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3. Persons making written representations are requested to indicate if they wish to make oral submissions in the event that the Authority decides to conduct oral hearings in terms of section 4(6) of the Act, the duration thereof not to exceed one hour.
4. All written representations submitted to the Authority pursuant to this notice will be made available for inspection by interested persons at the Authority's library and copies of such representations may be obtained on payment of the prescribed fee.
5. At the request of any person who submits written representations pursuant to this notice, the Authority will determine whether such representations or any portion thereof is confidential in terms of section 4D of the ICASA Act. If the request for confidentiality is refused, the person making the request will be allowed to withdraw such representations or portion thereof.
6. With respect to written representations or portions thereof determined to be confidential in terms of paragraph 5 above, ICASA may direct that the public or any member or category thereof, shall not be present while any oral submissions relating to such representations or portions thereof are being made; provided that interested parties must have been notified of this intention and allowed to object thereto. The Authority will consider the objections and notify all interested parties of its decision.
7. The final regulations will be published in the Government Gazette.

**PARIS MASHILE
CHAIRPERSON**

Regulations pursuant to section 67(4)(b) read with section 67(6) of the Electronic Communications Act No. 36 of 2005 setting out the methodology to be used to determine the effectiveness of competition in a relevant market or market segment

1. Introduction

1.1 The Independent Communications Authority of South Africa (“the Authority”) is required to promulgate regulations defining the relevant markets and market segments, as applicable, that pro-competitive measures may be imposed upon licensees having significant market power where the Authority determines such markets or market segments have ineffective competition.¹ In particular, and with regards to the determination of whether or not relevant markets or market segments are characterised by ineffective competition, the Act requires the Authority to promulgate regulations which set out the methodology to be used to determine the effectiveness of competition in such markets or market segments.²

1.2 Section 67(4)(b) of the Act mandates the Authority to prescribe regulations which must, among other things,

“set out the methodology to be used to determine the effectiveness of competition in such markets or market segments, taking into account subsection (8) (sic).”

1.3 The Authority is cognisant of the typographical error in section 67(4)(b) which should correctly, make reference to subsection (6) and not, as is currently worded in the Act, subsection (8). It is clear that the purpose of section 67(8) of the Act is distinctly different to that contemplated in section 67(4)(b) of the Act, which requires the Authority to prescribe a methodology to be used to determine the effectiveness of competition. In this regard, the Authority is of the considered view that section 67(4)(b) is intended to have recourse to the factors expounded in section 67(6) of the Act. The correct intention of section 67(4)(b) may be deduced from a plain reading and most reasonable and sensible interpretation of section

¹ Section 67(4) of the Act

² Section 67(4) (b) of the Act

67(6)(b) of the Act. Therefore, for the purposes of this Regulation, reference to subsection (8) will thus be made correctly to subsection (6).

2. Determination of the effectiveness of competition in a relevant market

2.1 The purpose of the factors detailed in section 67(6)(b) of the Act is to guide the Authority in ascertaining whether or not a relevant market or market segment exhibits market characteristics or market outcomes which are reflective of an effectively competitive relevant market or market segment. The list of factors in section 67(6)(b) of the Act are not exhaustive. The Authority may have recourse to, from time to time, such factors which may be regarded as pertinent in ascertaining whether or not a relevant market or market segment is characterised by effective competition.

2.2 In this regard, the Authority submits that the appropriate measurement for such a determination must be the concept of effective or workable competition. That is to say, that in having recourse to the factors detailed in section 67(6)(b) of the Act, the Authority determines that a relevant market or market segment does not exude those characteristics commonly associated, or expected to accrue from an effectively competitive relevant market, or a relevant market conducive to workable competition, that such a market may then be determined as being characterised by ineffective competition.

3. The concept and characterisation of effective competition

3.1 As a starting point, the characterisation of competition is that of a process which imputes some relative degree of rivalrous interaction between firms which are simultaneously engaged in the offering for purchase goods or services which may be reasonably inferred as being interchangeable or substitutable. Such rivalrous interaction may be reflected in the form of the prices for which such goods or services are offered for sale at the point of purchase ("price competition"), and/or the commensurate conditions within which such goods or services are offered for sale at the point of purchase ("non-price competition"). The Authority is of the view that it is the essence of the rivalrous interaction between firms which is the source of the competitive constraints and behavioural discipline which

epitomises the concept of effective competition, and that the degree of competition in a relevant market or market segment amounts to the degree and relative vigour of the rivalrous interaction between firms.

- 3.2 The Authority views actual or potential sources of this rivalrous interaction between persons as being important in the identification of actual and potential competitors, as well as the appreciation of the competitive constraints placed by each competitor on the market behaviour of their respective competitor(s).
- 3.3 The imputation of effective competition is the relative competitive constraints which each competitor placed upon each other regarding the respective competitive decisions culminating in certain market conduct or behaviour. A relevant market may be characterised as being effectively competitive where such competitive constraints serve to deter or de-incentivise a single competitor or collective competitors from acting in concert, or from engaging in market conduct or behaviour which is unilaterally inclined and which is without regard to the reactions or interests of competitors and consumers.
- 3.4 Therefore, the Authority's appreciation of "effective competition" is the degree to which sufficient rivalry typified as competitive constraints exist in a relevant market or market segment and such competitive constraints serving as deterrents for a single competitor to engage in unilateral market conduct or behaviour, or for competitors acting in concert from engaging in coordinated market conduct or behaviour which has the effect of distorting the conditions of competition in a relevant market. The factors detailed in section 67(6)(b) of the Act must be submitted to a factual inquiry to determine whether or not a relevant market or market segment is characterised by effective competition, relative to the prevailing dynamic characteristics of a relevant market or market segment.
- 3.5 Moreover, the characterisation of a relevant market as being effectively competitive is a matter of degree. That is to say, that in determining whether or not a relevant market or market segment is characterised by effective competition, the Authority shall be guided by the cumulative and qualitative appreciation of the dynamic characteristics of a relevant market or market segment as measured by having recourse to the factors detailed in section 67(6)(b) of the Act, and based upon such an analysis, the

Authority shall arrive at a factual determination regarding the conditions of competition in such a relevant market or market segment.

4. Factors serving to reflect the dynamic characterisation of a relevant market or market segment

4.1 The Authority views the factors listed in section 67(6)(b) as constituting the guidance required in ascertaining the degree and extent of the rivalrous interaction between competitors in a relevant market or market segment.

5. Assessment of effective competition in a relevant market or market segment

5.1 Section 67(6)(b)(i) of the Act states that

“[W]hen conducting an analysis of the effectiveness of competition in the relevant markets or market segments the Authority must take the following factors, among others, into account: An assessment of the relative market share of the various licensees in the defined markets or market segments...”

5.2 This is an apt starting point to ascertain the degree of effective competition in a relevant market or market segment since a preliminary analysis of the structural disposition of a relevant market or market segment serves to indicate the actual sources of competitive constraints, through the identification of actual competitors.

5.3 The relevance of an assessment of the market shares in a relevant market or market segment serves to indicate the correlation between market shares and the profitability of a market participant measured on the basis of the price-cost margins. This notion is premised on the understanding of modern Industrial Organisation theory which posits that there exists a positive correlation between market shares of a firm in relevant market or market segment and the individual price-cost margin of that firm.

5.4 The Authority is also of the view that the assessment of effective competition in a relevant market or market segment must necessarily be inclusive of an appreciation of both structural factors and behavioural factors serving to materially influence the character and degree of the

competitive constraints present in a relevant market or market segment. While the Authority does not endeavour to sustain a delineation of structural factors from behavioural factors, nonetheless it is clear that the factors detailed in section 67(6)(b) of the Act are representative and inclusive of both structural and behavioural considerations. The following discussion will elaborate on the manner in which the Authority will undertake the assessment of the relative market shares of the various licensees in a relevant market or market segment.

6. Assessment of the relative market shares in a relevant market or market segment

- 6.1 The appropriate measurement of such market share will be premised on the characteristics of a relevant market or market segment and include, *inter alia*, some or all of the following measurements:
- 6.1.1 The relative proportion of each licensees' volume of sales in the relevant market or market segment;
 - 6.1.2 The relative proportion of each licensees' turnover in the relevant market or market segment;
 - 6.1.3 The relative proportion of each licensees' valuation of assets in the relevant market or market segment; or
 - 6.1.4 The proportion of each licensee's relative notional unit measurement in the relevant market.
- 6.2 Where the Authority determines that due to the characteristics of the relevant market or market segments, the above measurement criteria are not applicable, the Authority may propose a suitable alternative measurement which serves to adequately reflect the structural disposition and the distribution of the market shares for each licensee in the relevant market or market segment.
- 6.3 As a principle, the measurement of the market shares imputes the calculation of the proportion of the volume of sales or revenues attributed to a market participant relative to the total size of the relevant market as measured in either volume of sales or revenues. That is, a market share

of a licensee shall be computed as a proportion of either its volume of sales or revenues relative to the total volume of sales or revenues for the relevant market or market segment. Such a market share shall be expressed as a proportional percentage of the total size of the relevant market or market segment. In this regard, the Authority shall derive substantive guidance from the computation principles enunciated in the Department of Trade and Industry "Determination of Threshold Notice".³

6.4 The following discussion will elaborate on the manner in which the Authority will approach the assessment of the market power of each of the market participants and the elaboration on the conceptual principles detailed in section 67(6)(b) (ii) of the Act.

7. The assessment of the market power of each of the market participants

7.1 The Authority is of the view that an assessment of market power necessarily entails the ultimate determination of whether or not a market participant possesses the capacity to exercise market power and consequently subvert the existence of the effective competitive constraints which are ordinarily reflective of effective competition. That is, by having recourse to the factors detailed in section 67(6)(b)(ii) of the Act, the Authority ultimately seeks to ascertain whether or not the cumulative effect of these factors relative to each market participant confers the capacity to such a market participant to exercise market power, thus defeating the inference that the relevant market is characterised by effective competition. The capacity to exercise of market power presupposes the non-existence of the effective competitive constraints necessary to countenance the actual exercise of market power.

7.2 The Authority is of the view that the assessment of the capacity to exercise market power may not be derived from a single consideration. It is necessary to derive a cumulative appreciation of the degree to which the combined factors detailed in section 67(6)(b)(ii) of the Act, viewed collectively and in relation to each market participant in a relevant market or market segment, confer the capacity upon such a market participant the capacity to exercise market power, thereby defeating the inference that

³ General Notice No. R 1942 in Government Gazette No. 20388, 20 August 1999.

the relevant market is characterised by effective competition. Such a cumulative appreciation may take the form of either qualitative or quantitative assessment, or both.

7.3 The following elaborates on the Authority's appreciation of the conceptual principles detailed in section 67(6)(b)(ii) of the Act.

8. Factors to be considered when undertaking an assessment of the market power of each of the market participants

8.1 Section 67(6)(b)(ii) of the Act details the factors which the Authority must consider in determining whether or not a market participant possesses the capacity to exercise market power. The Authority is of the view that such an assessment is invariably a factual inquiry and must necessarily be guided by the conceptual interpretation of the principles underpinning the factors detailed in section 67(6)(b)(ii) of the Act. Such principles are commonly understood to bear a particular meaning or connotation in Industrial Organisation or Applied Microeconomics theory and the Authority's elaboration is not intended to be exhaustive. Rather, the Authority endeavours to provide the conceptual interpretation of these principles with the view to demonstrating the manner in which the cumulative presence of these factors in a relevant market and as relating to a market participant, may serve to confer to such a market participant the capacity to exercise market power, thereby countenancing a view that the relevant market is characterised by effective competition.

8.1.1 *Actual and potential existence of competitors*

8.1.1.1 With regards to the assessment of the existence of actual and potential competitors, the Authority is of the view that the principle requires the Authority to ascertain the identity of those market participants who are currently capable of providing competitive constraints on the market conduct or behaviour of other actual competitors. Those market participants who are currently active in the relevant market and who are thus actively engaged in some degree of rivalrous interaction with each other shall be considered to constitute actual competitors.

- 8.1.1.2 Licensees which are not engaged in the rivalrous interaction in a relevant market, but are nonetheless capable of surmounting any existing exogenous barriers to entry and compete effectively with market participants may be ascribed as being potential competitors. In essence, potential competitors are those licensees who are positioned to provide or assert some degree of competitive constraints to the existing actual competitors. The Authority is of view that while at its most general and widest conception, any licensee may be ascribed as a potential competitor, nonetheless the consideration of licensees who may be characterised as potential competitors must be confined to those licensees which are capable to entering the relevant market and where such entry is likely, would be sufficient in extent and is would be timely so as to exert sufficient competitive constraints on the existing market participants.

Likelihood of entry

- 8.1.1.3 In confining the assessment to those licensees which are capable of entering the relevant market, the Authority is of the view that the mere likelihood of entry is insufficient to amount to a competitive constraint to the existing market participants so as for such market participants to have regard to the likely threat of impending market entry. In order for a potential competitor to effectively constrain the current market participants, such market entry must be likely in commercial terms. In discerning the commercial likelihood of market entrance, the Authority will evaluate, inter alia, the likelihood that such entrance would be premised on the incentives and reasonable prospects of attaining satisfactory returns on initial investment committed to such entry.

Sufficiency and the extent of entry

- 8.1.1.4 The Authority is of the view that market entry which occurs at a localised level and exhibits relatively low volumes of sales or the accrual of low revenues in comparison to the existing market participants is unlikely to exert sufficient competitive constraints on existing market participants. Similarly, the Authority would consider that small-scale entry or instances where the market entrant supplies or renders a service to relatively few customers would not suffice to be considered as a competitor likely to exert sufficient competitive constraints upon the existing market participants. Moreover, the impending threat of market entry must necessarily be at the level and scope which is likely to cause the incumbent market participants to react in a significant manner to such entry.

Timeliness of market entry

- 8.1.1.5 In order for such market entry to be feasible and amount to an effective constraining effect on the existing market participants, the Authority submits that such entry ought to occur between a period of 18 – 24 months. The period within which entry ought to occur may be varied due to other factors such as licensing decisions to be taken by the Authority and where relevant, the availability of access to the radio frequency spectrum.
- 8.1.1.6 The purpose of assessing the existence or absence of actual and/or potential competitors is to ascertain the effect that such an existence or absence bears on the prevalent degree of competitive constraints in a relevant market which would serve to deter any market participant from exercising any degree of market power, thereby defeating the inference that the relevant market is characterised by effective competition.

8.1.1.7 The Authority is of the view that the consideration of the existence of potential competitors must necessarily be undertaken in conjunction with the consideration of the existence or absence of barriers to entry, since the very existence or absence of barrier of entry may be expected to significantly affect the materialisation of entry by a potential competitor which would be likely, would be sufficient in extent and would be timely.

8.1.2 *The level, trends of concentration, and history of collusion, in the market*

8.1.2.1 With regards to the assessment of the level, trends of concentration and the history of collusion, the Authority is of the view that the principle requires the evaluation of the degree of concentration in a relevant market over time and the historic behaviour of incumbents in that relevant market.

8.1.2.2 The evaluation of the level and trends of concentration may be measured by having recourse to the Hirschmann-Herfindahl Index ("HHI") and market concentration ratios. As such, the calculation of the market HHI shall be sustained using the following formula:

$$\text{HHI} = n1 (\%)^2 + n2 (\%)^2 + n3 (\%)^2$$

8.1.2.3 Where $n1(\%)^2$, $n2 (\%)^2$ and $n3(\%)^2$ amounts to the actual competitors' respective market shares which are to be squared.

8.1.2.4 The squared market shares are to be added together so as to compute the HHI for the relevant market. Therefore, the cumulative figure represents the concentration level for the relevant market. The following categorisation of the degree of concentration shall be used:

>1000 points	unconcentrated;
1000 – 1800 points	moderately concentrated
<1800 points	highly concentrated

- 8.1.2.5 The Authority shall have recourse to the market concentration levels over time and discern whether or not throughout a particular time series the market concentration levels are either increasing or decreasing.
- 8.1.2.6 The Authority shall also have recourse to the concentration ratio in deducing the level and trend of concentration of a relevant market. The concentration ratio measurement is utilised for the calculation of the portion of the relevant market which is accounted for by a particular number of leading firms in the relevant market which is computed in market shares. In this regard, where the number of the leading firms to be used in a concentration ratio calculation is four, then the concentration ratio analysis may be referred to as the CR4 test.
- 8.1.2.7 With regards to the evaluation of the history of collusion in a relevant market, the Authority shall have recourse to any market conduct which is reflective of conscious parallelism where the intent of the market participants is to substitute the conditions of effective competition in favour of a mutually beneficial strategic interaction in the relevant market. The effect of the substitution of the conditions of effective competition must be expected to result in the substantial prevention or lessening of competition in a relevant market.
- 8.1.2.8 The Authority is of the view that the purpose of ascertaining the level and trends of concentration in a relevant market and evaluate whether or not there exists a history of collusion in the relevant market is premised on the supposition that highly concentrated markets are conducive to facilitating concerted market conduct

amongst competitors, thereby conferring upon such competitors the capacity to collectively exercise market power, thereby defeating the inference that the relevant market is characterised by effective competition.

8.1.3 *The overall size of each of the market participants*

- 8.1.3.1 With regards to the assessment of the overall size of each of the market participants, the Authority is of the view that principle requires the evaluation of the structural disposition of the relevant market as reflected by the relative size of all actual competitors in a relevant market. The Authority is of the view that the overall size of each of the market participants shall be discerned from the distribution of market shares and as arising from the assessment to be conducted by the Authority in accordance with the assessment of the relative market shares in a relevant market or market segment detailed above.
- 8.1.3.2 The Authority is of the view that the assessment of the relative market shares of all market participants in a relevant market serves to provide a perspective regarding the overall size of each of the market participants relative to each other as expressed in the market shares possessed by such market participants.
- 8.1.3.3 The purpose of the assessment of the overall size of each of the market participants is to discern whether or not a market participant which is considerably larger in its relative size, may accrue some structural advantages and whether or not such advantages are sufficiently durable so as to confer upon a market participant the capacity to exercise market power, thereby defeating the inference that the relevant market is characterised by effective competition. The Authority is of the view that such an assessment will invariably overlap with the consideration of other structural factors detailed in section 67 (6) of the Act, most notably the consideration

of the existence of economies of scale and economies of scope.

8.1.4 Control of essential facilities

- 8.1.4.1 With regards to assessment of whether a market participant is able to exercise effective control over an electronic communications network, an electronic communications facility or an associated electronic communications facility, the Authority shall have regard to the Regulations promulgated pursuant to section 43(8) of the Act. These Regulations prescribe the electronic communications networks, electronic communications facilities and associated electronic communications facilities which have been determined by the Authority from time to time as constituting an essential facility within the meaning of the Act.
- 8.1.4.2 The Authority is of the view that the exercise of effective control over an essential facility by a market participant inherently confers upon such a market participant the capacity to exercise market power and the capacity to engage in unilateral market conduct or behaviour which is exclusionary and discriminatory and may have the effect of substantially preventing or lessening competition in a relevant market.
- 8.1.4.3 The purpose of the assessment of whether a market participant exercises effective control over an essential facility is to discern the degree to which the control of an essential facility serves to confer to such a market participant the capacity to exercise market power, thereby defeating the inference that the relevant market is characterised by effective competition.

8.1.5 *Technological advantages or superiority of a given market participant*

- 8.1.5.1 With regards to the assessment of whether a market participant possesses technological advantages or superiority, the Authority is of the view that the principle entails the evaluation of the potential for technological advantages or superiority to amount to barriers to entry which may serve to insulate the market participant from the conditions of effective competition and alter the incentives of the market participant in engaging in effective competition. It is the attribution of such technological advantages or superiority which may serve to confer to the market participant the capacity to conduct itself to an appreciable extent independently of the market, its customers and its competitors.
- 8.1.5.2 While the Authority is of the view that certain technological advantages or superiorities may serve to confer upon a market participant the capacity to exercise market power, nonetheless the Authority is also cognisant that such advantages may be characterised as the type of dynamic efficiency which accrues from innovative endeavour. The Authority views the accrual of dynamic efficiency as a result of innovative endeavour as not being directly associated with any of the adverse connotations attributable to the capacity to exercise market power.
- 8.1.5.3 The Authority is also of the view that technological advantages or superiority may be temporal and persists in the short-run. The Authority views such short-run advantages or superiority as insufficient to confer upon a market participant any capacity to exercise market power, which must necessarily be evaluated on a long-run basis.

8.1.5.4 A market participant possessing technological advantages or superiority may possess the incentives to leverage such superiority into a neighbouring, related or adjacent relevant market and therefore, not compete on the merits in that neighbouring, related or adjacent relevant market. The cumulative effect of such leveraging is to effectively distort the conditions of competition, thereby defeating the inference that the relevant market is characterised by effective competition.

8.1.6 *The degree of countervailing power in the market*

8.1.6.1 With regards to the assessment of the degree of countervailing power in the relevant market, the Authority is of the view that such an assessment serves to reflect the degree to which a hypothetical monopolist's imposition of a small but significant non-transitory increase in price ("SSNIP") may be defeated through the exercise of some degree of countervailing power. In particular, the Authority regards the consideration of the degree of countervailing power in the market as being specifically concerned with the relative degree of negotiation strength possessed by buyers interacting with market participants and their relative capacity to subvert the imposition of a SSNIP by a hypothetical monopolist.

8.1.6.2 The interpretation of the principle of countervailing power in the market requires the consideration of the following factors:

8.1.6.2.1 That the buyer possesses sufficient and adequate information regarding possible alternative sources of supply and could, at a relatively insignificant cost, readily switch substantial purchases from one supplier to another;

8.1.6.2.2 That the buyer could commence with the production or supply of the goods or rendering

of services relatively quickly and without incurring substantial sunk costs, or could “sponsor” a new entrant without incurring substantial sunk costs;

8.1.6.2.3 That the buyer is an important customer to the market participant, and that the market participant would be reasonably anticipated to accede to more favourable terms and conditions of supply so as to retain the continued patronage of the buyer;

8.1.6.2.4 That the buyer is capable of intensifying effective competition amongst actual and potential competitors through instigating a competitive bidding process, and

8.1.6.2.5 That the buyer is price sensitive in that the portion of costs for the procurement of products or services is relatively high in relation to the total expenditure of the buyer. In this regard, such buyers are significantly more sensitive to the price of products or services and their respective quality.

8.1.6.3 Moreover, the negotiating strength of the buyers relative to market participants must be considered within the context of commercial agreements or arrangements. In this regard, in deducing whether or not there exists countervailing power in the market, the Authority will have recourse to the following factors:

8.1.6.3.1 Previous and existing commercial agreements or arrangements entered into between buyers and market participants;

8.1.6.3.2 The circumstances prevailing prior to, and throughout the negotiation of commercial

agreements between consumers and market participants, and

- 8.1.6.3.3 The prevalent regulatory framework which serves to effectively constraint the bargaining latitude of either buyers or market incumbents.
- 8.1.6.4 The factors detailed above serve to examine the manner in which buyers, whether positioned at a wholesale or retail level, interact with market participants. The purpose of evaluating the factors which may be cumulatively indicative of the presence of countervailing power in the market is to ascertain the extent to which such countervailing power serves to effectively constrain market participants from exercising market power.

8.1.7 -*Easy or privileged access to capital markets and financial resources*

- 8.1.7.1 With regards to the assessment of the easy or privileged access to capital markets and financial resources, the Authority is of the view that the evaluation of the principle entails ascertaining the degree to which a market participant may have relative ease and privileged access to financial resources so as to enable the market participant to commit such financial resources to capital intensive investment initiatives, thereby benefiting from first-mover advantages.
- 8.1.7.2 While the Authority does not necessarily view the ease of or privileged access to capital markets and financial resources as an absolute barrier to entry, the Authority nonetheless considers that certain advantages may accrue to a market participant having such ease or privileged access to capital markets and financial resources.

8.1.7.3 In evaluating whether or not a market participant has ease or privileged access to capital markets or financial resources, the Authority shall consider the manner and relative rapidity at which such a market participant is able to raise capital for the purposes of directly or indirectly facilitating the expansion of current service offerings or network transmission capacity, and matters related thereto, so as to gain a competitive advantage over actual and potential competitors.

8.1.7.4 The purpose of evaluating whether or not a market participant has ease of access to capital markets and financial resources is to discern whether such ease of access serves to confer upon the market participant the capacity to conduct itself to an appreciable extent independently of the market, its customers or competitors through the exploitation of any first-mover which may be conferred to it as a result of the ease or privileged access to the capital markets and financial resources.

8.1.8 *The dynamic characteristics of the market, including growth, innovation, and products and services diversification*

Dynamic characteristics of the relevant market

8.1.8.1 The Authority is of the view that the assessment of the dynamic characteristics of the market, including its relative growth within a time series, the degree of innovation and the extent of product and service diversification serves to provide the Authority with a heightened appraisal of those competitive dynamics which may serve to characterise the relevant market as being effectively competitive.

The degree of growth

- 8.1.8.2 The Authority shall consider the relative increase in the degree of sales or turnover over a time series so as to ascertain whether or not the overall size of the relevant market is expanding or contracting. Furthermore, the Authority shall have recourse to the factors which may be serving to contribute to the expansion or contraction of the relevant market.

The degree of innovation

- 8.1.8.3 With regards to the assessment of the degree of innovation, the Authority shall consider the degree at which the market incumbents consistently introduce products or services which may be cumulatively ascribed as being functionally dynamic and incrementally more innovative than the previous offerings. The Authority considers that the assessment of the degree of innovation in a relevant market serves to ascertain the degree to which the conditions of competition are characterised by dynamic rather than static efficiency. This may be considered as a salient indication of whether or not the relevant market is characterised by effective competition.

The degree of products and services diversification

- 8.1.8.4 The Authority is of the view that such considerations may serve to reflect the degree to which market incumbents offer a portfolio of services and products which are capable of being bundled or tied together at the point of purchase to buyers.
- 8.1.8.5 The ability of a market participant to bundle and/or tie products and services as a result of product and service diversification may confer upon it the capacity to cross-subsidise such products and services. The capacity to

cross-subsidise may have a deterrent effect on the potential for market entry by potential competitors in the offering of unbundled or untied products or services to buyers.

- 8.1.8.6 The purpose of considering the dynamic characteristics of the relevant market, including the degree of growth and innovation is to discern whether or not the relevant market may be characterised as being dynamically efficient. Typically, markets which are characterised as being dynamically efficient are by their very nature considered to be effectively competitive since it is the presence of consistent market growth and the prevalence of a high degree of innovation which amounts to constraining factors to the unilateral or coordinated exercise of market power by market participants.
- 8.1.8.7 The Authority is of the view that a market participant operating within a relevant market which is experiencing consistent growth may not possess the capacity to exercise market power at the expense of the market being capable to accommodate additional market participants as a direct result of that consistent growth. Equally, a market participant operating in a highly innovative market may not possess the capacity to exercise market power at the expense of other market participants gaining a competitive advantage as a result of their respective innovative product or service offerings. Therefore, markets which are characterised by consistent growth and a high degree of innovation would serve to defeat the inference that such markets are characterised by ineffective competition.

8.1.9 *Economies of scale and scope*

- 8.1.9.1 With regards to the assessment of the economies of scale and economies of scope, the Authority is of the view that such an assessment is important in ascertaining the degree of asymmetry which economies of scale and scope may create between market participants and potential competitors and the extent of such asymmetry serving to create barriers to entry for the latter.
- 8.1.9.2 The principle of economies of scale may be characterised as amounting to instances where the percentage change in the cost of production results in an incremental percentage of the quantity produced. In essence, the measurement of economies of scope entails the evaluation of the cost-output elasticity and the degree to which this cost-output elasticity serves to create the asymmetry between market incumbents and potential competitors so as for the market incumbents to derive a cost advantage over the potential competitors. Though the cost advantage as such may not necessarily be characterised as a barrier to entry, nonetheless the existence of the asymmetry as a result of the economies of scale may serve to confer upon the market incumbent the capacity to exercise market power, and enable the market incumbent to conduct itself to an appreciable extent independent of the market, its customers and competitors.
- 8.1.9.3 With regards to the assessment of the existence of economies of scope, such an assessment is important in ascertaining the degree to which a market incumbent may possess the capacity to absorb certain average costs as a result of the offering or production of two or more products or services. Furthermore, the assessment of economies of scope entails the evaluation of whether or not a market participant may be in a position to benefit from the joint offering or production of two or more products or services. In essence, the assessment of

economies of scope is the determination of the percentage of cost savings accruing as a result of the offering or production of two or more products or services jointly, rather than individually.

- 8.1.9.4 In evaluating the existence of economies of scope and economies of scale, the Authority may have recourse to information regarding costs and may require the submission of additional information regarding costs.
- 8.1.9.5 The purpose of assessing the existence of economies of scale and economies of scope is to discern whether or not the existence of these structural characteristics of a relevant market serves to deter or prevent entry for potential competitors. Furthermore, the Authority is of the view that the evaluation of economies of scale and scope would serve to reflect the degree to which these structural characteristics of a relevant market insulate the market participants who benefit from these structural characteristics from the potential competitive constraints.
- 8.1.9.6 It is important to note that the existence of economies of scale and scope have an insulating effect to those market incumbents who benefit from these structural characteristics of a relevant market. These structural characteristics serve to insulate such market participants from potential competitive constraints. In the absence of such competitive constraints as a result of the existence of the structural characteristics, market participants may behave in a manner which is to an appreciable extent independent of the market, customers and competitors. Moreover, these structural characteristics serve to confer upon market participants the capacity to strategically deter the impending entry of potential competitors, thereby posing behavioural barriers to entry to such potential competitors. Therefore, in evaluating the existence of economies of scale and economies of scope, the Authority shall also have recourse to any indications of strategic entry deterrence market conduct

or behaviour engaged in by market participants which may have the effect of deterring or preventing entry for potential competitors.

8.1.10 *The nature and extent of vertical integration*

- 8.1.10.1 With regards to the assessment of the nature and extent of vertical integration, the Authority is of the view that such an assessment is important is ascertaining the degree to which vertical integration enables a market participant to leverage its market position in an upstream relevant market so as to distort the conditions of competition in a downstream relevant market, within which the market participant is also operative.
- 8.1.10.2 The Authority is of the view that the relevant upstream market and the relevant downstream market must be delineated and the degree of competition prevalent in both markets must be discerned. Furthermore, that the degree of direct and indirect structural integration of market participants operating in the upstream relevant market and downstream relevant market shall be considered. In addition, the Authority shall consider the existence of any structural links which may amount to cross-directorship, cross-ownership and any long-term contractual arrangements between market participants operating in the upstream relevant market and the downstream relevant market.
- 8.1.10.3 The purpose for the assessment of the nature and extent of vertical integration is to discern the extent to which a market participant operating in the upstream relevant market may possess the capacity to distort the conditions of competition in the downstream relevant market by leveraging its market position into the downstream relevant market. While the Authority is cognisant that there exists efficiency enhancing justifications for vertical integration, nonetheless, the Authority is of the view that the manner in which vertically integrated market

participants may distort the conditions of competition in the downstream relevant market is through raising their rivals' costs, cross-subsidisation between products and services offered in the upstream relevant market and the downstream relevant market, and bundling and tying of products and services.

8.1.11 *The ease of entry into the market, including market and regulatory barriers to entry*

- 8.1.11.1 The assessment of the ease of entry into the market in the form of market and regulatory barriers to entry is important in discerning the factors which may serve to deter potential competitors from entering a relevant market where there exists sufficient incentives for such entry, so as to exert sufficient competitive constraints on the market participants. Furthermore, the assessment of barriers to entry provides the necessary guidance in discerning the factors which serve to insulate market participants from competitive constraints.
- 8.1.11.2 The threat of potential market entry may serve as a constraining effect and consequently deter market participants from attempting to exercise market power. Therefore, where a relevant market is sufficiently contestable, the threat of entry by potential competitors serves to constraint the market participants from seeking to exercise market power. Furthermore, and by their very nature, relevant markets which may be characterised as being contestable typically exhibit low barriers to entry.
- 8.1.11.3 The existence of significant barriers to entry may serve to insulate the market participants from the disciplining effects of effective competition since the costs associated with surmounting such barriers may amount to a significant disincentive for market entry and thereby deter the entry of potential competitors who would be expected to provide effective competitive constraints on the market participants.

- 8.1.11.4 At its broadest conception, a barrier to entry may be characterised as any factor which amounts to a disincentive and serves to deter or prevent the entrance of potential competitors to a relevant market.
- 8.1.11.5 The Authority is of the view that a distinction between what constitutes a market barrier to entry or a regulatory barrier to entry is one of characterisation. The consideration of barriers to entry must necessarily entail the assessment of the costs to be borne by potential market entrants as the costs necessary for market entry, relative to those costs which were borne by market participants at the point of their respective market entry. The inclination of this assessment is to ascertain the constituent factors which contribute to the asymmetry between potential entrants and market participants.
- 8.1.11.6 The Authority is cognisant that not all factors which contribute to this asymmetry necessary amount to barriers to entry. This is so since there are common costs which must be borne by all market participants wishing to compete in a relevant market.
- 8.1.11.7 Therefore, when evaluating the existence of barriers to entry, the Authority shall recourse to factors which contribute to the existence of the asymmetry between potential competitors and market participants. Furthermore, the Authority shall consider the existence of common costs which are reasonably expected to be borne by market participants intending to compete effectively in the relevant market.
- 8.1.11.8 With regards to the assessment of regulatory barriers to entry, the Authority is of the view that these amount to those factors which are stipulated by the Authority as conditions precedent prior to a person being granted the regulatory entitlement to render services.

8.1.11.9 The Authority is of the view that the purpose of assessing the prevalence of barriers to entry is to discern the extent to which factors serving to contribute to the asymmetry between potential competitors and market entrants confer upon the latter the capacity to exercise market power. In undertaking this analysis, the Authority shall have recourse to those factors which are structural in their nature, and those factors which are behavioural in their nature.
