that the dominance test puts the emphasis on the market structure (creation or strengthening of a dominant position) whereas the SIEC focuses on the effects of the merger. Thereafter, merger control should be based on an understanding of competitive dynamics that accurately reflect the nature of competition in the post-merger market, rather than the static market shares generally associated with analysis under dominance. As a result the new standard is more sophisticated and imposes a higher burden of proof.

According to several authors, the novelty lies more in demanding weighting of coordinated effects (greater likelihood of collusion) than in unilateral effects (elimination of important competitive constraints on one or more firms). So the capture of the unilateral effects in a situation of non dominance is only one of the aspects - and not the most important - of the SIEC.

Finally, as opposed to the merger control, in which the generation of a permanent change in the market structure is the trigger event for the intervention, ex-ante regulation deals with an existing scenario and structure, and therefore it is not clear which trigger event could support a similar analysis.

Moreover that difference can explain why the test for merger control is stricter than the criteria for ex ante regulation. Applying the same standard to substantially different regulatory issues and scenarios might therefore result in a violation of the proportionality principle.

PT therefore considers that the gap identified by BEREC, if it exists, does not need to be tackled outside merger control.

#### **F. The sector reality and the sufficiency of existing regulatory tools**

BEREC refers that (p. 16) *“ineffective oligopolistic competition in the absence of tacit collusion may occur when the market presents one or more of the following characteristics: (1) market concentration is high<sup>11</sup>, (2) high entry barriers and no significant new entrants, (3) no countervailing buyer power, (4) mature technologies, i.e. little incentive to innovate,<sup>12</sup> (5) capacity constraints; and on the demand side: (6) low price-elasticity and low cross-price elasticities due to e.g. switching costs and (7) low growth of demand/a mature market.<sup>13</sup>”*

BEREC further states that *“the outcome of ineffective oligopolistic competition does not only concern prices, but could also amount to a limited supply of services, reduced quality of service, a decrease in output or a negative impact on R&D activity”* and in section 7.1.1 *Criteria for assessing tight oligopolies*, a *High level of product differentiation* allowing firms to raise the price close to monopoly level is also considered as a factor that can lead to sub-competitive results in the absence of collective dominance.

PT notes that some of the factors BEREC associates with “tight oligopolies” can and are already addressed using the existing tools in the framework. In section 8 *Remedies in the context of oligopolies* of the draft report, BEREC seems to have disregarded the important role that existing symmetrical regulation can play. For instance, switching costs are already addressed by consumer protection legislation and barriers to entry and expansion have been lowered by regulated access to civil infrastructures such as ducts and poles.

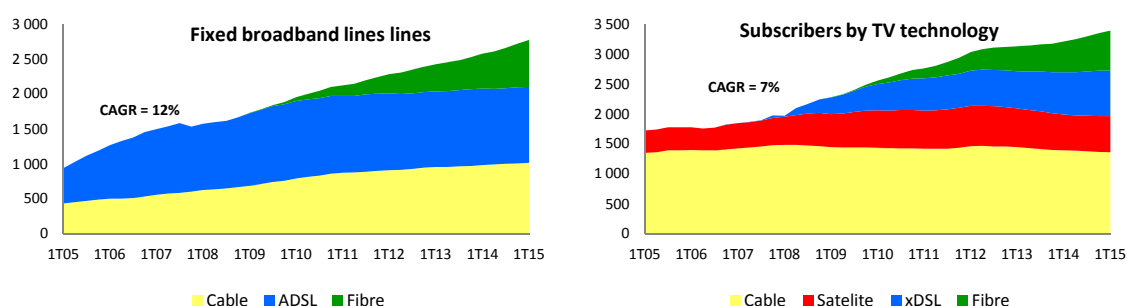
Furthermore, other factors identified by BEREC as conducive to “tight oligopoly” sub-optimal outcomes are not observable in the telecommunications sector:

- Capacity constraints are unlikely in this sector, as BEREC itself recognizes, especially in fixed telecommunications where excess capacity is common and networks overlap each other significantly;
- The level of output and demand continues to grow, in some cases at very high rates (bandwidth consumption) with no signs that it will slow down in the near future;
- The sector has a fast pace of technological innovation and change which pushes for continuous investments. For instance, fixed telecommunications are undergoing a process of migration to NGA while mobile networks have gone from 2G to 3G and 4G in about 15 years, and 5G is already being discussed;

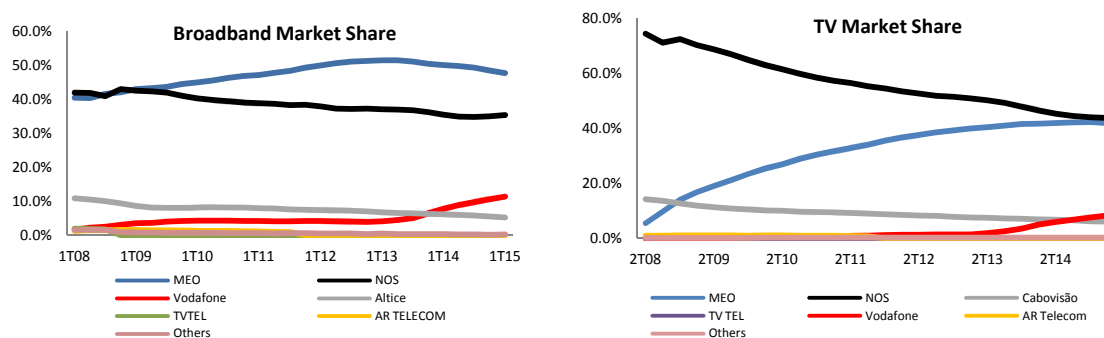
- Average unit prices and average revenues per user continue to fall reflecting the fact that consumers are getting more products and services for less money;
- Product differentiation exists and it involves prices, broadband speeds, number of TV channels, number of services bundled, apps, etc. but not to the point where each firm can raise its prices close to monopoly level;<sup>6</sup>

In PT Portugal's contribution of last January we provided some data related to the Portuguese market supporting the characterization above and the inherently unstable equilibrium of the electronic communication markets. We update now the information then provided according to the most recent figures available (data from ANACOM).

TV and Broadband, mostly sold in bundles, have been the key driver for market growth. Fixed broadband lines have been growing at a CAGR of 12% and TV at a CAGR of 7%, depicted in the following pictures.



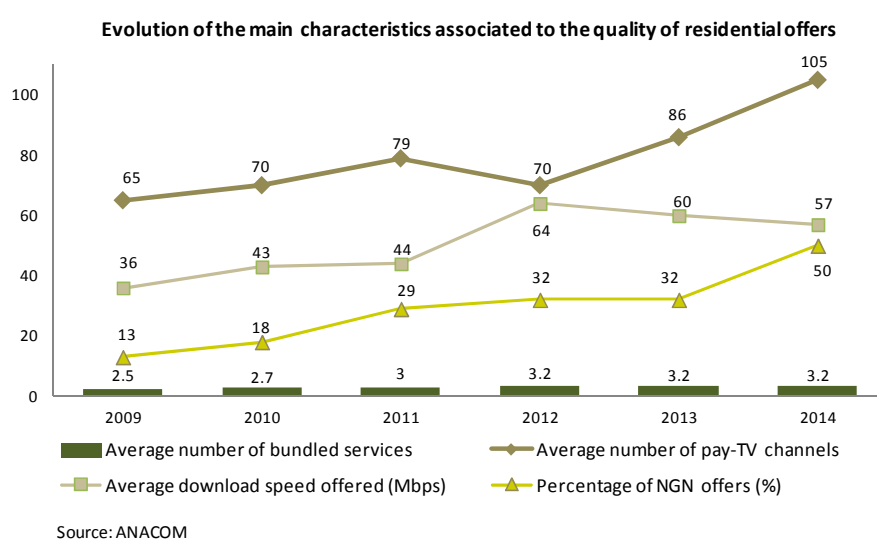
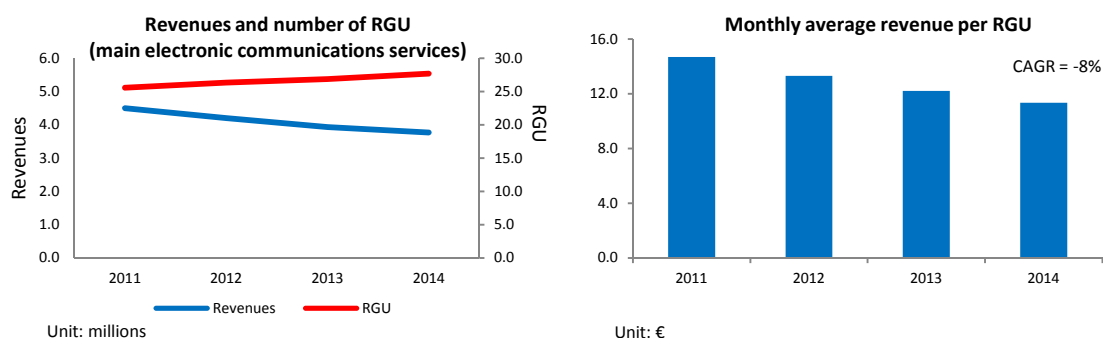
Market shares have also changed over the last 6 years. More recently, it is notable how fast Vodafone is rising since the 2<sup>nd</sup> half of 2013 (when it started to invest significantly in FTTH).



Competition is also reflected on the prices and the quality of the offers available in the market, as the pictures below show. The average revenue per RGU (revenue

<sup>6</sup> In any case, as mentioned above in section III.C, a differentiation level allowing such price increases would be inconsistent with the notion of one (oligopolistic) market and would rather imply the presence of several separated markets in which each firm would have single SMP.

generating unit) has been falling while at the same time the value of the services provided has been increasing.



Furthermore, operators make continuous efforts to innovate and differentiate their products. Besides increasing broadband download speeds and the number of TV channels offered, innovative services like Music streaming, VOD, Interactive TV, Multiscreen and TV Everywhere, TV Apps and Time Shifted TV, amongst others, have been introduced.

## G. Fragmented oligopolies

Throughout the draft report it is clear that duopolies constitute a particular concern for BEREC. There are several references to OPTA's *Is two enough?* Economic Policy Note of 2006 and as an example of a "tight oligopoly" BEREC refers (p. 50) a market situation where broadband products are offered only on two different infrastructures, traditional copper and cable.

Regardless of the legitimacy of this concern, PT believes pure duopolies are rare or even nonexistent at all in the telecommunications sector. In mobile telecom markets there are always at least three operators competing and fixed telecom markets have heterogeneous structures because competing network deployments are focused primarily on areas with the best socioeconomic profiles where more than two networks operators are usually found.

In other words, duopolies (and oligopolies in general) are fragmented with some areas having more operators competing than the others. When the market size of the areas with more operators and the overlap between their networks are significant (as it is the case in Portugal, for instance)<sup>7</sup>, competition in these areas spills over to other areas where there are fewer competing networks.<sup>8</sup>

This happens because factors like the cultural homogeneity of the country, reputation in the market and/or the optimization of billing, marketing and advertising costs, constrain operators' ability and willingness to discriminate between customers depending on whether or not they face competition in the area the customers live in. As a result, consumer welfare in areas where there are fewer networks competing is not harmed and benefits from the protection of the more intensive competition (price, quality, innovation) in the areas where more operators are present.

More work needs to be done to fully understand the competitive long term dynamics that are unfolding from the fundamental trends identified by BEREC in the electronic communications markets: technological convergence, bundling, consolidation and widespread inter platform competition (even if focused primarily in certain geographical areas). PT encourages BEREC to investigate these trends and their effects further (namely regarding the fact that oligopolies are often geographically fragmented) before concluding for the need of establishing a new regulatory trigger to address "tight oligopolies".

---

<sup>7</sup> In Portugal there are 3 integrated fixed and mobile operators with fully deployed 4G network covering more than 90% of the population and fixed NGAs with significant geographical footprints (total coverage around 85% of HH). The overlap between the networks is very high (around 60%): NOS has the biggest NGA (DOCSIS 3.0) currently covering 3.4M HH while PT and Vodafone will reach 2.1M HH in 2015 both in almost total overlap with cable. In the rural areas there are 5 public funded NGA (FTTH) covering additional 5.7% of the population.

<sup>8</sup> This is a result anticipated by the *fragmented oligopoly* theory. See "Fragmented Duopoly: A Conceptual and Empirical Investigation" (2003), by T. Randolph Beard, George S. Ford, R. Carter Hill and Richard P. Saba.