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EUROPEAN COMMISSION

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**Guidelines on market analysis and the assessment of significant market power under the EU
regulatory framework for electronic communications networks and services****(Text with EEA relevance)**

(2018/C 159/01)

1. INTRODUCTION

1.1. Scope and purpose

1. The Commission adopted the guidelines on market analysis and the assessment of significant market power (SMP Guidelines) in accordance with Article 15(2) of Directive 2002/21/EC of the European Parliament and of the Council ⁽¹⁾, following a public consultation, the results of which have been duly taken into account. The SMP Guidelines are accompanied by an Explanatory Note ⁽²⁾, and shall be read in light of the additional information contained therein.
2. The SMP Guidelines are addressed to national regulatory authorities (NRAs) to carry out their duties related to the analysis of markets susceptible to *ex ante* regulation and the assessment of significant market power under the EU Regulatory Framework for electronic communications and services which consists of Directive 2002/21/EC, three specific Directives 2002/19/EC ⁽³⁾, 2002/20/EC ⁽⁴⁾, 2002/22/EC ⁽⁵⁾ and Regulation (EU) No 531/2012 ⁽⁶⁾ (the Framework). In line with Article 15 of Directive 2002/21/EC NRAs shall take utmost account of both the Commission Recommendation 2014/710/EU ⁽⁷⁾ and these SMP Guidelines in order to define relevant markets for *ex ante* regulation.
3. In line with Article 8 of Directive 2002/21/EC, the SMP Guidelines intend to contribute to the development of the internal market in the electronic communications sector by, inter alia, developing a consistent regulatory practice and a consistent application of the Framework.

⁽¹⁾ Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (OJ L 108, 24.4.2002, p. 33).

⁽²⁾ Explanatory Note accompanying Guidelines on market analysis and the assessment of significant market power under the EU regulatory framework for electronic communications networks and services, SWD(2018)124.

⁽³⁾ Directive 2002/19/EC of the European Parliament and of the Council of 7 March 2002 on access to, and interconnection of, electronic communications networks and associated facilities (Access Directive) (OJ L 108, 24.4.2002, p. 7).

⁽⁴⁾ Directive 2002/20/EC of the European Parliament and of the Council of 7 March 2002 on the authorisation of electronic communications networks and services (Authorisation Directive) (OJ L 108, 24.4.2002, p. 21).

⁽⁵⁾ Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive) (OJ L 108, 24.4.2002, p. 51).

⁽⁶⁾ Regulation (EU) No 531/2012 of the European Parliament and of the Council of 13 June 2012 on roaming on public mobile communications networks within the Union (OJ L 172, 30.6.2012, p. 10), as amended by Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 (OJ L 310, 26.11.2015, p. 1) and Regulation (EU) 2017/920 of the European Parliament and of the Council of 17 May 2017 (OJ L 147, 9.6.2017, p. 1).

⁽⁷⁾ 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 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 (OJ L 295, 11.10.2014, p. 79).

4. The SMP Guidelines do not in any way restrict the rights conferred by EU law on individuals or undertakings. They are without prejudice to the application of EU law in general, and of competition rules more specifically, and to their interpretation by the Court of Justice of the European Union. The SMP Guidelines do not prejudice any action the Commission may take or any guidance the Commission may issue in the future with regard to the application of EU competition law.
5. The Commission will replace the SMP Guidelines, whenever appropriate, taking into account evolving case-law of the Court of Justice of the European Union, economic thinking and actual market experience with the objective of ensuring that they remain appropriate in rapidly developing markets.
6. These SMP Guidelines specifically address issues of market definition as well as single and collective SMP.
7. The SMP Guidelines do not deal with coordination in the context of concerted practices under Article 101(1) of the Treaty on the Functioning of the European Union (the Treaty). Nor do they address market structures with a limited number of market players where the criteria of joint dominance as applied by the Court of Justice of the European Union are not met.

1.2. Preliminary remarks

8. Under Article 8 of Directive 2002/21/EC NRAs shall ensure that in carrying out the regulatory tasks under the Framework they take all reasonable measures which are aimed at achieving the regulatory objectives contained therein, inter alia, promoting efficient investment in and access to new and enhanced infrastructures.
9. Under the Framework, the definition of relevant markets and the assessment of significant market power should be based on the same methodologies as under EU competition law. This ensures that it reflects the applicable jurisprudence of the Court of Justice of the European Union and the Commission Notice on the definition of relevant markets for the purposes of Community competition law (the 1997 Notice on Market Definition)⁽⁸⁾ and that it takes into account, to the extent relevant, the Commission's decisional practice in the enforcement of Article 102 of the Treaty and Article 2 of Council Regulation (EC) No 139/2004⁽⁹⁾. When NRAs consistently apply established methodologies to define markets and assess significant market power, they contribute to ensuring regulatory predictability and limit regulatory intervention to cases of market failures identified by analytical tools.
10. When examining similar issues in similar circumstances and with the same overall objectives in mind, NRAs and competition authorities, should, in principle, reach similar conclusions. However, given the differences in scope and objectives of their intervention, and in particular the distinct focus and circumstances of the NRAs' assessment as set out below, markets defined for the purposes of EU competition law and those defined for the purposes of sector-specific regulation might not always be identical.
11. Similarly, the designation of an undertaking as having significant market power in a market identified for the purpose of *ex ante* regulation does not automatically imply that this undertaking is also dominant for the purpose of Article 102 of the Treaty or for the purpose of application of Council Regulation (EC) No 139/2004⁽¹⁰⁾ or similar national provisions. Moreover, a significant market power (SMP) designation has no direct bearing on whether that undertaking has also abused a dominant position under Article 102 of the Treaty. It merely implies that, within the scope of Article 14 of the Directive 2002/21/EC, from a structural perspective, and in the short to medium term, in the relevant market identified the operator has and will have, sufficient market power to behave to an appreciable extent independently of its competitors, customers, and ultimately consumers.

⁽⁸⁾ Commission Notice on the definition of relevant market for the purposes of Community competition law (OJ C 372, 9.12.1997, p. 5) (1997 Notice on Market Definition). For the purposes of the application of competition law, the 1997 Notice on Market Definition explains that the concept of the relevant market is closely linked to the objectives pursued under relevant policies, *ex post* enforcement under Articles 101 and 102 of the Treaty or *ex ante* assessment under the EU Merger Regulation.

⁽⁹⁾ Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (OJ L 24, 29.1.2004, p. 1).

⁽¹⁰⁾ OJ L 24, 29.1.2004, p. 1.

12. In practice, it cannot be excluded that parallel procedures under *ex ante* regulation and EU competition law may apply with respect to different types of competition problem(s) identified on the underlying retail market(s). In this respect, *ex ante* obligations imposed by NRAs on undertakings designated as having significant market power aim to remedy market failures identified and fulfil the specific objectives set out in the Framework. On the other hand EU competition law instruments serve to address and remove concerns in relation to illegal agreements, concerted practices or unilateral abusive behaviour which restrict or distort competition in the relevant market.

1.3. The regulatory approach to market analysis

13. In carrying out a market analysis in accordance with Article 16 of Directive 2002/21/EC, NRAs will conduct a forward-looking, structural evaluation of the relevant market over the relevant period.
14. The length of the relevant period (the next review period) is the one between the end of the ongoing review and the end of the next market review ⁽¹¹⁾, within which the NRA should assess specific market characteristics and market developments.
15. The starting point for the identification of wholesale markets susceptible for *ex ante* regulation should always be the analysis of corresponding retail market(s).
16. NRAs should determine whether the underlying retail market(s) is (are) prospectively competitive in absence of wholesale regulation based on a finding of single or collective significant market power, and thus whether any lack of effective competition is durable ⁽¹²⁾.
17. To this aim, NRAs should take into account existing market conditions as well as expected or foreseeable market developments over the course of the next review period in the absence of regulation based on significant market power; this is known as a Modified Greenfield Approach ⁽¹³⁾. On the other hand, the analysis should take into account the effects of other types of (sector-specific) regulation, decisions or legislation applicable to the relevant retail and related wholesale market(s) during the relevant period.
18. If the underlying retail market(s) is (are) prospectively competitive under the Modified Greenfield Approach, the NRA should conclude that regulation is no longer needed at wholesale level.
19. NRAs should consider past and present data in their analysis when such data is relevant to the developments in that market over the next review period. In this respect, it needs to be underlined that any readily available evidence of past practice does not automatically suggest that this practice is likely to continue in the next review period. However, past practice is relevant if the market's characteristics have not appreciably changed or are unlikely to do so over the next review period.
20. It follows from the above that both static and dynamic considerations should be reflected by the NRAs in the market analysis, with a view to addressing market failure(s) identified at retail level by imposing appropriate wholesale regulatory obligations, which should, inter alia, promote competition and contribute to the development of the internal market. These obligations should be based on regulatory principles set out in Article 8 of Directive 2002/21/EC, such as promoting regulatory predictability, efficient investment and innovation and infrastructure-based competition.
21. The analysis should be based on a functional understanding of links between the relevant wholesale and underlying retail market(s), as well as on other related market(s), if deemed appropriate by the NRAs. The Commission has underlined in previous decisions ⁽¹⁴⁾ that retail market conditions may inform an NRA of the structure of the wholesale market, but are not in themselves conclusive as regards a finding of significant market power at the wholesale level. As established in several Commission decisions under Article 7 of Directive 2002/21/EC ⁽¹⁵⁾, there is no need to prove single or collective significant market power at retail level, in order to establish that (an) undertaking(s) enjoy(s) single or collective significant market power in the relevant wholesale market(s). In line with recital 18 of the Recommendation 2014/710/EU, *ex ante* regulation at the wholesale level should be sufficient to tackle competition problems on the related downstream markets(s).

⁽¹¹⁾ Article 16(6) of the Framework Directive currently states that NRAs shall notify the Commission of new draft measures within three years of the adoption of a previous measure relating to that market.

⁽¹²⁾ Recital 27 of the Framework Directive.

⁽¹³⁾ Explanatory Note accompanying the Commission Recommendation 2014/710/EU, SWD(2014) 298, p. 8.

⁽¹⁴⁾ Cases FI/2004/0082, ES/2005/0330 and NL/2015/1727. See also CZ/2012/1322.

⁽¹⁵⁾ Cases IE/2004/0121, ES/2005/0330, SI/2009/0913 and NL/2015/1727.

22. When analysing the market boundaries and market power within (a) corresponding relevant wholesale market(s) to determine whether it is/they are effectively competitive, direct and indirect competitive constraints should be taken into account irrespective of whether these constraints result from electronic communications networks, electronic communications services or other types of services or applications that are comparable from the end-user's perspective ⁽¹⁶⁾.
23. According to recital 27 of Directive 2002/21/EC, emerging markets, where *de facto* the market leader is likely to have a substantial market share, should not be subject to inappropriate *ex ante* regulation. This is because the premature imposition of *ex ante* regulation may unduly influence the competitive conditions taking shape within a new and emerging market. At the same time, foreclosure of such emerging markets by the leading undertaking should be prevented.

2. MARKET DEFINITION

2.1. Main criteria for defining the relevant market

24. In assessing whether an undertaking has significant market power, that is whether it 'enjoys a position of economic strength affording it the power to behave to an appreciable extent independently of its competitors, customers and ultimately consumers' ⁽¹⁷⁾, defining the relevant market ⁽¹⁸⁾ is of fundamental importance as effective competition can only be assessed against this definition ⁽¹⁹⁾.
25. As explained in paragraph 9, the market must be defined in line with the methodology described in the 1997 Notice on Market Definition. Market definition is not a mechanical or abstract process but requires the analysis of all available evidence of past market behaviour and an overall understanding of the mechanics of a given sector. In particular, a dynamic rather than a static approach is required when carrying out a prospective, or forward-looking, market analysis ⁽²⁰⁾.
26. The starting point of any analysis should be an assessment of relevant retail market(s), taking into account demand-side and supply-side substitutability from the end-user's perspective over the next review period based on existing market conditions and their likely development. Having identified the relevant retail market(s) and established whether absent regulatory intervention upstream, a risk of consumer harm due to a lack of competition in the retail market(s) would persist, NRAs should then identify the corresponding wholesale market(s) to assess whether they are susceptible to *ex ante* regulation under Article 16 of Directive 2002/21/EC ⁽²¹⁾. They should start by identifying and analysing the wholesale market that is most upstream of the retail market in which said competition problems have been found, and defining market boundaries by taking into account demand-side and, to the extent relevant, supply-side substitutability of products.
27. The extent to which the supply of a product or the provision of a service in a given geographical area constitutes a relevant market depends on the existence of competitive constraints on the price-setting behaviour of the service provider(s) concerned. There are two main competitive constraints to consider in assessing the behaviour of undertakings in the market; (i) demand-side; and (ii) supply-side substitution ⁽²²⁾. A third source of competitive constraint on an operator's behaviour — to be considered not at the stage of market definition but when assessing whether a market is effectively competitive within the meaning of Directive 2002/21/EC — is the existence of potential competition ⁽²³⁾.

⁽¹⁶⁾ See point 4 of the Commission Recommendation 2014/710/EU and its Explanatory Note and Case FR/2014/1670.

⁽¹⁷⁾ Article 14(2) of Directive 2002/21/EC.

⁽¹⁸⁾ The use of the term 'relevant market' implies the description of the products or services that make up the market and the assessment of the geographical scope of that market and the terms 'products' and 'services' are used interchangeably throughout this text. According to paragraph 7 of the 1997 Notice on Market Definition, a relevant product market 'comprises all those products and/or services which are regarded as interchangeable or substitutable by the consumer, by reason of the products' characteristics, their prices and their intended use'.

⁽¹⁹⁾ Case C-209/98, *Entreprenørforeningens Affalds* EU:C:2000:279, paragraph 57 and Case C-242/95 *GT-Link* EU:C:1997:376, paragraph 36. It should be recognised that the objective of market definition is not an end in itself, but part of a process, namely assessing the degree of an undertaking's market power.

⁽²⁰⁾ Joined Cases C-68/94 and C-30/95, *France and Others v Commission* EU:C:1998:148. See, also, 1997 Notice on Market Definition at paragraph 12.

⁽²¹⁾ The main product and service markets whose characteristics may be such as to warrant, in principle, the imposition of *ex ante* regulatory obligations are identified in the Recommendation 2014/710/EU, of which NRAs are required to take utmost account when defining relevant markets.

⁽²²⁾ As is also stated in the 1997 Notice on Market Definition, from an economic point of view, for the definition of the relevant market, demand-side substitution constitutes the most immediate and effective disciplinary force on the suppliers of a given product, in particular in relation to their pricing decisions.

⁽²³⁾ See also 1997 Notice on Market Definition, paragraph 24.

28. Demand-side substitutability is used to measure the extent to which customers are prepared to substitute other services or products for the service or product in question⁽²⁴⁾, whereas supply-side substitutability indicates whether suppliers other than those offering the product or service in question would switch their line of production in the immediate-to-short term⁽²⁵⁾ or offer the relevant products or services without incurring significant additional costs⁽²⁶⁾. Supply-side substitution is particularly relevant for network industries, such as electronic communications, as the same network may be used to provide different types of services⁽²⁷⁾. The difference between potential competition and supply-substitution lies in the fact that supply-side substitution responds promptly to a price increase whereas potential entrants may need more time before starting to supply the market. Supply substitution involves no additional significant costs whereas potential entry may occur at significant sunk costs⁽²⁸⁾ and is, for this reason, not taken into account at the stage of market definition⁽²⁹⁾.
29. One possible way of assessing the existence of any demand and supply-side substitution is to apply a so-called 'hypothetical monopolist' or SSNIP test⁽³⁰⁾. Under this test, an NRA should ask what would happen if there was a small but significant and non-transitory increase in the price of a given product or service, assuming that the prices of all other products or services remain constant ('relative price increase'). While the significance of a relative price increase will depend on each individual case, NRAs should consider customer (consumer or undertaking) reactions to a small but non-transitory price increase of between 5 to 10 %. Customer responses will help determine whether substitutable products exist and, if so, where the boundaries of the relevant product market should be delineated⁽³¹⁾.
30. As a starting point, the NRA should first identify an electronic communications service or product that is offered in a given geographical area and may be subject to the imposition of regulatory obligations. Subsequently, the NRA may add additional products or areas depending on whether competition from these constrains the price of the main product or service in question. Since a relative price increase of a set of products is likely to lead some customers to switch to alternative services or products resulting in sales being lost, the key issue is to determine whether the sales lost by the operators would be sufficient to offset their increased profits, which would otherwise be made following the price increase. Assessing demand- and supply-side substitution provides a way of measuring the 'critical loss' of sales (rendering a relative price increase unprofitable) and consequently of determining the scope of the relevant market. The NRA should therefore apply this test up to the point where it can be established that a relative price increase within the geographic and product markets defined will be profitable, i.e., will no longer cause a critical loss of sales to readily available substitutes or to suppliers located in other areas.
31. In competition law, the hypothetical monopolist test is applied with regard to products or services, the prices of which are freely determined and not subject to regulation. In the area of *ex ante* regulation, i.e. where a product or service is already offered at regulated, cost-based price, a regulated price will be assumed to be set at competitive levels⁽³²⁾ and should be taken as the starting point for the hypothetical monopolist test.

⁽²⁴⁾ It is not necessary that all consumers switch to a competing product; it suffices that enough or sufficient switching takes place so that a relative price increase is not profitable. This requirement corresponds to the principle of 'sufficient interchangeability' laid down in the case-law of the Court of Justice; see footnote 27.

⁽²⁵⁾ The notion of 'short term' depends on market characteristics and national circumstances. In COMP/39.525, Telekomunikacja Polska, the Commission set out, in paragraph 580 that 'there is supply-side substitution where suppliers are able to switch production to the relevant products and market them in short term in response to small and permanent changes in relative prices'. According to footnote 4 in paragraph 20 of the 1997 Notice on Market Definition, the relevant period is 'such a period that does not entail a significant adjustment of existing and intangible assets'.

⁽²⁶⁾ See also 1997 Notice on Market Definition, paragraph 20.

⁽²⁷⁾ See COMP/39.525, Telekomunikacja Polska, paragraph 580.

⁽²⁸⁾ See, also, the 1997 Notice on Market Definition, paragraphs 20-23, Case IV/M.1225 — Enso/Stora, OJ L 254, 29.9.1999, paragraph 39.

⁽²⁹⁾ See also 1997 Notice on Market Definition, paragraph 24.

⁽³⁰⁾ See Case T-83/91, Tetra Pak v Commission EU:T:1994:246, paragraph 68. The test is also known as the SSNIP (small but significant non-transitory increase in price) test. Although the SSNIP test is but one example of a method used for defining the relevant market and notwithstanding its formal econometric nature or its margin for errors (the so-called 'cellophane fallacy'), its importance lies primarily in its use as a conceptual tool for assessing evidence of competition between different products or services.

⁽³¹⁾ In other words, where the cross-price elasticity of demand between two products is high, one may conclude that consumers view these products as close substitutes. Where consumer choice is influenced by considerations other than price increases, the SSNIP test may not be an adequate measurement of product substitutability; see Case T-25/99, Colin Arthur Roberts and Valérie Ann Roberts v Commission, EU:T:2001:177. See also 1997 Notice on Market Definition, paragraph 17.

⁽³²⁾ This assumption can be rebutted if there are strong indications that the previously regulated price has not been set at competitive levels. In such circumstances it may be appropriate to use as a starting point a price resulting from an updated cost model or benchmarking.

32. It is likely to be difficult to apply the SSNIP test empirically where there is not a readily available product and price. If no such product, commercial or regulated, exists on a network but could (potentially) technically and commercially be offered, NRAs should consider self-supply on that network for the delineation of markets and construct a notional market encompassing the self-supply, where there is consumer harm at the retail market and potential demand for such product exists ⁽³³⁾.

2.2. Product market definition

33. According to settled case-law, the relevant product market comprises all products or services that are sufficiently interchangeable or substitutable, not only in terms of their objective characteristics, their prices or their intended use, but also in terms of the conditions of competition and/or the structure of supply and demand in the market in question ⁽³⁴⁾. Products or services that are only interchangeable to a small or relative degree do not form part of the same market ⁽³⁵⁾. NRAs should thus commence the exercise of defining the relevant product or service market by grouping together products or services that are used by consumers for the same purpose (end use).
34. Although the end use of a product or service is closely related to its physical characteristics, different types of products or services may be used to achieve the same end.
35. Product substitutability between different services may arise through the increasing convergence of various technologies, which often allows operators to offer similar retail product bundles. The use of digital transmission systems, for example, can lead to similarities in the performance and characteristics of network services using distinct technologies.
36. In addition, so called ‘over-the-top’ (OTT) services or other internet-related communications paths have emerged as a potential competing force to established retail communications services. As a result, NRAs should assess whether such services may, on a forward-looking basis, provide partial or full substitutes to traditional telecommunications services ⁽³⁶⁾.
37. Therefore, in addition to considering products or services whose objective characteristics, prices and intended use make them sufficiently interchangeable, NRAs should also examine, where necessary, the prevailing conditions of demand and, where appropriate, supply substitution by applying a hypothetical monopolist or SSNIP test in order to complete their market-definition analysis.

Demand-side substitution

38. Demand-side substitution makes it possible for NRAs to determine the substitutable products or range of products to which customers could easily switch in response to a hypothetical small but significant and non-transitory relative price increase. In determining the existence of demand substitutability, NRAs should make use of any evidence of previous customers’ behaviour as well as assess the likely response of customers and suppliers to such price increase of the service in question.
39. The possibility for customers to substitute a product or a service for another because of a small but significant and non-transitory relative price increase may, however, be hindered by, inter alia, significant switching costs. Customers who have invested in a specific technology or made any other necessary investments in order to receive a service or use a product may be unwilling to incur any additional costs involved in switching to an otherwise substitutable service or product or may find the costs of switching prohibitively high. In the same vein, customers of existing providers may be locked in by long-term contracts. Accordingly, in a situation where customers face significant switching costs in order to substitute product A for product B, these two products may not belong to the same relevant market.

⁽³³⁾ Explanatory note to the Recommendation 2014/710/EU, SWD(2014)298, page 18; Case NL/2015/1727, C(2015)3078. See also CZ/2017/1985.

⁽³⁴⁾ Case C-333/94 P, Tetra Pak v Commission EU:C:1996:436, paragraph 13, Case 31/80 L’Oréal EU:C:1980:289, paragraph 25, Case 322/81, Michelin v Commission EU:C:1983:313, paragraph 37, Case C-62/86, AkzoChemie v Commission EU:C:1991:286, paragraph 51, Case T-504/93, Tiercé Ladbroke v Commission EU:T:1997:84, paragraph 81, T-65/96, Kish Glass v Commission EU:T:2000:93, paragraph 62, Case C-475/99, Ambulanz Glöckner and Landkreis Südwestpfalz EU:C:2001:577, paragraph 33. The test of sufficient substitutability or interchangeability was first laid down by the Court of Justice in Case 6/72, Europemballage and Continental Can v Commission EU:C:1973:22, paragraph 32 and Case 85/76, Hoffmann La-Roche v Commission EU:C:1979:36, paragraph 23.

⁽³⁵⁾ Case C-333/94 P, Tetra Pak v Commission EU:C:1996:436, paragraph 13, Case 66/86, Ahmed Saeed EU:C:1989:140, paragraphs 39 and 40, Case 27/76, United Brands v Commission EU:C:1978:22, paragraphs 22 and 29, and 12; Case T-229/94, Deutsche Bahn v Commission EU:T:1997:155, paragraph 54. In Tetra Pak, the Court confirmed that the fact that demand for cartons used for packaging fruit juice was marginal and stable over time compared to the demand for cartons used for packaging milk was evidence of a very little interchangeability between the milk and the non-milk packaging sector, idem, paragraphs 13 and 15.

⁽³⁶⁾ Where no sufficient substitutability patterns can be established to warrant including such OTT-based services in the relevant product market, NRAs should, nevertheless, consider the potential competitive constraints exercised by these services at the stage of the SMP assessment (see also cases CZ/2017/1985 as well as CZ/2012/1322 and further below).

40. At retail level, technological developments have generally led to inter-platform competition, as retail services have been found to be equivalent and increasingly interchangeable⁽³⁷⁾. In order to determine whether different wholesale platforms such as copper, fibre and cable should be included in a single wholesale market the SSNIP test should be applied. Given the forward-looking character of the analysis, such assessment should take into account that potential access seekers who are not yet providing access-based services do not have to consider switching costs when choosing their access platform. This assessment should address, on a case-by-case basis, the significance of such entry, while bearing in mind that the scale of future entry is inherently difficult to predict. Furthermore, such analysis should assume a hypothetical competitive access regime facilitated by regulation, disregarding non-objectively justifiable impediments to switch which may have been artificially inflated by the network operators to prevent switching away from, or to a given platform.

Supply-side substitution

41. In assessing the scope for supply substitution, NRAs may also take into account the likelihood that undertakings not currently active on the relevant product market may decide to enter the market, within a short timeframe, following a small but significant and non-transitory relative price increase. The exact timeframe to be used to assess the likely responses of other suppliers to a relative price increase will inevitably depend on the characteristics of each market and should be decided on a case-by-case basis. In circumstances where the overall costs of switching production to the product in question are relatively negligible, the product may be included into the product market definition. NRAs will need to ascertain whether a given supplier would actually use or switch its productive assets to produce the relevant product or offer the relevant service (for instance, whether their capacity is committed under long-term supply agreements, etc.).
42. Account should also be taken of any existing legal or other regulatory requirements that could hinder time-efficient entry into the relevant market and as a result discourage supply-side substitution.

Chain of substitution

43. The boundaries of the relevant market may be expanded to take into consideration products or geographical areas which, although not directly substitutable, should be included in the market definition because of chain substitutability⁽³⁸⁾. Chain substitutability occurs where it can be demonstrated that although products A and C are not directly substitutable, product B is a substitute for both product A and product C and therefore products A and C may be in the same product market since their pricing might be constrained by the substitutability of product B. The same reasoning also applies to defining the geographic market. Given the inherent risk of unduly widening the scope of the relevant market, findings of chain substitutability should be adequately substantiated⁽³⁹⁾.
44. Where prices for previous or current generations of technologies can constrain prices for future generations, it is likely that a chain of substitution exists, which would justify the grouping of all generations of technologies in the same relevant product market. As such price-constraints will normally be observable for different generations of technology, they are generally considered to be in the same market.
45. Once most customers have switched to a higher performing infrastructure, a group of users may still be using the legacy technology. In this event, NRAs should take a regulatory approach that does not unduly perpetuate the cycle of captivity by defining overly narrow markets.

2.3. Geographic market definition

46. Once the relevant product market has been identified, the next step is to define its geographical dimension. It is only when the geographical dimension of the product or service market has been defined that an NRA may properly assess the competitive conditions on this market.
47. The process of delineating geographic markets follows the same principles as those discussed in the section above in relation to assessing demand- and supply-side substitution in response to a relative price increase.

⁽³⁷⁾ While NRA's have generally found retail services provided over fixed networks to be in the same retail market irrespective of the underlying transmission platform (i.e. irrespective of whether the retail service was provided via coaxial cable, fibre or copper), they generally found retail services provided over fixed and mobile networks to be in separate markets.

⁽³⁸⁾ See 1997 Notice on Market Definition, paragraphs 57 and 58. For instance, chain substitutability could occur where an undertaking providing services at national level constrains the prices charged by undertakings providing services in separate geographical markets. This may be the case where the prices charged by undertakings providing cable networks in particular areas are constrained by a dominant undertaking operating nationally. See also: Case COMP/M.1628 — TotalFina/Elf, paragraph 188.

⁽³⁹⁾ Evidence should show clear price interdependence at the extremes of the chain. The degree of substitutability between the relevant products or geographical areas should be sufficiently strong.

48. According to established case-law, the 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 the conditions of competition are sufficiently homogeneous, and which can be distinguished from neighbouring areas in which the prevailing conditions of competition are significantly different⁽⁴⁰⁾. Areas in which the conditions of competition are heterogeneous do not constitute a uniform market⁽⁴¹⁾.
49. With regard to the choice of the geographic unit from which an NRA should start its assessment, the Commission has frequently stated⁽⁴²⁾ that NRAs should ensure that these units: (a) are of an appropriate size, i.e. small enough to avoid significant variations of competitive conditions within each unit but big enough to avoid a resource-intensive and burdensome micro-analysis that could lead to market fragmentation, (b) are able to reflect the network structure of all relevant operators, and (c) have clear and stable boundaries over time.
50. If regional differences are found, but not considered to be sufficient to warrant different geographic markets or SMP findings, NRAs may pursue geographically differentiated remedies⁽⁴³⁾. The stability of the differentiation — specifically the degree to which the boundary of the competitive area can be clearly identified and remains consistent over time — is the key to distinguishing between a geographical segmentation at market-definition level and remedy segmentation.
51. In the electronic communications sector, the geographical scope of the relevant market has traditionally been determined based on two main criteria⁽⁴⁴⁾:
- (a) the area covered by a network⁽⁴⁵⁾; and
 - (b) the existence of legal and other regulatory instruments⁽⁴⁶⁾.

3. ASSESSING SMP

52. Under Article 14(2) of Directive 2002/21/EC an undertaking is deemed to have SMP if, either individually 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⁽⁴⁷⁾.

3.1. Single SMP

53. Single SMP is found based on a number of criteria, the assessment of which, in light of requirements specified in Article 16 of Directive 2002/21/EC as referred to in paragraph 13 of the present Guidelines, is set out below.
54. When considering the market power of an undertaking it is important to consider the market share of the undertaking⁽⁴⁸⁾ and its competitors as well as constraints exercised by potential competitors in the medium term. Market shares can provide a useful first indication for the NRAs of the market structure and of relative importance of the various operators active on the market. However, the Commission will interpret market shares in the light of the relevant market conditions, and in particular of the dynamics of the market and of the extent to which products are differentiated⁽⁴⁹⁾.

⁽⁴⁰⁾ United Brands, *op. cit.*, paragraph 44, Michelin, *op. cit.*, paragraph 26, Case 247/86 *Alsattel v Novasam* EU:C:1988:469, paragraph 15; *Tiercé Ladbroke v Commission*, *op. cit.*, paragraph 102.

⁽⁴¹⁾ *Deutsche Bahn v Commission*, *op. cit.*, paragraph 92. Case T-139/98 *AAMS v Commission*, EU:T:2001:272, paragraph 39.

⁽⁴²⁾ See, for example, Section 2.5 of the Explanatory Note accompanying the Recommendation 2014/710/EU, SWD(2014)298.

⁽⁴³⁾ Explanatory Note to the Recommendation 2014/710/EU, SWD(2014)298, page 14. See also CZ/2012/1322.

⁽⁴⁴⁾ See, for instance, Case IV/M.1025 *Mannesmann/Olivetti/Infostrada*, paragraph 17, and Case COMP/JV.23 — *Telefónica/Portugal Telecom/Médi Telecom*.

⁽⁴⁵⁾ In practice, this area will correspond to the limits of the area in which an operator is authorised to operate. In Case COMP/M.1650 — *ACEA/Telefónica*, the Commission pointed out that since the notified joint venture would have a licence limited to the area of Rome, the geographical market could be defined as local, paragraph 16.

⁽⁴⁶⁾ For example, mobile operators may provide mobile services only in the geographic areas for which they have been granted authorisations for the use of radio spectrum, thus contributing to the geographical dimension of the relevant markets; see Case IV/M.1439 — *Telia/Telenor*, paragraph 124, Case IV/M.1430 — *Vodafone/Airtouch*, paragraphs 13-17, Case COMP/JV.17 — *Mannesmann/Bell Atlantic/Omnitel*, paragraph 15.

⁽⁴⁷⁾ This definition corresponds to the definition that the case-law ascribes to the concept of dominant position in Article 102 of the Treaty. See *United Brands*, *op. cit.*, paragraph 65; *Hoffmann-La Roche v Commission*, *op. cit.*, paragraph 38.

⁽⁴⁸⁾ In terms of value, volume, connection lines, subscriber numbers, as appropriate in a given market.

⁽⁴⁹⁾ See point 13 of the Communication from the Commission — *Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings*.

55. According to established case-law, very large market share held by an undertaking for some time — in excess of 50 % — is in itself, save in exceptional circumstances, evidence of the existence of a dominant position ⁽⁵⁰⁾. Experience suggests that the higher the market share and the longer the period of time over which it is held, the more likely it is that it constitutes an important preliminary indication of SMP ⁽⁵¹⁾.
56. However, even an undertaking with a high market share may not be able to act to an appreciable extent independently of customers with sufficient bargaining strength ⁽⁵²⁾. In addition, the fact that an undertaking with a strong position in the market is gradually losing market share may well indicate that the market is becoming more competitive, but does not preclude a finding of SMP. Significant fluctuation of market share over time may be indicative of a lack of market power in the relevant market. The ability of a new entrant to increase its market share quickly may also reflect that the relevant market in question is more competitive and that entry barriers ⁽⁵³⁾ can be overcome within a reasonable timeframe ⁽⁵⁴⁾.
57. If the market share is high ⁽⁵⁵⁾ but below the 50 % threshold, NRAs should rely on other key structural market features to assess SMP. They should carry out a thorough structural evaluation of the economic characteristics of the relevant market before drawing any conclusions on the existence of SMP.
58. The following non-exhaustive criteria are relevant to measure the market power of an undertaking to behave to an appreciable extent independently of its competitors, customers and consumers ⁽⁵⁶⁾:
- barriers to entry,
 - barriers to expansion,
 - absolute and relative size of the undertaking,
 - control of infrastructure not easily duplicated,
 - technological and commercial advantages or superiority,
 - absence of or low countervailing buying power,
 - easy or privileged access to capital markets/financial resources,
 - product/services diversification (for example, bundled products or services),
 - economies of scale,
 - economies of scope,
 - direct and indirect network effects ⁽⁵⁷⁾,

⁽⁵⁰⁾ AKZO Chemie v Commission, op. cit., paragraph 60; Case T-228/97, Irish Sugar v Commission EU:T:1999:246, para 70, Hoffmann-La Roche v Commission, op. cit., paragraph 41, AAMS and Others v Commission op. cit., paragraph 51. However, large market share can function as an accurate indicator only on the assumption that competitors are unable to expand their output by sufficient volume to meet the shifting demand resulting from a rival's price increase. Irish Sugar v Commission, op. cit., paragraphs 97 to 104.

⁽⁵¹⁾ See point 15 of the Communication from the Commission — Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings.

⁽⁵²⁾ See point 18 of the Communication from the Commission — Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings.

⁽⁵³⁾ Barriers to entry in this sector may be structural, legal or regulatory. Structural barriers to entry result from original cost or demand conditions that create asymmetric conditions between incumbents and new entrants impeding or preventing market entry of the latter. Legal or regulatory barriers are not based on economic conditions, but result from legislative, administrative or other measures that have a direct effect on the conditions of entry and/or the positioning of operators in the relevant market. See Commission Recommendation 2014/710/EU.

⁽⁵⁴⁾ Case COMP/M.5532 — Carphone Warehouse/TiscaliUK.

⁽⁵⁵⁾ The Commission's experience suggests that dominance is not likely if the undertaking's market share is below 40 % in the relevant market. However, there may be specific cases below that threshold where competitors are not in a position to constrain effectively the conduct of a dominant undertaking. See United Brands, op. cit. and Case COMP/M.1741 — MCI WorldCom/Sprint.

⁽⁵⁶⁾ Cases NL/2017/1958-59 and NL/2017/1960. See Case PT/2017/2023.

⁽⁵⁷⁾ Direct network effects are present when the value of a good or service for a consumer derives from the increased use of such good/service by others. Indirect network effects occur when such increased value derives from the increased use of a complementary good or service.

- vertical integration,
- a highly developed distribution and sales network,
- conclusion of long-term and sustainable access agreements;
- engagement in contractual relations with other market players that could lead to market foreclosure ⁽⁵⁸⁾,
- absence of potential competition.

If taken separately, the above criteria may not necessarily be determinative of a finding of SMP. Such finding must be based on a combination of factors.

59. An SMP finding depends on an assessment of the ease of market entry. In the electronic communications sector, barriers to entry are often high due to, in particular, the existence of technological barriers such as scarcity of spectrum which may limit the amount of available spectrum or where entry into the relevant market requires large infrastructure investments and the programming of capacities over a long time in order to be profitable ⁽⁵⁹⁾.
60. However, high barriers to entry may become less relevant in markets characterised by ongoing technological progress, in particular, due to the emergence of new technologies permitting new entrants to provide qualitatively different services that can challenge the SMP operator ⁽⁶⁰⁾. In electronic communications markets, competitive constraints may come from innovative threats of potential competitors not currently in the market.
61. NRAs should therefore take into account the likelihood that undertakings not currently active on the relevant product market may in the medium term decide to enter the market. Undertakings which, in case of a price increase, are in a position to switch or extend their line of production/services and enter the market should be treated by NRAs as potential market participants even if they do not currently produce the relevant product or offer the relevant service.
62. Market entry is more likely when potential new entrants are already present in neighbouring markets ⁽⁶¹⁾ or provide services that are relevant in order to supply or contest the relevant retail services ⁽⁶²⁾. The ability to achieve the minimum cost-efficient scale of operations may be critical to determine whether entry is likely and sustainable ⁽⁶³⁾.
63. NRAs should also carefully take into account the economies of scale and scope, the network effects, the importance of accessing to scarce resources and the sunk costs linked to the network roll-out.
64. NRAs should also consider whether the market power of an incumbent operator can be (price) constrained by products or services from outside the relevant market and underlying retail market(s), such as OTT players operating on the basis of providing online communications services. Thus, even where an NRA has considered that constraints coming from these products and services at retail level are not sufficiently strong for the retail market to be effectively competitive or are not sufficiently strong to act as indirect constraint for the provision of wholesale services (for the purpose of the wholesale market definition), potential constraints should still be assessed at the SMP assessment stage ⁽⁶⁴⁾. Since, currently, OTT providers do not provide access services themselves, they do not generally exercise competitive pressure on access markets.

⁽⁵⁸⁾ In particular, roaming agreements, network sharing agreements as well as co-investment agreements not opened to third parties, that could, inter alia, eliminate an independent trading partner with whom the smaller operator can deal. See Case COMP/M.7612 — Hutchinson 3G UK/Telefónica UK.

⁽⁵⁹⁾ Hoffmann-La Roche v Commission, op. cit., at paragraph 48. The most important types of entry barriers are economies of scale and sunk costs. These barriers are particularly relevant to the electronic communications sector in view of the fact that large investments are necessary to create, for instance, an efficient electronic communications network for the provision of access services and it is likely that little could be recovered if a new entrant decides to exit the market.

⁽⁶⁰⁾ Case COMP/M.5532 — Carphone Warehouse/Tiscali UK, Case COMP/M.7018 — Telefónica Deutschland/E-Plus and Case COMP/M.7612 — Hutchinson 3G UK/Telefónica UK.

⁽⁶¹⁾ Case COMP/M.1564 — Astrolink JV.

⁽⁶²⁾ Case COMP/M.1564 — Astrolink JV.

⁽⁶³⁾ Case COMP/M.1741 — MCI WorldCom/Sprint.

⁽⁶⁴⁾ Case FR/2014/1670.

3.2. Joint SMP

65. The definition of what constitutes a position of joint dominance in competition law is provided by the jurisprudence of the Court of Justice of the European Union and has evolved over time. The joint SMP concept is to be derived from the same basis. A dominant position can be held by several undertakings, which are legally and economically independent of each other, provided that — from an economic point of view — they present themselves or act together on a particular market as a collective entity⁽⁶⁵⁾. In the *Gencor* case⁽⁶⁶⁾ the Court examined how appropriate market characteristics could lead to a relationship of interdependence between parties, allowing them to anticipate one another's behaviour. As clearly stated in *Airtours*⁽⁶⁷⁾, the existence of an agreement or of other links in law is not indispensable to a finding of a collective position of dominance. Such a finding may be based on other connecting factors and would depend on an economic assessment, and in particular an assessment of the structure of the market⁽⁶⁸⁾.
66. A collective dominant position exists where, in view of actual characteristics of the relevant market, each member of the dominant oligopoly in question, as it becomes aware of common interests, considers it possible, economically rational, and hence preferable, to adopt — on a lasting basis — a common policy for their market conduct with the aim of selling at above competitive prices, without having to enter into an agreement or resort to a concerted practice within the meaning of Article 101 of the Treaty and without any actual or potential competitors, customers or consumers, being able to react effectively⁽⁶⁹⁾.
67. The General Court held in *Airtours* that three cumulative conditions are necessary for a finding of collective dominance as defined⁽⁷⁰⁾:
- First, each member of the dominant oligopoly must have the ability to know how the other members are behaving in order to monitor whether or not they are adopting a common policy. It is not enough for each member of the dominant oligopoly to be aware that interdependent market conduct is profitable for all of them but each member must also have a means of knowing whether the other operators are adopting the same strategy and whether they are maintaining it. There must, therefore, be sufficient market transparency for all members of the dominant oligopoly to be aware, sufficiently precisely and quickly, of the way in which the other members' market conduct is evolving;
 - Second, the situation of tacit coordination must be sustainable over time, that is to say, there must be an incentive not to depart from the common policy in the market. It is only if all the members of the dominant oligopoly maintain the parallel conduct that all can benefit. The notion of retaliation in respect of conduct deviating from the common policy is thus inherent in this condition. For a situation of collective dominance to be viable, there must be adequate deterrents to ensure that there is a long-term incentive in not departing from the common policy, which means that each member of the dominant oligopoly must be aware that highly competitive action on its part designed to increase its market share would provoke identical actions from others, so it would derive no benefits from its initiative;
 - Third, to prove the existence of a dominant position to the requisite legal standard, it must also be established that the foreseeable reaction of current and future competitors, as well as customers, would not jeopardise the results expected from the common policy.
68. In *Impala II*⁽⁷¹⁾ case the Court of Justice confirmed these criteria as identifying the conditions in the presence of which tacit coordination is more likely to emerge. According to the Court of Justice, such tacit collusion is more likely if competitors can easily arrive at a common perception as to how the coordination should work, and, in particular, of the parameters that lend themselves to being a focal point⁽⁷²⁾ of the proposed coordination. At the same time, it indicated the necessity to avoid a mechanical approach involving the separate verification of each of those criteria taken in isolation, while taking no account of the overall economic mechanism of a hypothetical tacit coordination⁽⁷³⁾. Market characteristics must be assessed by reference to that mechanism of hypothetical coordination.

⁽⁶⁵⁾ Case C-395/96 P, *Compagnie Maritime Belge* EU:C:2000:132, paragraphs 35-36.

⁽⁶⁶⁾ Case T-102/96, *Gencor Ltd v Commission* EU:T:1999:65, paragraph 163.

⁽⁶⁷⁾ Case T-342/99, *Airtours plc v Commission* EU:T:2002:146.

⁽⁶⁸⁾ *Compagnie Maritime Belge*, paragraph 45.

⁽⁶⁹⁾ Case T-342/99, *Airtours plc v Commission* EU:T:2002:146, paragraph 61; Case C-413/06 *Impala II* EU:C:2008:392, paragraph 122.

⁽⁷⁰⁾ *Ibid*, paragraph 62.

⁽⁷¹⁾ *Impala II*, paragraph 123.

⁽⁷²⁾ Which is understood as the tacit understanding of the terms of the coordination between the jointly dominant undertakings, a solution that tacitly colluding operators will tend to adopt in the specific market circumstances and which requires market transparency to become established. See paragraph 123 of *Impala II* judgement.

⁽⁷³⁾ *Ibid*, paragraph 125.

69. Against this background, when determining whether two or more undertakings in a relevant market have joint SMP, for the purposes of determining whether to impose *ex ante* regulatory obligations on them, NRAs must conduct an analysis of likely developments during the next review period ⁽⁷⁴⁾. They must consider whether, in light of all considerations, market conditions would be conducive to a mechanism of tacit coordination, on the basis of the economic test set out by the Court. As set out in recital 26 of Directive 2002/21/EC, two or more undertakings can be found to enjoy a dominant position not only where there exist structural or other links between them but also where the structure of the relevant market is conducive to coordinated effects.
70. A prospective analysis must consider expected or foreseeable market developments over the course of the next review period to ascertain whether tacit collusion is the likely market outcome. The likelihood of the elements of the economic test set out by the Court must be established considering market structures and any available evidence of market behaviour, that are conducive to the hypothetical mechanism of coordination developing and to a tacitly collusive equilibrium being reached. A postulated mechanism must be analysed as forming part of a plausible theory of tacit coordination ⁽⁷⁵⁾, including considerations as regards available evidence and data, as well as hypothetical considerations. As can be derived from the above cited case-law, a checklist approach should be avoided.
71. Similarly to the Commission's guidance on horizontal mergers ⁽⁷⁶⁾, all available relevant information on the characteristics of the markets concerned, including both structural features and the past behaviour of market participants, must be taken into account in a prospective analysis.
72. Arriving at a common understanding on coordinated behaviour is generally easier in less complex and more stable economic environments. Given that coordination is generally simpler among fewer players, it would seem relevant in particular to examine the number of market participants. Further, it may be easier to reach a common understanding on the terms of coordination if a relative symmetry can be observed, especially in terms of cost structures, market shares, capacity levels including coverage, levels of vertical integration and the capacity to replicate bundles.
73. Transparency of prices can be more easily assumed for retail mass markets, and homogeneity of products can increase the level of transparency, but even product and tariff complexity at retail level can be reduced by establishing simpler pricing rules, such as the identification of a small number of flagship reference products. In electronic communications markets with near complete mobile and fixed penetration, demand volatility tends to be low and new customers can only be acquired from other market players, increasing transparency in relation to market shares ⁽⁷⁷⁾.
74. When making a forecast of current data and of the most likely future developments, NRAs should do so under a Modified Greenfield Approach, as set out in paragraph 17, which requires that the effects of any regulation based on significant market power in place are excluded from the assessment ⁽⁷⁸⁾.
75. The type of evidence that is available to NRAs in markets that are regulated at the time of the analysis will be different in character to the evidence that is available in markets that are not regulated. However, NRAs might still be able to adduce evidence on market structure and behaviour, for example in cases where the regulation in place may not have fully redressed the observed market failures. This does not mean that the standard of proof should be lower, or that the mechanism of tacit coordination that is hypothesised should be different.
76. Having regard to paragraph 15 when assessing the presence of joint SMP to determine whether to impose *ex ante* regulation, NRAs can therefore take into account all market circumstances to establish that a tacit collusive behaviour is likely to emerge as a market outcome, in the absence of *ex ante* regulation, if (i) these circumstances are consistent with the economics of the tacit collusion theory advanced by the NRA and (ii) when assessed, they are found to be relevant in explaining that the market is conducive to the described hypothetical tacit collusive behaviour, on the basis of an integrated analysis, based on the criteria set out in the *Airtours* case and later confirmed and further clarified in the *Impala* cases.

⁽⁷⁴⁾ Ibid, paragraph 123.

⁽⁷⁵⁾ Ibid, paragraph 130.

⁽⁷⁶⁾ Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings (OJ C 31, 5.2.2004, p. 5).

⁽⁷⁷⁾ In the merger context, these considerations were discussed in depth in relation to the electronic communications market, for example, in case COMP M.7758 — Hutchison 3G Italy/WIND/JV.

⁽⁷⁸⁾ See Case SI/2009/0913, in which the Commission clarified that this approach is well suited to assess a market's conduciveness to tacit collusion in the presence of existing regulation based on single SMP, stating that 'what counts here is the situation which would prevail absent the regulatory obligations imposed on Mobitel in this specific market (modified greenfield approach)'.

77. The analysis of joint SMP has to take account of specificities of the electronic communications sector, in particular the fact that due to the links which typically exist between the wholesale and retail markets, the economic mechanism of tacit collusion is not limited to the wholesale level but should be assessed, taking into account the interaction of both levels. In this respect, focal point(s) can be identified either at retail or wholesale level and retaliation can take place within the functionally connected wholesale and downstream retail market(s) as well as related retail markets, or even outside those markets if the oligopolists are present there and interact there.
78. As stated by the Court of Justice in *Impala II*, besides market transparency, a market structure conducive to tacit collusion may also be characterised by market concentration and product homogeneity⁽⁷⁹⁾. Other characteristics that may lead to the same conclusion can be extrapolated from case-law or prior regulatory decisions. A non-exhaustive list of market characteristics that the NRAs may consider in their case by case assessment are, by way of an example, market shares, elasticity of demand, vertical integration, cost and output compatibilities, comprehensive network coverage, profitability and Average Revenue per User (ARPU) levels, relative symmetry of operator and related similarity of retail operations. However, no exhaustive list is suggested. In addition, the relevance of these parameters should be established and assessed on a case-by-case basis and account should be taken of the national circumstances. If NRAs wish to use parameters inspired by *ex post* competition practice or merger review, they should do so taking account of the specificities of *ex ante* regulation in the electronic communications sector⁽⁸⁰⁾, with the aim of identifying in the specific circumstances, whether the characteristics of the relevant market are such that each member of the dominant oligopoly considers it possible, economically rational, and hence preferable, to adopt — on a lasting basis — a common policy for their market conduct⁽⁸¹⁾.

Transparency

79. Based on guidance set out in paragraphs 72, 73 and 77, a starting point for finding joint SMP is the establishment of a common policy on which to align future behaviour.
80. When examining whether a market is sufficiently transparent to enable tacit coordination, it should be examined whether market operators have a strong incentive to converge to an identifiable coordinated market outcome and refrain from reliance on competitive conduct. This is the case where long-term benefits of anti-competitive conduct outweigh any short-term gains resulting from competitive behaviour. As set out in paragraph 78, implementing and sustaining tacit coordination is facilitated by certain market characteristics which can make a particular market more prone to coordination.
81. In the specific circumstances of electronic communications, which have high barriers to entry and high sunk costs, newcomers have an incentive to increase their market share to ensure cost recovery. On the other hand, market share symmetry is not necessary for an incentive to tacitly collude, as long as a minimum scale⁽⁸²⁾ has been achieved or cost structures are comparable⁽⁸³⁾.
82. In the context of the assessment of existence of collective significant market power and without prejudice to the criteria described in paragraph 67 above, close alignment of prices over a long period, especially if they are above competitive level, together with other factors typical of a collective dominant position, might, in the absence of an alternative reasonable explanation, suffice to demonstrate the existence of a collective dominant position, even where there is no firm direct evidence of strong market transparency, as such transparency may be presumed in such circumstances⁽⁸⁴⁾. The investigation of such circumstances must be carried out with care, and, above all, should adopt an approach based on the analysis of plausible coordination strategies that may exist in the circumstances⁽⁸⁵⁾. In particular, for the purpose of *ex ante* regulation in the electronic communications sector, a finding of pre-existing coordination as described above is not a prerequisite but may be relevant in particular if the market's characteristics have not appreciably changed and/or are unlikely to do so in the next review period.

⁽⁷⁹⁾ *Impala II*, paragraph 121.

⁽⁸⁰⁾ The assessment for the purposes of *ex ante* regulation requires a specific framework of analysis in certain aspects, such as the aforementioned need to disregard regulation currently in place, the need to take into account a specific timeframe of regulation, or the lack of a specific binary counterfactual which is present in a merger analysis.

⁽⁸¹⁾ *Airtours plc v Commission*, op. cit., paragraph 61; Case C-413/06, *Impala II* EU:C:2008:392, paragraph 122.

⁽⁸²⁾ This is to be assessed under the national circumstances and relevant market in question, taking into account the need to promote efficient entry. See for example the Annex to Commission Recommendation 2009/396/EC of 7 May 2009 on the regulatory treatment of fixed and mobile termination rates in the EU (OJ L 124, 20.5.2009, p. 67).

⁽⁸³⁾ Case ES/2005/0330.

⁽⁸⁴⁾ Case T-464/04, *Impala I* EU:T:2006:216, paragraph 252.

⁽⁸⁵⁾ *Impala II*, paragraph 129.

83. Where past behaviour can inform the NRA's forward-looking assessment of likely market dynamics in the next review period, NRAs should be conscious of the fact that even in the presence of regulation, the mere imposition of price-controlled wholesale access products may not be a sufficient explanation of an observed alignment of prices over a long period at the retail level. Such an alignment, in the absence of an alternative reasonable explanation, can be sign of a tacit collusive behaviour, if other factors typical for a collective dominant position are present. Alternative reasonable explanations, aside from regulatory obligations setting price levels, may be, for example, economic in nature, if price levels can be justified in view of costs structures in a competitive market.
84. Further, for the purposes of assessing the transparency criterion, in the specific circumstances of *ex ante* regulation of electronic communications markets, where barriers to entry for new entrants are typically high, a refusal by network owners to provide wholesale access on reasonable terms may be a potential focal point of a common policy adopted by members of an oligopoly. Such a refusal by network operators may therefore point towards the existence of a common policy, which is taken into account alongside other factors when carrying out a joint SMP analysis. A focal point based on the denial of access can either be observed in the case of operators that are not subject to *ex ante* access obligations, or foreseen in the case of operators that are subject to such obligations at the time of the analysis, provided certain conditions are met. Such conditions include a shared incentive in sustaining significant or abnormally high rents (profits) on downstream or related retail markets, which the NRA finds to be out of proportion to investments made and risks incurred⁽⁸⁶⁾, or other non-price-related types of common policy in a market conducive to tacit coordination incompatible with a well-functioning retail market as set out by the Court in the *Impala II* judgment⁽⁸⁷⁾, that can also be adduced as evidence that refusal of access is a credible focal point. It is also relevant to assess whether the operator in question has a sufficient scale to justify the provision of a wholesale service to third parties.

Sustainability

85. In order to make the common policy sustainable over time, there must be an incentive for each member of the oligopoly not to depart from the terms of coordination. This derives from the fact that members of the dominant oligopoly can benefit only if they all maintain the parallel conduct. The existence of a credible threat of retaliation, deterring deviation, is a necessary requirement to ensure that the coordination mechanism remains credible over time.
86. As regards the need to resort to the exercise of a sanction, the General Court clarified that the mere existence of an effective deterrent mechanism is, in principle, sufficient since if the members of the oligopoly conform with the common policy, there is no need to resort to the exercise of a sanction. The most effective deterrent mechanism is that which has not been used⁽⁸⁸⁾.
87. This clarification is particularly relevant, by way of an example, in cases where an NRA considers that the focal point of tacit collusion at the wholesale level consists of a (constructive) refusal of wholesale access⁽⁸⁹⁾, and where wholesale transactions are typically scarce. In such cases, NRAs do not need to establish that the retaliation would consist of the conclusion of another access agreement by the other tacitly colluding operator(s), but may identify a different⁽⁹⁰⁾ credible retaliatory mechanism on the underlying or related retail market(s) (such as short-term price wars)⁽⁹¹⁾. Considerations related to portability and churn⁽⁹²⁾ in the specific circumstances could further substantiate the assumed responsiveness of consumers to price changes and help the NRA to predict the likelihood of retaliation at retail level being effective⁽⁹³⁾.
88. The credibility of a threat of sanction (mechanism) and/or its exercise is to be considered by the NRAs in the case-by-case analysis.

⁽⁸⁶⁾ Case ES/2005/0330.

⁽⁸⁷⁾ *Impala II*, paragraph 121. See also this Explanatory note, section 'market failures at the retail level.'

⁽⁸⁸⁾ *Impala I*, paragraph 466.

⁽⁸⁹⁾ Access that would enable an access seeker to effectively compete at retail level.

⁽⁹⁰⁾ While the second criterion of the *Airtours* test requires 'identical action from others' this is to be read as highly competitive action by one member of the dominant oligopoly in response to highly competitive action of the other member of the dominant oligopoly which may however take a different form, see *Airtours*, op. cit., paragraph 62.

⁽⁹¹⁾ This is important because a sanction against oligopolist 1 for its grant of access to a competitor through grants of access by oligopolist 2 to other competitors could have long-term effects on the market, further undermining profits of the retaliating party, and thus not be a credible deterrent of opportunistic behaviour. See also Case ES/2005/0330.

⁽⁹²⁾ Number portability is the possibility for end-users to retain a number from the national telephone numbering plan independently of the undertaking providing the service, and churn is the percentage of subscribers to a service who discontinue their subscriptions to that service over certain period.

⁽⁹³⁾ Case ES/2005/0330.

External factors

89. The assessment of countervailing factors to the theory of tacit collusion includes economic considerations as to whether the operators currently present in the market outside the tacitly colluding oligopoly act as fringe competitor(s) or have the potential to become maverick(s), or to whether customers have sufficient countervailing buyer power to jeopardise the collusive mechanism.
90. In the framework of *ex ante* regulation in the electronic communications sector the market position and strength of the rivals can be assessed based on various factors, related to barriers of entry for potential competitors and the competitive situation of and barriers to expansion for existing market players. The relevant parameters in this assessment will include market share in the market under assessment, related economies of scope, potential to provide input to all products requested by the customers at the retail level, its relative strength in the major area of activity, the existence of fringe or maverick competitors, etc. In this respect, NRAs should include in their draft measure an assessment as to whether or not fringe competitors have the ability to challenge the anti-competitive coordinated outcome⁽⁹⁴⁾.
91. As mentioned in paragraph 59, markets for the provision of electronic communications services have high barriers to entry, in particular of an economic nature, as network roll-out, in the absence of wholesale access agreement, is costly and time-consuming; but also barriers of a legal nature, as in particular spectrum policy can limit the number of mobile network operators⁽⁹⁵⁾. For this reason, a hypothetical new entrant that could disrupt a tacit collusive equilibrium is likely to have to rely, at least partly, on the infrastructure of others. In the absence of regulatory intervention or sustainable commercial agreements or disruptive technological innovation, it can typically be assumed that the likelihood of a disruptive entry is generally low in the short and medium term.
92. As regards customers, consumers in mass markets are unlikely to be able to individually exercise buyer power of any significance. On the other hand, some business end-users who purchase business-grade or tailored products may be able to exercise countervailing buyer power and their potential reaction should be analysed, if appropriate, in the specific market.
93. This Communication is addressed to the Member States.

For the Commission,

Mariya GABRIEL

Member of the Commission

⁽⁹⁴⁾ Case IE/2004/0121.

⁽⁹⁵⁾ See footnote 52 and Explanatory note to the Recommendation 2014/710/EU, SWD(2014)298, page 4.