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1. 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 electricity, information and communications technology (‘ICT’), water, wastewater and fuels sectors in the Cayman Islands.¹ The Office also regulates the use of the 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.


4. Clean Gas Ltd. (‘Clean Gas’) submitted comments on 2 May 2017. Digicel Cayman Limited (‘Digicel’), Cable and Wireless (Cayman Islands) Limited doing business as Flow (‘Flow’), and WestTel Limited doing business as Logic (‘Logic’) submitted comments on 1 June 2017.³

¹ The legislation giving the Office jurisdiction in the water, wastewater and fuels sectors came into force on 22 May 2017.


5. On 9 June 2017, the Office invited the parties to submit reply comments to the responses filed.\(^4\) Clean Gas, on 22 June 2017, submitted that it did not have a cross response, while Digicel and Flow submitted their reply comments on 23 June 2017.\(^5\)

2. Legal Framework

6. **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.

7. **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.

8. **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’).

9. **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).

10. 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,

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• the sectoral provider’s experience in providing products to the market, and
• any other criteria considered relevant by the Office.

11. 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).

12. Part 12 of the URC Law (sections 65 to 83) applies to, among other things, abuse of a dominant position relating to covered services.

13. 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.

14. Finally, section 70(3) deems a sectoral provider with a dominant position to have SMP.

15. Therefore, the draft Guidelines attached to OF 2017 – 2 – Consultation set out the Office’s proposed general criteria for:

• defining relevant markets in respective sectors, and
• assessing market power.

16. 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”.

17. In OF 2017 – 2 – Consultation, therefore, the Office considered an undertaking to be a person engaged in economic activity in a sectoral utility. The Office considered sectoral providers to be a type of undertaking and references in the draft Guidelines to the term “undertaking” were to be taken to mean “sectoral provider” unless the context required otherwise.
18. Where two or more separate persons form a single economic entity, the Office noted it may consider them to be a single undertaking. The Office would assess this on a case-by-case basis.

3. Responses to OF 2017 – 2 – Consultation

19. The Office received comments from Clean Gas, Digicel, Flow and Logic in response to OF 2017 – 2 – Consultation.  

20. Logic did not provide specific comments on the draft Guidelines but instead submitted a number of general observations. Logic noted that it understood the Guidelines to be a prelude to multiple consultations to determine whether there is SMP in a market, the need for remedies, and the implementation of those remedies. Logic further noted that ICT industries are constantly evolving and that it is difficult to apply static regulatory rules in such a dynamic environment.

21. Logic expressed concern that the regulatory regime was demanding an increasing amount of resources from all industry players, resources which would otherwise be put into actual ICT operations, and that the draft Guidelines also suggested “an increasingly complex set of rules in a market that has previously thrived under a light touch regulatory approach,” which is introducing uncertainty into investment decision-making, and making it unclear whether the company would reap the benefits of its investments.

22. Logic stated that it was reluctant to support ex ante remedies as, in its experience, ex ante regulatory regimes tend to protect competitors who are not willing to invest in their own facilities. Logic submitted that “a lighter touch approach that is empowered by a strong commitment to ex post enforcement of competition rules is the right solution for the evolving ICT industry in the Cayman Islands.”

23. The other respondents addressed each of the Office’s questions in turn.

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7 Logic comments, at page 2.

8 Logic comments, at page 2.
3.1 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.

24. Clean Gas did not disagree but noted that a true understanding of the market would require significant polling, without which OfReg’s assumptions would be subjective.

25. Digicel submitted that the Guidelines could generally be applied equally to both *ex ante* and *ex post* forms of regulatory intervention, but submitted that *ex ante* market reviews were not appropriate for the electronic communications market in the Cayman Islands at this time.

26. In Digicel’s view, *ex ante* regulation is usually associated with economies which are actively promoting market entry by infrastructure-based providers, and there is no realistic prospect of such market entry to warrant this degree of regulation at this time. Digicel submitted that an *ex post* approach would be sufficient to address any market failures or anti-competitive harms and would allow limited regulatory resources to be focused on activities which increase the levels of access to services in the country.

27. In the event the Office was minded to include the *ex ante* provisions, Digicel recommended that any remedies or obligations be imposed only on a designated operator and only to the extent required. Digicel also recommended that, where *ex ante* remedies are imposed, the market and the remedies should be reviewed no longer than every three years. This is necessary, in Digicel’s view, “to ensure that regulated entities are not subject to un-necessary and potentially market distorting regulation.”

28. Flow agreed that the proposed principles were relevant to both *ex ante* SMP assessments and *ex post* evaluations of alleged anti-competitive conduct. Flow also agreed that SMP assessments must take a forward-looking view of the relevant market.

29. However, Flow disagreed that *ex post* evaluations of alleged anti-competitive conduct are retrospective in nature. In its view, both *ex ante* assessments and *ex post* evaluations “are fundamentally informed by a

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9 Digicel comments, at page 2.
market’s future prospects\footnote{Flow comments, at page 1.} \cite{flow} [emphasis in original]. Flow submitted that a strategy which is intended to exclude competition but which does not have a reasonable certainty of achieving both actual exclusion of competition and forestalling re-entry for the foreseeable future, is not anti-competitive or harmful to consumers, and is pro-competition and pro-consumer.

### 3.2 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.

30. Clean Gas submitted that this was “the only way to fully understand the true dynamics of an industries market or potential market”\footnote{Clean Gas comments, at page 1.} but expressed concern that this would require significant resources.

31. Digicel agreed that a market definition exercise is a necessary first step in any ex ante market review or ex post intervention, and that a market definition exercise must consider both demand and supply side substitution and potential competition in relation to both the product and geographic dimensions.

32. However, Digicel noted that market definition was not an end in itself, but a key step in identifying competitive constraints. As a result, the company submitted that an approach which considers the full range of economic substitutes would be more useful than a narrow approach requiring all products in the relevant market to be substitutes for each other.

33. Digicel further submitted that market definition is an empirical and not a theoretical exercise which depends not just on the empirical magnitude of substitution but also on the precise level of the marginal costs of the product in question. Digicel noted that it is not necessary for all customers to be able and willing to switch from one product to another for both products to be in the same market, as long as the number of customers who are ready to switch is sufficiently large to render a price rise unprofitable. In regulated ICT industries with uniform prices, Digicel submitted, the fact that the vast majority of customers might not switch in response to a price increase does not mean the supplier has market
power, if the minority of persons who would switch would cause the supplier's revenues to fall to the point of unprofitability.

34. Digicel submitted that the Office should be open to considering factors in addition to geographic and product considerations, and should recognise as many as possible in the Guidelines. One such factor, in its view, is the time of service delivery.

35. Digicel noted that it was not clear how relevant the geographic dimensions of the market might be, in light of the relative size of the Cayman Islands. Digicel submitted that, for a SSNIP test to be accurate, identification of the product and geographic markets should be applied at the same time and not be two separate determinations.

36. Flow agreed with the proposed analytical framework for evaluating demand-side substitution. Flow submitted that “[a]ll that is necessary to achieve demand-side substitution is that services be reasonably interchangeable in use,”¹² not perfect substitutes or identical services. Flow further submitted that it is the marginal consumer that is relevant.

37. Flow also agreed with the proposed analytical framework for evaluating potential competition and supply-side substitution. However, Flow considered that further elaboration or guidance on these principles in the Guidelines was warranted as they are central to an analysis of competition in telecommunications markets. Flow submitted that the assessment of barriers to entry or expansion was particularly important as when barriers to entry and expansion are low, “markets are often thought to be effectively competitive even if there is little observable competitive activity.”¹³ Flow then added that “[m]arkets can be highly competitive even if entry barriers are substantial”¹⁴ [emphasis in original] and that an examination of barriers to entry alone are not generally dispositive of whether effective competition exists.

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¹² Flow comments, at page 2.
¹³ Flow comments, at page 4.
¹⁴ Ibid.
3.3 Question 3

In particular, do you agree with the proposal to use the SSNIP\textsuperscript{15} 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.

38. Clean Gas did not comment directly on the proposal to use the SSNIP test, but noted that any attempt to forecast what might be a profitable move in price for a product without an intimate working knowledge of the businesses that make up the industry would be purely subjective.

39. Digicel generally agreed that the SSNIP test should be used to assess demand-side and supply-side substitution. Digicel noted, however, that the SSNIP test does not necessarily lead to a unique solution as in practice the next closest substitute is not always obvious. Digicel also noted that how the test is applied may differ depending upon whether an \textit{ex ante} or \textit{ex post} investigation is being undertaken.

40. Digicel further noted that OTT\textsuperscript{16} services were functional substitutes to traditional licensed voice and messaging services. Because a number of these might not be licensable, Digicel recommended that the Guidelines explicitly set out that a relevant economic market may include both licensed and unlicensed services.

41. Flow agreed with the proposal to use the SSNIP test as a framework to evaluate substitution when defining the relevant market. Flow submitted, though, that a highly quantitative application of the SSNIP test was not practical or achievable in this context. Flow recommended the focus be instead on determining whether two services are reasonably interchangeable in function and use, which it suggested was “\textit{a pragmatic approach that is consistent with the SSNIP test and how we believe the Office is proposing to implement the SSNIP test}.”\textsuperscript{17}

\textsuperscript{15}“Small but Significant, Non-transitory Increase in Price.”

\textsuperscript{16}“Over-the-Top”.

\textsuperscript{17}Flow comments, at page 4.
3.4 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.

42. Clean Gas noted that there was no method to ensure all players get an equal stake of a market. Clean Gas further noted that, if everyone was playing by the same rules, the market would divide itself based upon the ability of each player’s ability.

43. Digicel submitted that, while the draft Guidelines recognise that a determination of dominance cannot be made by considering market share alone, the proposal appeared to place undue emphasis on market share relative to the other factors listed. Digicel considered that greater emphasis needed to be placed on the assessment of barriers to entry and expansion, as these are central to many competition issues and the lack of these would thwart any attempts to abuse market power.

44. Flow agreed with the proposed criteria for determining Single Dominance. However, Flow expressed concerns regarding the statement that “concerns about dominance may occur without the existence of a large market share.” Flow submitted that high market share is consistent with market power but not, by itself, sufficient evidence to conclude the presence of market power. Flow submitted that, conversely, low market share is a sufficient indicator of lack of market power and a lack of necessity for further analysis, and requested that the Office clarify its statement and identify the circumstances in which a firm with low market share may prompt concerns about dominance.

3.5 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.

45. Clean Gas reiterated its previous comment that sufficient resources would be required “to develop and manage the processes to achieve the desired

18 Draft Guidelines, paragraph 9.3.
results." Clean Gas further noted that making a determination on collective dominance in a small market is difficult.

46. Digicel submitted that it was not clear from the consultation document whether an assessment of joint dominance would depend on the existence of at least tacit collusion between or among the market players. In Digicel’s view, the collective exercise of market power must be as the result of explicit or tacit collusion.

47. Flow noted it had no objections to, or questions or comments on, the proposed criteria for determining Collective Dominance.

3.6 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.

48. Clean Gas agreed but noted that, in a small market, the sampling could be skewed and lead to misleading results.

49. Digicel generally agreed with the proposal to use HHI to assess market concentration. However, Digicel submitted that HHI does not provide a full picture of the competitive situation and that alternative methodologies such as a “Competitive Benchmark approach” may yield more reliable assessments of market conditions, and that the Guidelines should, therefore, not limit consideration of market structures to HHI.

50. Flow noted it had no objections to, or questions or comments on, the proposed use of HHI to gauge the degree of market concentration.

3.7 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.

51. Clean Gas noted that regulation is needed to ensure a market develops fairly, but expressed concern that too much regulation in a small market

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19 Clean Gas comments, at page 2.

20 “Herfindahl-Hirschman Index.”
can stifle business, prohibit free market growth, and lead to a monopolistic environment.

52. Digicel submitted that, even though the Guidelines provide for defining markets for the purposes of determining SMP, they are more appropriately applied to the ex post investigation and determination of anti-competitive conduct. Digicel further submitted that, even though the Guidelines are not binding, they should be followed in order to provide the required degree of transparency in the Office’s decision making. If there is a need to depart from the Guidelines, in Digicel’s view a further consultation process should be undertaken.

53. Digicel noted that the Guidelines will apply to sectoral providers generally, not just authorisation holders. Digicel submitted that any market definitions and SMP assessments conducted in accordance with the Guidelines must necessarily take into consideration the impact of unregulated OTT service providers. Ignoring these providers, Digicel submitted, “would certainly result in an artificial outcome.”

54. Digicel further submitted that each stage of the process described in the draft Guidelines, namely, the definition of markets, the determination of ex ante significant market power or ex post anti-competitive conduct or approval of a merger, and the imposition of remedies, is an “administrative determination of public significance,” and should be subject to a separate consultation process.

55. Flow noted it had no other views or comments on the draft Guidelines other than those expressed above.

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21 Digicel comments, at page 7.
4. Reply Comments

56. Digicel and Flow responded to the Office’s invitation to submit reply comments in response to the submissions filed by the parties.

57. Clean Gas noted that it did not have a cross response.

58. Digicel reiterated a number of points which it considered were supported by the comments made by the other operators. Digicel submitted that an ex ante approach was not suitable for the Cayman Islands at this time and that the Office should only consider ex post remedies or obligations imposed on a designated operator and only to the extent required to deal with the specific and identified market failure.

59. Digicel considered that more emphasis should be placed on the assessment of barriers to entry and expansion than on market share in determinations of dominance. Digicel also considered that the Office should not reserve the right to change various aspects of the Guidelines upon mere notice or to consider any other criteria or items of evidence for which provision is not made in the Guidelines. Rather, the Office should issue a consultation process to consider a need to depart from the Guidelines in any material respect, and the Guidelines should include a measure as to what would make additional criteria "relevant".

60. Digicel also submitted that market definitions and SMP assessments must necessarily take into consideration the impact of unregulated OTT service providers and the public demand for such services, and that every stage of the process set out in the consultation document – market definition, the conclusion of determinations or the imposition of remedies or conditions – should be subject to a separate consultation process.

61. Flow stated that it was "in fundamental agreement with Digicel and Logic" on many concerns with the draft Guidelines, noting the difficulty of applying static regulatory rules to a dynamic and changing industry such as ICT and expressing concern regarding "regulatory overreach." ²²

62. Flow agreed with Digicel and Logic that an ex ante intervention is unnecessary and inappropriate and that "if intervention is to occur, it should only occur on an ex post basis." ²³ Flow also agreed with Digicel regarding how to evaluate competitive substitutes, and the importance of

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²² Flow reply comments, at page 1.

²³ Ibid.
consumer behaviour on the margins and shared Digicel’s concern regarding the relevance of geographic market considerations in the Guidelines, particularly where licence conditions require countrywide network deployment and availability.

63. Flow also agreed with Digicel’s observation that the Guidelines should explicitly acknowledge and articulate the role that OTT services can play in a competition investigation.

5. The Office’s Analysis of Responses to OF 2017 – 2 – Consultation

64. As noted in the **OF 2017 – 2 – Consultation**, the 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. The Guidelines are meant to assist sectoral providers and other interested parties.

65. The Office notes Logic’s comment that ICT industries are constantly evolving and that it is difficult to apply static regulatory rules in such a dynamic environment. The Office considers that the Guidelines are *not* regulatory rules, but rather they are the guiding principles established by the Office relating to the definition of relevant markets in the respective sectors, and against which market power may be assessed for the purposes of determining whether a sectoral provider has SMP in a relevant market. The Office notes that any relevant dynamic aspects of the industry will be reflected in the market definition, as well as in the assessment of competition in the relevant markets, in accordance with the principles established in the Guidelines.\(^{24}\)

66. Logic stated its concerns that the draft Guidelines suggested “*an increasingly complex set of rules in a market that has previously thrived under a light touch regulatory approach.*”\(^{25}\) The Office reiterates its comments above that the Guidelines do not promote any specific regulatory approach, but rather they inform the stakeholders on how the Office will define the relevant markets and assess competition in those markets for the purposes of an *ex ante* market review or an *ex post* competition assessment. The Office reminds the stakeholders that **section 44 (2)** of the URC Law requires the Office to “*establish and

\(^{24}\) See paragraph 3.4 of the Guidelines.

\(^{25}\) Logic comments, at page 2.
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.

67. Regarding Flow’s submission that an ex ante intervention is unnecessary and inappropriate and that “[i]f intervention is to occur, it should only occur on an ex post basis”, the Office notes that various forms of ex ante regulation are already in place in sectoral utilities in the Cayman Islands, such as in the ICT sector where, for example, Annex 5 to Flow’s ICT licence contains ex ante rules which, among other things, regulate certain of Flow’s retail prices and mandate Flow to offer certain services to other licensees on a wholesale basis.

68. The Office also notes Logic’s submission that it was reluctant to support ex ante remedies as, in its experience, “an ex ante regulatory regime tends to proactively protect those competitors who are not willing to invest in their own facilities.” The Office considers such claims to be unsubstantiated given the number of competing licensees and their investment in ICT networks in the Cayman Islands despite the existing ex ante regulation, such as Annex 5 to Flow’s ICT licence.

69. Digicel and Flow agreed with the proposal to apply the principles in the Guidelines to both ex ante market reviews and ex post competition assessments, while Clean Gas submitted that they “don’t disagree”.

70. However, Digicel submitted that “ex ante market reviews were not appropriate for the electronic communications market in the Cayman Islands at this time” and, further, recommended that “[w]here ex ante remedies are imposed, OfReg should be required to carry out a review of both the market and the remedies themselves at intervals of no longer than 3 years … to ensure regulated entities are not subject to unnecessary and potentially market distorting regulation.”

71. The Office agrees that ex ante remedies should be reviewed within a certain period of time, although the precise duration of the regulatory period is likely to depend on a specific competition problem identified by the Office in a relevant market (see section 6 of this Determination). In other words, there may be valid reasons for some ex ante remedies to be reviewed more often than others, and in some cases a regulatory period

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26 Flow reply comments, at page 1.

27 Logic comments, at page 2.

28 Digicel comments, at page 2.
longer than three years may provide more certainty in a relevant market and, therefore, may better promote competition in the regulated sector.

72. While Flow agreed with the proposal to apply the principles in the Guidelines to both ex ante market reviews and ex post competition assessments and, as the Office noted in paragraph 3.4 of the draft Guidelines, to consider a forward-looking view of the relevant market when conducting an ex ante market review, Flow disagreed with paragraph 3.5 of the draft Guidelines that ex post competition assessments are retrospective in nature, stating in its view, that ex post evaluations “are fundamentally informed by a market’s future prospects.”

73. The Office notes that it has applied the word “retrospective” in paragraph 3.5 of the draft Guidelines as an economic concept meaning “backward-looking”, not as a legal concept. Further, the Office does not agree with Flow that ex post competition assessments, which are carried out in accordance with section 71 of the URC Law, are “fundamentally” informed by a market’s future prospects. For example, an ex post assessment carried out based on the presumption that the section 70 prohibition (of the URC Law) has been infringed, would require the Office to establish whether any conduct on the part of one or more sectoral providers amounts to the abuse of a dominant position in a market or a sector, and not whether this may be the case subject to a market’s (or sector’s) future prospects. Further, where an abuse of a dominant position has already caused an increase in a relevant price above the competitive level, having regard to a market’s future prospects by relying on the current prevailing price could lead to an overly broad market definition, and the corresponding market shares would understate the market power of the sectoral provider.

74. Clean Gas, Digicel and Flow were in general agreement with the Office’s analytical framework for defining the relevant market – examining demand-side and supply-side substitution, and potential competition, and for determining the product and geographic dimensions of the relevant market. However, Digicel added that the Office should consider factors in

29 Flow comments, at page 1.

30 The European Commission states the following in its “Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services” (available at https://www.ofcom.org.uk/__data/assets/pdf_file/0031/86485/CELEX.pdf):

“Markets defined under Articles 81 and 82 EC Treaty are generally defined on an ex-post basis. In these cases, the analysis will consider events that have already taken place in the market and will not be influenced by possible future developments.” [emphasis added]
addition to geographic and product considerations and should recognise as many additional factors as possible in the Guidelines – one such factor, in its view, being the time of service delivery.

75. As noted in footnote 4 in the draft Guidelines, the Office has acknowledged that, where necessary, other factors may need to be considered for the definition of the relevant market, including customer dimension and functional level related to the demand and supply of the relevant products or services. The Office will also consider, where necessary and appropriate, the time dimension of a market (see section 6 of this Determination).  

76. The Office notes the submissions referring to the relative size of the Cayman Islands, as a small geographic market. For example, Digicel noted that it was not clear how relevant the geographic dimensions of the market might be, in light of the relative size of the Cayman Islands, while Clean Gas noted that making a determination on collective dominance in a small market is difficult. Clean Gas also noted that, in a small market, the sampling applied for calculation of the market concentration could be skewed and lead to misleading results.

77. The Office does not consider that the relative size of the economy should have an effect on the guiding principles on how the markets should be defined, how the competition in those markets should be assessed, and what remedies should apply to specific competition concerns. However, the Office will take into account specific circumstances in each sectoral utility, having regard to the characteristics of the relevant markets in the context of the Cayman Islands economy, such as when determining the relevant thresholds for market share indicating dominance (see section 6 of this Determination).  

31 For example, the Office of Fair Trading in the UK makes reference to temporal markets (see https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/284423/oft403.pdf), noting the following:

“A time dimension might be appropriate where:
- it is not possible for customers to substitute between time periods. For example, peak customers might not view peak and off peak train tickets as substitutes, and
- suppliers cannot substitute between time periods. For example, capacity to produce fruit may vary between time periods and it may not be possible to store fruit from one period to another.

To some extent, the time dimension is simply an extension of the product dimension: i.e. the product can be defined as the supply of train services at a certain time of day.”

32 See also the research and discussions regarding the application of competition policy in small market economies:
78. Flow considered that further elaboration or guidance on supply-side substitution and potential competition in the Guidelines, may be warranted as it believes it to be central to an analysis of competition in telecommunications markets.

79. The Office has provided further clarification on the guiding principles for assessing the supply-side substitution and potential competition (see section 6 of this Determination).

80. The Office notes that the role of supply-side substitution and potential competition in a competitive assessment would be determined on a case-by-case basis in practice, and so the Office does not consider that further elaboration or guidance on supply-side substitution and potential competition and its position or role in a competitive assessment in telecommunications markets is required as the Guidelines are not sector-specific and the general principles is what should be noted.

81. The Office notes Digicel's comment that “it is not necessary for all customers to be able and willing to switch from one product to another for both products to be in the same market, as long as the number of customers who are ready to switch is sufficiently large to render a price rise unprofitable,”33 while Flow submitted that “[a]ll that is necessary to achieve demand-side substitution is that services be reasonably interchangeable in use,” “not perfect substitutes or identical services” and that it is the marginal consumer that is relevant.34

82. The Office refers to paragraph 5.9 in the draft Guidelines, which states that 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, the Office also notes that focusing on marginal customers (or consumers) may inappropriately widen the relevant market definition, and

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33 Digicel comments, at page 3.
34 Flow comments, at page 2.
that what is relevant is the question of whether a product or service is reasonably or sufficiently substitutable or interchangeable so that enough customers would switch to another product or service in response to a SSNIP. This is why the term “marginal” is stated in brackets in paragraph 5.9 of the draft Guidelines.\(^{35}\)

83. Flow submitted that the assessment of barriers to entry or expansion was particularly important, noting that when barriers to entry and expansion are low, “markets are often thought to be effectively competitive even if there is little observable competitive activity,” that “[m]arkets can be highly competitive even if entry barriers are substantial”, and that an examination of barriers to entry alone are not generally dispositive of whether effective competition exists.\(^{36}\)

84. The Office agrees that assessment of barriers to entry and expansion are important, as theoretically, if barriers to entry are low, attempts to exercise market power by for example raising prices, restricting output, or reducing the quality of the product or service could be thwarted by a new entrant deciding to enter the market to compete for a share of the resulting profits. Likewise, if barriers to expansion are low, existing competitors can increase their output, rendering the attempt unprofitable.

85. Also, the Office agrees that considering barriers to entry (and expansion) alone is not conclusive of whether a market is effectively competitive. The Office accounts for this in Part 9 and Part 10 of the Guidelines, which provide a non-exhaustive list of criteria against which market power may be assessed. Market shares, control of infrastructure and essential facilities, economies of scale and scope, and the strength of countervailing buyer power, are amongst the factors considered in an assessment of

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\(^{35}\) Also, see the discussion around the *FTC v. Whole Foods Markets Inc. et al.* case, which highlights the challenges posed in the market definition process when focusing on the notion of “marginal” customer:

- the Opinion of the United States Court of Appeals for the District of Columbia Circuit:
  - [https://www.ftc.gov/enforcement/cases-proceedings/0710114/whole-foods-market-inc-wild-oats-markets-inc](https://www.ftc.gov/enforcement/cases-proceedings/0710114/whole-foods-market-inc-wild-oats-markets-inc)
  - [https://www.ftc.gov/sites/default/files/documents/cases/2008/07/080729wholefoodsmarketdefinition_0.pdf](https://www.ftc.gov/sites/default/files/documents/cases/2008/07/080729wholefoodsmarketdefinition_0.pdf)
- articles discussing the *FTC v. Whole Foods Markets Inc. et al.* case:
  - [https://www.uschamber.com/sites/default/files/legacy/grc/Addanki%20Daskin%20Core%20Marginal%20Consumer_0.pdf](https://www.uschamber.com/sites/default/files/legacy/grc/Addanki%20Daskin%20Core%20Marginal%20Consumer_0.pdf)
  - [https://www.uschamber.com/sites/default/files/legacy/grc/Varner%20Cooper%20WF%20Market%20Definition_0.pdf](https://www.uschamber.com/sites/default/files/legacy/grc/Varner%20Cooper%20WF%20Market%20Definition_0.pdf)

\(^{36}\) Flow comments, at page 4.
market power, and determination of dominance (single or collective). The Office refers to footnote 6 in the draft Guidelines, reiterating that a finding that no undertaking has SMP does not necessarily mean that the market is effectively competitive, and an example of this would be oligopolistic markets which are not necessarily characterised by collective (joint) dominance, but are also not necessarily effectively competitive.

86. While Digicel and Flow were in general agreement with the Office’s proposal to use the SSNIP test to assess demand-side and supply-side substitution when defining the relevant market, Digicel submitted that, in practice, how the SSNIP test is applied may differ depending upon whether an ex ante or ex post investigation is being undertaken.

87. The Office agrees that the application of the SSNIP test will depend on whether the market needs to be defined for the purposes of an ex ante market review or as part of an ex post competition assessment (see section 6 of the Determination).

88. The Office notes Flow’s recommendation that the focus be instead on determining whether two services are reasonably interchangeable in function and use, which it suggested was “a pragmatic approach that is consistent with the SSNIP test and how we believe the Office is proposing to implement the SSNIP test.”37 The Office recognises that there may be other methods or approaches in determining if two products or services are sufficiently interchangeable or substitutable. As it is stated in paragraph 5.3 of the Guidelines, the Office will normally use the [SSNIP test] as one way of assessing demand and supply-side substitution [emphasis added]. The Office will determine the appropriate method to be used to assess if two products or services are sufficiently interchangeable or substitutable, on a case-by-case basis – whether it utilises the SSNIP test to assess, or another appropriate method (see section 6 of this Determination).

89. The Office notes Digicel’s comments that OTT services were functional substitutes to traditional licensed voice and messaging services, and that any market definitions and SMP assessments conducted in accordance with the Guidelines must necessarily take into consideration the impact of unregulated OTT service providers and the public demand for such services. Digicel and Flow submitted that the Guidelines should explicitly set out that a relevant market may include both licensed and unlicensed services, acknowledging and articulating the role that OTT services can play in a competition investigation. Digicel submitted that any market definitions and SMP assessments conducted in accordance with the

37 Flow comments, at page 4.
Guidelines must necessarily take into consideration the impact of unregulated OTT service providers.

90. The Office does not consider that the Guidelines should be amended to state that licensed and unlicensed services may be part of the same relevant market, as such issues need to be considered on a case-by-case basis, and may among other things depend on whether the Office is conducting an *ex ante* market review or an *ex post* competition assessment.

91. In response to the Office’s question as to whether or not there was agreement with its proposed competition analysis criteria or the framework methodology for determining Single Dominance, the Office notes Digicel’s view that the proposal appeared to place undue emphasis on market shares relative to other factors listed. The Office clarifies that it is not emphasising market shares as a determinant of dominance, but rather its intention is to make clear that, although in practice certain thresholds that are passed will raise concerns of dominance, a position of dominance cannot be established solely on the basis of considering market shares. Therefore, as set out in the draft Guidelines, the Office will use a range of evidence in determining dominance.

92. The Office notes Flow’s request to clarify the Office’s statement that “concerns about dominance may occur without the existence of a large market share”,38 and provides further clarification in the Guidelines (see section 6 of this Determination).

93. Digicel submitted that it was not clear from the consultation document whether an assessment of joint dominance would depend upon the existence of at least tacit collusion between or among the market players.

94. The Office confirms that the focus of its assessment of collective dominance is to establish to what extent the structure of the market is considered to be conducive to coordinated effects, which would encourage parallel or aligned anti-competitive behaviour. Such assessment of collective dominance is therefore primarily related to a tacit or implicit collusion.39

95. The Office’s proposal to use the HHI to gauge the degree of market concentration was met with general agreement from respondents, however the Office notes Digicel’s statement that the Guidelines should not limit consideration of market shares to the HHI. Digicel suggested an

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38 Flow comments, at page 5.

39 Explicit collusion is prohibited by virtue of section 66 of the URC Law.
alternative methodology such as a “Competitive Benchmark approach” may yield more reliable assessments of market conditions. The Office notes that the HHI is used by competition authorities and regulators in accordance with international best practice. The Guidelines do not limit the approach or methodology used to gauge the degree of market concentration to the HHI, per se, as the Guidelines explicitly provide for the fact that other criteria not listed may also be considered when assessing competition.

96. The Office reiterates that the guidance on the main criteria used for the finding of both single and collective dominance may include those that are listed in Part 9 and Part 10 of the Guidelines, but are not exhaustive and merely represent the main criteria against which market power may be assessed. The combination of criteria used, or consideration of other criteria not listed, will be done on a case-by-case basis and 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.

97. Digicel submitted that the Office should not “change various aspects of the Guidelines upon mere notice or … consider any other criteria or items of evidence for which provision is not made in the Guidelines.”[40] Digicel further submitted that any such change should be the subject of a consultation process and that the Guidelines should include guidance on what would make additional criteria “relevant.”

98. The Office notes that 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 purpose of making an SMP determination” under section 44 (1). Section 44 (3) specifies that such criteria shall include references to:

(a) the sectoral provider’s market share;
(b) the sectoral provider’s ability to influence market conditions;
(c) the sectoral provider’s access to financial resources;
(d) the sectoral provider’s experience in providing products to the market; and,
(e) any other criteria considered relevant by the Office.

99. The Office notes that section 6 (4) also imposes on the Office a number of duties, including the duties to:

[40] Digicel comments, at page 6.
(c) act in a reasonable, proportionate, impartial and consistent manner;
(d) operate transparently, to the fullest extent practicable;
(e) engage in reasoned decision-making, based on the administrative record;

100. The Office considers that establishing and publishing criteria against which it will define markets and assess the market power of sectoral utilities operating in those markets, as required by section 44 (2), also allows it to satisfy its duties under section 6 (4), specifically those of reasonableness, proportionality, impartiality, consistency and transparency. The Office further considers that the underlying purpose of establishing and publishing guidelines, procedures and policies is to ensure regulatory transparency and objectivity, to strengthen public, licensee and other stakeholder understanding, participation and confidence in the regulatory process itself, and to ensure the Office’s decision-making processes are as complete and robust as possible in all circumstances.

101. However, the Office also needs to maintain the flexibility to modify its decision-making process in specific cases if individual circumstances so warrant. The Office’s overriding objectives, consistent with section 6 (1) of the URC Law, include the promotion of appropriate and fair competition and the protection of the short- and long-term interests of consumers in relation to utility services. If, in specific circumstances, adherence to the published criteria would not promote those overriding objectives or would otherwise be unfair, the Office must have the flexibility to adopt different relevant criteria, provided that the overriding objectives are respected. Further, the Office considers that it would be inefficient and unduly disruptive to the decision-making process of the Office if it were required in each instance to consult with interested parties on whether and how to deviate from the published criteria or procedures prior to issuing the actual consultation. The Office, therefore, considers that the URC Law does not require it to do so, nor would it be helpful in all cases. The Office has amended the Guidelines to clarify the foregoing.

102. If the Office considers the circumstances of a specific consultation require the application of criteria different from or in addition to those included in the Guidelines, the Office will publish them as part of that consultation and explain its reasons for supplementing the criteria in the Guidelines. Interested parties would have a chance to understand, and to comment on, the procedural decision at that time.

103. Digicel identified three major stages in the process set out in OF 2017 – 2 – Consultation, namely market definition, determination of SMP, and
imposition of remedies or conditions, and submitted that each involved an “administrative determination of public significance” and that each “should be subject to a separate consultation process.”

104. The Office notes that, as set out in section 7(3) of the URC Law, an “administrative determination of public significance” is one which “relates to a sectoral utility” and which is likely to lead to either (1) “a major change in the activities carried out by the Office,” (2) “a significant impact on a sectoral provider” or (3) “a significant impact on members of the public.”

Sections 7(1) and 7(4) set out the obligation of the Office to consult with persons with sufficient interest in or likely to be affected by the proposed administrative determination of public significance.

105. Whether or not each of the stages in the process set out in OF 2017 – 2 – Consultation does in fact constitute an “administrative determination of public significance,” nothing in section 7 of the URC Law requires separate consultations on separate determinations.

106. The Office considers that in the appropriate circumstances, two or more proposed administrative determinations can be the subject of a single consultative process. Indeed, it is possible that in certain instances it would be preferable to do so. Whether the Office chooses to conduct two or more consultations to address two or more related proposed administrative determinations will depend on the circumstances of the specific case, including such matters as the complexity of the issues, the inter-relatedness of the issues, time constraints, the efficiency of holding separate consultations, and the resources of the affected parties.

6. The Office’s Determinations

107. Having considered all the submissions made by the respondents, the Office determines that it will adopt the Guidelines on the Criteria for the Definition of Relevant Markets and the Assessment of Significant Market Power, as proposed in OF 2017 – 2 – Consultation, with the following changes:

   a. paragraph 3.1 is amended to clarify that, where the Office departs from the Guidelines, it will explain why;

   b. paragraph 3.4 is amended to clarify that any ex ante obligations will be reviewed within a certain period of time;

41 Digicel comments, at pages 7-8.
c. footnote 4 is amended to clarify that the time dimension of the market may need to be considered, where necessary and appropriate, under the market definition analysis;

d. paragraph 5.3 is amended to clarify the Office’s view on the appropriate method to be used to assess if two products or services are sufficiently interchangeable or substitutable;

e. a new paragraph 5.4 is included to clarify that the application of the SSNIP test is likely to differ between an ex ante market review and an ex post competition assessment;

f. paragraph 5.10 is amended (now paragraphs 5.11 and 5.12 in the Guidelines, including new footnotes 8, 9 and 10) to elaborate further on the guiding principles for assessing the supply-side substitution and potential competition;

g. a new footnote 8 and footnote 9 is added to the amended paragraph 5.11;

h. a new footnote 10 is added to the amended paragraph 5.12;

i. paragraph 9.3 is amended to clarify the approach the Office will take in assessing the relevance of market share in relation to concerns about single dominance in a sectoral utility, and the importance of a range of evidence, other than market share, in determining if an undertaking is effectively dominant;

j. a new footnote 17 is added to the amended paragraph 9.3; and

k. a number of paragraphs have been amended to further clarify that the Guidelines should not be considered an administrative determination, including paragraphs 5.5, 6.2, 6.8, 7.4 and 10.4.

108. A copy of the Guidelines on the Criteria for the Definition of Relevant Markets and the Assessment of Significant Market Power is attached as Appendix 2 to this Determination and will be published on the OfReg website (www.ofreg.ky).
Appendix 1  
Consultation 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.
Appendix 2

Guidelines on the Criteria for the Definition of Relevant Markets and the Assessment of Significant Market Power
OF 2017- G2 - Guidelines
Guidelines on the Criteria for the Definition of Relevant Markets and the Assessment of Significant Market Power

Publication Date: 20 September 2017
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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 sectors 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, 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’).

¹ Also known as ‘OfReg’.
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 authorisation 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 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. Where the Office departs from such, it will explain why. 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, where appropriate. 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. Any *ex ante* obligations will be reviewed within a certain period of time, although the precise duration of the regulatory period is likely to depend on a specific competition problem identified by the Office in a relevant market.

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.² 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.³

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


³ 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), and where necessary and appropriate, the time dimension of a market.
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 shares\(^4\) 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.\(^5\)

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

\(^4\) Calculating market shares provides meaningful information with which to assess market power for the purposes of determining dominance.

\(^5\) 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.
• 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 determine the appropriate method to be used to assess if two products or services are sufficiently interchangeable or substitutable, on a case-by-case basis. The Office will normally use the 'hypothetical monopolist test' as one way of assessing demand and supply-side substitution, although another appropriate test may be applied if and when it is more practical to rely on such alternative method to assess if two products or services are sufficiently interchangeable or substitutable. The ‘hypothetical monopolist 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 normally consider such reactions in the context of a non-transitory price increase of 5 to 10%.  

5.4. The application of the SSNIP test will depend on whether the relevant market needs to be defined for the purposes of an ex ante market review or as part of an ex post competition assessment. On the one hand, an ex ante market review requires a non-transitory price increase to be assessed starting from the prevailing price under the current circumstances. On the other hand, an ex post competition assessment requires a very careful estimation of the likely non-transitory price increase under the past circumstances, given that a prevailing price may lead to a broader market definition and, therefore, underestimate the likely market power which allegedly harmed competition.

5.5. The non-transitory period for the SSNIP test shall normally 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.

5.6. 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.

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6 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%3A3A31992D0553), 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
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.

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.

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.

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.

In market definition, supply-side substitution is considered when its effects are equivalent to those of demand substitution in terms of being effective and immediate. For supply-side substitution to be considered as being effective and immediate, a supplier should be able to switch production to the relevant product in the short term (e.g. within one year) without incurring significant additional costs.

For example, the New Zealand Commerce Commission states (see page 24 at http://www=comcom.govt.nz/dmsdocument/10188):

“We consider substitution by both customers and suppliers and ask, if prices increased, whether:

... firms would easily, profitably and quickly (generally within one year) switch production to the products or locations in question without significant cost (supplier or supply-side substitution). We call these firms ‘near competitors’

“To be a near competitor, a firm must be able to enter a market with little or no investment, and, in particular, without incurring significant sunk costs. Sunk costs are costs a firm incurs on entry and which it would not be able to recover if it later exits the market, e.g., various start-up costs such as developing and testing products, installing equipment, and advertising and marketing. Sunk costs can make entry more challenging because a firm, when entering, will take into account what costs it would be likely to recoup if it exited. The greater the sunk costs, the greater the risk faced by a person contemplating entry into the market.”
costs or risks in response to small and permanent changes in relative prices. When these conditions are met, the additional production that is put on the market will have a disciplinary effect on the competitive behaviour of the undertakings involved.  

5.12. Potential suppliers 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 deemed as being able to provide a supply-side substitute, and would not be considered at the stage of market definition. However, the effects of their role as potential competitors in the market will be assessed at a later stage, as noted in paragraph 5.16 below.

5.13. 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.

5.14. 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.

5.15. 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.

5.16. 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

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8 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

9 For example, the European Commission notes (see paragraph 24 at http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:31997Y1209(01)): “The third source of competitive constraint, potential competition, is not taken into account when defining markets, since the conditions under which potential competition will actually represent an effective competitive constraint depend on the analysis of specific factors and circumstances related to the conditions of entry.”
both)\(^{10}\) - 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 normally, 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.

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.

\(^{10}\) 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.
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 may 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;

- **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 product\(^\text{11}\);

- **Views of customers and competitors** – the Office may, 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;

\(^{11}\) The Office, where appropriate, will take into account available quantitative evidence capable of withstanding rigorous scrutiny for purposes of establishing substitution in the past.
- 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, 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.\(^{12}\)

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 may be taken into consideration, including:

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\(^{12}\) See for example the considerations set out in the 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
• 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;

• 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 may, 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)\(^\text{13}\)

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.\(^\text{14}\)

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.\(^\text{15}\)

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 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

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\(^{13}\) 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.


\(^{15}\) The Office will take into account expected or foreseeable market developments.
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%. In some cases, there may be concerns about dominance with lower market shares, as dominance may occur without the existence of a large market share.  

See United Brands v Commission, op. cit. The greater the difference between the market share of the undertaking in question and that of its competitors, the more likely will it be that the said undertaking is in a dominant position. For instance, in Case COMP/M.1741 — MCI WorldCom/Sprint it was found that the merged entity would have in the market for the provision of top-level Internet connectivity an absolute combined market share of more than [35-45] %, several times larger than its closest competitor, enabling it to behave independently of its competitors and customers (see paragraphs 114, 123, 126, 146, 155 and 196).


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16 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 - "...undertakings with market shares of no more than 25% are not likely to enjoy a (single) dominant position on the market concerned." Following from single dominance concerns normally arising in the case of undertakings with market shares of over 40%, in its Guidelines, the Commission states that it "may in some cases have concerns about dominance even with lower market shares, as dominance may occur without the existence of a large market share."
circumstances in each sectoral utility when determining the relevant thresholds for market share that could indicate dominance, having regard to the characteristics of the relevant markets in the context of the Cayman Islands economy. The existence of high market shares raises a concern that an undertaking might be in a dominant position, 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, as listed in the paragraph below.

9.4. The main criteria used for the finding of single dominance may include:

- 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.\footnote{17}

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 normally have regard to the \textit{thresholds of market concentration} as represented by the Herfindahl-Hirschman Index\footnote{18} (the \textit{‘HHI’}). The following parameters will be used to gauge the degree of market concentration:

- If HHI is \textit{less} than 1,000 – market is considered to be un-concentrated;


\footnote{18}{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 Law (2017 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

The following Glossary is indicative only:

**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.