The European Commission’s 2014 Recommendation on Relevant Product and Service Markets within the Electronic Communications Sector Susceptible to ex-ante Regulation

András Tóth*

The European Commission published its third Recommendation on the markets within electronic communications sector susceptible to ex-ante regulation in October 2014 (the new ‘Recommendation’) after the adoption of the current regulatory framework in 2002. The Recommendation lists relevant markets susceptible to ex-ante regulation throughout the EU, which provides a common starting point for the national regulatory authorities’ market analysis. Since national regulatory authorities enforce electronic communication market regulation through remedies imposed as a result of their market analysis, the New Recommendation is a significant source for EU electronic communications law. In this Recommendation, the Commission’s method for the identification of relevant markets remains unchanged, but the list of markets is modified. Since the adoption of the second Recommendation on the same subject in 2007, several technological developments occurred that had to be considered in the review process, including spread of the over-the-top (OTT) services, roll-out of 4G mobile networks (ie long-term evolution, ‘LTE’), the upgrade of cable infrastructures and deployment of fibre networks. This article presents the New Recommendation including the Commission’s method on market identification and the modified list of identified markets.

I. Introduction

Article 15(1) of the Framework Directive¹ on a common regulatory framework for electronic communications networks and services requires the regular review of the Commission Recommendation on markets in the electronic communications sector susceptible to ex-ante regulation (the ‘Recommendation’).² The Commission adopted the first Recommendation in 2003³, followed by a second in 2007.⁴ The aim of

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* Vice-president of the Hungarian Competition Authority and the Chairman of the Competition Council, Associate Professor and Head of the ICT Law Department at University of Károli in Budapest, Member of the European Networks Law and Regulation (ENLR) Editorial Board.


the current Recommendation is to identify relevant markets susceptible to *ex ante* regulation in the whole EU which are a common starting point for the national market analysis of the national regulatory authorities’ (NRAs). In addition, the Recommendation ensures that – in line with the principle of legal certainty – electronic communication market players can be made aware of which markets are susceptible to market analysis.5

II. Role of the Commission’s Recommendation in EU Electronic Communications Regulation

Harmonisation is the most characteristic feature of the European electronic communications sector regulation, which aims to develop and maintain internal market competition for the benefit of consumers at the retail level. Typically, electronic communications networks cannot be duplicated, therefore the main concern of EU electronic communications regulation is to create a level-playing field by developing network-based competition through imposed access obligations on incumbents’ networks that are indispensable for market entry. However, this regulatory concept affects the obliged incumbents’ rights to property meaning that proportional regulatory intervention is crucial from a constitutional law aspect. The principle of proportionality is of utmost importance in a sector such as electronic communications, which is characterised by on-going technical development and changes.

Two conditions must be cumulatively met to apply *ex ante* regulation of electronic communications markets, namely: (i) there is an insufficiency of competition law; and (ii) competition is not sufficiently effective on the relevant market, i.e. there is a market player with significant market power (SMP). Both of these conditions should be applied when defining the relevant market but from different perspectives, as it will be discussed in more detail below.

The first condition generally is subject to a so-called ‘three-criteria test’ applied by the Commission, the result of which (i.e. the identification of markets susceptible to *ex ante* regulation) is published in the Recommendation. Further, this Recommendation has to be reviewed regularly by the Commission.6 In 2003 the Commission identified eighteen markets, seven in 2007 (one retail and six wholesale), and in 2014 only four (all of them wholesale). These markets identified by the Commission are the starting point for the market definition made by the NRAs in their national circumstances.8

III. What Remains Unchanged: The Commission’s process on identifying markets susceptible to *ex ante* regulation

After public consultation – including also consultations with the NRAs – and taking utmost account of BEREC’s opinion, the Commission adopted a recommendation in accordance with the consultative process on the relevant product and service markets.9 According to the principles of competition law10 the Commission must identify in the recommendation those product and service markets within the electronic communications sector whose characteristics may justify the imposition of regulatory obligations set out in the specific Directives, without prejudice to markets that may be defined in specific cases under competition law.11 However, the European competition authorities (including the Commission) usually rely on the market definitions of the Recommendation.12


6 According to the Recital 27 of the Framework Directive (n 1) the investigation of the sufficiency of the competition law actually means the three-criteria test.

7 Article 15(1) of the Framework Directive fourth sentence (n 1).

8 Recital 5 of the Recommendation (n 2).

9 Article 15(1) of the Framework Directive first sentence (n 1).

10 Article 15(1) of the Framework Directive third sentence (n 1).

11 Article 15(1) of the Framework Directive second sentence (n 1).

1. The ‘three-criteria test’

In the Recommendation the Commission identifies those markets which are susceptible to *ex ante* regulation, by applying the so-called three-criteria test. This looks at whether:

1. There is a presence of high and non-transitory structural, legal or regulatory barriers to entry (static factor);
2. The market structure does not tend towards effective competition within the relevant time horizon (dynamic factor) and;
3. Competition law alone is insufficient to adequately address the identified market failure(s).

The test ensures that only those markets that suffer from structural market failures will be subject to *ex ante* regulation, i.e. those that require excessive regulatory intervention exceeding the bounds of competition law. According to the Commission the three-criteria test also balances the need for efficient investments and the interest of preserving the achievements of liberalisation (i.e. network based competition). The Commission did not carry out a thorough and comprehensive analysis when it identified markets across the whole EU, therefore it was not able to take into account distinct national circumstances. The Commission also emphasises that:

13 Recital 5 and Article 2 of the Recommendation (n 2).
15 Explanatory Note (n 5), p 8.
16 Explanatory Note (n 5), p 12.
18 Recital 7 of Recommendation (n 2) (‘When defining relevant market in accordance with [...] national regulatory authorities should identify a geographic area [...]’; see also Explanatory Note (n 5), p 12: ‘[definition of relevant geographic markets] can vary significantly depending on the relevant product market’).
19 Explanatory Note (n 5), p 8.
20 *ibid.*
21 Recital 12 of the Recommendation (n 2).
22 Recital 11 of the Recommendation (n 2).
23 Recital 12 of the Recommendation (n 2).

The three-criteria test focuses on overall market characteristics and structure, for the sole purpose of identifying those markets that are susceptible to *ex ante* regulation. The assessment of significant market power instead determines whether an operator active in a market that has been identified as susceptible to *ex ante* regulation, should be made subject to *ex ante* regulation.

In this context, in accordance with Article 15(3) of the Framework Directive, the regulatory authority focuses especially on relevant national geographic markets. Whereas the previous recommendations did not clarify this, some authors concluded that the national market definition (in a narrow sense) meant the definition of the relevant geographical markets based on the Commission’s Recommendation. Although the Commission’s Recommendation is based on the principles of competition law, without considering the national circumstances the identified markets cannot be a basis for the national relevant market definition from a competition law perspective. This conclusion is strengthened by the new Recommendation, in which it is emphasised that NRAs should define the relevant national markets. Accordingly, markets identified by the Commission based on competition law principles will not necessarily be identical to those defined in individual competition law cases. The starting point of market identification is neither an agreement, nor a concentration, nor an abuse of dominance, but it is based instead on an overall forward-looking assessment of the structure and the functioning of the market for the purposes of determining whether or not to impose *ex ante* regulation.

As for the first criterion, i.e. the presence of high and non-transitory barriers to entry, it is important that the characteristics of the market may remove the barriers of entry (especially the legal or regulatory barriers) within the relevant time horizon. This therefore should also be taken into consideration.

The barriers to entry can be structural, legal or regulatory. A barrier to entry is structural if it results from original cost or demand conditions that create asymmetric situations between incumbents and new entrants, for example when the duplication of the network is unprofitable for the new entrant. Legal or regulatory barriers may mean limiting the number of undertakings, as for example in the case of fre-
quencies. A barrier to entry is significant if an undertaking that is more efficient than the incumbent is unlikely to be able to enter a market and compete successfully to the benefit of the consumer.

Barriers to entry may also become less relevant with regard to innovation-driven markets characterised by on-going technological progress. In such markets, competitive constraints often consist of innovative threats from potential competitors that are not currently in the market, rather than competitors in an existing 'static' market. Indeed, market dynamics (which may also be modified by technological developments or by convergence of products and markets) may eliminate any barriers to entry even in the absence of ex-ante regulation. When assessing whether barriers to entry are likely to persist in the absence of regulation it is necessary to examine whether the industry has experienced frequent and successful entry and whether entry has been or is likely in the future to be sufficient to limit market power.

Even when a market is characterised by high barriers to entry, other structural factors in that market (e.g. technological developments or the convergence of products and markets) may entail that the market still tends towards becoming effectively competitive within a relevant time horizon in the absence of ex-ante regulatory intervention.

The main indicators to be considered when assessing the first and second criteria are similar to those examined as part of a forward-looking market analysis, for example barriers to entry in the absence of regulation, market shares, or the extent of competing networks.

The 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 detected market failures within a relevant time horizon. Competition law interventions are rather unlikely to be sufficient in cases, where:

- the regulatory obligation necessary to remedy a market failure cannot be imposed under competition law (e.g. specific cost accounting requirements);
- the compliance requirements of an intervention to redress a market failure are extensive and difficult (e.g. assessment of costs, monitoring technical parameters);
- frequent and/or timely intervention is indispensible; or
- creating legal certainty is of paramount concern.

According to a few authors the third criterion is the consequence of the first two criteria and is not subject to an independent consideration. This holds particularly true because frequent or timely intervention under competition law may result from structural market failures. In practice NRAs should consult with their National Competition Authorities (NCAs) and take into account their opinion when deciding whether the two complementary regulatory tools are appropriate to deal with a specific issue or whether competition law instruments (as the third element of the three-criteria test) are sufficient. It follows that the cooperation of the two authorities covers the consideration of these three criteria.

Ex-ante regulation can be imposed on the markets identified through the cumulative assessment of the above three criteria if SMP can be determined under the assessment of the effectiveness of the competition on the relevant market. Accordingly, meeting the three-criteria test does not automatically mean that ex-ante regulation is imposed.

2. The application of the three-criteria test by the NRAs

In general terms the markets are identified by the Commission, but the three-criteria test can be applied by the NRAs in certain circumstances as well.

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24 Recital 13 of the Recommendation (n 2).
26 Recital 14 of the Recommendation (n 2).
27 Explanatory Note (n 5), p 10.
28 Explanatory Note (n 5), p 9.
29 Recital 14 of the Recommendation (n 2).
31 Recital 11 of the Recommendation (n 2).
32 Recital 5 of the 2007 Recommendation.
33 Explanatory Note (n 5), p 11.
35 Recital 16 of the Recommendation (n 2).
36 Explanatory Note 2007 (n 14), p 11.
37 The three criteria should be applied together, so if the test is not met, the NRAs should not impose regulatory obligations on that market, Recital 17 of the Recommendation (n 2).
38 Recital 18 of the Recommendation (n 2).
39 Explanatory Note 2007 (n 14), p 11.
First of all, for markets not listed in the Recommendation, NRAs have to apply the three-criteria test.\footnote{Recital 2 of the Recommendation (n 2).} This is the case if for example the NRA finds that the intervention at the wholesale level is insufficient to solve the problem in the related retail market, because in this case the NRA should apply the three-criteria test with regard to the retail market.\footnote{Recital 18 of the Recommendation (n 2).} Similarly, the NRAs should always apply the three-criteria test if they conclude that a retail market’s failure needs to be addressed by regulation on the corresponding wholesale market and this corresponding wholesale market is not listed in the Recommendation.\footnote{Recital 21 of the Recommendation (n 2).} As it will be discussed in more detail below, NRAs should carry out a gradual analysis of the downstream markets to determine whether the retail market would be effectively competitive in the presence of upstream, regulation.\footnote{Recital 22 of the Recommendation (n 2).}

On the other hand, NRAs should also apply the three-criteria test to those markets listed in the previous versions of the Recommendations which are no longer listed in the New Recommendation in order to assess whether such markets are still susceptible to \textit{ex ante} regulation\footnote{Explanatory Note (n 5), p 53.} or, on the contrary, they withdraw the \textit{ex ante} regulation from a regulated market.\footnote{Recital 19 of the Recommendation (n 2).}

Thirdly, the NRAs should start from a presumption that in the markets listed in the Recommendation the three criteria are met\footnote{Recital 20 of the Recommendation (n 2), Explanatory Note (n 5), 11.} but the NRAs may still consider on the basis of specific national circumstances to conduct their own three-criteria test.\footnote{Recital 20 of the Recommendation (n 2).} If the three-criteria test is not met for a specific market listed in the Recommendation the NRAs should not impose regulatory obligations on that market.\footnote{Recital 17 of the Recommendation (n 2).}

In all above cases the result of the application of the three-criteria test should be notified to the Commission and the failure to notify a draft measure that affects trade between Member States may result in infringement proceedings being taken.\footnote{Explanatory Note (n 5), p 7.}

3. Greenfield and the modified Greenfield approach

In the electronic communications sector there are two main types of relevant markets, namely those for services provided to end-users (retail markets), and those for upstream access to networks which are indispensable for operators to provide competitive access services to end-users (wholesale markets).\footnote{Recital 7 of the Recommendation (n 2).}

For both the Commission and NRAs the starting point for the identification of wholesale markets susceptible to \textit{ex ante} regulation is the analysis of the corresponding retail markets.\footnote{Ibid, Explanatory Note (n 5), p 7.} Further, the Recommendation explains that the retail market analysis should be conducted by taking into account demand-side and supply-side substitutability from a forward-looking perspective over the relevant time horizon.\footnote{Ibid.} When defining relevant markets NRAs should take into account the geographic area and have particular regard to the question whether the potential SMP operator acts uniformly across its network area (eg when setting prices).\footnote{Explanatory Note (n 5), p 13.} The question is whether the potential SMP operator faces appreciably different conditions of competition to a degree that its activities are constrained in some areas, but not in others.\footnote{Explanatory Note (n 5), p 14.} It may occur that the regional competitors can indeed exercise competitive pressure reaching beyond the area in which they are present when the potential SMP operator applies uniform tariffs and the regional competitor is too significant to be ignored.\footnote{Explanatory Note (n 5), p 15.}

The starting point is the investigation of the retail competition related to the upstream wholesale market when identifying markets (on the basis of the ‘three-criteria test’) and defining the national markets.\footnote{Recital 8 of Recommendation (n 2).} On the one hand it should be assessed whether retail markets are also effectively competitive in the absence of a SMP based regulation.\footnote{Recital 8 of Recommendation (n 2).} This is the so-called \textit{Greenfield} approach which was first applied by the Commission on the draft measures of the
Finnish NRA concerning the market for publicly available international telephone services provided at a fixed location in Finland.\(^{58}\) In that case, the Finnish NRA did not designate a SMP supplier because of the low barriers to entry. However, the Commission stated that the NRA should examine to what extent the effective retail competition is the consequence of the existing regulation (in particular the carrier selection) and whether competition would be presumably also fostered in the absence of regulation on the relevant markets. Accordingly, the market analysis should be conducted as if there were no electronic communications regulation at all. It is important to note that only those electronic communications regulations which should be applied on the given market can be disregarded.\(^{59}\)

On the other hand, according to the Recommendation effects of other types of regulation applicable to the relevant retail and related wholesale market should be taken into account during the forward-looking and competition based analysis of the retail market.\(^{60}\) This is the so-called modified Greenfield approach based on Article 17 (i) of the Directive 2002/22/EC.\(^{61}\) Pursuant to this article, remedies on the retail markets can be imposed by the NRAs as a last resort\(^{62}\) when competition on the downstream market is not effective despite the ex-ante regulations applied on the wholesale market related to the retail market concerned.\(^{63}\) As a consequence, the NRAs should define that wholesale market where the regulation may remedy the competition concerns of the given retail market.\(^{64}\) Moreover, the modified Greenfield approach also requires all non-electronic communications regulation applicable for the given markets to be taken into account.

In summary, according to the Greenfield and modified Greenfield approaches, when carrying out a market analysis NRAs should take into account related wholesale level regulation of the given retail markets as well as any applicable non-electronic communications regulations to any retail or wholesale markets. However, they should disregard electronic communications regulation applicable to the given market while examining from a forward-looking perspective whether competition is affected.\(^{65}\)

Accordingly, if effective competition on a retail market cannot be expected in the absence of ex-ante regulation then the corresponding wholesale market’s appropriateness for ex-ante regulation should be examined also in accordance with demand-side and supply-side substitutability from a competitor’s perspective.\(^{66}\)

A forward-looking market analysis means that the assessment should start from the existing market conditions by taking into account the duration of the absence of the competition and the expected market developments.\(^{67}\) For example, competitive constraints may come from innovative threats of potential competitors that are not currently active on the market.\(^{68}\) The actual period of the forward-looking assessment has to reflect the specific characteristics of the market and the expected timing of the next review of the relevant market.\(^{69}\)

When analysing the market power within a corresponding relevant wholesale market to determine whether it is effectively competitive, the direct and indirect competitive constraints should be taken into account irrespective of whether these constraints result from electronic communications networks services or other types of applications that are comparable from the end-users’ perspective.\(^{70}\) Indirect competitive constraints arise when the wholesale price increase of a vertically integrated SMP operator would be unprofitable if the SMP’s customer at the wholesale level and network based competitor at the retail level would be forced to pass on the increase to

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58 Cases FI/2003/0024 and FI/2003/0027.
60 Recital 8 of Recommendation (n 2).
63 Recital 18 of the Recommendation (n 2).
64 Explanatory Note 2007 (n 14), p 13.
66 Recital 10 of the Recommendation (n 2), Explanatory Note (n 5), p 8.
67 Recital 9 of the Recommendation (n 2).
68 European Commission, Guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services (2002/C 165/03) (‘Guidelines’), p 80.
69 ibid, p 20.
70 Recital 10 of the Recommendation (n 2).
their consumers and who, in response, would switch to the retail level competitor with its own network of the vertically integrated SMP operator.  

For example, even if the cable television (CATV) networks cannot directly substitute the wholesale broadband access (WBA), they may exert competitive pressure from the retail level on the WBA market players. A NRA may conclude that regulation is no longer needed at wholesale level if the retail market concerned is effectively competitive from a forward-looking perspective in the absence of ex-ante wholesale regulation on the corresponding wholesale market. In this case, the corresponding relevant wholesale market should be assessed. Accordingly, the wholesale market that should be analysed first is that which is the most upstream from the given retail market, if the wholesale markets are vertically linked in the supply chain.

IV. What Changed: Markets identified by the Commission susceptible to ex-ante regulation

The previous Recommendation was in force for six years and the Commission thought it was due time to review it. In this context the Commission found – based on the modified Greenfield approach – that ex-ante regulations applied to the related wholesale market should be considered as sufficient for resolving all potential competition problems on the related downstream market as well. As a result of a similar consideration, the Commission concluded during the review of the Recommendation in 2006 that the retail telephone services markets at a fixed location, the minimum set of leased lines, as well as the wholesale markets for broadcasting transmission services to deliver broadcast content to end-users should be removed from the list of markets susceptible to ex-ante regulation because the regulation of carrier selection, wholesale line leasing and the must-carry rules significantly removed barriers to entry to these markets. However, the identification of retail telephone services markets at a fixed location was still justified in 2007 because high and non-transitory entry to barriers remained there despite all relevant regulatory remedies on wholesale markets.

Since the adoption of the 2007 Recommendation, several technological developments (including roll-out of 4G mobile networks (ie LTE), the upgrade of cable infrastructures and deployment of fibre networks) occurred which had to be considered under the forward-looking review. Certain over-the-top (OTT) services may have grown to an extent to be considered as an alternative to traditional network based electronic communications services such as voice calls and SMS and free of charge OTT services might affect adversely the current business models of network operators. Although currently OTT services cannot be viewed as actual substitutes to the services provided by the traditional network operators, the growing importance of smartphones and the expansion of LTE will likely result in a continuous expansion of OTTs. Despite the fact that service bundling (eg triple- or quadra-play services) is one of the dominant trends at the retail level, the Recommendation does not propose the definition of a separate retail market for bundled products, mainly because the wholesale input services of the bundled products remained separate. Furthermore, the elements of the bundled products can be effectively replicated at the retail level.

The following sections will examine the relevant markets identified by the Commission, which are also laid out in tabular form in Annex 1.

1. Market 1 of Recommendation 2007: Access to the public telephone network at a fixed location for residential and non-residential customers

The Commission identified the retail market of fixed narrowband access via public switched telephone

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71 European Commission, Case EE/2013/1453: Wholesale (physical) network infrastructure access (including shared or fully unbundles access) at a fixed location in Estonia, decision of 13.06.2013; and case EE/2013/1454: Wholesale broadband access in Estonia, Opening Phase II investigation, decision of 13.06.2013.

72 Recital 10 of the Recommendation (n 2), Explanatory Note (n 5), p 15; for example the wholesale fixed local access is upstream in relation to the wholesale central access. Both of them are upstream in relation to the retail Internet access market.

73 Recital 18 of the Recommendation (n 2), Explanatory Note (n 5), p 19.

74 Explanatory Note 2007 (n 14), pp 39-49.

75 Explanatory Note 2007 (n 14), p 28.

76 Explanatory Note (n 5), p 16.

77 Explanatory Note (n 5), p 17.

78 Explanatory Note (n 5), p 18.
networked (PSTN), digital subscriber lines (xDSL), fibre and cable networks as relevant markets. The access services provided over leased lines and mobile services are excluded from this relevant market definition. Although mobile networks cover fixed networks’ access supply to an increasing extent, access via the mobile network is not considered in general as substitutable with access to the public network at a fixed location. The majority of European households still use both fixed and mobile subscriptions in parallel. Furthermore, the quality of access on the mobile networks can differ geographically.\(^8^9\) Therefore, these two types of access seem to be complementing each other. Nevertheless, the competitive pressure exerted increasingly by the mobile networks should be taken into account by NRAs during the three-criteria assessment or SMP analysis.\(^8^0\) The Commission considered that the retail market is not faced with high and non-transitory entry barriers anymore because new competitors can enter the market due to the spread of fibre networks while alternative operators can enter relatively easily the retail market through local loop unbundling (LLU). The wide availability of bundled products and number portability makes it rather unlikely for any operator to be able to behave independently of its competitors and consumers on wholesale market, even in the case of an SMP operator with relatively high market share.\(^8^1\) For these reasons, this market has been removed from the New Recommendation.

2. Market 2 of Recommendation 2007: Wholesale call origination on the public telephone network provided at a fixed location

The Commission found that the entry into the wholesale call origination market depends to a great extent on the operator’s ability to develop or acquire a direct access link to the end consumer. There are however no longer high and non-transitory barriers of entry on this market due to the increasing fixed-to-mobile substitution, availability of wholesale access products (e.g. local loop unbundling and bit-stream) and increasing penetration of fibre networks.\(^8^2\) There are many alternative operators with the ability to provide wholesale services internally due to other wholesale access products. Moreover, the importance of carrier selection has decreased significantly on retail market, while the role of OTT services increased. For these reasons this market has been removed from the New Recommendation.

3. Market 3 and 7 of Recommendation 2007: Wholesale fixed and mobile call termination

The termination rate is set by the called network operator while paid by the calling party according to the Calling Party Pays (CPP) principle.\(^8^3\) The called party – who does not pay when called – has no incentive to respond to any rise of the termination price.\(^8^4\) Therefore every network is a separate relevant market, meaning that every terminating operator is a monopolist regarding its own network.\(^8^5\) Thus the three-criteria test continues to be met according to the Commission. The conclusion could be different when the CPP principle is revised.\(^8^6\) The implementation of the Bill and Keep (BAK) regimes could be an alternative\(^8^7\) when the operators do not charge other participating operators for terminating traffic on their networks, but do charge their own subscribers the net price of the termination.\(^8^8\)

The Commission considered the so-called Home Zone services as part of the relevant market\(^8^9\) as well as the VoIP-based services where consumers are also facing termination fees. There is no SMP despite 100% market share if there is sufficient countervailing buyer power.\(^9^0\) According to the Commission, the

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79 Explanatory Note (n 5), pp 21, 22.  
80 Explanatory Note (n 5), p 22.  
81 Explanatory Note (n 5), p 24.  
82 Explanatory Note (n 5), p 26.  
83 Non-geographical numbers differ as the called party is charged for part or the entire price of the call. This distinguishes the segment from the relevant markets, since the called party can switch among call termination providers in case of a high call termination price. Explanatory Note (n 5), p 29.  
84 Explanatory Note (n 5), p 28.  
85 ibid.  
86 Explanatory Note (n 5), p 33.  
88 ibid.  
89 Mobile telephony service provided at a fixed location (in the range of a given cell).  
90 Explanatory Note (n 5), p 32.
termination prices are bargained through the two-way interconnection negotiations; however, this does not exclude the chance of excessive prices as a result of the existence of mutual interest. The SMP can also be constrained indirectly by the retail market’s competitive pressure when the calling party is able to terminate the call on the retail market via a different provider in the network of the called party (eg through OTT services).

4. Market 4 of Recommendation 2007: Wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location; Market 5 of Recommendation 2007: Wholesale broadband access; Market 6 of Recommendation 2007: Wholesale terminating segments of leased lines

According to the Commission residential and business customers could be distinguished at the retail level in terms of their needs on quality of service, available capacity or the availability of the services provided. The subscribers of mass-market services are typically residential consumers who prefer bundled services. Conversely, the non-residential customers look for more advanced and reliable services to link their business units and locations with symmetric bandwidth. Such requirements of the business consumers usually are not met by the standardised mass-market retail broadband product. Those high-quality services are typically provided over leased lines or equivalent networks. In order to maintain and promote the emerging effective competition on the retail mass- and high-quality service market the Commission identified the related wholesale market through carrying out the ‘modified Greenfield approach’.

The Commission identified three wholesale input markets to fixed broadband access as follows:
- wholesale local access provided at a fixed location [market 3.a];
- wholesale central access provided at a fixed location for mass-market products [market 3.b]; and
- wholesale high-quality access provided at a fixed location (market 4).

Recommendation 2007 differentiated the markets for wholesale unbundled access to physical loops and sub-loops (market 4 of Recommendation 2007) and the wholesale broadband access (market 5 of Recommendation 2007). The wholesale unbundled local loops (LLU) and sub-loops (SLU) are respectively supplied at the main distribution frame (MDF) and at the street cabinet (SC). They are physical network access products giving access seekers a greater flexibility and control over the retail broadband service offered to the end-user than wholesale broadband access (WBA) provided in the form of a non-physical bit-stream service which can be provided at the MDF or at higher hierarchical level (regional/national) in the network. The boundaries of physical and non-physical access seem to blur as a result of the technical development in recent years. The New Generation Access (NGA) consists wholly or in part of optical elements which erase the previous physical based access points and brings them closer to the user. Therefore the access points are multiplied in the NGA environment and increase the wholesale access cost for the alternative operators (for example in case of the FTTC). Accordingly the NRAs should ensure providing of non-physical wholesale access product with functionality like LLU. Consequently the physical and non-physical classification of relevant wholesale access market is irrelevant in the context of the NGA environment.

There are still two types of wholesale inputs, namely bit-stream-type products at higher network hierarchical (central) level and unbundled access or related fibre inputs at local level. In addition, there will be a difference between the wholesale input services depending on whether it is a service with higher level of flexibility (such as the LLU or its equivalents) or a wholesale product able to provide standardised retail services (such as bit-stream). Therefore the Commission identified instead of the market 4, 5, and 6 of Recommendation 2007, wholesale local access provided at a fixed location [market 3.a], whole-

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91 Explanatory Note (n 5), p 34.
92 Explanatory Note (n 5), p 36.
93 Explanatory Note (n 5), p 38.
94 Fibre-to-the-cabinet, optical fibre extends from the local exchange to the street cabinet closest to the subscriber’s premises. VDSL access could be provided on this network.
95 Explanatory Note (n 5), p 41.
sale central access provided at a fixed location for mass-market products [market 3. b]), and wholesale high-quality access provided at a fixed location (market 4).

5. Market 3.a) of the New Recommendation: Wholesale local access at a fixed location

This market consists of the physical wholesale access products (LLU) of Recommendation 2007. However, the increasing penetration of optical fibre networks requires including all fibre-based equivalent products (such as the Optical Distribution Frame or cabinet unbundling access) here. Due to the technical changes the Commission provided the NRAs with further aspects based on which they could consider whether the wholesale access services in question should be regarded as part of this market, ie (i) access at local level; and (ii) product differentiation for access seekers similar to LLU. NRAs should also consider the indirect constraints stemming from retail services even in the absence of direct CATV or LTE based wholesale services. The Commission concluded in the absence of direct competitive pressure that the three criteria were met. When considering the direct competitive constraints the following conditions need to be fulfilled: (i) access seekers would be forced to pass a hypothetical wholesale price increase onto their consumers at the retail level; (ii) sufficient demand substitution at the retail level would render wholesale price increase unprofitable; and (iii) the customers of the access seekers would not switch to a significant extent to the retail arm of the integrated hypothetical monopolist.

6. Market 3.b) of the New Recommendation: Wholesale central access provided at a fixed location for mass-market products

Compared to wholesale local access, wholesale central access is provided at a higher and more central level of the network architecture (at regional or at national level) typically without availability guarantees or symmetrical bandwidth that allows access seekers to provide more standardised retail services. Accordingly, both direct and indirect constraints stemming from CATV and other platforms have to be assessed on this market.

7. Market 4 of the New Recommendation: Wholesale high-quality access provided at a fixed location

That the main characteristics of mass and business services differ from each other has already been discussed above. Tailor-made services for business customers often require leased lines. The Commission has defined the aspects of the identification of this market as follows: (i) guaranteed availability, customer support and redundancy; (ii) high-quality network management; and (iii) the possibility to access the network at points which have been defined according to the demands of the business customers.

V. Transition to the New Recommendation

Although the imposed ex-ante remedies will be effective until the next market analysis (in three years) the NRAs should prepare in time for the new round of market analyses following the adoption of the revised New Recommendation. NRAs shall carry out market analyses of the new markets adopted in the new Recommendation within two years from the adoption. However the New Recommendation in force does not contain new markets previously not included in Recommendation, therefore the NRAs have to carry out the new analyses within three years. The Commission will review the New Recommendation in coherence with the market developments, and with regard to the need for legal certainty and pre-

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96 Explanatory Note (n 5), p 42.
97 Explanatory Note (n 5), p 44.
98 ibid.
99 Explanatory Note (n 5), p 47.
100 Explanatory Note (n 5), p 46.
101 Explanatory Note (n 5), p 50.
102 Explanatory Note (n 5), p 53.
103 Article 16(6) of the Framework Directive (n 1).
dictability, as well as the three years length of the market review period followed by NRAs.\textsuperscript{104}

\textbf{VI. Conclusion}

When it announced its ‘Connected Continent’ legislative proposals in 2013, the Commission claimed that European electronic communication markets lagged far behind those of their competitors, ie Asia and North America.\textsuperscript{105} According to some authors, the EU electronic communication Regulatory Framework, built on service based competition, resulted in lower pricing in the Member States but failed to provide sufficient incentives for further investments into next generation infrastructures (eg 4G mobile and fibre).\textsuperscript{106} Therefore, they urged the regulators (including the competition agencies) to become more focused on the dynamic efficiency rather than promoting static efficiency.\textsuperscript{107} However, the Commission refused to change competition rules to allow for the consolidation of the EU telecommunication market.\textsuperscript{108} Vice-president Almunia stressed that:

[... ] We do not have evidence that operators will invest more if they reach a bigger size, as long as markets will remain fragmented along national borders. [...] I can also think of other ways than mergers to promote efficiency gains among operators, such as network-sharing agreements.\textsuperscript{109}

Even the pro-competitive effects of the network sharing agreements are not so obvious.\textsuperscript{110}

As to the electronic communication markets, the Commission proposed the strengthening of the ‘three-criteria’ test by the inclusion of it into the well-established EU law to prevent over-regulation of competitive markets.\textsuperscript{111} This fact shows that the Commission considers the ‘three-criteria’ test as one of the main tools of the potential deregulation in the field of the EU electronic communication regulation. In the past 20 years, two-thirds of the markets susceptible to \textit{ex-ante} regulation have been removed due to the application of the ‘three-criteria test’. The New Recommendation’s deregulatory measure is the removal of markets for access to the fixed telephone network (market 1) and wholesale call origination (market 2) which is likely to result in the removal of remedies of wholesale line rental (WLR) and carrier selection (CS). According to the Commission:

[T]here has been a decrease in volume of fixed calls as customers have turned to alternative solutions, such as voice-over-IP (VoIP) and mobile calls, but also to alternative providers, like over-the-top (OTT) players. Also those customers who still use fixed telephony are now able to purchase fixed access from a number of different platforms, such as traditional telephone network, fibre or cable networks, and also from alternative operators offering broadband and voice services over unbundled local loops, so competition has been increased.\textsuperscript{112}

The Body of European Regulators for Electronic Communications (BEREC) warned that markets 1 and 2 are still regulated by a large majority of NRAs and wholesale obligations are still imposed on the SMP players to provide WLR offers and CS.\textsuperscript{113} Therefore, BEREC believes that it was premature to remove markets 1 and 2 from the list because this is necessary for the provision of retail offers equivalent to those based on the incumbent’s PSTN.\textsuperscript{114} However the Recommendation acknowledges that specific national circumstances may justify further regulation of these markets at wholesale level, provided that the above three-criteria test is met.\textsuperscript{115}

Some electronic communication markets still have very high entry barriers and are unlikely to tend

\textsuperscript{104} Explanatory Note (n 5), p 53.


\textsuperscript{107} E.g. mobile four-to-three merger case in Austria, Ibid.

\textsuperscript{108} MEMO/13/779 (n 105)


\textsuperscript{111} MEMO/13/779 (n 105).

\textsuperscript{112} European Commission, ‘Telecoms: Commission to cut number of regulated markets in Europe’ Press Release, IP/14/1112, Brussels, 09.10.2014.

\textsuperscript{113} BEREC, ‘Opinion on the Commission Recommendation on Relevant Product and Service Markets Susceptible to ex ante Regulation’, Document BoR (14) 71, 05.06.2014, p 15.

\textsuperscript{114} Ibid, p 17.

\textsuperscript{115} Recital 25 of the Recommendation (n 2).
towards effective competition within the relevant time horizon. The termination markets remain bottlenecked. The Commission considers that the regulation of these markets may only become unnecessary in the future if the implementation of the Recommendation on termination rates leads to such a fall in termination costs that operators no longer charge each other for termination service (the so-called ‘bill and keep’ model).\footnote{European Commission, ‘Frequently asked questions: Recommendation on relevant markets’, MEMO/14/573, Brussels, 09.10.2014.} Accordingly, the Commission left a clear message that termination markets could next in line for deregulation if the market pursues bill and keep arrangements.
<table>
<thead>
<tr>
<th>Time Period</th>
<th>Market Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>until 12.28.2007</td>
<td>1. Access to the public telephone network at a fixed location for residential customers</td>
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<tr>
<td></td>
<td>2. Access to the public telephone network at a fixed location for non-residential customers</td>
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<tr>
<td></td>
<td>3. Publicly available local and/or national telephone services provided at a fixed location for residential customers</td>
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<tr>
<td></td>
<td>4. Publicly available international telephone services provided at a fixed location for residential customers</td>
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<tr>
<td></td>
<td>5. Publicly available local and/or national telephone services provided at a fixed location for non-residential customers</td>
</tr>
<tr>
<td>10.09.2014</td>
<td>This market has been removed from the Recommendation</td>
</tr>
<tr>
<td>12.28.2007</td>
<td>8. Call origination on the public telephone network provided at a fixed location</td>
</tr>
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<td></td>
<td>9. Call termination on individual public telephone networks provided at a fixed location</td>
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<td></td>
<td>10. Transit services in the fixed public telephone network</td>
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<tr>
<td></td>
<td>11. Wholesale unbundled access (including shared access) to metallic loops and sub-loops for the purpose of providing broadband and voice services</td>
</tr>
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<td></td>
<td>12. Wholesale broadband access</td>
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<tr>
<td></td>
<td>13. Wholesale terminating segments of leased lines</td>
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<tr>
<td></td>
<td>14. Wholesale trunk segments of leased lines</td>
</tr>
<tr>
<td>12.09.2014</td>
<td>This market has been removed from the Recommendation</td>
</tr>
</tbody>
</table>

- 2. Remained
- 3. Remained
- 4. Remained with another name: Wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location
- 3. a) Wholesale local access provided at a fixed location
- 3. b) Wholesale central access provided at a fixed location for mass-market products
- 4. Wholesale high-quality access provided at a fixed location
- 5. Remained
- 6. Remained
- 7. The minimum set of leased lines
- 15. Access and call origination on public mobile telephone networks
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<td>17. The wholesale national market for international roaming on public mobile networks</td>
<td>This market has been removed from the Recommendation</td>
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<td>18. Broadcasting transmission services, to deliver broadcast content to end users</td>
<td>This market has been removed from the Recommendation</td>
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