

**WHOLESALE MARKET FOR CALL ORIGINATION ON THE PUBLIC TELEPHONE
NETWORK PROVIDED AT A FIXED LOCATION FOR SPECIAL SERVICES
SUPPORTED ON NON-GEOGRAPHIC NUMBERING**

**– Definition of product market and geographic market, assessment of SMP and
imposition, maintenance, amendment or withdrawal of regulatory obligations –**

– Final decision –

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1. Introduction

1.1. Conclusions of the last market analysis

By determination of 14 August 2014¹, the Management Board of *Autoridade Nacional das Comunicações* (ANACOM) approved the analysis of the wholesale market for call origination on the public telephone network provided at a fixed location (market 2 of Recommendation 2007/789/EC², which in the meantime was replaced by Recommendation 2014/710/EU³). In that context, the analysis carried out by ANACOM reached the following conclusions:

- a) The relevant market was the “*wholesale market for voice call origination on the public telephone network provided at a fixed location*”, a market that “*is national and integrates calls both to geographic numbers and to non-geographic numbers, conveyed at various network levels and regardless of the transport technology and interconnection interface used*”; and
- b) Companies that integrated the PT Group, then PT Comunicações S.A. (PTC) and MEO – Serviços de Comunicações e Multimédia, S.A. (MEO), currently MEO – Serviços de Comunicações e Multimédia, S.A.⁴, held significant market power in the relevant market identified.

As a result, those companies were imposed *ex ante* regulatory obligations relating to access, non-discrimination, transparency and price control. PTC was additionally placed under the accounting separation and cost accounting obligations. It should be noted that the specific obligations to provide (and to publish) a subscriber line resale offer (SLRO), to implement the provision of carrier selection on a call-by-call basis and of call pre-selection

¹ Available at:

http://www.anacom.pt/streaming/DF_Mercado+2grossista_consulta2014.pdf?contentId=1311592&field=ATTACHED_FILE.

² Published in the Official Journal of the European Union (OJEU) on 28 December 2007:

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:344:0065:0069:PT:PDF>.

³ Available at:

http://eur-lex.europa.eu/legal-content/PT/TXT/PDF/?uri=OJ:JOL_2015_121_R_0009&from=PT.

⁴ In December 2014, MEO – Serviços de Comunicações e Multimédia, S.A. merged into PT Comunicações, S.A., the company resulting from this merger having been renamed MEO – Serviços de Comunicações e Multimédia, S.A. (MEO).

and to publish a reference interconnection offer (RIO) were measures imposed solely on PTC.

Without prejudice to the above, it was found that in the scope of the public consultation and prior hearing of stakeholders that preceded the adoption of the final decision on this market, the then PTC made several comments on the draft decision, some of which focused specifically on the provision of non-geographic call origination services.

In this scope, the company considered that its competitiveness was being restricted in view of the “*unjustified financing of its competitors’ operation*”, which was also to the detriment of end-users, having requested ANACOM to give serious consideration to this situation, and in case the Authority decided not to deregulate the market, at least to withdraw the referred price control obligation, bearing in mind the special features of this service, namely as it is the only service in the scope of the call origination market where PTC acts both as seller and as purchaser.

As such, PTC believed that the imposition of cost-oriented prices, in the case of non-geographic call origination services, resulted in a discriminatory treatment of that company with regard to competing operators.

Having weighted the comments of the then PTC, ANACOM decided not to change in its final decision the definition of product and geographic markets, which also include non-geographic call origination services, and, as such, as companies of PT Group hold SMP in the wholesale market for call origination provided at a fixed location, the price control obligation and other obligations imposed on companies of that group, or only on PTC, also covered non-geographic call origination services.

Notwithstanding, ANACOM acknowledged in its final decision that this matter justified further reflection, in the light of specificities associated with the provision of non-geographic call origination services, which would require the collection of additional information and a critical weighing of such data, in addition to the need to provide the market with the possibility to assess the matter.

1.2. Developments in the electronic communications sector

Since mid-2014, when the analysis on the wholesale market for call origination provided at a fixed location was published, several events took place in the electronic communications market. Merger operations must be pointed out, which resulted in the sale of some operations with impact in the general sector, namely:

- On 29 December 2014, the merger by incorporation of MEO – Serviços de Comunicações e Multimédia, S.A. into PT Comunicações, S.A. was registered, having the company resulting from this merger been renamed MEO – Serviços de Comunicações e Multimédia, S.A. (MEO) as from that date;
- On 25 February 2015, Altice S.A.⁵ notified the European Commission that it controlled the Portuguese assets of PT Portugal SGPS (the owner of MEO – Serviços de Comunicações e Multimédia, S.A.). PT Portugal became a wholly-owned subsidiary of Altice on 2 June 2015⁶. In the scope of EC's assessment of the purchase process⁷, the non-opposition decision was made conditional upon the sale of Altice's subsidiaries, Cabovisão and ONITELECOM;
- On 12 October 2015, AdC was notified of the merger operation which consisted in the purchase by Cabolink S.à.r.L. (held by the APAX France investment fund) of the exclusive control of Cabovisão- Televisão por Cabo, S.A., Winreason, S.A. and Oni SGPS, S.A., through the purchase of the total shareholding of Cabovisão⁸, having that Authority approved a decision not opposing the referred operation on 27 November 2015⁹;

⁵ Available at:

http://eur-lex.europa.eu/legal-content/PT/TXT/PDF/?uri=OJ:JOC_2015_077_R_0009&from=PT.

⁶ Available at:

<http://altice.net/wp-content/uploads/2015/06/altice-portugal-telecom-Closing-Announcement-150602.pdf>

⁷ Available at: http://europa.eu/rapid/press-release_IP-15-4805_pt.htm.

⁸ Available at:

http://www.concorrenca.pt/vPT/Controlo_de_concentracoes/Decisooes/Paginas/pesquisa.aspx?pNumb=46&yearNot=2015&pag=1&doc=True&est=1.

⁹ Available at:

http://www.concorrenca.pt/vPT/Noticias_Eventos/Noticias/Paginas/CCENT_2015_46_Dec.aspx?lst=1&pagenr=3&Cat=2015&dat=A+partir+de&txt=Palavra-chave.

- On 20 January 2016, Altice issued a press release announcing the sale of Cabovisão and Oni to the APAX France fund¹⁰;
- On 26 February 2016, Vodafone invoked its purchase option for the FTTH network of ex-Optimus (in the scope of obligations imposed by AdC to the merger operation between OPTIMUS and ZON), located in the urban areas of Lisbon and Oporto¹¹;
- On 11 March 2016¹², MEO launched the provision of a wholesale commercial fibre optic offer;
- In April 2016, Cabovisão¹³ and ONI launched their commercial offer of mobile services supported by their MVNO operation.

Without prejudice to the events listed above, their impact on the specific market is low or virtually non-existent, being highlighted throughout the analysis any aspect that is relevant in this respect.

1.3. EC Recommendation on relevant markets

As referred above, a new Recommendation on relevant markets was published in October 2014 - Commission Recommendation 2014/710/EU, of 9 October 2014, on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation (hereinafter “Recommendation on Relevant Markets”) in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services, subsequently rectified.

This Recommendation no longer identified the wholesale market for call origination on the public telephone network provided at a fixed location as a relevant market, unlike former

¹⁰ Available at <http://altice.net/wp-content/uploads/2016/01/20160120-ALT-Closing-Cabo-Oni.pdf>.

¹¹ Available at:

<http://www.jornaldenegocios.pt/empresas/telecomunicacoes/detalhe/vodafone-notifica-compra-da-rede-de-fibra-da-optimus>.

¹² Available at:

https://www.telecom.pt/pt-pt/media/noticias/Paginas/2016/marco/pt_avanca_com_oferta_grossista_para_a_rede_fibra.aspx.

¹³ In September 2016, the company implemented the “Nowo” brand and on 18 October 2016, it changed its name to NOWO COMMUNICATIONS, S.A..

EC Recommendations on the same subject. According to the Explanatory Note¹⁴ accompanying the Recommendation on Relevant Markets, the market for call origination on the public telephone network provided at a fixed location does not satisfy the three criteria test, and as such is not susceptible to *ex ante* regulation.

EC considers that markets identified for the purpose of *ex ante* regulation must cumulatively meet the following criteria: i) the presence of barriers to entry and to the development of competition; ii) market characteristics that do not tend towards effective competition within the relevant time horizon (dynamic aspects); and iii) insufficiency of competition law alone to adequately address market failures concerned.

As set out in the Explanatory Note, EC considered that the wholesale market for call origination does not present significant entry barriers, from a forward-looking perspective. In this market, barriers to entry are dependent on operators' ability to develop or acquire a direct access link to the end customer. EC notes that the decline in the demand for carrier selection and pre-selection services can be correlated to the increase in the demand for wholesale access products as well as with the provision by alternative operators of their own VoIP services. Furthermore, in view of the progressing fixed-mobile substitution, mobile services could be considered to fall within the same relevant market for access to telephone network at a fixed location, and as such, the self-supplied call origination services on mobile networks could also be considered to fall within the relevant market for call origination on the public telephone network provided at a fixed location. In conclusion, EC considers that, from a forward-looking perspective, this market is not characterized by the presence of barriers to entry.

EC considers that the second criterion - dynamic aspects: the market characteristics do not tend towards effective competition within the relevant time horizon - is also not met. This is a result of the competitive pressure from mobile services, as call origination services provided at a fixed location are subject to direct competitive pressure from mobile call origination where mobile services can substitute fixed networks to make a call. Moreover, EC refers that even if fixed and mobile calls would not be considered to be perfect substitutes, mobile services would still exercise a significant constraint on the wholesale

¹⁴ The Recommendation on Relevant Markets is accompanied by an Explanatory Note on relevant markets for the purpose of *ex ante* regulation (available at http://ec.europa.eu/newsroom/dae/document.cfm?action=display&doc_id=7056).

market for call origination on fixed networks, as fixed and mobile services compete with each other to a certain extent.

In addition to competitive constraints from mobile services, EC also identifies the offer of call origination on the public telephone network provided at a fixed location by operators who establish a direct connection to the end-customer.

On the other hand, EC refers to a possible competitive constraint from over-the-top (OTT) services, which EC deems to exist.

In view of the low barriers to entry and the tendency towards effective competition within the relevant time horizon, EC believes that competition law instruments are sufficient to ensure, from a forward-looking perspective, competitive market conditions in the wholesale market for call origination services on the public telephone network provided at a fixed location.

Lastly, as set out in the referred Explanatory note, EC mentions that it is possible that, in some Member-States, the market could still be characterized by high entry barriers and insufficient dynamics leading it towards effective competition within the relevant time horizon. As such, it is always open to the National Regulatory Authority (NRA) to assess the three criteria in order to verify whether they are satisfied for the national market, which may thus remain susceptible to *ex ante* regulation.

1.4. Market analysis process

Law No. 5/2004¹⁵, of 10 February, as it stands (hereinafter Electronic Communications Law - ECL)¹⁶ approved the legal regime applicable to electronic communications networks and services and to associated services, and defined the assignments of the National Regulatory Authority (NRA) in this field.

¹⁵ Available at <http://www.dre.pt/pdf1s/2004/02/034A00/07880821.pdf>.

¹⁶ This statutory instrument transposes to the national legal order Directives 2002/19/EC ("Access" Directive), 2002/20/EC ("Authorization" Directive) and 2002/21/EC (Framework Directive), all of the European Parliament and of the Council of 7 March, amended by Directive 2009/140/EC, of the European Parliament and of the Council, of 25 November, Directive 2002/22/EC ("Universal Service" Directive) of the European Parliament and of the Council, of 7 March, as amended by Directive 2009/136/EC, of the European Parliament and of the Council, of 25 November, and Commission Directive 2002/77/EC (on competition in markets for electronic communications networks and services), of 16 September 2002.

According to ECL, it is incumbent on the NRA, in this case ANACOM, to define and analyse relevant markets, to declare companies with SMP and to determine suitable measures in respect of companies providing electronic communications networks and services (article 18 of ECL).

This process takes place according to the following stages (articles 55 to 61 of ECL)¹⁷:

- Definition of relevant markets (article 58 of ECL)

The NRA is charged with defining the relevant product and service markets within the electronic communications sector, including the relevant geographic markets, in accordance with the principles of competition law.

In defining relevant markets, the NRA, having regard to national circumstances, must take due account of the Recommendation on Relevant Markets as well as of EC Guidelines¹⁸ for market analysis and assessment of significant market power, under the Community regulatory framework for electronic communications networks and services (hereinafter referred to as the “Guidelines”).

- Analysis of relevant markets (article 59 of ECL)

The NRA is charged with carrying out an analysis of the relevant markets defined pursuant to the preceding point, taking the Guidelines into account.

The market analysis procedure aims to determine whether or not a relevant market is effectively competitive. No effective competition exists where it is possible to identify companies with SMP¹⁹.

¹⁷ Cf. Framework Directive, articles 7 and 14 to 16.

¹⁸ Available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2002:165:0006:0031:PT:PDF>.

¹⁹ Also according to the Guidelines (§24), “Under the regulatory framework, markets will be defined and SMP will be assessed using the same methodologies as under competition law. (...) and the assessment of effective competition by NRAs should be consistent with competition case-law and practice. To ensure such consistency, these guidelines are based on: 1. Existing case-law of the Court of First Instance and the European Court of Justice concerning market definition and the notion of dominant position within the meaning of Article 82 of the EC Treaty and Article 2 of the Merger Control Regulation.”

A company is deemed to have SMP where, either individually²⁰ or jointly with others, it enjoys a position equivalent to dominance, that is to say, a position of economic strength affording it the power to behave to an appreciable extent independently of competitors, customers and consumers.

- Imposition, maintenance, amendment or withdrawal of regulatory obligations (article 66 of ECL)

Where ANACOM finds that a market is effectively competitive, it must refrain from imposing any specific regulatory obligation, and where such obligations exist, they must be withdrawn.

Where ANACOM determines that a relevant market is not effectively competitive, it must impose on companies with SMP on that market the appropriate specific regulatory obligations or maintain or amend such obligations where they already exist.

Obligations imposed:

- Must be adjusted to the identified problem, proportional and justified in the light of regulatory objectives laid down in article 5 of ECL;
- Must be objectively justified as regards networks, services or infrastructures concerned;
- May not originate an undue discrimination as regards any entity;
- Must be transparent relatively to the intended purposes.

Finally, and in brief, it must be stressed that the implementation of regulation objectives to be met by ANACOM (article 5, paragraph 1 of ECL) requires that this Authority applies, in

²⁰ Note that, according to the judgement of the European Court of Justice, of 12 July 1984, Hydrotherm, the term undertaking "must be understood as designating an economic unit for the purpose of the subject-matter of the agreement in question even if in law that economic unit consists of several persons, natural or legal".

According to article 3, paragraphs 1 and 2, of Law No. 19/2012, of 8 May (which approves the Competition Act), "1 - The term undertaking, for the purposes of this law, shall be deemed to be any entity that has an economic activity comprising the supply of goods or services in a specific market, irrespective of its legal status or means of financing. 2 - A group of undertakings is deemed to be a single undertaking, even if the undertakings themselves are legally separate entities, where such undertakings make up an economic unit or maintain interdependence ties deriving specifically from the following: a) The undertaking so defined has a majority of the share capital; b) It has more than half of the voting rights conferred by the share capital; c) It has the power to appoint more than half of the members of the board of directors or the supervisory board; d) It has the necessary powers to manage the businesses of the group and of each of its undertakings."

all decisions and measures adopted, regulation principles that are objective, transparent, non-discriminatory and proportional (article 5, paragraph 5 of ECL), being responsible in particular for:

- Promoting regulatory predictability by ensuring a consistent regulatory approach over appropriate review periods.
- Ensuring that, in similar circumstances, there is no discrimination in the treatment of undertakings providing electronic communications networks and services.
- Safeguarding competition to the benefit of consumers and promoting, where appropriate, infrastructure-based competition.
- Promoting efficient investment and innovation in new and enhanced infrastructures, including by ensuring that any access obligation takes appropriate account of the risk incurred by the investing undertakings.
- Taking due account of the variety of conditions relating to competition and consumers that exist in the various national geographic areas.
- Imposing *ex ante* regulatory obligations only where no effective and sustainable competition exists, and relaxing or withdrawing such obligations as soon as that condition is fulfilled.

This market analysis takes the utmost account of positions taken by EC and the Body of European Regulators for Electronic Communications (BEREC). More specifically, the analysis and definition of obligations to be imposed (or withdrawn) take into consideration the principles established in the scope of the ERG Common Position on the imposition of obligations in electronic communications markets²¹.

This market analysis was submitted to the general consultation procedure laid down in article 8 of ECL, as well as to the prior hearing of stakeholders, in accordance with articles 121 and 122 of the Administrative Procedure Code (APC), in both cases for a period of 30

²¹ “Revised ERG Common Position on the approach to appropriate remedies in the ECNS regulatory framework”.

working days. It was submitted also to *Autoridade da Concorrência* (AdC), whose opinion was sought under article 61 of ECL.

By communication received on 05.07.2017, AdC issued its opinion, having generically referred that it agreed with ANACOM's DD.

In the scope of the consultation and prior hearing of stakeholders, 4 responses were received on behalf of 5 bodies. Having been analysed comments, a report on the consultation and prior hearing procedures was drawn up, consisting of a summary of contributions received and of the Regulatory Authority's views on the subject. The report is deemed to be an integral part of the draft decision notified to the European Commission and of this decision in respect of the matters raised herein that concern the wholesale market for call origination for special services supported on non-geographic numbers.

On 19.10.2017, approval was given to the draft decision to be notified to EC, BEREC and NRAs of other Member States of the European Union (EU), on the wholesale market for call origination on the public telephone network provided at a fixed location - definition of product markets and geographic markets, assessment of SMP and imposition, maintenance, amendment or withdrawal of regulatory obligations.

The draft decision was notified to EC on 20.10.2017, under paragraph 1 of article 57 of ECL and registered with the reference PT/2017/2023.

By communication of 20.11.2017²², the Commission raised serious doubts as to the compatibility of the proposal for designation of SMP with EU law, as regards the market for call origination for the provision of retail telephone services, and more precisely with the requirements laid down in article 15, paragraph 3, and article 16, paragraph 4 of Directive 2002/21/EC, as amended by Directive 2009/140/EC (the Framework Directive), in light of objectives laid down in article 8 of the same Directive. In this communication, EC pointed out that, in accordance with paragraph 4 of article 7 of the same Directive (transposed by paragraph 5 of article 57 of ECL), the draft measures may not be adopted for an additional 2 (two) months, adding that "*ANACOM may proceed with the proposed deregulation of the*

²² Available at:

https://circabc.europa.eu/sd/a/c1775b0d-b7af-4f10-9776-4a903d9db891/PT-2017-2023%20ADOPTED_EN_Redacted.pdf.

call origination for calls for non-geographical numbers relating to the provision of specific services”.

Taking into account several factors, including the following:

- a) In the referred communication of 20.11.2017, the serious doubts raised by EC, which seem difficult to overcome in the context of the measure, are a result of a set of issues related to the assessment of effective competition in the wholesale market for call origination on the public telephone network provided at a fixed location for the provision of retail telephone services, supported on indirect access (under article 7, paragraph 4, of the Framework Directive); and
- b) The serious doubts raised by EC are restricted to the wholesale market for call origination on the public telephone network provided at a fixed location for the provision of retail telephone services, supported on indirect access (designated by EC as “*market for call origination for calls to geographical numbers*”); and that
- c) EC refers that ANACOM “*ANACOM may proceed with the proposed deregulation of the call origination for calls for non-geographical numbers relating to the provision of specific services*”, the draft decision of which integrates the same document notified to EC, which also includes the wholesale market for call origination on the public telephone network provided at a fixed location for the provision of retail telephone services, supported on indirect access, which is the focus of EC’s serious doubts,

ANACOM’s Management Board, in accordance with article 57 of ECL, as well as article 7 of the Framework Directive, determined on 23.11.2017²³ to withdraw, in the scope of the Community notification procedure, the draft decision on the wholesale market for call origination on the public telephone network provided at a fixed location - definition of product markets and geographic markets, assessment of SMP and imposition, maintenance, amendment or withdrawal of regulatory obligations, in the part that concerns the wholesale market for call origination on the public telephone network provided at a fixed location for the provision of retail telephone services, supported on indirect access, approved by determination of 19.10.2017, under article 57 of ECL.

²³ Available at: <https://www.anacom.pt/render.jsp?contentId=1423804>.

In the light of the above, and namely that EC refers that the wholesale market for call origination on the public telephone network for special services supported on non-geographical numbering may be deregulated, and bearing in mind that a national public consultation and prior hearing of stakeholders have already been carried out, that AdC was consulted, not having opposed ANACOM's draft decision, and that EC, BEREC and NRA of other Member States of EU were duly notified, not having submitted any comment, except for the above-mentioned reference from EC to the deregulation of the market concerned, ANACOM believes that it is entitled to approve the final decision on this market.

This document thus lays down ANACOM's decision on the definition of product markets and geographic markets, assessment of SMP and imposition, maintenance, amendment or withdrawal of regulatory obligations on the wholesale market for call origination on the public telephone network provided at a fixed location for special services supported by non-geographic numbering.

1.5. Collection of information from providers

By the end of 2014, ANACOM requested providers to supply information on retail and wholesale services related to the provision of calls to non-geographic numbers (NGN), in order to analyse the competition dynamics that exist in the provision of such services. Data on traffic volumes, minutes, calls and revenues were collected, broken down by numbering ranges. Data on pricing and billing and revenue sharing models were also obtained.

In the light of data collected, and given that some time has already elapsed since the decision on this market, ANACOM decided to conduct the analysis of data not restricting it to non-geographic services. Accordingly, more comprehensive and up-to-date information was sought by the end of 2016, including geographic and non-geographic call origination, so as to re-assess the market of call origination provided at a fixed location.

2. Definition of relevant markets

The main purpose of the market analysis process is to identify whether there is effective competition in retail markets (in downstream wholesale markets) and, if not, to identify the necessary measures (preferably) at wholesale level, to address such competition failures.

As regards the imposition of *ex ante* regulatory obligations, it must be stressed that the Recommendation on Relevant Markets provides that regulatory obligations may only be imposed at retail level where NRAs consider that measures applied at wholesale market level do not guarantee an effective competition and compliance with public interest objectives.

In fact, the market definition exercise is not an end in itself but a means required to reach a certain end: the market definition is a necessary tool to assess whether users of a certain product or service are protected by effective competition or whether, on the contrary, the imposition of *ex ante* regulation is required to ensure it.

According to the methodology adopted in the Recommendation on Relevant Markets, the starting point for the definition and identification of relevant wholesale markets is the characterization of corresponding retail markets, their geographic scope and competitive constraints to which they are subject, both on the demand-side and supply-side, from a forward-looking perspective.

This Recommendation also clarifies that *“if the retail market concerned is effectively competitive from a forward-looking perspective in the absence of ex ante wholesale regulation on the corresponding relevant market(s), this should lead the national regulatory authority to conclude that regulation is no longer needed at wholesale level.”*

In case competition problems are found in retail markets (in the absence of *ex ante* regulation), relevant wholesale markets of the same dimension - product market(s) and geographic market(s) - are defined, and the possible existence of SMP on these markets is assessed. Lastly, the analysis focuses on regulatory obligations to be imposed on companies holding SMP on wholesale markets concerned or, in the absence of SMP, on how any obligations formerly imposed should be withdrawn.

As such, in a first stage, retail markets related to call origination on the public telephone network provided at a fixed location are analysed to determine whether these retail markets

are competitive (from a forward-looking perspective) in the absence of regulation, taking also into account the effects of other types of regulation that apply to relevant retail markets and related wholesale markets throughout the relevant period. In case the retail market is not effectively competitive, from a forward-looking perspective, and in the absence of *ex ante* regulation, then related wholesale markets require assessment.

As such, in a first stage, retail markets related to services for call origination on the public telephone network provided at a fixed location are analysed to determine whether these retail markets are competitive (from a forward-looking perspective) in the absence of regulation, taking also into account the effects of other types of regulation that apply to relevant retail markets and related wholesale markets throughout the relevant period. In case the retail market is not effectively competitive, from a forward-looking perspective, and in the absence of *ex ante* regulation, then related wholesale markets require assessment.

Under the Community regulatory framework applicable to electronic communications, which complies with Community competition law, relevant markets are defined by crossing two different dimensions: the product market and the geographic market.

The process of product market definition consists in the identification of all products/services that are sufficiently interchangeable or substitutable, not only in terms of their objective characteristics, by virtue of which they are particularly suitable for satisfying the needs of consumers, but also in terms of their prices or their intended use²⁴.

The exercise of defining the relevant product or service market, which must be carried out in the light of national circumstances and taking the Recommendation on Relevant Markets and the “Guidelines” into account, begins by grouping together products or services that are used by consumers for the same purposes/end use²⁵, that is, according to demand.

These products and services are part of the same relevant market where the behaviour of the producers or service providers concerned are subject to the same type of competitive pressure, that is, on the supply side, namely, as far as the price-setting is concerned.

²⁴ Cf. Guidelines §44.

²⁵ Cf. Guidelines §44.

In this context, there are two main types of competitive pressure: (i) demand-side substitution; and (ii) supply-side substitution²⁶.

These competitive constraints, alternatively or together, may represent grounds for defining the same product market.

In theory, the degree of substitutability or complementarity between two products may be estimated on the basis of the cross-elasticity of demand. However, in practise, this is a complex analysis and available data are scarce, thus one possible way of assessing the existence of any demand and supply-side substitutability is to apply the so-called “hypothetical monopolist test” (SSNIP test – small but significant non-transitory increase in price)²⁷.

The relevant geographic market comprises the area in which companies concerned are involved in the supply and demand of relevant products or services, in which area the conditions of competition are similar or sufficiently homogeneous relatively to neighbouring areas²⁸.

The definition of the geographic market assumes the use of the same methodology for the product market definition, namely the hypothetical monopolist test, which enables the identification of competitive pressure as far as demand and supply-side substitutability are concerned.

2.1. Definition of relevant retail markets

By determination of 14 August 2014²⁹, ANACOM defined retail markets for access to the public telephone network provided at a fixed location and markets for telephone services provided at a fixed location.

In that scope, on the basis of the analysis of demand and supply-side substitutability, the following relevant markets were identified:

²⁶ Cf. Guidelines §38. A third source of competitive constraint on operator’s behaviour exists, namely potential competition - this possibility will be taken into consideration where relevant.

²⁷ Cf. Guidelines §40-43.

²⁸ Cf. Guidelines §56.

²⁹ Determination of 14 August 2014 on the “Definition of relevant markets, assessment of SMP and imposition, maintenance, amendment or withdrawal of regulatory obligations - retail markets for access to the public telephone network provided at a fixed location and markets for telephone services provided at a fixed location”.

- Access to the public telephone network provided at a fixed location for residential and non-residential customers. This market covers the entire national territory and comprises access to the public telephone network at a fixed location for the provision of telephone services, regardless of the technology used and of the type of access.
- Market for publicly available local and national telephone services, provided at a fixed location for residential and non-residential customers. This market covers the entire national territory and ranges every type of technology that enables the provision of the respective services, including GSM/UMTS and VoIP mobile technologies.
- Market for publicly available international telephone services, provided at a fixed location for residential and non-residential customers. This market covers the entire national territory and ranges every type of technology that enables the provision of the respective services, including GSM/UMTS and VoIP mobile technologies.
- Market for non-geographic calls for the provision of special services. This market covers the entire national territory and ranges every type of technology that enables the provision of the respective services, including GSM/UMTS and VoIP mobile technologies.

It is noted that at the level of the product market it was considered that homezone, nomadic VoIP and fixed VoIP offers were part of the market for telephone services provided at a fixed location. It was also concluded, at the time, that e-mail and chat apps, SMS at a fixed location and mobile telephone services - voice and SMS - do not integrate the relevant market for telephone services.

Bearing in mind that the last analysis was conducted in 2014, it is necessary to check whether market developments took place in the meantime that are able to change the conclusions reached at the time at the level of the definition of the relevant market, namely at the level of substitutability between fixed and mobile services.

In the Explanatory Note that accompanies the Recommendation on Relevant Markets, EC mentions that this substitutability can already be more clearly established in countries where fixed penetration has decreased, and mobile network coverage is close to 100%. In addition, it refers that changes in behavioural patterns, price convergence and convergence in the average duration of calls are also indicators of this substitutability.

In Portugal, the rate of penetration of the fixed telephone service (FTS)³⁰ has increased steadily, aided by the increase of bundled service offers, which usually includes the provision of access at a fixed location for the provision of telephone services. The rate of penetration of the mobile telephone service (MTS) has also increased, very significantly, to levels that by the end of 2016 reached 165.2 per 100 population. However, taking only into consideration mobile stations with effective use and excluding tablets/PC with internet access and mobile stations used in the Machine-to-Machine (M2M) service, this rate is lower, despite its high value³¹.

In general, fixed service offers are integrated in bundle offers - around 90% of FTS customers purchased the service integrated in a bundle. In these offers, it is frequent to provide traffic at no additional cost to access costs. As far as the MTS is concerned, by the end of 2016, 54.2% of households with multiple play offers were provided with this service.

Existing data show that there is some degree of complementarity between FTS and MTS offers that exceeds potential substitutability. In fact, according to data from Marktest Telecommunications Barometer³², from the group of individuals provided with access to the telephone service by the end of 2015, around 73.9% were provided with both types of access (FTS and MTS)³³. According to the Eurobarometer "E-Communications and the Digital Single Market Communications"³⁴, in October 2015, 66% of Portuguese households were provided with both FTS and MTS, exceeding the European average, by 59% at the time.

It is also noted that FTS and MTS usage patterns are also different. In 2016, the average call duration (ACD) was 3.83 minutes and 2.59 minutes, respectively for calls originating on a fixed location and for mobile calls, a difference that exceeds the one for 2011, when ACD

³⁰ By the end of 2016, the penetration rate of main accesses reached 46.3 accesses per 100 population, exceeding the value registered by the end of 2015 - 45.1 accesses per 100 population (data from the statistical report of the fixed telephone and nomadic VoIP services - 2016 and report of the communications sector - 2015).

³¹ By the end of 2016, the penetration rate was 111.9 per 100 population.

³² Quoted in ANACOM (2016). "The electronic communications consumer 2015", pg. 37.

³³ Basis: Individuals aged 15 and over with access to the telephone service (account not taken of non-responses). Note: All estimates are reliable (coefficient of variation below 10%). The accuracy of estimates depends not only on the sample size but is also influenced by the value of the estimate itself (e.g.: for a fixed sample size, the reliability measured by the coefficient of variation decreases as the value of the estimate decreases).

³⁴ Available at:

<http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm/Survey/getSurveyDetail/instruments/SPECIAL/surveyKy/2062> [accessed on 12.04.2017].

was 3.49 minutes for fixed calls and 2.44 minutes for mobile calls. It follows from the above that there seems not to exist convergence of use between fixed and mobile services.

In fact, consumers perceive the two services to be different, a perception which stems both from the different characteristics of terminals themselves, which usually entail different functionalities (a factor which however has declined), but also, and mostly, from the mobility guaranteed by the mobile service. In addition, the mobile service is usually associated to a more personal use, compared to the use of the telephone service provided at a fixed location. On the other hand, FTS and MTS prices present significant differences that lead to a widespread feeling that calls originating on mobile networks are more expensive than those from fixed networks, and that fixed-to-mobile and mobile-to-fixed calls are usually more expensive than calls made to the same service (fixed or mobile).

Accordingly, it may be concluded that these services are perceived by consumers to be complementary, a certain degree of substitutability existing between the two at the level of calls, although this degree of substitutability is not such as to enable their integration in the same relevant product market.

It is also highlighted that, as referred in former decisions, local, national and international telephone services provided at a fixed location differ from non-geographic call services. While local, national and international telephone services are provided to enable end-users to make and receive calls, non-geographic call services allow end-users to access several services, namely involving the access to customer support services, call centres of several bodies and public services, among others. It is noted also that end-users also choose the provider of the telephone service, but are not able to influence the choice of the provider of the non-geographic numbering service, given that this choice is made by the company/body that contracts the numbering concerned.

Moreover, these services show different pricing logic: a) prices of the former service are established by the communications provider without being subject to regulation, while b) prices of non-geographic calls are regulated, in the case of several ranges³⁵. As such, there are differences also at billing level, given that in the former case, it is established by the telecommunications provider according to monthly instalments and/or according to traffic

³⁵ Please note that maximum retail prices were established for certain non-geographic numbering ranges in the scope of ANACOM's NNP management powers (article 17 of ECL), not in the scope of market analyses, and apply to providers in general, such prices having remained in force even after the retail market was deregulated.

consumption, resulting from a tariff applied by that provider, and in general the use of non-geographic numbering services is billed on the basis of different tariffs that are determined by the holder of the range concerned, in compliance with the maximum price applicable, which is subject to regulation. The end-user is billed for the provision of the telephone service (either with direct or indirect access), which allows him/her to receive and make calls, and may only use non-geographic numbering services where the telephone service is available *a priori* (or access to the public pay-phone service exists). It follows from the above that these services meet different needs and have different commercial characteristics, reason why they are not substitutes and why they integrate, at retail level, different relevant markets.

As such, an analysis will be conducted below on competition dynamics that exist in the market for non-geographic calls for the provision of special services, at retail level, with impact on the market for call origination on the public telephone network provided at a fixed location. It is noted that wholesale call origination services enable the provision of services by the operator itself in the retail market (both telephone services and special services provided via non-geographic numbering ranges) as well as the provision by third-party providers, of the following retail services: (i) indirect access service and (ii) special services provided via non-geographic numbering.

Bearing in mind that the serious doubts raised by EC are restricted to the market for call origination on the public telephone network provided at a fixed location for the provision of retail services, supported on indirect access (selection on a call-by-call basis and call pre-selection) and that this body referred that ANACOM was entitled to proceed with the proposed deregulation of non-geographic call origination relating to the provision of specific services, this document will continue only with the competition analysis of the retail market for non-geographic calls for the provision of special services.

2.1.1. Competition analysis of the retail market for non-geographic calls for the provision of special services

Non-geographic calls involve the routing of a non-geographic number to a network termination point, so that the non-geographic number is translated into a geographic number, thereby enabling such calls to be routed to a specific location. As such, non-geographic numbers are characterised, as is clear from the very name, by the fact that they have no geographic correspondence. These numbers allow user access to services such

as customer support services, enquiry services, freephone services, shared-cost call services, universal access services and flat rate call services, televoting services, among others.

The national numbering plan (NNP) identifies several numbering categories according to price and characteristics. Codes associated to services examined here are briefly as follows:

- Range 1 – Short numbers

This range includes the following services:

- Emergency (112³⁶ and 117), social value or interest (respectively, 116 and 14);
- Enquiry services in the scope of the universal service (118);
- Others, such as telegram calls (15), customer support (16) and other enquiry services (18).

Note: Codes 10 (indirect access provider code) and 12 (internal network services) have no particular relevance in the scope of this analysis.

- Range 7 - Universal Access Services and Flat Rate Call Services.

This range includes the following numbers:

- universal access services (707 and 708);
- flat rate call services (760, 761 and 762).

- Range 8 - Freephone Services, Shared-Cost Call Services, Virtual Call Card Services and Personal Number Services.

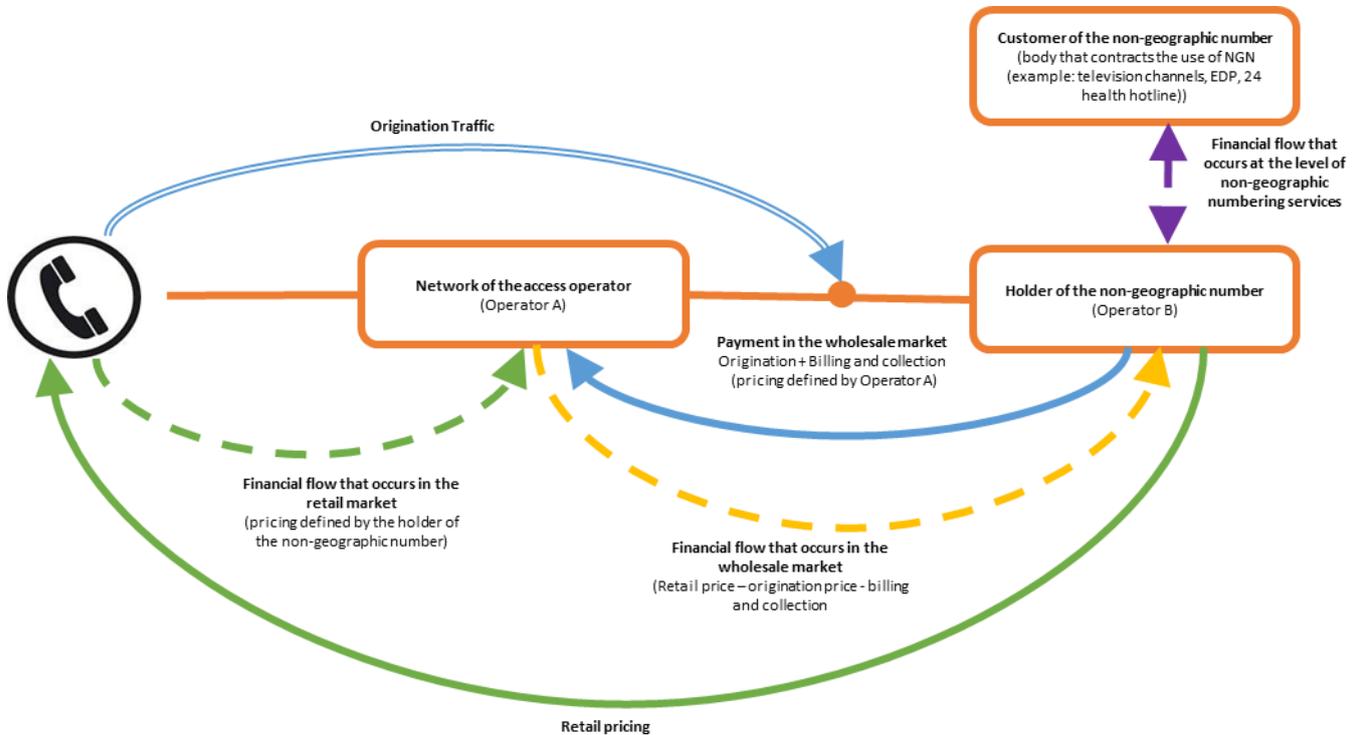
This range includes the following numbers:

- freephone numbers (800);
- shared-cost calls (808, 809);
- others, such as free calls at public payphones (802), virtual call cards (882) and personal number service (884).

The following diagram represents retail and wholesale flows associated with non-geographic calls, in simplified form. The diagram does not intend to represent all relations that take place in this type of calls, rather to show the most relevant ones in the context of this analysis.

³⁶ Including former 115.

Chart 1 – Flows associated with non-geographic calls



In the scope of non-geographic calls to special services, the ownership of traffic is not held by the operator that originates the call, rather by the holder of the non-geographic number, who defines retail prices to be paid by the end-user, where appropriate (green strong flow in the picture). In most cases, when the retail price of calls is charged, the access operator (operator “A”) bills the end-user “on behalf” of the holder of the non-geographic number (green dashed flow in the picture).

The access operator conveys the call originating at a network terminal point up to a specific interconnection point of another operator, being paid for originating this service, plus billing, collection and bad debt risk (BC&BDR) costs, where appropriate (blue flow in the picture). In practise, a settling of accounts occurs between operators, and what in fact takes place is a fund outflow from the access operator to the NGN holder (yellow dashed flow).

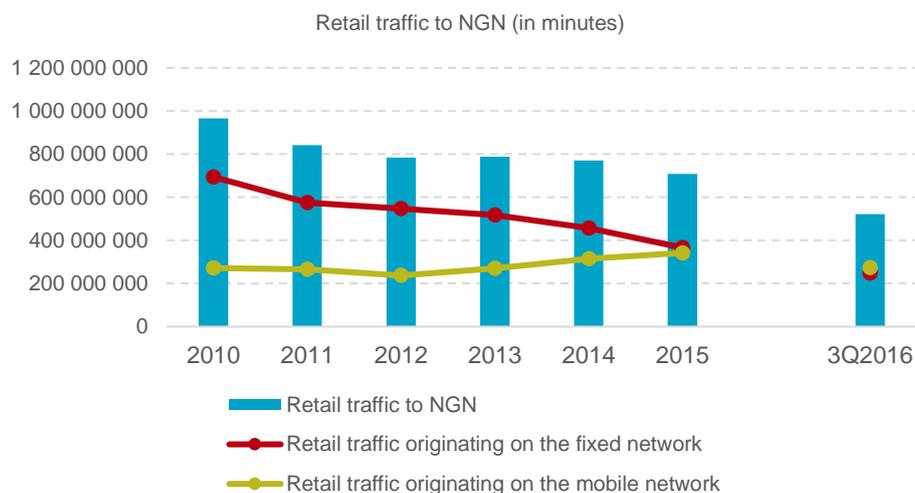
The retail market for non-geographic calls for the provision of special services was deregulated in 2014, as it was concluded that this market failed to meet the necessary requirements for the imposition of *ex ante* regulation. Specifically, when the three criteria

test was applied, it was concluded that the market structure tended towards effective competition within the relevant time horizon, entry barriers that exist are attenuated by measures imposed at the level of wholesale markets, and it was deemed that competition law was sufficient to address any market failures. Notwithstanding, it is stressed that maximum prices that applied to certain non-geographic numbering ranges was maintained, as this price-setting was carried out in the framework of ANACOM's NGN management powers, and applies to all operators.

In early 2017, there were 14 providers in Portugal who held non-geographic numbering resources. These providers sell their customers, usually private companies and public bodies, the use of a non-geographic number for the provision of special services. In order to provide this service, they need, when end-users are not also their customers, to purchase from third parties call origination services from fixed or mobile networks, according to the source of the call. In this context of the ongoing analysis, it is appropriate to analyse traffic flows that occur in fixed markets, although traffic routed over mobile networks is also referred at times, where relevant.

Charts below show the evolution of retail traffic for all operators in the market. The first chart distinguishes between retail traffic originating on the fixed network and on the mobile network, while the second chart distinguishes between traffic originating on the network of the operator hosting the NGN (on-net traffic) and traffic originating on networks other than that owned by the operator holding the NGN (off-net traffic).

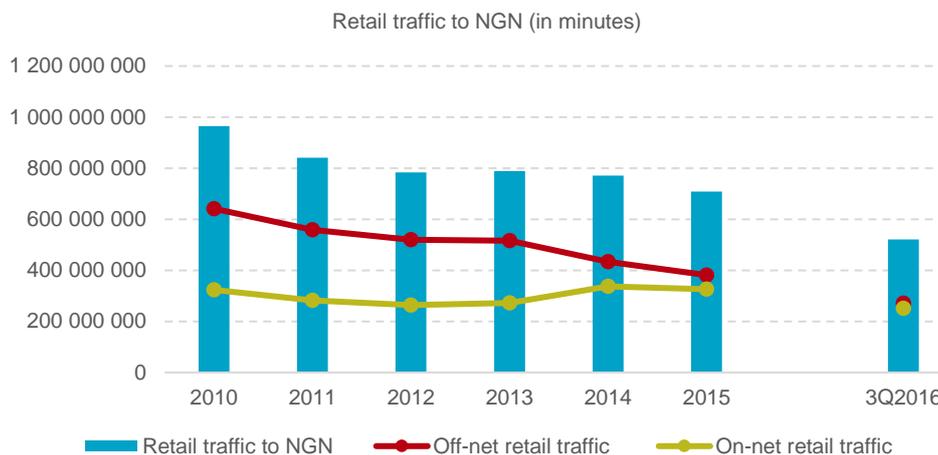
Chart 2 – Retail traffic to NGN originating on the fixed network and on the mobile network (minutes)



Source: ANACOM calculations based on data reported by providers.

Note: Between 2010 and the 1st half of 2014, certain providers failed to report traffic data in minutes for the 760 service. However, on the basis of available data, namely call duration, it was concluded that traffic in minutes for those ranges is very low, and has no relevant impact on total routed traffic in minutes.

Chart 2 – On-net and off-net retail traffic to NGN (minutes)



Source: ANACOM calculations based on data reported by providers.

Note: Between 2010 and the 1st half of 2014, some providers failed to report traffic data in minutes for the 760 service. However, on the basis of available data, namely call duration, it was concluded that traffic in minutes for those ranges is very low, and has no relevant impact on total routed traffic in minutes.

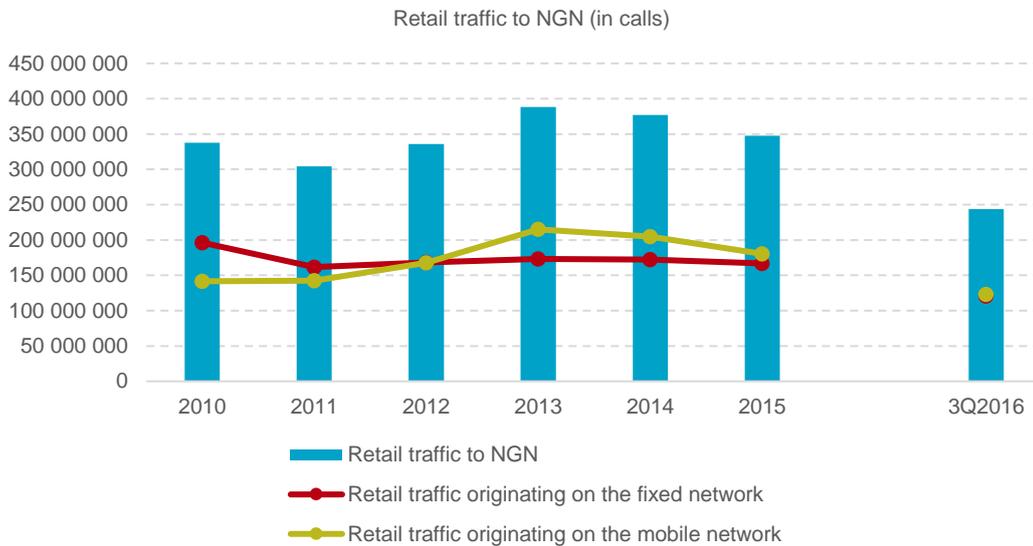
It was found from collected data that total traffic (in minutes³⁷) has been falling, despite a very slight inversion between 2012 and 2013, a trend which is associated with the evolution of traffic originating on fixed networks, that dropped throughout the whole period under analysis, while traffic originating on mobile networks has increased (*vide Error! Reference source not found.*). It was found also that the decrease in the differential also occurs when traffic in calls is accounted for (Chart 3).

As regards the distribution of traffic between minutes originating on- and off-net, it was observed that the proportion of on-net traffic has increased, which may be explained by merger shifts in the sector in the last few years. However, this situation is less evident when traffic measured in calls is taken into consideration (*vide Chart 4*). Off-net traffic increased between 2011 and 2013, and has decreased as from that year somewhat faster than the reduction registered for on-net traffic. This evolution shows a gradual reduction of providers'

³⁷ The analysis in minutes excludes traffic to flat rate services, as some operators that answered the questionnaire, in some of the years of the period under analysis, failed to report traffic data in minutes for these services (this range was reported in amount of calls). Moreover, traffic to this range has little relevance in terms of minutes.

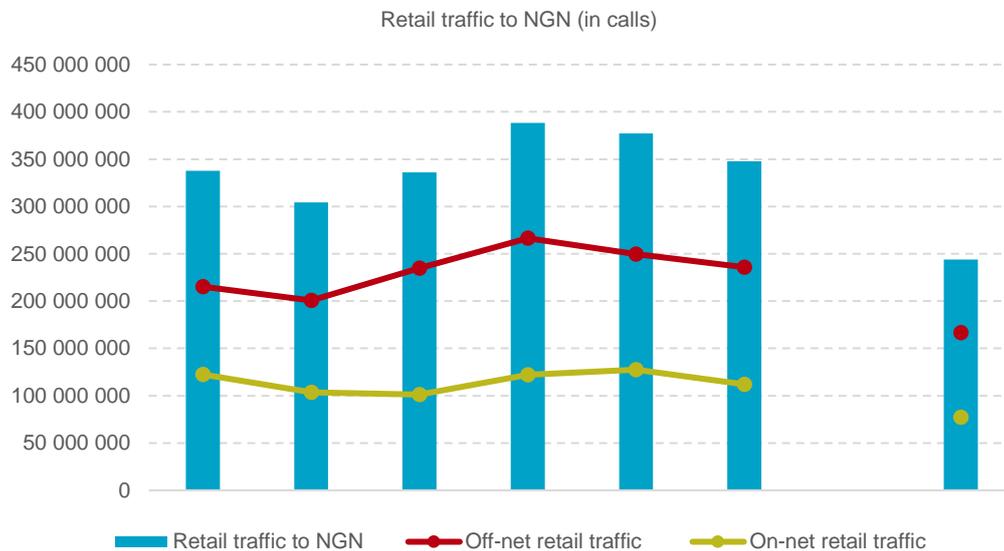
dependence on off-net traffic, and consequently, of the need to purchase the call origination service from third parties.

Chart 3 – Retail traffic to NGN originating on the fixed network and on the mobile network (calls)



Source: ANACOM calculations based on data reported by providers.

Chart 4 – On-net and off-net retail traffic to NGN (calls)



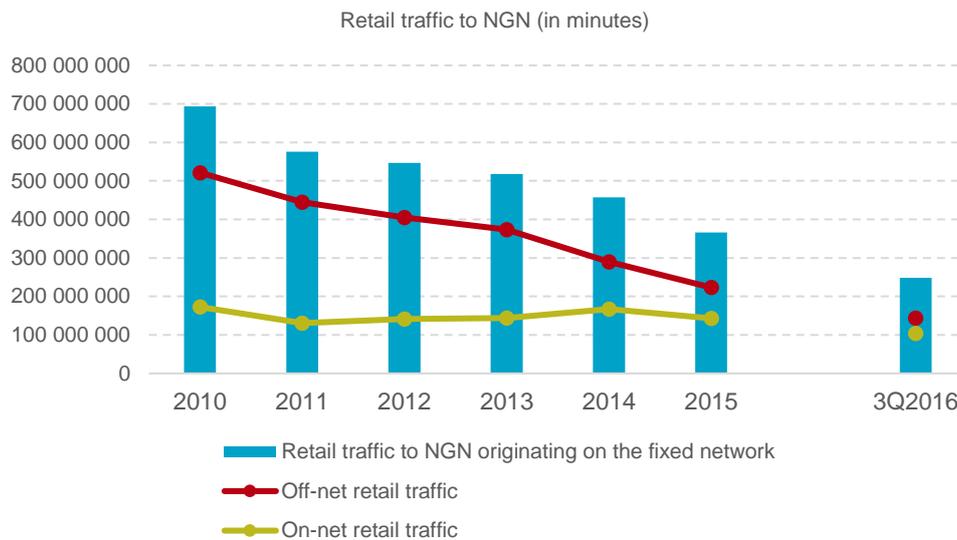
Source: ANACOM calculations based on data reported by providers.

Traffic to NGN originating on fixed networks, although showing a decreasing trend, still is a very significant part of total traffic (fixed and mobile) to those ranges. It is noted, in fact, that this traffic is higher for the fixed network, representing 4% of all traffic originating on that

network, while traffic to NGN originating on mobile networks represents around 2% of traffic originating on those networks.

In case traffic originating on fixed networks is taken into account only, being in mind that it corresponds to call origination at a fixed location purchased from third parties, it is found that the volume of on-net minutes has fluctuated, having even increased between 2012 and 2014 (Chart 5). As far as its weight vis-à-vis total traffic is concerned, while in 2010 it represented only around 25%, in 2016 it already represented 42% of total minutes to NGN originating on the fixed network. On the other hand, there is a significant reduction of off-net traffic, resulting from the decrease in the dependency on wholesale call origination services on fixed networks purchased from third parties.

Chart 5 – On-net and off-net retail traffic to NGN originating on fixed networks (minutes)



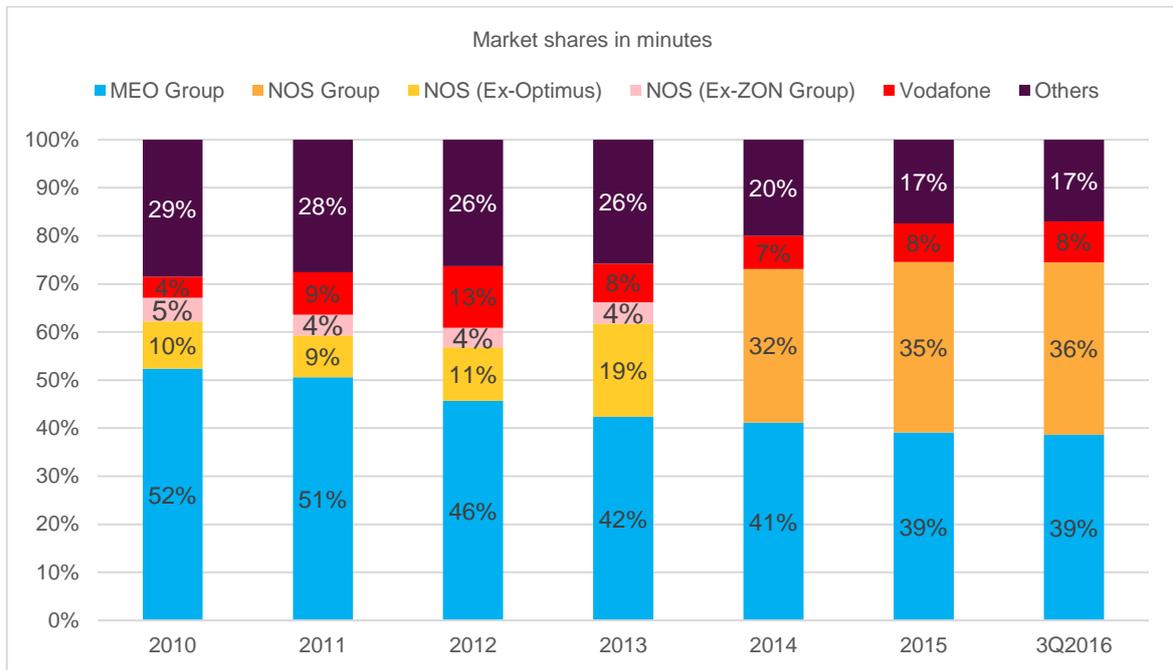
Source: ANACOM calculations based on data reported by providers.

Note: Between 2010 and the 1st half of 2014, certain providers failed to report traffic data in minutes for the 760 service. However, on the basis of available data, namely call duration, it was concluded that traffic in minutes for those ranges is very low, and has no relevant impact on total routed traffic in minutes.

As regards the positioning of the various operators in the provision of retail non-geographic call services for the provision of special services, it may be observed that, in minutes, MEO³⁸ is the largest provider, although its market share is just 3 p.p. higher than that for the second operator on the market.

³⁸ In 2014 and preceding years, data refer to both ex-PT Comunicações, S.A. (PTC) and ex-MEO – Serviços de Comunicações e Multimédia S.A. (MEO). These companies merged in 2014, by incorporation of MEO into PTC, the new company having been renamed MEO – Serviços de Comunicações e Multimédia S.A.

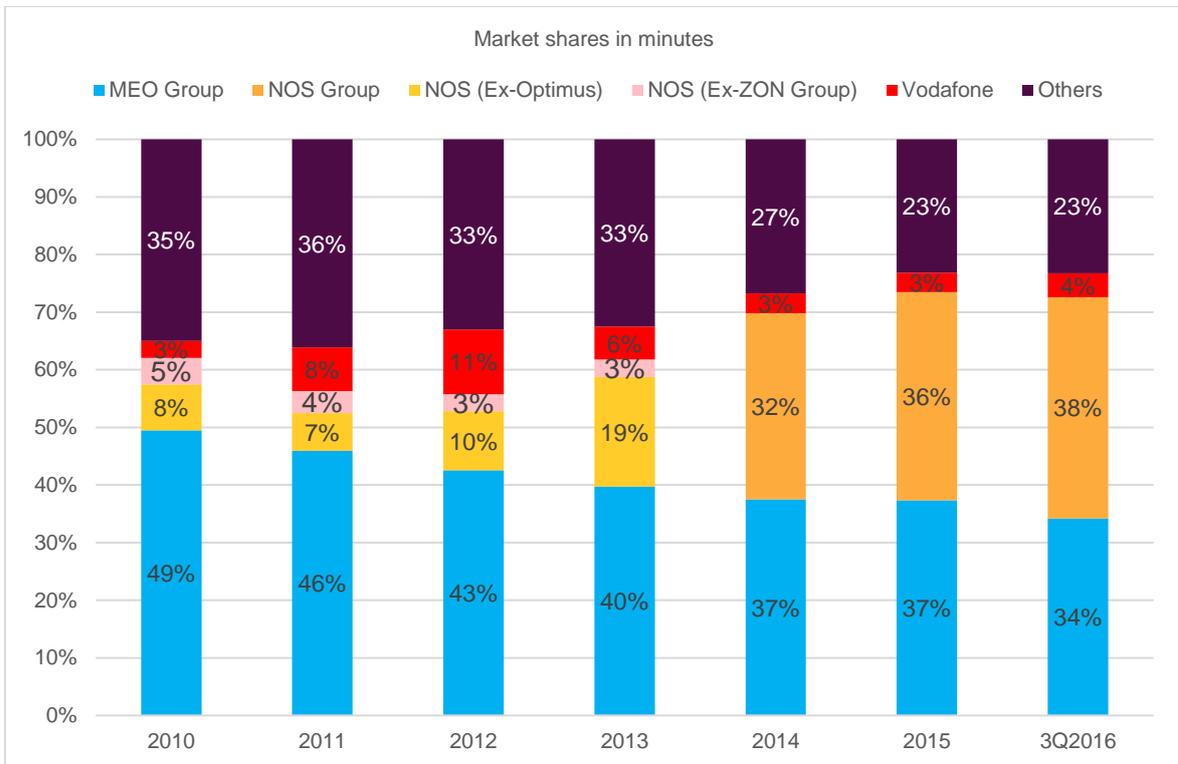
Chart 6 – Market shares of retail traffic to NGN, originating on fixed and mobile networks (minutes)



Note: Between 2010 and 2013, a provider failed to report “Traffic originating on customers of the operator’s own fixed network to its NGN”. Also, another provider failed to report traffic data in minutes for the 760 service (between 2010 and the 1st half of 2014).
 Source: ANACOM calculations based on data reported by providers.

Taking into account traffic originating on fixed networks only, as this is the traffic that is directly associated with wholesale traffic of fixed call origination, it may be observed that the largest operator in the market is NOS, with a 38% market share in minutes (value of 3Q 2016) and that MEO is the second largest operator with a 34% market share (*vide* Chart 7).

Chart 7 – Market shares of retail fixed traffic to NGN (minutes)



Note: Between 2010 and 2013, a provider failed to report "Traffic originating on customers of the operator's own fixed network to its NGN". Also, another provider failed to report traffic data in minutes for the 760 service (between 2010 and the 1st half of 2014).

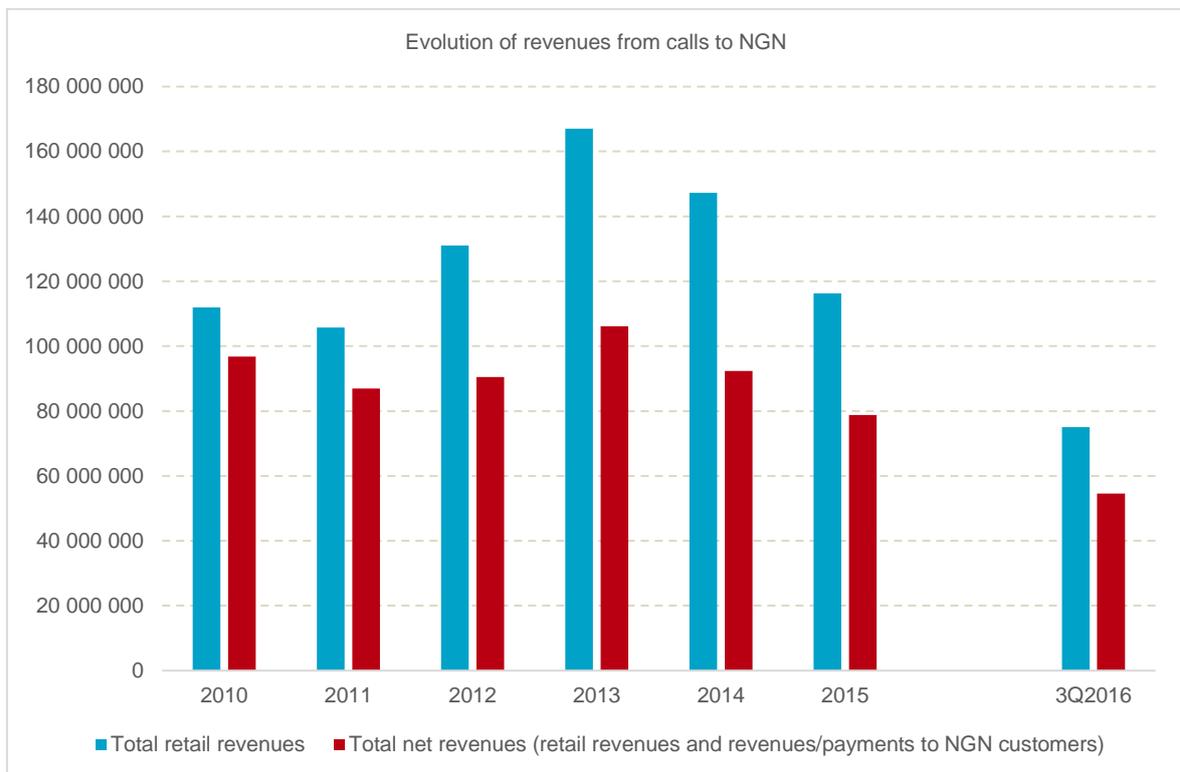
Source: ANACOM

If only off-net traffic, the traffic generating origination revenues, is taken into consideration, in the scope of retail fixed traffic to NGN, market shares of smaller operators increase, in contrast to the decrease of MEO' and NOS' shares. Off-net traffic taken separately into account, in the 3rd quarter of 2016, MEO's share was 31% and NOS' share was 34%, while other operators had a joint share of 35%, which is explained by their dependence of origination provided by third parties, namely MEO and NOS.

As regards NGN revenues, between 2010 and 2013, it is found that retail revenues from end-users (call revenues) increased, from a total of EUR 112 million in 2010 to EUR 167 million registered in 2013. However, a decrease has been observed since then, thus it is estimated that (total) values for 2016 amount to around EUR 100 million. These revenues are originated by customers of mobile networks (between 2011 and the 3rd quarter of 2016, revenues from customers of mobile networks are constantly above 60%, and have steadily risen). In the period under analysis, the weight of revenues from off-net traffic always exceeds 80%.

The following chart (Chart 8) shows the overall evolution of revenues from calls to NGN, both in a strict retail perspective, which only includes retail revenues of calls to the various ranges, and also in a more comprehensive perspective, including retail call revenues, as well as revenues from customers that engage the referred ranges, deducted of any discounts and payments (materialized through the sharing of revenues) made to the referred customers³⁹.

Chart 8 – Evolution of revenues from calls to NGN



Source: ANACOM calculations based on data reported by providers.

Values of (et) overall revenues have shown greater stability than revenues of retail calls, remaining over several years at values close to EUR 80 to 100 million, which evidences that additional gains that have been obtained by operators holding NGN ranges, further to the increase of retail revenues, have been channelled to companies that engage non-geographic numbering services. This trend seems to have reached a peak in 2013. Between 2014 and 2016, differentials are smaller, although they clearly exceed those registered in 2010 and 2011, suggesting that customers that use non-geographic

³⁹ Applicable in the scope of the provision of flat rate and universal access services.

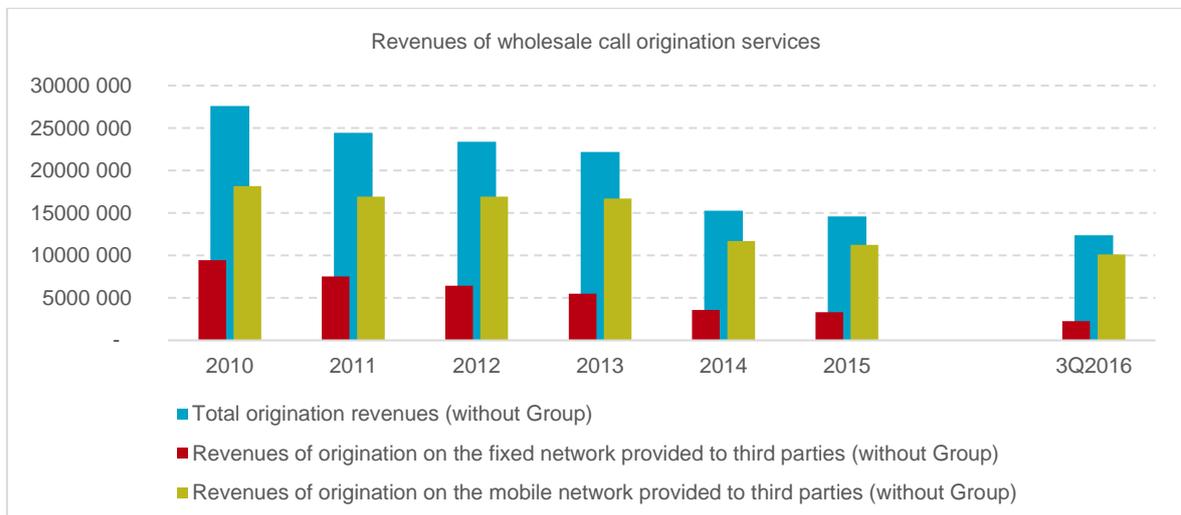
numbering, who absorb a significant part of revenues obtained with the business, hold some degree of market power.

Values included in the chart above (Chart 8), on total net revenues correspond in overall terms to the business value for the sector (margins associated with the provision of the service). These values did not consider wholesale revenues and payments (arising from call origination or billing and collection services), which cancel each other out, as wholesale revenues of some operators correspond to wholesale payments from other operators. In this sense, even if the referred wholesale revenues and payments were added to values referred in the chart above, the final result would be the same.

As evidenced by the chart below, wholesale revenues have shown a decrease that follows the fall of total traffic. Revenues for mobile networks remain higher than those for fixed networks.

At the level of fixed networks, as the MEO Group is subject to *ex ante* regulation, the respective call origination prices have remained considerably below prices charged by its most direct competitors.

Chart 9 – Evolution of wholesale revenues from calls to NGN



Source: ANACOM calculations based on data reported by providers.

The analysis of data requested from providers make it possible to conclude that the different ranges are associated with different market dynamics, the provider holding the highest market share alternating according to the range. At retail level, for now, NOS is the main

operator for the 808/809 and 760 ranges, while MEO is the main operator for the 800 and 707/708 ranges.

2.2. Definition of relevant wholesale markets – relevant product market

This chapter defines the wholesale market for call origination on the public telephone network provided at a fixed location. Under the Community regulatory framework applicable to electronic communications, that complies with Community competition law, this market will be determined by crossing two different dimensions: the product market and the geographic market.

In terms of the product market, the wholesale call origination service allows the operator, via self-supply, to provide the end-user with its own services in the retail market, and allows also the provision, by third-party operators, of the following retail services:

- Indirect access service - allows end-users to use a provider other than the one supplying access to the telephone service provided at a fixed location, by having calls routed from the terminal point where the call is originated to the interconnection point of the selected indirect access operator, with whom the customer is not directly connected;
- Special services provided via non-geographic numbering, such as customer support services, enquiry services, freephone services, shared-cost call services, universal access services and flat rate call services, virtual call card services, televoting services, among others.

In the scope of the former market analysis, it was concluded that the relevant market for wholesale call origination services corresponded, at the level of the product market, to *“voice call origination on the public telephone network at a fixed location, to geographic numbers and to non-geographic numbers, for residential customers and non-residential customers, including self-supply, as well as call origination for access to dial-up Internet services, conveyed at the various network levels and regardless of the transport technology and the interconnection interface used, integrating the interconnection supported on TDM networks and IP interconnection, both for PSTN calls and VoIP calls (of a fixed or nomadic use), and also for calls provided by mobile network operators at a fixed location (homezone services)”*.

Without prejudice to this conclusion, it is stressed also in respect of non-geographic call origination services that, despite integrating the then same relevant market, ANACOM acknowledged that any specificities that existed in this provision was a matter that required further reflection.

In this context, the relevant market definition is thus subject to review, bearing specifically in mind the competitive dynamics that characterize retail services associated with wholesale origination services. It is namely reviewed whether:

- wholesale services provided using different technologies and interfaces;
- call origination from customers of the nomadic VoIP service (range “30”);
- own network, RUO and self-supply;
- call origination on mobile networks;
- call origination provided at a fixed location by using access networks based on GSM/UMTS frequencies (homezone products);
- call origination for access to narrow-band Internet services;
- call origination at the various network levels;
- call origination for residential and non-residential customers;
- indirect access call origination and non-geographic call origination,

are part of the market for call origination on the public telephone network provided at a fixed location.

2.2.1. Wholesale services provided using different technologies and interfaces

In 2014, ANACOM reached the conclusion that services for call origination on the public telephone network provided at a fixed location, supported on SS7 or on alternative interfaces, integrated the same relevant market.

In compliance with the principle of technological neutrality - as referred in the Framework Directive, NRAs are required to take the utmost account of the need for regulation to be

technologically neutral, that is, that it “(...) *neither imposes nor discriminates in favour of the use of a particular type of technology* (...)”, a principle which has also been laid down in article 5 of ECL -, ANACOM believes that there is no reason why origination services provided via different types of technology should be differentiated, not least because these services allow the provision of similar products at retail level, perceived by consumers to be substitutes.

As such, and although wholesale interconnection is still SS7-based, the development of VoIP-based retail offers and of the IP interconnection offer will contribute towards the increasing relevance of interconnection using technologies other than SS7. It is deemed that the fact that traffic may be conveyed, before and after the delivery, over TDM or IP networks, is irrelevant for call making purposes, as both inputs enable the provision of retail services. As such, for the purpose of market definition, the transport technology used by the operator providing the wholesale service is of no particular consequence.

2.2.2. Call origination from customers of the nomadic VoIP service (range “30”)

According to analyses conducted in 2014, where it was concluded, at the level of retail markets, that fixed telephone services and fixed and nomadic VoIP services integrated the same relevant market, also at the level of wholesale markets for call origination on the public telephone network provided at a fixed location it was concluded that call origination on accesses identified by nomadic or geographic numbering integrate the same relevant market.

Grounds presented at the time to include these services in the same relevant market remain valid. In fact, characteristics of the VoIP service provided at a fixed location and nomadic VoIP services (provided using the “30” range) are similar, in most cases, and consequently end-customers do not perceive these offers to be different. As such, there may be substitutability at retail level between VoIP services at a fixed location and nomadic VoIP services, whereas, at wholesale level, the same network elements are used for origination services. It is thus concluded that the wholesale market for call origination on the public telephone network provided at a fixed location includes call origination on accesses identified both via geographic numbering and via nomadic numbering.

2.2.3. Own network, RUO and self-supply

ANACOM concluded in the analysis carried out in 2014 that the construction of an alternative network for access to the end-customer was not a viable alternative to call origination on the public telephone network provided at a fixed location, having also been concluded that the purchase of a connection to an established network, namely by subscribing the Reference Unbundling Offer (RUO), was not an economically viable substitute for the call origination service. Notwithstanding, as far as operators with an installed network are concerned, many of which exist, with a territorial presence that already is quite significant, ANACOM concluded that self-supply integrated the product market.

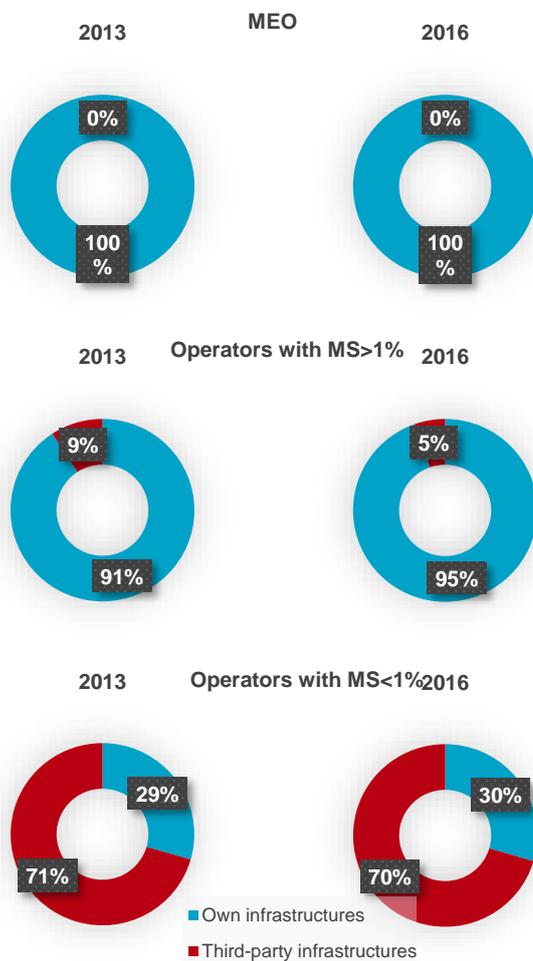
An analysis of the degree of substitutability shows that, on the demand-side, a possible alternative to call origination on the public telephone network provided at a fixed location could be the construction or purchase of infrastructure for access to the end-customer or the use of a network connection already established (via leased lines or the RUO offer).

In this respect, it is noted that alternative operators have invested in the construction of their own infrastructure, and that, at present, most accesses of the largest operators are supported on their own infrastructure (

Chart 10) and are able to support call origination services for their retail customers. Smaller alternative operators however, remain dependant of third-party infrastructure to provide retail voice telephony services at a fixed location, as well as retail non-geographic numbering services.

The figure below illustrates operator dependency of third-party infrastructure according to their weight on the market in terms of accesses, and it was found that only very small operators are highly dependent on networks owned by other operators.

Chart 10 – Proportion of accesses supported on own infrastructure and on third-party infrastructure



Source: ANACOM

In parallel with the increase in the number of accesses made available by alternative operators on the basis of their own infrastructure, the proportion of the number of such

accesses held by MEO has registered a downward trend, although this company remains as the largest holder of accesses supported on its own infrastructure (48.8% compared to 36.1% of the group that ranks second, data from 2016, considering only accesses installed using own infrastructure in non-equivalent accesses).

That said, it must be analysed whether the construction of an alternative access is an option for the purchase of wholesale origination services. While it is true that the development of infrastructure has allowed operators to replace the purchase of wholesale call origination for a direct connection to the customer, it is also a fact that the construction or purchase of infrastructure for access to the end-customer involves slow and relevant investments, with significant sunk costs. As such, it is not deemed to be, within the relevant time horizon, an alternative to the purchase of origination, especially where only the offer of retail telephone services provided at a fixed location is at stake. Referred costs may be considered to be too high when compared to the relatively more affordable option of purchasing the wholesale call origination service from an existing operator. This latter option allows the entrant to establish first its customer database before deciding for more significant investments, using for example the connection to an established network via leased lines or the RUO offer, the costs of which are also significant.

As regards the use of leased lines, ANACOM maintains its position that differences of investment and prices as well as functional differences between this service and fixed origination services are grounds not to integrate these services in the same product market. As far as RUO is concerned, ANACOM also continues to believe that this service may not be deemed to be a close substitute of the call origination service, in view of the different costs that are associated and the impossibility to unbundle all of MEO's exchanges, which restricts its national coverage. On the other hand, the decreasing weight of RUO also renders ineffective any competitive pressure that could be placed on the provision of the wholesale call origination service.

Without prejudice to the above, it is stressed that, in the light of the evolution of operator networks and of the increasing relevance of direct access in retail market dynamics, ANACOM decided to include self-supply in the scope of the relevant wholesale call origination market in its 2014 relevant market analysis. In fact, although the construction of an alternative network, or even the purchase of access to an established network (namely via RUO) may not be considered to be part of the relevant product market, a significant part of providers in the market already own their own network and access retail customers mostly

over such networks. In fact, all alternative providers with a weight over 1% of the market (in terms of access) are vertically integrated, and operate in wholesale markets (at least for self-supply purposes) and retail markets, and retail traffic they own is for the most part originated by customers supported on their own infrastructures.

As such, self-supply represents the main source of competitive pressure in the provision of retail services. It is thus relevant to take this offer into consideration as regards the definition of the wholesale call origination service. A different approach could penalise the operator designated with SMP in the last analysis, given that, in the provision of call origination services for the provision of retail offers of the fixed telephone service it would appear as a monopolistic operator, as it is the only provider of the wholesale service under consideration, being subject to an obligation for provision of access.

Accordingly, there are grounds to consider that the provision of self-supply services should be included in the same relevant market as the wholesale call origination service.

The analysis of substitutability on the supply-side is not relevant, bearing in mind that all operators who are in a position to supply the voice call origination service also own their own networks.

In the light of the above, ANACOM takes the view that the construction of an alternative network for access to the end-customer or the use of leased lines or of the RUO offer are not viable substitutes, within the relevant time horizon, for the purchase of call origination. Notwithstanding, ANACOM believes that self-supply should integrate the definition of the relevant product market.

2.2.4. Call origination on mobile networks

In 2004, ANACOM analysed substitutability between call origination on individual public telephone networks provided at a fixed location and origination on mobile networks, having concluded that the latter is not a substitute for call origination on individual public telephone networks provided at a fixed location. In the light of the evolution that characterizes electronic communications services, it is relevant to reassess this issue in order to check whether there is substitutability, at retail level, between fixed and mobile calls and what the impact is on related wholesale services.

Both mobile and fixed communications allow users to meet their voice communication needs. In order to define the relevant market, it is necessary to check whether there is a relation of substitutability or complementarity between these two services.

In the *Explanatory Note*⁴⁰ that accompanies its Recommendation on Relevant Markets, EC mentions, when it analyses the market for call origination on fixed networks, that:

“Mobile networks can, in many instances, provide the same functionalities as fixed narrowband access, such as making and receiving calls. In addition, they can also provide internet connectivity (...) However, there are still important differences which argue in favour of mobile as predominantly a complement rather than a substitute to fixed telephony, namely the price paid for a mobile call, as well as the perceived quality of the call, especially over a mobile network, which may be inferior relative to that of a fixed. As stated above, in the period covered by this Recommendation, at Union level fixed-mobile substitution is not foreseen to be sufficient to warrant identification of a combined market for access services.”

This document acknowledges that significant differences may exist between Member-States and indicates some relevant indicators for the analysis of this issue, including fixed penetration, price convergence and behavioural patterns, such as the average duration of fixed and mobile calls.

According to data published by ANACOM, the rate of penetration of fixed telephone accesses in Portugal reached, by the end of 2016, 46.3 access per 100 population. In this same period, the penetration rate of mobile services was 111.0 mobile stations per 100 population, taking into account FTS with effective use, excluding tablet/PC and M2M.

Although it is possible, at least at conceptual level, to substitute a call originating on a fixed location for a mobile call, there is no clear evidence that this substitutability actually occurs. In fact, there are differences between these two types of services, such as terminal equipment, functionalities, mobility, the quality of communication, as well as conditions of the offer, including call prices, specifically prices of fixed-mobile calls and mobile-fixed calls, which lead to different usage profiles and user perception of different products. It is stressed

⁴⁰ European Commission (2014), Explanatory Note SWD (2014) 298, p. 25.

that, by the end of 2015, around 73.9%⁴¹ of individuals with access to the telephone service were provided with both types of accesses.

In addition to differences at retail level, it was found at wholesale level that demand depends on the choice of the user that makes the communication, the operator that acquires fixed origination not being able to substitute it for mobile origination, when the user has chosen to make a call from a fixed network terminal. Even if this was possible, the price differential at wholesale level between fixed origination and mobile origination would be an obstacle to substitutability between these two services, as the price of the latter is substantially higher than the price of the former.

Bearing in mind that demand on the wholesale market is constrained by demand on the retail market, and in the light of specificities of both services, it is concluded that call origination on the public telephone network provided at a fixed location cannot be substituted for origination on mobile networks.

2.2.5. Call origination at a fixed location by using access networks based on GSM/UMTS frequencies (homezone products)

In its determination of 14 August 2014, ANACOM took the view that the call origination service provided by mobile networks at a fixed location integrated the same product market of the wholesale call origination service provided by fixed networks at a fixed location.

At retail level, consumers perceive fixed telephone services supported on GSM/UMTS networks and fixed telephone services supported on fixed networks to be substitutes. At interconnection level, and more specifically at the level of the call origination service, operators who have been providing these offers charge for voice call origination at homezone customers an equivalent amount to that charged for origination on fixed networks. As such, no differences at the level of prices or competition dynamics are identified that could prevent substitutability.

In the two years since the last market analysis, no changes have taken place that would justify changing the conclusion reached in that determination. Accordingly, it is deemed that the two services continue to integrate the same relevant product market.

⁴¹ ANACOM (2016), “The electronic communications consumer 2015”, pp.37.

2.2.6. Call origination for access to narrow-band Internet services

According to the analysis carried out in 2014, ANACOM concluded that voice call origination and call origination for access to dial-up Internet services were part of the same relevant market.

Boundaries of this wholesale market take into account the provision of telephone services in the retail market. As such, it may be considered that telephone services include not only traditional voice calls but also narrowband data services, such as the dial-up Internet service.

It is noted that, at wholesale level, the narrowband dial-up access service may be provided using the call origination service, reason for which these services are integrated in the relevant market for call origination on the public telephone network provided at a fixed location.

Moreover, in practical terms this definition has no significant implications at the level of the analysis of market dynamics, given that the provision of services for narrowband dial-up Internet access services is merely residual.

2.2.7. Call origination at the various network levels

In the market analysis carried out in 2014, ANACOM concluded that call origination services at the various network levels: local, simple transit, double transit, were provided simultaneously, and integrated the same relevant market, although differences between networks of the various operators were pointed out.

On the supply side, local origination services and origination services at higher levels of the network are made available on the market by providers of this service, namely in the case of MEO. Other operators usually present a network structure with no level and schedule differentiation.

From a demand-side perspective, the operator that purchases a wholesale origination service may “receive” traffic at different network levels, in case the network of the operator providing the origination service presents various levels, being thus able to choose between: i) using the interconnection offer provided by the direct access operator at the first interconnection level or; ii) interconnecting at a higher network level.

Substituting a higher level origination for origination at first-level interconnection does not occur without substitution costs being incurred. In fact, substituting a higher level origination for first level interconnection origination depends on whether the price difference compensates development costs of an own network up to those lower level points or the costs of leasing means owned by other operators, or even costs arising from the purchase of transit services from third-party operators that allow that substitution to take place.

In practise, substitutability between these various interconnection levels could be limited by differences in prices, net infrastructure, investments on the network and by competition dynamics of the transit market. In fact, the use of transit services together with origination at the lowest interconnection level is frequently deemed to be an alternative to the purchase of higher level origination.

Transit services integrate a product market that was deregulated, further to ANACOM's decision of 25.05.2005⁴². The market was defined at the time as integrating services provided by an operator who conveys calls originating and terminating on a network other than its own. Without prejudice to this definition, current offers of transit services made available by at least two of the largest alternative operators enable operators without a network deployed at national level not to interconnect with other operators, namely at geographic points that are far apart from each other.

These offers also act as a constrain on call origination and termination services provided by MEO at double transit levels, and ANACOM believes that in the absence of regulation of these services, these transit offers will discipline MEO's offer, as they are deemed to be viable alternatives to the referred services. It is noted in particular that, in the scope of double transit origination, a very low traffic volume is at stake compared to the total origination traffic supplied to third parties by MEO, with a clear downward trend, that represents a very small part of total origination traffic (even smaller if only origination traffic considered for the purpose of enabling indirect access services is taken into account). It is deemed that further to a small but significant increase in the price of the double transit origination price, transit offers could easily substitute double transit origination services, guaranteeing this provision.

⁴² Available at <https://www.anacom.pt/render.jsp?contentId=404834>.

In addition, IP interconnection will show a growing proportion, differences between the various levels of interconnection ceasing to be relevant. In the scope of next generation networks, control and conveyance of calls are dissociated, management and control being centralized in platforms that are not associated to customer location, thus the concept of local switching associated to the exchange closest to the customer will cease to make sense.

Accordingly, bearing in mind a situation in which, on a forward looking basis, different network layers will lose importance, and where the percentage of traffic originating in double transit is negligible, being clearly below 10% of the traffic originating in MEO's network and much lower than the total origination traffic, and in the light of transit offers available and that are deemed to be able to replace the double transit level, ANACOM believes that this level should not be integrated in the relevant market. Although this perspective does not match the conclusion in ANACOM's recent decision on fixed termination, it results in an equivalent situation, as in that case the double transit level was deregulated, having EC urged ANACOM in that context to *"set an exact demarcation point between termination and transit markets, in recognition of the state of competition on transit routes beyond the regional/local point of interconnection."*

2.2.8. Call origination for residential and non-residential customers

In former market analyses, ANACOM concluded that call origination services for residential and non-residential customers integrated the same relevant market.

In fact, at wholesale level there is no differentiation between the residential and the non-residential segments. At demand level, providers purchasing the wholesale call origination service use it indiscriminately for the provision of retail services to residential and to non-residential customers. In the supply-side perspective, the service provided and offer conditions are the same. As such, it is deemed that call origination for residential and non-residential customers integrate the same relevant market.

2.2.9. Indirect access call origination and non-geographic call origination

The provision of wholesale call origination services is intended for the provision at retail level of different services, as it allows the provision of telephone services via indirect access and the provision of special services supported on non-geographic numbering. It is noted,

at retail level, that in 2014 ANACOM concluded that “*calls to non-geographic numbers intended for the provision of special services represent a market that differs from national and international markets for telephone services provided at a fixed location*”⁴³. Point 2.1 of this analysis also refers to this difference at the level of retail markets.

Without prejudice to the fact that these services are different at retail level, at wholesale level it was concluded, in the 2014 decision on the fixed origination market, that the wholesale market included both geographic and non-geographic call origination, as at the level of offers services use the same network resources regardless of the call destination. Notwithstanding, in the same decision, and in the light of comments received from the PT Group on the existence of different competition dynamics for these services, ANACOM acknowledged the need to assess the specific issue of the provision of wholesale non-geographic call origination services. In this context, it must be weighted whether there are grounds to maintain both types of wholesale call origination services in the same product market and or whether there are market dynamics that substantiate the definition of two different relevant markets.

Call origination on public telephone networks provided at a fixed location is a necessary element of the provision of retail voice telephony services at a fixed location. More specifically, this wholesale service allows service providers to supply their end-customers with the possibility to make calls, which are then conveyed to the next call routing stage, both for the purpose of call termination or to the interconnection point.

Given that, in the former market analysis, it was considered that non-geographic and geographic origination services integrated the same relevant market, on account of the absence of technical differences at supply-level, it is necessary, first, to ascertain whether supply-side substitutability exists.

In fact, at the level of the elements required for its provision, there are no differences in call origination to geographic and to non-geographic numbers. The provision of these services use the same main inputs (the same network resources).

However, while it is possible for a provider of wholesale call origination on the public telephone network provided at a fixed location to non-geographic numbers to supply

⁴³ Decision “Retail markets for access to the public telephone network provided at a fixed location and markets for telephone services provided at a fixed location” (p. 105).

simultaneously, with no significant additional investments, call origination on the public telephone network provided at a fixed location to geographic numbers, in practise, this does not occur.

At the level of geographic call origination, there is at present only one operator providing this service, MEO, on grounds of regulatory imposition. Notwithstanding, alternative providers, who currently provide the service to their retail customers, hold the necessary infrastructure and capacity to supply the wholesale call origination service at commercial level. Non-geographic origination is commonly provided by operators who make accesses available to their customers, to allow access of these customers to services provided by third parties via non-geographic numbering.

The evolution in retail markets for access to the public telephone network provided at a fixed location and of telephone services provided at a fixed location, which is currently characterized by a lower weight on the part of MEO, has a significant impact on the provision of the wholesale non-geographic call origination service. Alternative operators have increased their presence in retail markets, as a result of investments made in their own networks, thus their position in wholesale markets has changed. In fact, they show an increasing importance in the scope of the provision of non-geographic origination.

Not only the retail service underlying the provision of call origination services, for the purpose of indirect access and to access services provided using non-geographic numbers, is different, but referred changes in retail markets have also contributed to alter competition dynamics associated with the wholesale non-geographic call origination service. The 2004 market analysis identified one sole provider, the PT Group, that supplied several purchasers. According to data published at the time (data for 1Q 2003) the PT Group had an origination market share by 94% (in volume), despite the existence at the time of 8 competitors, via non-geographic origination.

At present, and specifically as regards wholesale non-geographic call origination services, there are several providers making such services available, and depending on the numbering range concerned, in some cases the respective market share is very close to MEO's or even exceeds it. While in the scope of the provision of indirect access origination services, there still is a single operator - MEO - who ensures the service, in the provision of non-geographic call origination services, several players may be identified, who are both

purchasers and sellers of services, the operator with the largest market share differing according to the numbering range involved.

Moreover, in order to be able to provide a retail offer that is economically viable through indirect access, the provider must only guarantee, at wholesale level, that it has access to the network of the operator with the greatest level of coverage, that is, the network of the incumbent. In contrast, the provision of non-geographic services does not depend on access to the network of the operator with the largest capillarity, as usually it is important to ensure that services are accessible from several or all providers on the market, so that the retail offer is more attractive/competitive.

These services show different structures also at billing level. While in the scope of indirect access call origination, the wholesale provider bills the customer provider originating the call for the provision of the origination service and the latter bills the customer directly for the retail value of that call, in the scope of wholesale non-geographic call origination, the wholesale provider bills the provider holding the number not only for the call origination service but also for the billing, collection and bad debt risk service, and also bills the customer who made the call on behalf of the provider holding the non-geographic number, to whom the value billed to the customer is then submitted.

The provision of the wholesale non-geographic call origination service thus presents its own competition dynamics, where all holders of electronic communications networks providing the telephone service provide the referred wholesale service, and where the billing mechanism differs from the one for indirect access call origination.

As such, although it may be considered that the provider of geographic call origination is also able to provide non-geographic call origination, and vice-versa, this does not imply that they both integrate the same relevant market, namely because the analysis at the level of substitutability must take into consideration characteristics, prices, intended use, as well as “(...) *conditions of competition and/or the structure of supply and demand on the market* (...)”⁴⁴.

Accordingly, it may be concluded that, although at the level of the provision of production inputs, the supply of indirect access origination or of non-geographic origination is similar,

⁴⁴ Cf. Guidelines, §44.

the offer conditions for these services are different and determine the absence of substitutability at the level of the product supply.

At demand level, in general, an operator that purchases origination services for indirect access or for non-geographic numbers perceives the service provided to be similar at technical level. However, in addition to differences at billing level, there are also differences at the level of the intended use, given that the purchase of these services is based on the different business models of purchasing operators. In one of the cases, the service, purchased only from MEO, allows alternative operators to supply the telephone service to end-users through call selection or pre-selection, while in the other case the service allows end-users to contact a telephone number that is managed by an operator who may not be his provider of the telephone service at a fixed location, and via which special services are provided, whereby the mere provision of the telephone service is not here at stake.

Consequently, the possibility that an operator will substitute the purchase of a service for the other is limited by the use that this input is intended to have, and as such, it is not likely that such substitution occurs, reason for which it is concluded that no substitution exists on the demand-side.

Taking into account the physical and technical characteristics of the services under analysis, it may be observed that there is, as such, a relation of complementarity, not of substitution, between these two services. On the other hand, the demand for access services is structurally different from the demand for special services (calls to non-geographic numbers).

The different competition dynamics in the scope of call origination for indirect access and for non-geographic numbers, as well as the absence of substitutability on the demand side, confirms that indirect access origination services and non-geographic origination services do not integrate the same relevant product market.

It is noted that other European NRAs, such as the French and German NRAs, also consider that markets under consideration do not integrate the same product market, as they serve different demand purposes and are subject to different competition dynamics.

2.2.10. Definition of the product market - Conclusion

In the light of the analysis carried out, based on supply-side and demand-side substitutability, it is deemed that two product markets exist in Portugal:

- Call origination on the public telephone network provided at a fixed location for the provision of retail services, supported on indirect access (carrier selection on a call-by-call basis and call pre-selection).

This product market comprises voice call origination on the public telephone network provided at a fixed location, to geographic numbers, for residential and non-residential customers, including call origination for access to dial-up Internet services, conveyed at local and simple transit network levels - the double transit level having been excluded from the market (*vide* chapter 2.2.1) - and regardless of the transport technology and the interconnection interface used, integrating interconnection supported on TDM networks and IP interfaces, both for PSTN and VoIP calls (with fixed or nomadic numbering), and also for calls provided by mobile network operators at a fixed location (homezone services). The market includes self-supply, for the specific purpose of calculating market shares.

- Call origination on the public telephone network provided at a fixed location for special services supported on non-geographic numbering

This product market comprises voice call origination on the public telephone network provided at a fixed location for access to special services supported on non-geographic numbering, for residential and non-residential customers, conveyed at local and simple transit network levels, regardless of the transport technology and the interconnection interface used, integrating interconnection supported on TDM networks and IP interfaces, both for PSTN and VoIP calls (with fixed or nomadic numbering), and also for calls provided by mobile network operators at a fixed location (homezone services). The market includes self-supply, for the specific purpose of calculating market shares.

2.3. Definition of the geographic market

Having the relevant product market been identified, it is now necessary to define its geographic scope.

The Recommendation on Relevant Markets and the Guidelines refer that a relevant geographic market comprises an area in which the undertakings concerned are involved in the supply and demand of the relevant products or services, in which area the conditions of competition are similar or sufficiently homogeneous and which can be distinguished from neighbouring areas in which the prevailing conditions of competition are appreciably different.

On the other hand, according to the Explanatory Note, investment in alternative infrastructures is often uneven across the territory of a Member State and in many countries there are competing infrastructures only in parts of the country, typically in urban areas, while in other areas, a single network exists. Where this is the case, according to EC, the NRA is entitled, in principle, to define sub-national geographic markets. In fact, ECL already lays down that ANACOM is required to consider “*the variety of conditions relating to competition and consumers that exist in the various national geographic areas*”⁴⁵.

As such, it must be found whether there are geographic areas with similar competition conditions or which are sufficiently homogeneous yet differ from competitive conditions in other geographic areas.

In the electronic communications sector, and in the specific case of the wholesale call origination market, the geographic scope of the relevant market has been traditionally defined according to the following criteria:

- The existence of legal and regulatory instruments, namely, restrictions concerning licenses/authorizations, tariff obligations and service provision obligations.
- The area covered by a network.

The market definition exercise complies with the principle of technological neutrality and takes into account all network platforms in Portugal, irrespective of the underlying technology.

In the former market analysis, ANACOM considered that competitive conditions that affect the provision and access to the call origination service are homogeneous throughout the

⁴⁵ Cf. Article 5, paragraph 5 e) of ECL.

entire national territory, as no specific legal and regulatory instruments are applied according to geographic areas.

This analysis concludes for the presence of two wholesale product markets. However, there is no evidence in both markets of different competition conditions according to the different geographic areas affecting the provision of associated services. Likewise, in both cases any operator is able to access services provided under equal conditions, whether of a technical, economic or regulatory nature, regardless of its location on the national territory.

At retail level, it is noted that there are operators present in only some areas of the national territory, while in other areas there are no operators holding their own network, other than MEO. This could suggest the need for the definition of a segmented geographic market, as was the case for markets for wholesale local access provided at a fixed location and the related market, market 3b (market for wholesale central access at a fixed location for mass-market products). It must be referred in this context that investments in their own network by alternative providers, although resulting in a different presence in different geographic areas, are not usually made for the purpose of providing telephone services at a fixed location. Despite the fact that their public offers integrate these services, networks would not be economically viable if they were intended solely for this provision.

In fact, the offer of the telephone service provided at a fixed location is in these situations integrated in a wider offer, namely a bundle of services, which includes other services such as broadband services and/or pay-TV distribution. It is primarily these services, or all services taken as a whole, that render networks of alternative operators viable.

As such, the presence of alternative operators with their own network in some areas, for example at parish level (the parish being the geographic unit defined in the scope of market 3b) has negligible weight for end-users, either individuals or businesses, who only require telephone services at a fixed location. The offer of the stand-alone telephone service, mainly ensured by MEO, on account of the historic copper-based network held by this operator, does not present different conditions according of the geographic areas where it is provided. On the other hand, wholesale offers made available by markets here under consideration are not subject to heterogeneous competition conditions. Even offers provided by all operators for the purpose of making available services supported on non-geographic numbering, which are not subject to regulation, are not differentiated according to the geographic areas where they are provided.

In the light of the above, ANACOM takes the view that the segmentation of geographic markets for call origination at a fixed location for the provision of retail telephone services and for the provision of special services supported on non-geographic numbering is not justified. These markets thus remain, like in the previous market analysis, as markets that correspond to the whole national territory.

2.4. Conclusion

In the light of the analysis above, it is deemed that two different product markets exist in Portugal: the wholesale market for call origination on the public telephone network provided at a fixed location for the provision of retail services, supported on indirect access (carrier selection on a call-by-call basis and call pre-selection) and the wholesale market for call origination on the public telephone network provided at a fixed location for special services supported on non-geographic numbering, both of which are national in scope.

Taking into account point 2.1 above, this analysis focuses only on the wholesale market for call origination on the public telephone network provided at a fixed location for special services supported on non-geographic numbering.

3. Markets susceptible to *ex ante* regulation

The Recommendation on Relevant Markets does not include markets defined in this analysis as markets susceptible to *ex ante* regulation. It refers, however, that NRAs may identify markets other than those set out in the respective Annex, insofar as Authorities are able to demonstrate that the following three criteria are cumulatively met⁴⁶:

- Presence of high and non-transitory barriers to entry, either of a structural, legal or regulatory nature;
- A market structure which does not tend towards effective competition within the relevant time horizon. The application of this criterion requires the examination of competition behind the barriers to entry;
- Insufficiency of competition law alone to adequately address the market failure(s) concerned.

It is noted that, in the referred Recommendation, EC explicitly refers that, although retail markets related to the market now under consideration no longer fulfil the three-criteria test, “(...) *there may be a degree of variation across Member States (...)*” that justifies that an NRA “(...) *could find that market 1 of Recommendation 2007/879/EC [retail market for access to the public telephone network at a fixed location for residential and non-residential customers] or other retail markets related to market 2 of Recommendation 2007/879/EC [wholesale market for call origination on the public telephone network at a fixed location] are not yet effectively competitive from a forward-looking perspective absent appropriate and proportionate wholesale remedies. National regulatory authorities could thus justify continuing ex ante regulatory intervention at wholesale level provided that the three-criteria test is satisfied in the national circumstances for the subsequent review period.*”

This section aims to assess the cumulative fulfilment of the three criteria listed by EC, for one of the identified relevant markets - the wholesale market for call origination on the public telephone network provided at a fixed location for special services supported on non-geographic numbering -, in order to check whether the respective regulation remains

⁴⁶ Vide point 2 of Recommendation on Relevant Markets.

justified. Without prejudice to the cumulative nature of the three criteria, each one will be dealt with separately, irrespective of the fulfilment of the others.

In addition to elements presented by EC in the scope of the Recommendation on Relevant Markets, ANACOM bases this analysis in BEREC's report "*Guidance on the application of the three criteria test*".

3.1. Market for call origination on the public telephone network at a fixed location for special services supported on non-geographic numbering

3.1.1. High and non-transitory entry barriers

As referred in the Recommendation on Relevant Markets, recital 12, two types of barriers to entry are deemed to be relevant: structural barriers and legal or regulatory barriers.

In principle, no legal, administrative or regulatory barriers to entry are identified in the origination market for the provision of call origination on the public telephone network provided at a fixed location, for special services supported on non-geographic numbering.

As regards the existence of high structural barriers to entry or to competition, it must be taken as reference that the Recommendation on Relevant Markets refers that they "(...) *result from original cost or demand conditions that create asymmetric conditions between incumbents and new entrants impeding or preventing market entry of the latter. For instance, high structural barriers may be found to exist when the market is characterised by absolute cost advantages, substantial economies of scale and/or economies of scope, capacity constraints and high sunk costs. A related structural barrier can also exist where the provision of service requires a network component that cannot be technically duplicated or only duplicated at a cost that makes it uneconomic for competitors*".

In order to supply special services in the retail market, such as customer services, bodies that contract the use of non-geographic numbers usually intend such numbers to be accessible to many users, even all end-users in the national territory. For this purpose, they contract the service from providers that allow them to implement this purpose. As end-users do not hold accesses of all providers, providers with non-geographic numbers must contract wholesale origination services from other operators for calls made to their NGN, thus enabling a wide database of end-users to access the referred special services.

Access to networks held by operators who have customers of the telephone service is thus essential for retail providers who hold non-geographic numbering. The need to use services for wholesale call origination on the public telephone network provided at a fixed location for special services constrains providers holding NGN to obtain interconnections with third-party operators and to reach agreements on values to be charged/paid for origination services as well as for billing, collection and bad debt risk services, so that customers of the various providers are able to make calls to NGN held by the operator purchasing the referred wholesale services.

The construction of their own infrastructures by alternative operators and their consequent capacity to self-supply call origination services has contributed towards decreasing entry barriers, both at wholesale and retail level. In this case, providers show that they depend increasingly less on wholesale call origination services that make available special services provided using non-geographic numbering, given that a significant part of traffic originating on a fixed location to NGN corresponds to traffic routed over the same network. This percentage has been steadily increasing, representing by the end of the 3rd quarter of 2016 around 43% of traffic, when in 2010 it represented merely 23%.

In any case, it must be stressed that services provided over non-geographic numbering must be affordable to the majority of end-users. The retail provision of special services via NGN will remain conditional upon the purchase of origination from third-parties, even as regards providers with a significant volume of customers.

On the other hand, any provider of the telephone service is interested, in principle, that their access customers are able to make calls to all numbering ranges, including non-geographic ranges, whether they are owned by such provider or by third parties, given that, if customers are not able to make all type of calls, this will constrain end-customer subscription. For this reason, and given that NGN providers also intend for their services to be accessible to many users, if not to all end-users on the national territory, there is a strong motivation for negotiation and consensus-building at the level of interconnection agreements between call origination operators, so as to enable the provision of special services using non-geographic numbering of the various providers.

In this context, it is stressed that all providers holding a public electronic communications network are at present supplying wholesale call origination for special services supported on non-geographic numbering. Although the respective networks are not developed for this

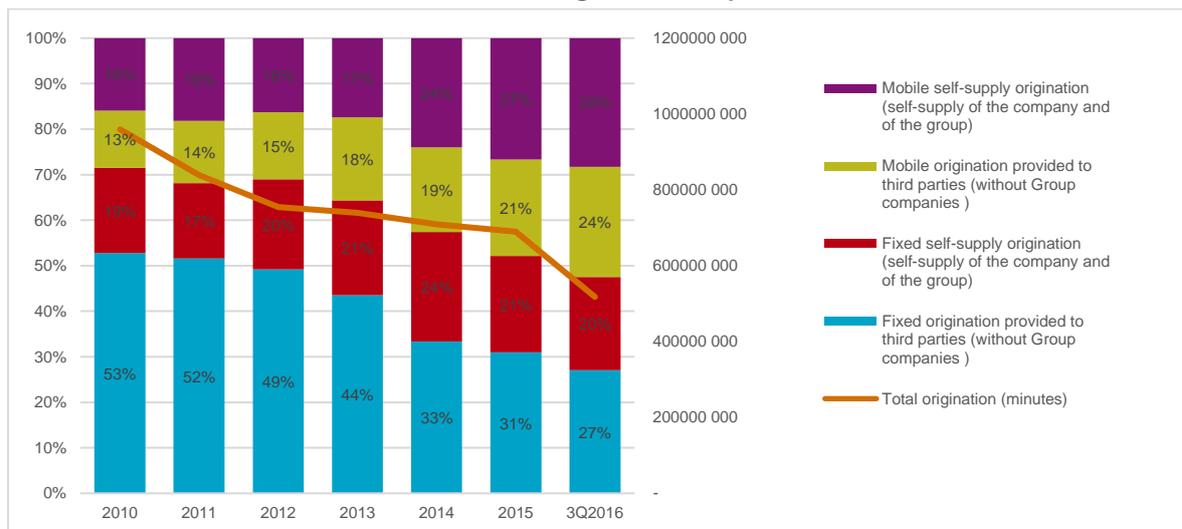
specific purpose, and their construction is subject to various constrains that operate as barriers to entry in the market, all providers holding non-geographic numbering purchase and sell each other the referred origination services. Moreover, in order to provide the retail service, although it is essential to access networks of operators who have customers of the telephone service, it is not necessary to hold an own network, so at this level there are no entry barriers related to the need to construct one’s own network. In conclusion, it is deemed that this first criterion is not fulfilled, which is sufficient not to include this market in the set of markets subject to *ex ante* regulation. Nevertheless, it is deemed useful to analyse remaining criteria, thereby strengthening this conclusion.

3.1.2. Market structure which does not tend towards effective competition within the relevant time horizon

The application of this criterion requires the assessment of conditions of competition other than entry barriers, and as such, ANACOM will use again indicators suggested by BEREC, in its “*ERG Report on Guidance on the application of the three criteria test*”, namely market shares, price trends and potential competition.

As shown by Chart 11, traffic in minutes, concerning wholesale origination to special services supported on non-geographic numbering, has decreased over the last few years.

Chart 11 – Wholesale origination for special services



Note: Data for 2016 only include traffic up to the 3rd quarter of the year.

Source: ANACOM

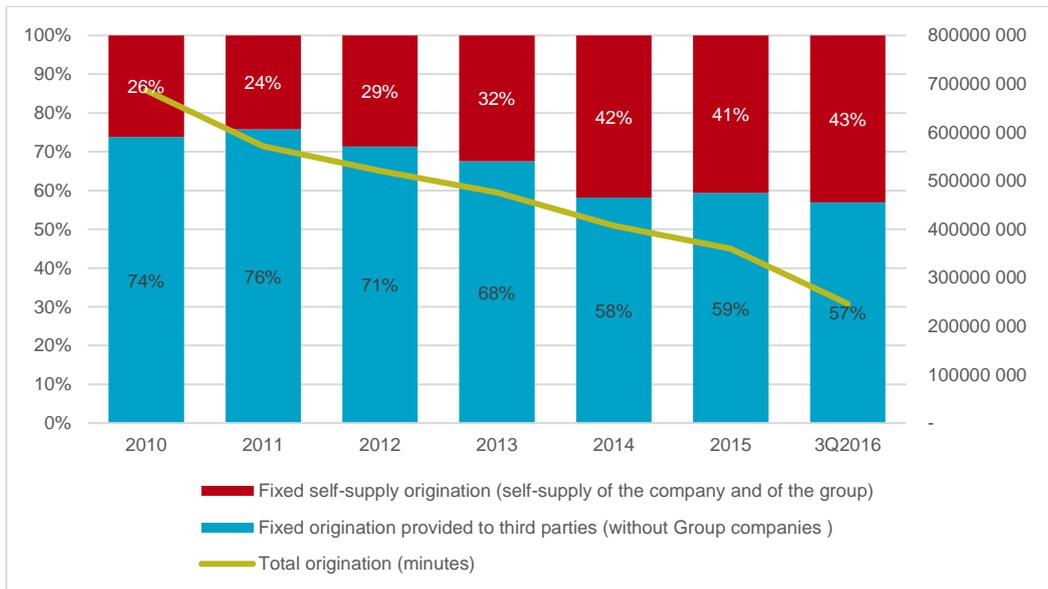
Although complete data for 2016 are not yet available, it is likely that traffic for this year does not differ significantly from traffic routed in 2015. Compared to total traffic, fixed origination was the one that decreased the most; it represented in 2010 around 72% of total traffic in minutes, including origination supplied to third parties and self-supply, weight that by the 3rd quarter of 2016 was below 50%. In percentage points, fixed origination supplied to third parties showed the highest reduction, having fixed self-supply origination increased slightly.

The increasing relevance of mobile origination in the total of wholesale origination for special services using NGN must be highlighted, having increased by 23 p.p. between 2010 and the 3rd quarter of 2016 (however, as referred earlier, the weight of fixed traffic for NGN in the total traffic originating on fixed networks exceeds the weight of mobile traffic to NGN in the total traffic originating on mobile networks).

In 2010, self-supply of origination to NGN, from fixed and mobile networks, represented around 35% of total origination, whereas in 2016 it reached half of all traffic. This fact is largely supported by merger movements in the telecommunications sector in Portugal between 2013 and 2014, which led to a relative increase of intra-group traffic, both in fixed and in mobile operations. Moreover, it also follows from the increase in the retail market share of alternative operators.

The chart below (Chart 12) shows the evolution of origination traffic at a fixed location only, the reduction of the weight of origination supplied to third parties compared to self-supply origination being clear. This results from the above-mentioned merger movements, as well as from the construction of operators' own networks and their lower dependency on third-party networks, as referred in the preceding chapter.

Chart 12 – Wholesale fixed origination for special services



Note: Data for 2016 only include traffic up to the 3rd quarter of the year.

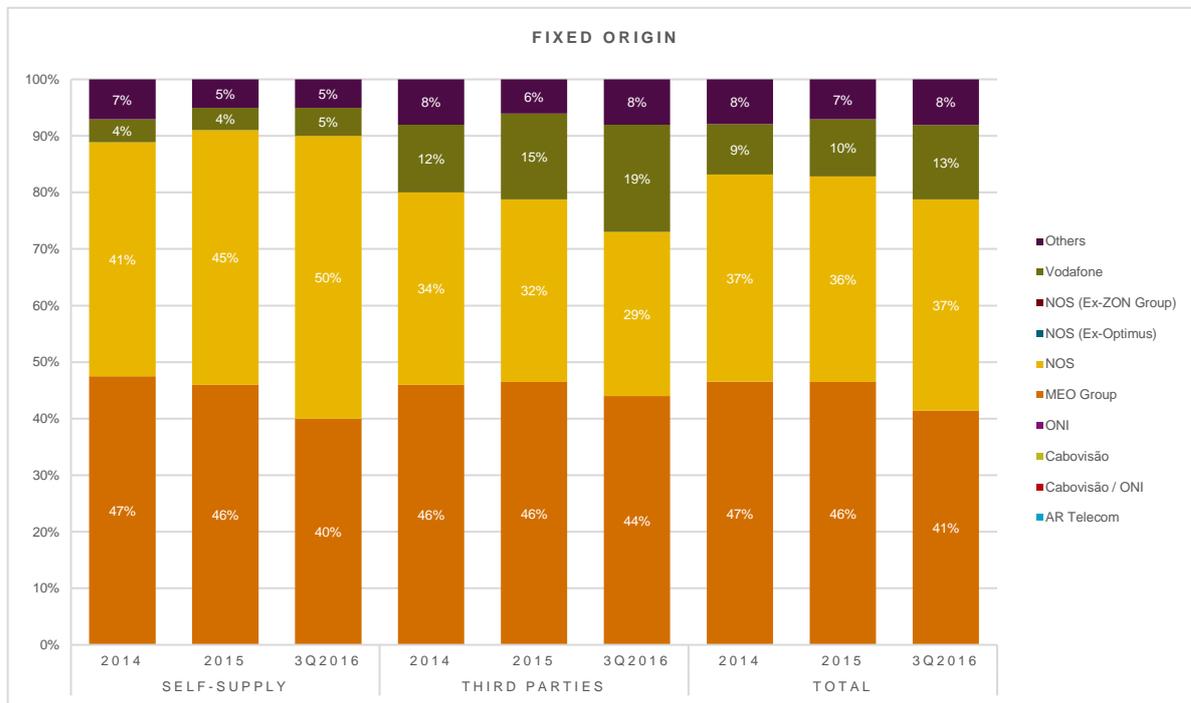
Source: ANACOM

Market shares

In 2014, year of the last market analysis of wholesale call origination services provided at a fixed location, and as may be observed from information included in Chart 13, MEO’s market share had already decreased to below 50%, and despite the fact that it remained as the largest wholesale provider of non-geographic call origination, that share maintained its downward trend, reaching 41% by the end of the 3rd quarter of 2016, closely followed by NOS’ 37% share.

On the other hand, by virtue of its stronger presence in the retail market for calls to NGN, as demonstrated in point 2.1.1, and also on account of its increasing market share in the supply of FTS accesses (by the end of 2016, NOS registered an FTS access share around 34.7%), NOS is the provider with the highest percentage of origination traffic originating on its own customers, thus demonstrating lower dependency on origination services supplied by third parties.

Chart 13 – Market shares of fixed origination to NGN



Fonte: ANACOM

Referred data thus show a trend for the reduction in the weight of the largest operator on the market, at the level of the provision of wholesale non-geographic call origination service, as well as the strengthening of market shares of alternative operators, and no evidence exists to suggest that there are operators with significant market power.

Price trends

Fixed origination prices have not changed since the last market analysis. Even in the period that preceded this analysis, and for several years, no significant changes in prices charged were registered, in addition to those that resulted from the price control obligation imposed on MEO (then PTC).

Given that, in many cases, the retail provider of the service supported on non-geographic numbers is interested that customers of several providers are able to originate calls to those numbers, holders of the referred numbering usually seek to ensure access from the largest possible number of operators. As such, whoever provides the wholesale call origination service is often free from a significant competitive pressure, which explains the low price variation in the last few years. The reduction of one operator’s origination prices, in addition

to the negative impact on that same operator's wholesale billing, decreases other operators' origination costs. As origination is an important input in the downstream market for the purpose of the provision of services supported on non-geographic numbering, this could entail more competitive retail offers from competitors and a potential loss of market share at retail level, facts that could explain why decreases in prices of call origination on the fixed network have not occurred in the last few years.

It is observed, however, that this same situation, that is, one that involves a wholesale service made available in general by providers of telephone services operating on the market and where wholesale providers often act - where they hold non-geographic numbering - as wholesale purchasers of the service, leads providers to negotiate between them the prices mutually charged for the provision of the wholesale service, and has resulted in the application of prices that do not differ substantially between them, reason for which reciprocity exists in many cases.

However, this trend is not so clear as regards prices applied between MEO and other providers. On account of price control obligations to which MEO is subject due to the fact that it is an operator with SMP in the wholesale market for fixed call origination, this company applies cost-oriented prices while other providers apply non-regulated prices, usually set at levels significantly higher than prices charged by MEO.

Having been analysed wholesale call origination prices, it was found that prices MEO is charged by the various providers can be three times higher than the highest prices charged by MEO (comparing MEO's prices in off-peak hours for double transit level - price per minute for a 3-minute call). However, in some cases operators charge differentiated prices according to the operator holding the non-geographic numbering, and where this is the case, MEO is usually charged lower prices than other operators, which suggests some degree of reciprocity concern towards prices charged by MEO.

At the level of the structure of wholesale fixed origination prices, it was found that scheduled-based prices (different prices for peak and off-peak hours) is not common practise. This structure is applied almost exclusively by MEO.

Potential competition

Conditions of the wholesale provision enable operators competing with MEO, in some cases, when charging higher origination prices, to benefit from advantages when non-residential customers are obtained (being able to share with these customers a higher proportion of retail revenues or charge them lower prices, or even to grant them higher discounts), without their margins being affected.

In this context, it is stressed that the existence of asymmetric wholesale call origination prices, especially on account of the registered high differentials, lead to unbalanced financial flows between operators, which are often unjustified in view of the nature and costs of the service provided, and which may affect the ability to provide more competitive downstream offers.

Retail non-geographic offers provided by operators other than MEO have thus enjoyed a set of circumstances, including price differentials charged at wholesale level and the reduction of the degree of dependence on wholesale origination services provided by third parties, resulting from the expansion of operators' own customer databases, supported on their own network, which have increased their relevance in the market as a whole. In this context, the important role currently played by some of the alternative providers is clear, the increase of NOS's market share, as well as VODAFONE's, being stressed, even if the latter's presence is not as substantial.

The improvement of these operators' market share may also have been leveraged by their strong presence in the market for wholesale call origination on mobile networks, in the scope of which prices that substantially exceed those charged for fixed origination, which still remain at substantially high levels, despite the reduction occurred in the provision of wholesale services for some specific numbering ranges, have been charged over several years. This situation may also have contributed to enable these operators to win non-geographic numbering customers on more advantageous terms. Anyway, this situation was not enough to prevent MEO, with an important mobile operation, at retail and also wholesale level, from losing market share.

On the other hand, the setting of reciprocal prices, in some cases, between non-regulated providers, seems to indicate that wholesale purchasers of fixed call origination services are able to exert a certain degree of countervailing power, which also indicates that, in the

absence of regulation, wholesale prices charged may be brought closer in line. However, it is not evident that smaller providers holding non-geographic numbering are able to exert relevant countervailing power as wholesale purchasers of the call origination service.

Notwithstanding, there is no evidence suggesting that, in the absence of regulation, situations of refusal of access have occurred or will occur, namely in the light of what is happening in the present day, where all providers with their own network provide the wholesale call origination service to enable special services supported on non-geographic numbering, even though they are not subject to *ex ante* regulatory obligations.

At price level, the variation that may occur when MEO's prices are deregulated is not clear. This deregulation may contribute to bring prices practised by all operators closer together, ideally closer to prices currently charged by MEO (regulated prices), so that costs of smaller NGN providers do not increase, resulting in greater reciprocity.

It is noted that, in 2016 (3rd quarter), 94% of all traffic originating on fixed networks for special services was provided by only three operators (NOS, MEO and VODAFONE), thus any increase in prices charged by one of these operators in the scope of call origination could have an impact on the market, especially on smaller providers. However, it must be stressed that there have not been any significant changes in wholesale prices of origination services charged by non-regulated operators.

The competition degree that exists in the provision of non-geographic numbering services at retail level is intrinsically linked to the positioning of providers on the retail market for access and for telephone services provided at a fixed location. It is observed that the higher the share of a provider in the market for access and telephone services, the lower its dependency on third parties, as its customer database will be in principle responsible for a relevant part of traffic to that providers' NGN. A provider with a small customer database, that is, with a small market share, will depend largely on customers of other providers that originate traffic to its NGN. In this context, given the continuous strengthening of market shares of alternative providers in the provision of access and telephone services at a fixed location, there is a clear trend towards the decrease of the dependency of origination services provided by third-party operators, including a reduction over time of the dependency on origination services provided by the largest operator on retail markets, MEO.

In the light of the above, it is deemed that this criterion is not met.

3.1.3. Insufficiency of competition law

According to EC, “(t)he decision to identify a market as susceptible to *ex ante* regulation should also depend on an assessment of the sufficiency of competition law to address the market failures that result from the first two criteria being met. Competition law interventions are likely to be insufficient where for instance the compliance requirements of an intervention to redress persistent market failure(s) are extensive or where frequent and/or timely intervention is indispensable.”

The analysis of this criterion is based on several indicators, among criteria suggested by BEREK’s report, such as the degree of generalization of non-competitive behaviour, degree of difficulty to address non-competitive behaviour, non-competitive behaviour bringing about irreparable damage in related markets and the need of regulatory intervention to ensure the development of effective competition in the long run.

As results from the analysis developed in preceding chapters, the market shows a structure that tends towards effective competition, an operator with SMP not being identified *a priori*. It must be stressed also that origination prices have remained stable and tend towards reciprocity, given that providers with non-geographic numbering, as holders of electronic communications networks, are both sellers and purchasers and wholesale call origination services, and prices under consideration do not constrain the entry of operators in the market.

Consequently, in the absence of *ex ante* regulation, it is deemed that competition law, or *ex post* regulation, is sufficient to effectively address, in a timely manner, any distortions that may occur in the market for call origination on the public telephone network provided at a fixed location for special services supported on non-geographic numbering, not least because the ability of an operator to act independently of its competitors and users is limited in this market, for the reasons mentioned earlier.

In addition, it is not likely that behaviours able to cause an irreversible impact on the market will occur, although the possibility of a price increase on the part of MEO cannot be excluded. This possibility is less likely to take place in case other operators choose to

decrease prices currently charged to MEO, so as to bring about greater alignment of prices charged by all operators for the same wholesale service (origination to NGN).

3.1.4. Conclusion on the application of the three cumulative criteria

The separate analysis of the three cumulative criteria leads to the conclusion that, in each of them, the conditions required for the market for call origination on the public telephone network provided at a fixed location for special services supported on non-geographic numbers to be susceptible to *ex ante* regulation have not been fulfilled.

The factors that contribute the most to this conclusion are highlighted below.

Barriers to the provision of special services supported on non-geographic numbers are low, operators not requiring an electronic communication network to be able to ensure this provision. However, it is necessary to obtain wholesale access, in principle, from various networks to provide the service at retail level. Although there are several limitations to the development of electronic communications networks, it is a fact that in the last few years many investments were made that resulted in the strengthening of networks of alternative operators. Although these networks were not developed for the purpose of the provision of wholesale call origination services, it is a fact that all network operators provide services concerned for special services supported on non-geographic numbering. In addition, the dependence on wholesale call origination services that enable the provision of special services via non-geographic numbers acquired from third parties is decreasing. Stress must be given also to agreements reached between providers, at technical and commercial level, that result in the reciprocal provision of wholesale services and in prices that tend also to be reciprocal.

On the other hand, it is observed that the market shows dynamics that tend toward effective competition, causing a significant reduction of MEO's market share, as well as the increase of market shares of alternative operators. At retail level, MEO is no longer the provider with the highest market share, given that by the 3rd quarter of 2016, it presented a 34% market share, while its most direct competitor, NOS, had a market share by 38% (vide Chart 7). At wholesale level, although it remains as the operator with the highest share, its weight by 41% also shows a decreasing trend.

It must also be referred that MEO's competitive ability has been restricted by the fact that its origination prices are regulated, and significantly below those practised by alternative operators, reason for which the latter have enjoyed advantages in the acquisition of non-residential customers of non-geographic numbering, as they are able to share with them a higher proportion of retail revenues or charge them lower prices, or give them more significant discounts, without their margins being necessarily affected.

Lastly, it is stressed that it is deemed that the use of national law will be sufficient to effectively address any distortions that may occur in the market for call origination on the public telephone network provided at a fixed location for special services supported on non-geographic numbering.

It must be pointed out that this conclusion is in line with the Recommendation on Relevant Markets, that does not include any access and origination market, specifically the market for call origination on the public telephone network provided at a fixed location for special services supported on non-geographic numbering, for the purpose of *ex ante* regulation. As such, it represents a very significant step towards the implementation of the referred Recommendation.

4. Evaluation of the need for imposition, maintenance, amendment or withdrawal of *ex ante* regulatory obligations in the wholesale market for call origination for special services supported on non-geographic numbers

In the preceding sections, it was concluded that the wholesale market for call origination for special services supported on non-geographic numbers, further to the analysis of the three mentioned criteria, does not fulfil the conditions required for identification for the purpose of *ex ante* regulation, and as such, a SMP analysis was not conducted nor any entity with SMP was identified on this market.

In markets where SMP is deemed to exist, ANACOM is required to impose one or more regulatory obligations or to maintain or amend these obligations, where they are already in place⁴⁷.

On the other hand, ANACOM must withdraw obligations that were imposed on markets where SMP no longer exists or which ceased to be considered relevant for the purpose of *ex ante* regulation. According to the Guidelines (§113) *“If an NRA finds that a relevant market is subject to effective competition, it is not allowed to impose obligations on any operator on that relevant market under Article 16. If the NRA has previously imposed regulatory obligations on undertaking(s) in that market, the NRA must withdraw such obligations and may not impose any new obligation on that undertaking(s). As stipulated in Article 16(3) of the framework Directive, where the NRA proposes to remove existing regulatory obligations, it must give parties affected a reasonable period of notice.”*

This provision has also been laid down in paragraph 3 of article 59 of ECL. In this context, BEREC also takes the view that, when a NRA withdraws an obligation or replaces it for another, it must notify and provide for a reasonable period of time for the amendment to take effect, in order to avoid undue market disruption for operators.

Accordingly, this Authority believes that, as there is a situation requiring the withdrawal of obligations currently in force in the wholesale market for call origination for special services supported on non-geographic numbers, it must be taken into account how obligations

⁴⁷ Cf. Guidelines §21 and §114 and articles 56 d) and 59, paragraph 4, of ECL.

currently in force may be appropriately withdrawn, so that this withdrawal does not harm end-users and the various operators on the market.

4.1. Regulatory obligations currently in force in the wholesale market for call origination for special services supported on non-geographic numbers

By determination of 14.08.2014, approval was given to obligations to be imposed on companies of the PT Group, concerning the wholesale market for call origination on the public telephone network provided at a fixed location. This market covered at the time both the wholesale market for call origination on the public telephone network provided at a fixed location for the provision of retail telephone services and the wholesale market for call origination for special services supported on non-geographic numbers, *Ex ante* regulatory obligations that were imposed thus covered both product markets, and applied in some cases to the then PT Comunicações S.A., and in other cases to the whole PT Group, which at the time integrated PT and MEO.

These obligations, imposed at national level, and which are currently in force, are as follows:

- To meet reasonable requests for access;
- Non-discrimination;
- Transparency in the publication of information, including the obligation to make reference offers available;
- Price control, setting cost-orientated prices, in the scope of call origination and billing and collection;
- Accounting separation and cost accounting.

4.2. Withdrawal of obligations currently in force in the wholesale market for call origination for special services supported on non-geographic numbers

Ex ante regulatory obligations may only be imposed on operators identified with significant market power. Without prejudice, the identification of companies with SMP is only possible in the scope of a market deemed to be relevant for the purpose of the imposition of *ex ante*

obligations, to the extent that such market cumulatively meets the three criteria imposed by EC.

As such, and given that the wholesale market for call origination for special services supported on non-geographic numbers, as concluded in a previous section of this document, does not fulfil the three criteria required for the imposition of *ex ante* regulation, it is deemed that obligations formerly imposed on companies of the then PT Group (and the then PTC), currently MEO, as company designated with SMP on markets concerned in the scope of the former market analysis on the wholesale market of call origination on the public telephone network provided at a fixed location, must be withdrawn.

As such, the following obligations no longer apply to MEO in markets under consideration:

- To meet reasonable requests for access;
- Non-discrimination;
- Transparency in the publication of information, including the obligation to make reference offers available;
- Price control, setting cost-orientated prices, in the scope of call origination and billing and collection;
- Accounting separation and cost accounting.

At the level of the price control obligation, bearing in mind that: i) the immediate withdrawal of the obligation could bring about a certain market disruption, involving some uncertainty as regards prices charged by MEO, ii) it is necessary to ensure that the market is given a reasonable period of time for prices of non-geographic call origination to be negotiated, this period being expected to allow all players to reach balanced solutions that do not represent a price increase for providers in general, and that iii) it is fundamental to ensure that wholesale purchasers of the call origination service are allowed an appropriate period to adjust to any new pricing that is implemented, ANACOM determines that the price control obligation, in the form and at values currently applicable, shall only be withdrawn within 6 months from the decision on this market.

Other obligations imposed in this market cease to apply as from the date of approval of the final decision taken by ANACOM thereon.

Without prejudice, it is stressed that MEO remains subject to *ex ante* regulatory obligations in the wholesale market for voice call origination on the telephone network provided at a fixed location for the provision of retail telephone services, market which, according to EC's letter of serious doubts, will be subject to a new draft decision, in the light of comments made by that institution on 20.11.2017, mentioned in point 1.4 hereof, as well as in other markets, in the scope of which MEO is required to maintain a cost accounting and an accounting separation system, remaining also subject to the obligation for cost-orientation of prices in several wholesale markets.

It is also stressed that maximum retail prices for certain ranges of non-geographic numbers were set in the framework of ANACOM's NNP management powers (article 17 of ECL), not in the scope of market analyses, maximum prices having been applied to all providers, not only to MEO. As such, maximum retail prices applicable to non-geographic numbers remain in force⁴⁸.

5. Conclusion

It follows from the analysis conducted that the market for call origination on the public telephone network provided at a fixed location for special services supported on non-geographic numbering does not fulfil cumulatively the three criteria provided for in the Recommendation on Relevant Markets that are required for *ex ante* regulation to be imposed. No operators have thus been designated with SMP in this wholesale market. As such, obligations imposed on MEO in this market cease to apply as from the date of approval of the final decision taken by ANACOM on this market, except for the price control obligation, which may only be withdrawn within 6 months from the decision on this market (prices for this type of origination remaining unchanged during the period concerned).

⁴⁸ Maximum retail prices of non-geographic numbers approved in the framework of ANACOM's powers of definition of rules on allocation and way of use of numbering resources, as well as of protection of consumer interests, remain in force, namely prices for ranges "707" and "708" (universal access services) and "809" (shared cost call services), set by determination of 16.01.2004, "760" (set by determination of 28.01.2004), "761" and "762" set by determination of 04.04.2007, and "800" e "808", resulting from the National Numbering Plan.

It should be noted that value-added services (audio-text services), which are not electronic communications services *per se*, according to Decree-Law No. 177/99, of 21 May, remain subject to applicable legislation.

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List of acronyms and abbreviations

ADSL	Asymmetric digital subscriber line
ARPU	Average revenue per user
MTB	Marktest Telecommunications Barometer
ACD	Average Call Duration
DOCSIS3	Data Over Cable Service Interface Specification 3
BC&BDR	Billing, collection and bad debt risk
FTTH	Fibre to the home
FTTH/B	Fibre To The Home / Fibre To The Building
GSM	Global System for Mobile Communications
HHI	Herfindhal-Hirschman Index
IP	Internet Protocol
ECL	Electronic Communications Law
LTE	Long-Term Evolution / 4G Mobile Communications System
M2M	Machine-to-Machine
MVNO	Mobile Virtual Network Operator
NGN	Non-Geographic Numbers
OSP	Other Service Providers
RO	Reference Offers

RUO	Reference Unbundling Offer
RIO	Reference Interconnection Offer
SLRO	Subscriber Line Resale Offer
OTT	Over-the-top
GIP	Geographical Interconnection Points
SME	Small and Medium-sized Enterprise
SMP	Significant Market Power
NNP	National Numbering Plan
QoS	Quality of Service
ISDN	Integrated Services Digital Network
NGN	Next Generation Network
PSTN	Public Switched Telephone Network
CAS	Cost Accounting System
SMS	Short Message Service
SS7	Signalling System No. 7
SSNIP	Small but significant non-transitory increase in price
FTS	Fixed telephone service
MTS	Mobile telephone service
TDM	Time Division Multiplexing

UMTS 3G Mobile Communications System

VoB Voice over Broadband

VOIP Voice Over Internet Protocol

Annex II

List of operators

AR TELECOM	Acessos e Redes de Telecomunicações, S.A.
CABOVISÃO	Televisão por Cabo S.A. (currently NoWo)
G9SA	G9 SA – Telecomunicações, S.A.
NOS Group	NOS Comunicações S.A., NOS Madeira S.A. and NOS Açores S.A.
PT Group	Portugal Telecom Group
MEO	MEO – Serviços de Comunicações e Multimédia, S.A.
NOS	NOS Comunicações, S.A.
NOWO	NOWO Communications, S.A.
ONITELECOM	OniTelecom – Infocomunicações, S.A.
OPTIMUS	Optimus – Telecomunicações, S.A. (currently part of the NOS Group)
PTC	PT Comunicações, S.A.
VODAFONE	Vodafone Portugal – Comunicações Pessoais, S.A.
ZON	ZON TV Cabo Portugal, S.A.
ZON MAD/AÇORES	ZON TV Cabo Madeirense and ZON TV Cabo Açoreana (currently part of the NOS Group)
ZON OPTIMUS	NOS – Comunicações, S.A., ZON TV Cabo Açoreana and ZON TV Cabo Madeirense (currently part of the NOS Group)

Annex III

List de other bodies/organizations

ANACOM	Autoridade Nacional de Comunicações
NRA	National Regulatory Authority
AdC	Autoridade de Concorrência (the Competition Authority)
BEREC	Body of European Regulators for Electronic Communications
EC	European Commission
ERG	European Regulators Group (currently BEREC)
INE	Instituto Nacional de Estatística (the National Statistical Service)
ECJ	European Court of Justice
EU	European Union