

OF 2017- 2 - Consultation
Proposed Guidelines on the Criteria for the
Definition of Relevant Markets and the Assessment
of Significant Market Power



Launch Date: 1 May 2017

Closing Date for comments: 1 June 2017



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A. Introduction

1. The Utility Regulation and Competition Office (the '**Office**' or '**OfReg**') is the independent regulator established by section 4(1) of the Utility Regulation and Competition Law (the '**URC Law**') for the electricity, information and communications technology ('**ICT**'), water, wastewater and fuels sectors in the Cayman Islands.¹ The Office also regulates the use of electromagnetic spectrum and manages the .ky Internet domain.
2. **Section 44(2)** of the URC Law requires the Office to "*establish and publish criteria*" relating to the definition of relevant markets in the respective sectors, and against which market power may be assessed for the purposes of determining that a sectoral provider has Significant Market Power ('**SMP**') in a relevant market.
3. The attached draft *Guidelines on the Criteria for the Definition of Relevant Markets and the Assessment of Significant Market Power* (the '**Guidelines**') are prepared pursuant to section 44(2) of the URC Law. They are intended to provide the framework within which the Office will normally define relevant markets, and assess SMP within those markets.

B. Legal Framework

4. **Section 2(3)** of the URC Law states:

A sectoral provider shall be deemed to have Significant Market Power if, either individually or jointly with others, it enjoys a position of economic strength affording it the power to behave to an appreciable extent independently of competitors, customers and consumers.

5. **Part 7** of the URC Law (sections 44 and 45) states that the Office may determine that a sectoral provider has SMP by considering various factors, including the provider's market share, its ability to influence market conditions, and its access to financial resources. The Office is empowered to impose specific conditions on sectoral providers determined to have SMP including, but not limited to, obligations relating to cost recovery, price controls, and retail prices.

¹ The Legislation giving the Office jurisdiction in the water, wastewater and fuels sectors were passed during the March Sitting of the Cayman Islands Legislative Assembly and are expected to come into effect on 1 May 2017.

6. **Section 44(1)** sets out that the Office may, at any time, determine that a sectoral provider “*has significant market power in a relevant market*” (**SMP determination**).
7. **Section 44(2)** requires the Office to “*establish and publish criteria*” relating to the definition of relevant markets in the respective sectors and against which market power may be assessed for the purpose of making an SMP determination under **section 44(1)**.
8. The URC Law specifies that the Office’s criteria in relation to **section 44(2)** shall include references to:
 - the sectoral provider’s market share;
 - the sectoral provider’s ability to influence market conditions;
 - the sectoral provider’s access to financial resources;
 - the sectoral provider’s experience in providing products to the market; and,
 - any other criteria considered relevant by the Office.
9. In addition, **section 44(4)** sets out that sectoral providers shall be considered to have SMP in the termination of utility services on their own networks, unless the Office determines otherwise. This applies mainly to those wholesale markets where a sectoral provider (A) provides a network *connection* for another provider (B) to ‘terminate’ B’s service to the customer of A. For example, this applies in relation to ICT Services where a mobile provider’s customer wants to call the customer of another mobile provider (i.e. the callers are on different mobile networks).
10. **Part 12** of the URC Law (sections 65 to 83) applies to, among other things, abuse of a dominant position relating to covered services.
11. **Section 70(1)** of the URC Law empowers the Office to investigate and determine whether the conduct of one or more sectoral providers amounts to an abuse of a dominant position.
12. Finally, **section 70(3)** deems a sectoral provider with a dominant position to have SMP.
13. Therefore, the attached draft Guidelines set out the Office’s proposed general criteria for:
 - defining relevant markets in respective sectors; and,

- assessing market power.
14. It should be noted that the definition of SMP in the URC Law refers to a “*sectoral provider*” and other related provisions in the URC Law refer to “*undertakings*”. The term “*undertaking*” is not defined in the URC Law. However, the term “*sectoral provider*” is defined in the URC Law as “*a person, whether or not an authorization holder, who provides goods or services in a sectoral utility*”, and the term “*sectoral utility*” is defined as “*a utility market or sector for which the Office has specific responsibility under any sectoral legislation*”.
 15. The Office therefore considers an undertaking to be a person engaged in economic activity in a sectoral utility. The Office considers sectoral providers to be a type of undertaking and references in the draft Guidelines to the term “*undertaking*” should be taken to mean “*sectoral provider*” unless the context requires otherwise.
 16. Where two or more separate persons form a single economic entity, the Office may consider them to be a single undertaking. The Office will assess this on a case by case basis.

C. The Draft Guidelines

17. The draft Guidelines are attached to this consultation document, and are summarised in the paragraphs below. The Office strongly encourages respondents to read the Guidelines prior to submitting comments on the Guidelines, or to answering the consultation questions in the next section, as this summary is not intended to be exhaustive.
18. The attached draft Guidelines are divided into four main sections addressing:
 - the legal framework, and the scope and purpose of the Guidelines;
 - the methodology for defining the relevant markets;
 - the criteria used in assessing significant market power, and
 - the scope of remedies that may be imposed on sectoral providers with SMP.
19. The intention is that the Office will normally use the Guidelines in conducting both *ex ante* market reviews and *ex post* competition assessments. The principles to be applied in each case are similar, although

- the application of these principles may differ reflecting the nature of the two exercises.
20. The first step in any market analysis is to define the relevant market. The Office will typically consider demand-side substitution, supply-side substitution, and the existence of potential competition when defining the relevant market. For the first two factors, this will normally be done by applying the '*hypothetical monopolist test*' (otherwise known as the '**SSNIP test**') to determine the narrowest set of products or services for which a hypothetical monopolist would find that a small but significant, non-transitory price increase of 5 – 10% in the candidate product or service, would be profitable.
 21. The relevant market can be described along its product and geographic dimensions which will be assessed using a number of items of evidence. For the product dimension, these may include:
 - evidence of substitution in the recent past;
 - patterns in price changes;
 - quantitative tests;
 - views of customers and competitors;
 - barriers and costs associated with switching demand to potential substitutes;
 - evidence on product characteristics; and
 - different customer groups and price discrimination.
 22. For the geographic dimension, the items of evidence may include:
 - past evidence of diversion of orders to other areas;
 - basic demand characteristics;
 - views of customers and competitors;
 - examination of the customers' current geographic pattern of purchases; and,
 - barriers and costs associated with diverting orders to companies located in other areas.
 23. Each of these items are described in more detail in the attached draft Guidelines. For the avoidance of doubt, the above lists of items of evidence are not exhaustive, and the Office reserves the right to consider any other relevant criteria or items of evidence.
 24. As to SMP assessment, the Office will assess whether any undertaking or group of undertakings have SMP in a relevant market, or in a closely related

- market. While market share is an important criterion for determining SMP, SMP or '*dominance*' cannot be established solely by considering market shares. Non-exhaustive lists of criteria for assessing single and collective dominance are set out in the attached draft Guidelines.
25. In relation to the assessment of collective dominance, market concentration is considered, amongst other criteria, and it is proposed that the Herfindahl-Hirschman Index (*HHI*) will normally be used to gauge the degree of market concentration.
 26. While the attached draft Guidelines touch upon the matter of remedies, they do not address the issue in detail as these will be addressed on a case-by-case basis as required as part of a market review (market definition, SMP assessment and remedies) or competition investigation, and the Office will consult with the public on those at that time.

D. Consultation Questions

27. Based on the above, and the attached draft Guidelines, the Office invites all interested parties to submit their comments, with supporting evidence, on any or all of the following questions:

QUESTION 1: Do you agree with the proposal to apply the principles in the Guidelines to both *ex ante* market reviews and *ex post* competition assessments? If not, please explain your reasoning in detail, along with providing supporting evidence.

QUESTION 2: Do you agree with the Office's analytical framework for defining the relevant market (i.e. examining demand-side and supply-side substitution, and potential competition) and for determining the product and geographic dimensions of the relevant market? If not, please suggest a reasoned alternative approach, along with any supporting evidence.

QUESTION 3: In particular, do you agree with the proposal to use the SSNIP test to assess demand-side and supply-side substitution when defining the relevant market? If not, please explain your reasoning in detail, along with providing supporting evidence.

QUESTION 4: Do you agree with the Office's proposed competition analysis criteria or the framework methodology for determining

Single Dominance? If not, please suggest a reasoned alternative approach, along with any supporting evidence.

QUESTION 5: Do you agree with the Office's proposed competition analysis criteria or the framework methodology for determining *Collective Dominance*? If not, please suggest a reasoned alternative approach, along with any supporting evidence.

QUESTION 6: Do you agree with the proposal to use the HHI to gauge the degree of market concentration? If not, please suggest a reasoned alternative approach, along with any supporting evidence.

QUESTION 7: Are there any other views that you consider relevant to the definition of relevant markets, the assessment of SMP and the scope of remedies? Please provide any other views you may have, along with any supporting evidence.

E. How to Respond to This Consultation

28. All submissions on this consultation should be made in writing, and must be received by the Office by **5 p.m. on 1 June 2017**, at the latest.
29. The Office will post all comments received on its website by **5 p.m. on 15 June 2017**.
30. Submissions may be filed as follows:

By e-mail to: consultations@ofreg.ky

Or by post:
Utility Regulation and Competition Office
P.O. Box 2502
Grand Cayman KY1-1104
CAYMAN ISLANDS

Or by courier:



Utility Regulation and Competition Office
3rd Floor, Alissta Towers
85 North Sound Road
Grand Cayman
CAYMAN ISLANDS

Or by fax to: (345) 945 8284

OF 2017- G1 - Guidelines
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Introduction

1. The Utility Regulation and Competition Office

- 1.1. The Utility Regulation and Competition Office (the '**Office**')¹ is the independent regulator established under the Utility Regulation and Competition Law 2016 (the '**URC Law**') for the electricity, information and communications technology ('**ICT**'), water, wastewater and fuels sectors² in the Cayman Islands. The Office also regulates the use of electromagnetic spectrum and manages the .ky Internet domain.

2. Legal Framework

- 2.1. These Guidelines are prepared pursuant to **section 44(2)** of the URC Law.
- 2.2. **Section 44(2)** of the URC Law requires the Office to "*establish and publish criteria*" relating to the definition of relevant markets in the respective sectors, and against which market power may be assessed for the purposes of determining that a sectoral provider has Significant Market Power ('**SMP**') in a relevant market.
- 2.3. **Section 2(3)** of the URC Law states:
- A sectoral provider shall be deemed to have Significant Market Power if, either individually or jointly with others, it enjoys a position of economic strength affording it the power to behave to an appreciable extent independently of competitors, customers and consumers.*
- 2.4. **Part 7** of the URC Law (sections 44 and 45) states that the Office may determine that a sectoral provider has SMP by considering various factors, including the provider's market share, its ability to influence market conditions,

¹ Also known as '**OfReg**'.

² The Legislation giving the Office jurisdiction in the water, wastewater and fuels sectors were passed during the March Sitting of the Cayman Islands Legislative Assembly and are expected to come into effect on 1 May 2017.

and its access to financial resources. The Office is empowered to impose specific conditions on sectoral providers determined to have SMP including, but not limited to, obligations relating to cost recovery, price controls, and retail prices.

- 2.5. **Section 44(1)** sets out that the Office may, at any time, determine that a sectoral provider “*has significant market power in a relevant market*” (**SMP determination**).
- 2.6. **Section 44(2)** requires the Office to “*establish and publish criteria*” relating to the definition of relevant markets in the respective sectors and against which market power may be assessed, for the purpose of making an SMP determination under **section 44(1)**.
- 2.7. The URC Law specifies that the Office’s criteria in relation to **section 44(2)** shall include references to:
- the sectoral provider’s market share;
 - the sectoral provider’s ability to influence market conditions;
 - the sectoral provider’s access to financial resources;
 - the sectoral provider’s experience in providing products to the market; and,
 - any other criteria considered relevant by the Office.
- 2.8. In addition, **section 44(4)** sets out that sectoral providers shall be considered to have SMP in the termination of utility services on their own networks, unless the Office determines otherwise. This applies mainly to those wholesale markets where a sectoral provider (A) provides a network connection for another provider (B) to ‘terminate’ B’s ICT Service to the customer of A. For example, this applies where a mobile provider’s customer wants to call the customer of another mobile provider (i.e. the callers are on different mobile networks).
- 2.9. **Part 12** of the URC Law applies to, among other things, abuse of a dominant position relating to covered services.
- 2.10. **Section 70(1)** of the URC Law empowers the Office to investigate and determine whether the conduct of one or more sectoral providers amounts to an abuse of a dominant position.

- 2.11. Finally, **section 70(3)** deems a sectoral provider with a dominant position to have SMP.
- 2.12. Therefore, these Guidelines set out the Office's general criteria for:
- defining relevant markets in respective sectors; and,
 - against which market power may be assessed.
- 2.13. It should be noted that the definition of SMP refers to a "*sectoral provider*" and other related provisions in the URC Law refer to "*undertakings*". The term "*undertaking*" is not defined in the URC Law. However, the term "*sectoral provider*" is defined in the URC Law as "*a person, whether or not an authorization holder, who provides goods or services in a sectoral utility*", and the term "*sectoral utility*" is defined as "*a utility market or sector for which the Office has specific responsibility under any sectoral legislation*".
- 2.14. The Office will therefore consider an undertaking to be a person engaged in economic activity in a sectoral utility. The Office will consider sectoral providers to be a type of undertaking, and references in these Guidelines to the term "*undertaking*" should be taken to mean "*sectoral provider*" unless the context requires otherwise.
- 2.15. Where two or more separate persons form a single economic entity, the Office may consider them to be a single undertaking. The Office will assess this on a case by case basis.

3. Scope and Purpose of the Guidelines

- 3.1. The Guidelines are meant to assist sectoral providers and other interested parties in understanding how the Office will apply certain provisions of the URC Law. They indicate the Office's usual position on the above-mentioned subjects, and the Office will generally follow the principles and approach outlined herein. The Office will update the Guidelines from time to time to take account of international best practice in the assessment of market power in regulated sectors.
- 3.2. These Guidelines set out the approach the Office expects to take with respect to the principles applied in defining relevant markets, and the criteria used in assessing significant market power in the markets defined. These Guidelines are advisory guidelines as defined under **section 2(1)** of the URC Law. They should not be taken as a statement of law, and they do not have binding legal effect. The Office reserves the right to consider other factors not covered in these Guidelines, where necessary. If the Office decides to depart from the Guidelines, the Office will inform the public of its reasons for doing so.
- 3.3. The Office will use these Guidelines for both *ex ante* market reviews, in accordance with **Part 7** of the URC Law, and *ex post* competition assessments, in accordance with **Part 12** of the URC Law. The principles applied in *ex ante* market reviews and *ex post* competition assessments are similar, however, the *application* of these principles may differ – reflecting the nature of *ex ante* market reviews versus *ex post* competition assessments.
- 3.4. In conducting an *ex ante* market review, the Office will consider a forward-looking view of the relevant market, taking into account how competition within that market may develop over the review period, and determine the appropriateness of existing *ex ante* obligations – and whether to expand or remove those existing obligations, and/or introduce additional *ex ante* obligations. The purpose of imposing *ex ante* obligations on an undertaking deemed to have SMP is to ensure that the undertaking cannot use its market power to restrict, or distort competition on the relevant market, or to leverage such market power into adjacent markets.

- 3.5. *Ex post* competition assessments, by contrast, are carried out in response to specific concerns or allegations relating to possible anti-competitive practices, on application by any party or on the Office's own initiative, in accordance with **section 71** of the URC Law. *Ex post* competition assessments are therefore retrospective in nature.

Defining Relevant Markets

4. The Purpose of Market Definition

- 4.1. The first step in the assessment of market power is to define the relevant market in which the undertaking's product or service competes. Market definition is a tool to identify and define the boundaries of competition between undertakings, the main objective being to identify in a systematic way those competitive constraints that the undertakings involved may face.³ Market definition is key to identifying the competitive constraints on an undertaking's behaviour, both in a product and in a geographic dimension. In this regard, by identifying those actual competitors capable of constraining an undertaking's behaviour and preventing it from behaving independently of competitive pressure, market definition provides a framework in which competition analysis is performed.
- 4.2. Following from the above, the '**relevant market**' in which to assess competition is generally established by the combination of product and geographic markets.⁴

³ European Commission, *Commission Notice on the Definition of the Relevant Market for the Purposes of Community Competition Law*, [http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31997Y1209\(01\)&from=EN](http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31997Y1209(01)&from=EN)

⁴ Where necessary, the Office may need to consider the customer dimension of a relevant market when conditions of supply of the customer's expectations differ significantly between different groups of customers (i.e. residential vs. business customers). Also, the Office will consider the appropriate functional dimension of the market by relating it to the relevant level of the market with respect to the supply chain (i.e. retail vs. wholesale functional level).

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- 4.3. The '**relevant product market**' will consist of all products or services that are regarded to be sufficiently interchangeable or substitutable by the consumer, not only due to the characteristics, price, or intended use, but also due to the conditions of competition and/ or the structure of supply and demand on the market in question.
- 4.4. The '**relevant geographic market**' will comprise the area in which the undertakings concerned are involved in the supply and demand of products or services, in which the conditions of competition are sufficiently homogenous, and which can be distinguished from neighbouring areas in which the prevailing conditions of competition are appreciably different.
- 4.5. The principles utilised in determining the scope of the product and geographic markets are set out in Part 6 and Part 7 of these Guidelines.
- 4.6. In assessing whether an undertaking has SMP, and is therefore able to enjoy a position of economic strength affording it the power to behave to an appreciable extent, independently of its competitors, customers and ultimately consumers – the definition of what the relevant market is (i.e. the relevant product/geographic market), is of fundamental importance since effective competition can only be assessed by reference to the market defined.
- 4.7. Market summary statistics such as the number of undertakings in a market, and calculation of market shares⁵ can only be done *after* the market has been defined. When assessing the scope for new entry, it is necessary to identify the market in which entry might occur.
- 4.8. The Office shall assess whether competition is effective within each relevant market. If a relevant market is deemed to be effectively competitive, it is equivalent to a finding that no undertaking has SMP, either individually (single dominance) or jointly with other undertakings (collective dominance) within that relevant market.⁶

⁵ Calculating market shares provides meaningful information with which to assess market power for the purposes of determining dominance.

⁶ However, a finding that no undertaking has SMP *does not* necessarily mean that the market is effectively competitive. For example, oligopolistic markets are not necessarily characterised by collective dominance, but they are also not necessarily effectively competitive.

5. Principles of Market Definition

- 5.1. There are three main competitive constraints affecting an undertaking's behaviour in the market:
- Demand-side substitution
 - Supply-side substitution
 - Potential competition
- 5.2. Demand-side substitution and supply-side substitution are the main criteria used to inform the view on the existing competition within the appropriately defined market for a given product or service.
- 5.3. The Office will normally use the '*hypothetical monopolist test*' as one way of assessing demand and supply-side substitution. This test is implemented by way of determining whether consumers would switch to readily-available substitutes, or to suppliers located elsewhere in response to a hypothetical small but significant, non-transitory increase in price of a given product or service (hereafter, the '**SSNIP test**'). The Office will consider such reactions in the context of a non-transitory price increase of 5 to 10%.⁷
- 5.4. The non-transitory period for the SSNIP test shall be twelve months. The Office reserves the right, however, to adjust the time period for the SSNIP test to reflect economic and technological changes in any of the sectors for which it has responsibility.
- 5.5. In competition analysis, the relevant market will consist of the *narrowest* set of products (or services) for which a hypothetical monopolist would find that an increase in the price of the candidate product or service of between 5% to 10% would be profitable.

⁷ A concept applied, for example, by the European Commission in various cases (e.g. Case No IV/M.190 - Nestlé/Perrier) - <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A31992D0553>), and set out in the European Commission's *Notice on the definition of relevant market for the purposes of Community competition law (97/C 372/03)* - [http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31997Y1209\(01\)&from=EN](http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31997Y1209(01)&from=EN)

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- 5.6. From an economic perspective, in defining the relevant market, demand-side substitution represents the most immediate and effective disciplinary force on the supplier of a given product or service. The Office will therefore place significant importance on demand-side substitution when conducting a market definition exercise.
 - 5.7. The assessment of demand-side substitution considers price-elasticity of demand for the product or service, and entails identifying a range of products or services that consumers could easily switch to if there was a price increase in the candidate product or service.
 - 5.8. Demand-side substitution focuses on the interchangeability of products or services from the (marginal) consumer's point of view, i.e. those consumers who are likely to be affected if there is a price increase. However, a proper delineation of the product (or service) market may also require an assessment of potential supply-side substitution.
 - 5.9. There may be undertakings who are not currently active in the supply of a given product or service, but who may decide to start supplying the relevant product or service within a reasonably short time-frame in response to a price increase in the market. The potential supplier of the relevant product or service should not incur any additional significant costs when responding promptly to a price increase in the candidate product or service.
 - 5.10. Supply-side substitution is considered when its effects are equivalent to those of demand substitution in terms of being effective and immediate. However, firms unable to enter the market without having to incur significant additional costs, significant changes to existing tangible and intangible assets, strategic decisions, or time delays - will not normally be considered as being able to provide a supply-side substitute.
 - 5.11. Two products or services may not necessarily be direct substitutes to be included in the same market as there may be a chain of substitution between the two, from a demand-side and/or supply-side perspective, which could lead to defining a broader view of the market in which the relevant product or service is being offered.

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- 5.12. Responses by consumers or by the undertakings concerned will aid in identifying whether substitutable products exist, and where the boundaries of the relevant product (or service) market should be delineated.
- 5.13. If demand and/ or supply-side substitution would render an undertaking's price increase unprofitable due to the resulting loss of sales, additional substitutes and geographical areas would be successively included in the relevant market until the set of products (or services), within the relevant geographical area, is such that a small, permanent increase in relative prices would be profitable without inducing sufficient substitution.
- 5.14. The third competitive constraint is the existence of potential competition. The extent to which potential competition can represent an effective competitive constraint is dependent upon the conditions of entry into the relevant market, such as the level of sunk costs to be incurred (*exogenous* or *endogenous*, or both)⁸ - i.e. investment in facilities, machinery, research and development, and advertising, etc. Potential competition is examined at a later stage when the position of undertakings in the relevant market have been determined, and when such position gives rise to competition concerns such as whether an undertaking or a group of undertakings have SMP in the relevant market.

6. The Relevant Product Market

- 6.1. The relevant product (or service) market will consist of all products or services that are regarded to be sufficiently interchangeable or substitutable by the consumer, not only due to the characteristics, functionality and price of the product or service, but also due to the conditions of competition and/or the structure of supply and demand on the market in question.
- 6.2. The Office shall, in an initial screening, group together products and services that are used by consumers for the same purpose or end use. Products or services which are only to a small or relative degree interchangeable or substitutable, will not form part of the same market.

⁸ A major factor that can affect a potential competitor's decision to enter the market is the level of sunk costs (which cannot be recovered upon exit out of the market) associated with that entry.

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- 6.3. It is important to consider that although the end use of a product or service is closely related to the physical characteristics of the product or service, different kinds of products or services may be used for the same purpose.
- 6.4. Further, differences in the pricing models and offerings for a given product or service may result in forming different groups of consumers, for example: residential versus business customers.
- 6.5. It is not necessary that, in order for substitute products to be in the same market, they must be identical, nor must the prices of substitute products be identical.
- 6.6. Following from above, where necessary, the Office shall assess the prevailing conditions of demand and supply substitution by applying the SSNIP test (see paragraph 5.3 above).
- 6.7. There is a range of evidence used to assess the extent to which substitution would take place. Evidence relied on to define the relevant market in practice will, however, be determined on a case by case basis, and depend upon the characteristics of the industry and the product or service that is being examined. Evidence used in one case may be of no importance in another case.
- 6.8. In determining if two products are demand substitutes, and are therefore in the same relevant product market, a number of criteria and items of evidence will be taken into consideration, including the following:
- *Evidence of substitution in the recent past* - where in certain cases, it is possible to analyse evidence relating to recent past events or shocks in the market that offer examples of substitution between two products. This type of information, when available, will normally be deemed as fundamental in the market definition exercise.
 - *Patterns in price changes* - between two products may, for reasons not associated with costs or general price inflation, be consistent with, though not providing a direct proof of, the substitution between the two products;

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- *Quantitative tests* - designed for the purpose of delineating markets, consisting of various econometric and statistical approaches estimating own-price and cross-price elasticities for the demand of a product⁹;
 - *Views of customers and competitors* – the Office will in some circumstances, contact the main customers and competitors of the undertaking or undertakings involved in the enquiry, and gather views on the scope of the product market as well as most of the factual information it would require to determine the boundaries of the market. When sufficiently backed by factual evidence, answers of customers and competitors as to their potential reactions if relative prices for the candidate product or service were to increase by 5 to 10%, are taken into account;
 - *Barriers and costs associated with switching demand to potential substitutes* - that might prevent two *prima facie* demand substitutes from belonging to one single product market, including but not limited to:
 - Regulatory / legal barriers;
 - Constraints arising in downstream markets;
 - The need to incur specific capital investment or loss in current output, in order to switch to alternative inputs;
 - Location of customers;
 - Specific investment in production processes;
 - Human capital investment;
 - Retooling costs or other investments;
 - Risk uncertainty about an unknown supplier's quality and reputation.
 - *Evidence on product characteristics* - where substitution patterns might be influenced significantly by those characteristics; and
 - *Different customer groups and price discrimination* - the relevant product market might be narrowed in the presence of distinct groups of customers,

⁹ The Office, where appropriate, will take into account available quantitative evidence capable of withstanding rigorous scrutiny for purposes of establishing substitution in the past.

and a distinct group of customers for the relevant market may constitute a narrower, distinct market when the group is subject to price discrimination.

- 6.9. The above list of criteria and items of evidence is non-exhaustive and the Office reserves the right to consider any other relevant criteria or items of evidence.
- 6.10. Once the relevant product (or service) market is defined, the geographic market will be defined in order to properly assess the conditions of effective competition within.

7. The Relevant Geographic Market

- 7.1. The relevant geographic market is the area in which the undertaking/s concerned, is/are involved in the supply and demand of products or services, and in which the conditions of competition are sufficiently homogenous and can be distinguished from neighbouring areas where the conditions of competition are appreciably different.
- 7.2. It is important to note that the definition of the geographic market does not require the conditions of competition between traders or providers of services to be perfectly homogenous.¹⁰
- 7.3. The approach to defining the limits of the geographic market will be similar to those discussed for the product market in Part 6 of these Guidelines, in relation to the assessment of demand and supply-side substitution – in response to a relative price increase.
- 7.4. In reaching a conclusion as to the geographic market, a number of criteria and items of evidence will be taken into consideration, including:
- *Past evidence of diversion of orders to other areas* – may be available, such as evidence on changes in prices between different areas and the consequent reactions by customers;

¹⁰ See for example the considerations set out in the *European Commission guidelines on the market analysis and the assessment of significant market power under the community regulatory framework for electronic communications networks and services*, [http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52002XC0711\(02\)&from=EN](http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52002XC0711(02)&from=EN)

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- *Basic demand characteristics* – factors such as national preferences, preferences for national brands, language and culture, and the need for a local presence, have strong potential to limit the geographical scope of competition;
 - *Views of customers and competitors* – the Office will in some circumstances, contact the main customers and competitors of the undertaking or undertakings involved in the enquiry, and gather views on the scope of the geographic market as well as most of the factual information it would require to determine the boundaries of the market when sufficiently backed by factual evidence;
 - *Examining the customers' current geographic pattern of purchases* - would provide evidence as to the possible scope of the geographic market; and,
 - *Barriers and costs associated with diverting orders to companies located in other areas*, including but not limited to:
 - Regulatory / legal barriers;
 - Access to distribution in a given area;
 - Quotas / custom tariffs, that prevent effective competitive pressure from undertakings located outside the geographic area;
 - Significant switching costs in procuring supplies from suppliers in other countries.

7.5. The above list of criteria and items of evidence is non-exhaustive and the Office reserves the right to consider any other relevant criteria or items of evidence.

7.6. The non-exhaustive list of different factors that may be considered in defining the relevant market, as set out in Part 6 and Part 7 of these Guidelines, does not imply that every case requires obtaining evidence and assessing each of the factors. In practice, evidence provided by a subset of these factors will be sufficient to reach a conclusion.

Assessing Significant Market Power

8. Determining Significant Market Power (Dominance)¹¹

- 8.1. Having defined the relevant market for a given product or service, the Office will assess whether there is effective competition in that market, in order to determine whether to impose, maintain, amend or withdraw obligations on an undertaking that is deemed to have SMP.
- 8.2. As referenced in paragraph 2.3, an undertaking will be deemed to have SMP if, either individually or collectively with other undertakings in the relevant market, 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.
- 8.3. An undertaking with SMP in a relevant market, may also be deemed to have SMP on a closely related market, where the links between the two markets are such as to allow the market power held in one market to be leveraged into the other market, thereby strengthening the market power of the undertaking in both markets.¹²
- 8.4. Insofar as there is an undertaking or a group of undertakings with SMP, the disciplinary effect from competitors, countervailing buyer power, or consumers, would not be sufficiently effective, thus allowing the undertaking or group of undertakings to behave independently (in terms of setting prices, quality, quantities, etc.) of forces that would otherwise prevail under effectively competitive conditions.¹³
- 8.5. Parts 9 and 10 below list the type of evidence and criteria that may be used to support a finding of dominance. The criteria are not cumulative, and a finding of

¹¹ For the purposes of these Guidelines, the Office will consider “*dominance*” in a market and “*having SMP*” in that market to mean the same thing. Ref. s 70(3) of the URC Law.

¹² Article 14 (3), Directive 2002/21/EC of the European Parliament and of the Council, ‘*Framework Directive*,’ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32002L0021&from=en>

¹³ The Office will take into account expected or foreseeable market developments.

dominance can be derived from any combination of the criteria, which taken separately may not be sufficient to determine whether or not there is SMP.

- 8.6. Flexibility in applying criteria is necessary between markets. Criteria used and weightings applied may differ. Though not all criteria may be relevant in each *ex ante* market review or *ex post* competition assessment, the Office will give the reasoning as to why it has used a particular set of criteria in a specific *ex ante* market review or *ex post* competition assessment.
- 8.7. The relative importance of criteria used throughout the course of an *ex ante* market review or *ex post* competition assessment may change as evidence emerges.

9. Criteria for the Assessment of Single Dominance

- 9.1. An overall analysis of the economic characteristics and structure of the relevant market is necessary before coming to a conclusion on the existence of SMP.
- 9.2. The Office shall designate an undertaking as having SMP in a relevant market, if the Office determines that the undertaking enjoys a position of economic strength affording it the power to behave to an appreciable extent, independently of its competitors, customers, and consumers.
- 9.3. Single dominance concerns normally arise in the case of undertakings with market shares of over 40%.¹⁴ In some cases, concerns about dominance may occur without the existence of a large market share. However, a position of dominance cannot be established by *solely* considering market shares. Thus, the Office will use a range of evidence in determining if an undertaking is effectively dominant.
- 9.4. The main criteria used for the finding of single dominance may include:

¹⁴ Undertakings with market shares of no more than 25% are not likely to enjoy a (single) dominant position on the market concerned - European Commission, *Commission guidelines on the market analysis and the assessment of significant market power under the community regulatory framework for electronic communications networks and services*, [http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52002XC0711\(02\)&from=EN](http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52002XC0711(02)&from=EN)

- Market share;
- Overall size of the undertaking involved;
- Excessive pricing / profitability;
- Control of infrastructure and essential facilities that are not easily duplicated;
- Technology advantages/ superiority;
- Low, or non-existent countervailing buyer power;
- Access to capital markets and financial resources available;
- Product or service diversification – tying and bundling products or services;
- Lack of competition in non-price factors;
- A customer’s ability to access information on prices and other aspects of the product or service;
- Economies of scale;
- Economies of scope;
- Vertical integration;
- Well-developed distribution and sales networks;
- Lack of potential competition (within the time-frame under review);
- Barriers to switching;
- Barriers to expansion; and
- Barriers to entry.

9.5. The criteria listed are not exhaustive, but merely represent the main criteria against which market power may be assessed. Therefore, other criteria not listed above may also be considered when assessing competition.

10. Criteria for the Assessment of Collective Dominance

10.1. Two or more undertakings can be found to be in a joint/collective dominant position if, even in the absence of structural or other links between them, they operate in a market, the structure of which is considered to be conducive to coordinated effects – that is, it encourages parallel or aligned anti-competitive behaviour on the market.¹⁵

¹⁵ Directive 2002/21/EC of the European Parliament and of the Council, ‘*Framework Directive*’ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32002L0021&from=en>

10.2. The criteria for assessment of single dominance are also relevant in the assessment of collective dominance.

10.3. The main criteria used for the finding of collective dominance may include:

- Degree of market concentration (see paragraph 10.4 below);
- Excessive pricing / profitability;
- Maturity of the market;
- Stagnant or moderate growth on the demand-side;
- Low elasticity of demand;
- Homogenous products;
- Similarity in cost structures;
- Similarity in market shares;
- Lack of technical innovation / mature technology;
- Absence of excess capacity;
- High barriers to entry;
- Barriers to switching;
- A customer's ability to access information on prices and other aspects of the product or service;
- Low, or non-existent countervailing buyer power;
- Various kinds of informal or other links between the undertakings concerned;
- Transparency (for example, via a hub-and-spoke cartel);
- Retaliatory mechanisms to punish undertakings who may deviate from the collusive agreement;
- Lack of, or the reduced scope for price competition; and
- Lack of competition in non-price factors.

10.4. When assessing market concentration, the Office shall have regard to the *thresholds of market concentration* as represented by the Herfindahl-Hirschman Index¹⁶ (the '**HHI**'). The following parameters will be used to gauge the degree of market concentration:

- If HHI is *less* than 1,000 – market is considered to be un-concentrated;

¹⁶ The HHI is the sum of the squared market shares of all firms in a market. The HHI must lie between zero (an infinite number of firms in the market, each with essentially zero market share) and 10,000 (a monopolist).

- If HHI is between 1,000 and 1,800 – market is considered to be moderately concentrated; and,
- If HHI *greater* than 1,800 – market is considered to be highly concentrated.

10.5. The criteria listed are not exhaustive, but merely represent the main criteria against which market power may be assessed. Therefore, other criteria not listed above may also be considered when assessing competition.

Addressing Significant Market Power

11. Determining Remedies

11.1. These Guidelines address the analysis of relevant markets that the Office must carry out to determine whether a market is effectively competitive, i.e. whether there are sectoral providers in that market who have SMP or are in a dominant position. Following this analysis, the Office must determine the action it should take, i.e. the imposition, maintenance, amendment or withdrawal, as appropriate, of specific regulatory obligations on sectoral providers designated as having SMP (or dominance).

11.2. The specific regulatory obligations which may be imposed on sectoral providers with SMP, will not be addressed in detail in these Guidelines. In brief, **section 45(3)** of the URC Law provides that sectoral providers with SMP shall:

- not unduly discriminate against particular persons or a particular description of persons in relation to utility services offered by them;
- provide technical specifications, or other relevant information about any interconnection, essential facilities or other mandated wholesale services on a reasonable and timely basis, when the information is required by another sectoral provider to provide its licensable services and when the information is not readily available from other sources; and
- not adopt technical specifications for a network that prevents interconnection or interoperability with a network or facility of a competitor.

11.3. In addition, **section 45(1)** authorises the Office to apply other specific regulatory obligations on sectoral providers determined to have SMP in the relevant markets, including obligations relating to –

- cost recovery and price controls, including obligations for cost orientation of prices and obligations concerning cost accounting systems;
- the publication of a reference offer ensuring equivalence of access or interconnection to any of those services or facilities in which the sectoral provider has significant market power at tariffs based on an efficient sectoral provider's costs;
- the submission of regulatory accounts or financial statements separating out the key business activities of the sectoral provider;
- retail prices;
- sharing of infrastructure, facilities and systems used for the provision of ICT services as defined in section 2 of the Information and Communications Technology Authority Law (2016 Revision);
- technical compatibility of and access to conditional access systems used in the provision of content;
- offering services to the businesses which comprise the sectoral providers and their parent companies on a non-discriminatory, commercial basis;
- provision of standard terms of business, which should be published and accessible to customers;
- provision of service level guarantees with associated compensation payment to retail customers; and
- such other obligations as the Office may consider necessary in pursuance of the electronic communications policy objectives and the sector policy.

11.4. Whether the Office will impose, amend or withdraw (as the case may be) any of these obligations, will depend upon the specific facts of each case, in particular upon an assessment of what might be necessary to remedy a particular problem in a market found not to be effectively competitive. This assessment will include an assessment of whether the specific regulatory obligations are justified and proportionate to the objectives of the particular situation, and in other words, are the minimum necessary to achieve them.

Glossary of Key Terms

Barriers to entry – barriers to entry are important in the assessment of *potential competition*. Barriers to entry are factors that allow an undertaking to profitably sustain prices above the competitive level in the long term, without necessarily being more efficient than a potential competitor. It is more likely that an undertaking with a large share of the relevant market will be able to exercise its market power if there are high barriers to entry. Barriers to entry can be, for example, absolute barriers – such as exclusive rights to a resource or access to an essential facility; or strategic incumbent advantages (first mover advantage) – due to the timing of entry relative to competitors. A major factor that can affect new entry are high sunk costs. Other factors may include large economies of scale, investments in excess capacity (allowing an undertaking to oversupply the market in response to potential competition), intellectual property rights and patents, access to scarce resources, foreclosure of competition, vertically integrating or entering into exclusivity agreements, consumer switching costs, and possible predatory behaviour by the undertaking.

Barriers to expansion and entry – barriers to expansion relate to the *existing competition* amongst undertakings already within a market. Competition between existing firms can have the most influence on competitive outcomes. Barriers to expansion may exist when undertakings in the relevant market are unable to quickly respond to any attempts by another undertaking to increase its price. Undertakings unable to quickly and cheaply expand their own output and sales without incurring significant sunk costs – are said to face a barrier(s) to expansion. Undertakings that are able to quickly expand their output in response to another undertaking's price increase, would render the price increase unprofitable and provide an effective competitive constraint on an undertaking who attempts to exercise its market power. Barriers to entry, which relate to the *potential competition*, are closely related to barriers to expansion, and are therefore analysed in a similar manner.

Barriers to switching – barriers to switching can refer to the extent to which costs associated with diverting demand to suppliers located in other areas, may prevent similar products or services from being considered as effective substitutes. There may also be costs associated with switching from one supplier to another, within the same geographic area.

Chains of substitution – a chain of substitution may lead to the definition of a relevant market where products (or services) or areas at the extreme of the market are not directly substitutable. Chains of substitution have to be corroborated by actual evidence, such as price interdependence at the extremes of the chains of substitution, to lead to an extension of the relevant market in an individual case.

Countervailing buyer power – where a buyer has alternative suppliers to switch to when an undertaking attempts to raise its price, this will prevent an undertaking from doing so profitably and exercising its market power. The buyer in this instance would use its countervailing buyer power by its ability to switch in full, or by reducing its orders from the undertaking attempting to raise its price. For countervailing buyer power to effectively constrain an undertaking's ability to exercise its market power – the threat to switch must be credible, i.e. the alternative source(s) of supply must be able to accommodate the increase in demand. A large buyer for example, can also sponsor new entry, or vertically integrate upstream and effectively become a new entrant itself, competing in the supply market.

Demand-side substitution – demand-side substitution focuses on the interchangeability of products or services from the (marginal) consumer's point of view, i.e. those consumers who are likely to be affected if there is a price increase.

Differentiated products or services (product differentiation) – in most industries products are not *homogenous* and are differentiated from one another – there may be intrinsic quality differences or perceived quality differences. The extent to which consumers would switch from a product or service following a relative price increase would depend upon the degree of product differentiation. From an economic perspective, there is horizontal product differentiation which relates to differences in preferences of consumers, whilst vertical differentiation considers differences in quality. When there are differentiated products or services, an increase in the price does not necessarily lead to a significant fall in demand. The elasticity of demand facing a particular undertaking would be low.

Dominance – a position of economic strength enjoyed by an undertaking, either individually or jointly with others, which enables it to behave to an appreciable extent independently of its competitors, customers, and ultimately consumers. The legal concept of dominance is equivalent to the economic concept of significant market power (see definition of '*Significant market power*').

Economies of scale – when the unit cost of producing a product falls as the total quantity produced increases. Large economies of scale can act as a barrier to entry affecting the potential for new entry, as well as an advantage over existing competitors.

Economies of scope – when the unit cost of producing a product falls because two or more different products are produced jointly. Economies of scope can act to deter new entry where a new entrant would have to enter into more than one market simultaneously in order to be able to compete effectively. Economies of scope can also encourage bundling of products or services in a manner which would impede competition.

Essential facilities – an essential facility is an input that all players require access to in order to operate in the relevant market, and which is not easily duplicated.

Excessive pricing – setting the price of a relevant product or service that is excessive in relation to the relevant costs of supply of the relevant product or service.

Endogenous sunk costs – refers to variable cost investments such as R&D and advertising outlays that undertakings make in order to increase the perceived quality of their products or services.

Exogenous sunk costs – refers to the fixed investment an undertaking has to incur in order to endow itself with the facilities and machinery (and more generally, technology) it will need to produce and distribute the product or service. Such an investment is not a choice variable for undertakings operating in the industry.

Herfindahl-Hirschman Index (*HHI*) – the sum of the squared market shares of all firms in a market. The HHI must lie between zero (an infinite number of firms in the market, each with essentially zero market share) and 10,000 (a monopolist). The HHI reflects the size, distribution and number of firms within the market. A market would be considered *un-concentrated* if the HHI is less than 1,000; *moderately concentrated* if the HHI is between 1,000 and 1,800; and, *highly concentrated* if the HHI is greater than 1,800.

Homogenous products or services - products that are homogenous are identical. If an undertaking increases the price of its product or service – consumers would switch

to other suppliers since all products are identical. The elasticity of demand facing a particular undertaking would be high.

Hypothetical Monopolist Test ('SSNIP test') – the SSNIP test is a standard conceptual approach used to identify demand-side and supply-side factors that constrain the pricing behaviour of a 'hypothetical monopolist'. This test is implemented by way of determining whether consumers would switch to readily-available substitutes, or to suppliers located elsewhere in response to a hypothetical *small* (in the range of 5% to 10%) *but significant, non-transitory increase in price* of a given product or service. If the price rise is unprofitable (due to the resulting loss of sales), additional products or services and geographical areas should be included in the relevant market until a small but significant, non-transitory increase in relative prices would be profitable.

Market concentration – market concentration is a function of the number of undertakings in a market, and their respective market share. Consideration will be given to the HHI when evaluating market concentration.

Market share – refers to an undertaking's share of a relevant market. A market share may be calculated on a value or volume measure. The most appropriate measure will be dependent upon the characteristics of the relevant market.

Mature market – new entry is harder in a mature market where the entrant will find it difficult to attract new customers. Competition is primarily amongst undertakings already operating within the market, and there might be an incentive to collude.

Potential competition – the prospect of new undertakings entering the market within the time period under review.

Price elasticity of demand – the price elasticity of demand measures the change in demand for a product when there is a change in its own price. If the result of a price increase is to induce substitution, the demand for that product is said to be relatively *elastic*. However, if a price increase does not result in shifts in demand to other products – demand for that product is said to be relatively *inelastic*. An undertaking is limited in its ability to exercise its market power if it is selling a product that is relatively elastic (i.e., a homogenous product, or a product that is sufficiently substitutable). In markets with differentiated products however, a price increase would not necessarily

lead to significant shifts in demand and therefore the residual demand curve facing an undertaking is likely to be relatively inelastic.

Relevant geographic market - comprises the area in which the undertakings concerned are involved in the supply and demand of products or services, in which the conditions of competition are sufficiently homogenous, and which can be distinguished from neighbouring areas in which the prevailing conditions of competition are appreciably different.

Relevant market – a relevant market has two dimensions: the product market and a geographic market.

Relevant product market - consists of all products or services that are regarded to be sufficiently interchangeable or substitutable by the consumer (thereby providing an effective competitive constraint on the candidate product or service), not only due to the characteristics, price, or intended use, but also due to the conditions of competition and/ or the structure of supply and demand on the market in question.

Retaliatory mechanisms – retaliatory mechanisms can be used by undertakings in a collective agreement, to punish other undertakings who deviate. The punishment must be credible in order to deter ‘cheating’ by an undertaking.

Significant market power – a position of economic strength enjoyed by an undertaking, either individually or jointly with others, which enables it to behave to an appreciable extent independently of its competitors, customers, and ultimately consumers. The economic concept of significant market power is equivalent to the legal concept of dominance.

Similar cost structures – it is easier for undertakings to collude where they have similar cost structures, production capacity or range of products.

Sunk costs – costs associated with new entry, which cannot be recovered upon exit out of the market. Sunk costs can be exogenous, endogenous, or both. See above for ‘*endogenous sunk costs*’ and ‘*exogenous sunk costs*’. An existing undertaking can strategically utilise their investments in exogenous and endogenous sunk costs to create, enhance, and protect entry barriers, thus deterring entry by a potential competitor.

Supply-side substitution – the existence of a prospective competitor that can quickly enter the relevant market. Several conditions should be fulfilled for supply substitutability to widen the relevant market, for example – a prospective competitor must be able to switch to producing the relevant product or service without incurring significant sunk costs, significant changes to existing tangible and intangible assets, strategic decisions, or time delays. Any barriers to entry must be surmountable in a rapid and relatively feasible manner.

Various kinds of informal links between the undertakings concerned – evidence of such links will inform an assessment of the potential for collusion. Such evidence is not necessarily a pre-requisite for a finding of collective dominance.

Vertical integration – vertical integration occurs when an undertaking operates in both the upstream and downstream segments of the market.