هيئة تنظيم الاتصالات
Telecommunications Regulatory Authority
Kingdom of Bahrain - مملكة البحرين

Market and Competition Review of the
Retail Market for International Outgoing Calls from Bahrain

Draft Determination

15 December 2015

Ref: MCD/12/15/096

Public Version

(Confidential information has been replaced by **[✂]***)*

Purpose: To define the relevant retail markets for provision of International Outgoing Calls from Bahrain in the Kingdom of Bahrain and to determine whether any Licensed Operator holds Significant Market Power in those markets.

Instructions for submitting a response

The Telecommunications Regulatory Authority (the 'Authority') invites comments on this draft Determination from all interested parties. Comments should be submitted to the Authority by 4pm, **28 January 2016**.

Responses should be sent to the Authority preferably by email (or by post) to the attention of:

> Director, Market and Competition Department
> MCD@tra.org.bh
> Telecommunications Regulatory Authority
> P.O. Box 10353
> Manama
> Kingdom of Bahrain
> Fax: +973 1753 2125

Responses should include:

- the name of the company/institution/association etc.;
- the name of the principal contact person;
- full contact details (physical address, telephone number, fax number, and email address); and
- in the cases of responses from individual consumers, names and contact details.

The Authority expects the responses to follow the same structure as set out in the draft Determination and the Annex. The Authority also invites respondents to substantiate their responses to the questions raised, wherever possible by providing factual evidence to support their responses.

In the interest of transparency, the Authority will make all submissions received available to the public, subject to the confidentiality of the information received.

The Authority will evaluate requests for confidentiality in line with relevant legal provisions and the Authority's published guidance on the treatment of confidential and non-confidential information.[1]

Respondents are required to clearly mark any specific information included in their submission which is considered confidential. Where such confidential information is included, respondents are required to provide both a **confidential** and **non-confidential** version of their submission. If a submission is marked confidential in its entirety, reasons for this should be provided. The Authority may publish or refrain from publishing any document or submission at its sole discretion.

[1] The Authority, "A Guidance Paper issued by the Telecommunications Regulatory Authority on its treatment of Confidential and Non-confidential Information", Guidance Paper No. 2 of 2007, 10 September 2007.

Once the Authority has received and considered submissions on this draft Determination, the Authority will issue a final Determination, together with the Reasoning for the Authority's findings.

DRAFT DETERMINATION OF SIGNIFICANT MARKET POWER

HAVING REGARD TO THE LEGISLATIVE DECREE NO. 48 OF 2002 PROMULGATING THE TELECOMMUNICATIONS LAW, THE COMPETITION GUIDELINES ISSUED BY THE TELECOMMUNICATIONS REGULATORY AUTHORITY OF THE KINGDOM OF BAHRAIN ON 18 FEBRUARY 2010, ALL ADMISSIBLE EVIDENCE AND THE SUBMISSIONS MADE BY INTERESTED PARTIES, THE TELECOMMUNICATIONS REGULATORY AUTHORITY OF THE KINGDOM OF BAHRAIN HEREBY MAKES THE FOLLOWING DETERMINATION:

1. For the reasons set out in the Annex to this Determination, the Telecommunications Regulatory Authority of the Kingdom of Bahrain (the 'Authority') has identified the relevant market to be the **retail market for international outgoing calls from Bahrain**.
2. Furthermore, the Authority has identified and determined that no licensee has Significant Market Power in the relevant market.
3. This Determination is without prejudice to the Authority's powers under the Telecommunications Law, promulgated by the Legislative Decree No.48 of 2002, the Competition Guidelines, issued by the Authority on 18 February 2010 (ref. MCD/02/10/019), and the outcome of any on-going or future investigation, consultation or other regulatory process or measure carried out pursuant to such powers, all or any of which may result in the application of different terms and/or findings than those of this Determination, including the Determination and definition of new markets and the designation of Significant Market Power.
4. The Authority will continue to monitor developments in this market and may conduct a review of the market at some future time, with a view to determining if any Licensee holds a position of Significant Market Power, should the Authority determine that changes in market conditions warrant it. Such a review may conclude with a Determination that supersedes this present Determination.
5. This Determination supersedes the Determination of Significant Market Power in certain relevant retail markets issued by the Authority on 3 June 2008 only to the extent that that Determination relates to the **retail market for international outgoing calls from Bahrain**.
6. This Determination shall come into effect from the date of its issuance.

Signed on

[●]

Mohamed Bubashait

General Director

Telecommunication Regulatory Authority

Manama, Kingdom of Bahrain

Annex 1 - Reasoning for the draft Determination

Table of contents

List of acronyms and definitions

ARPM	Average Revenue Per Minute
ARPU	Average Revenue Per User
Batelco	Bahrain Telecommunications Company B.S.C
CPS	Carrier Pre-Selection
BD	Bahraini Dinar
EC	European Commission
GCC countries	Gulf Cooperation Council countries
IDD	International Direct Dialling
OLO	Other Licensed Operator
PPCC	Pre-paid Calling Cards
RTN	Retail Tariff Notification
SMP	Significant Market Power
SMR	Strategic Market Review
SSNIP	Small but Significant Non-transitory Increase in Price
TDM	Time Division Multiplexing
TRA	Telecommunications Regulatory Authority of the Kingdom of Bahrain
UK	United Kingdom
VoIP	Voice over Internet Protocol

1 Introduction and purpose of this Annex

1. The Strategic and Retail Market Review of 2008 (“2008 Review”) considered the role of regulation in the telecommunications sector in Bahrain and established a package of regulatory measures designed to promote competition and the interest of Bahraini consumers.
2. Competition has developed significantly in Bahrain in the years following the 2008 Review, leading to lower prices and greater service innovation for Bahraini consumers. The Authority therefore carried out a holistic review of *ex-ante* regulation as part of the 2015 Strategic Market Review (“**SMR**”).[2]
3. The SMR concluded, amongst other things, that certain markets warrant further analysis to determine whether existing ex ante regulations that are currently imposed on these markets should be lifted. In particular, the Authority has commenced or is about to commence assessing individually the following markets:
   a. Retail market for premium access to call services, including domestic calls from fixed location;
   b. Retail market for mass-market access to call services, including domestic calls from fixed location; and
   c. Retail market for international outgoing calls from Bahrain.
4. The relevant market for this present competition and market review is the retail market for international outgoing calls from the Kingdom of Bahrain, which is referred to hereafter as “market for international calls” or “market for international outgoing calls”. Separate reviews, with separate documentation, will be carried out for the other two markets listed above.
5. This particular review including its Annex summarises the SMR’s underlying reasoning and provides a competition and market assessment of the market for international outgoing calls to inform a final determination regarding whether or not any operator has Significant Market Power (“SMP”).
6. A determination that an operator has SMP in the relevant market provides the legal basis introducing regulatory measures deemed necessary and/or mandated by the provisions of the Telecommunications Law promulgated by the Legislative Decree No. 48 of 2002 (the ‘Telecommunications Law’).
7. This Annex is structured as follows:
   a. Section 2 provides an overview of the analytical framework used to identify Significant Market Power (SMP) in a relevant market.
   b. Section 3 summarises the 2008 determination on the retail market for international outgoing calls from Bahrain and provides a summary of existing regulation.

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[2] Available at http://www.tra.org.bh/media/document/MCD%2008%2015%2062%20Final%20SMR%20Report%20-%20Public%20version.pdf

c. Section 4 summarises the developments in this market since 2008.

d. Section 0 outlines the SMR's findings and the Authority's conclusion on the definition of the relevant market for international outgoing calls from Bahrain.

e. Section 6 assesses competition in the market and identifies whether any licensee has SMP.

f. Section 7 presents preliminary conclusions and implications.

2 Analytical framework

8. To determine whether a licensed operator or operators hold SMP and/or dominance in a relevant market, the Authority adopts a three-step process:
   a. definition of the relevant market(s);
   b. analysis of competition in the relevant market(s); and
   c. identification of operator(s) who have SMP / dominant3 position, if any.
9. At each step, the Authority relies on well-established economic principles and tests to define markets and assess competition. For example, in defining relevant markets, the focus is to ensure that the market boundary includes those services that are considered by users to be close economic substitutes for one another (demand-side substitution) and between which suppliers could easily switch production (supply-side substitution). To assess demand- and supply-side substitution, the hypothetical monopoly test[4] can be a useful tool. The Authority's market definitions focus on the markets in which international outgoing calls services are supplied.
10. The identification of relevant markets is not an end in itself, but is a critical step in assessing the extent to which any firm or firms in those markets have market power. Defining markets and assessing competition within those markets involves a degree of judgment, with the overarching purpose being to ensure that all relevant competitive constraints operating in a market (from both existing and potential competitors) are identified.
11. Throughout the three-step process, the Authority applies an analytical framework that is consistent with the Telecommunications Law and the Authority's Competition Guidelines.[5] The tools and principles employed by the Authority are similar to those employed by other regulators and competition authorities, including the European Commission and national telecommunications regulatory authorities of the European Union.
12. Having identified the relevant markets, the Authority then looks at relevant factors to determine the level of competition in those defined markets, such as barriers to entry and expansion, and market shares. The purpose of this competition assessment is to identify any constraints, such as those from existing competition, potential competition, and any countervailing buyer power, that may limit the ability of an incumbent supplier of retail

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[3] Note that the Authority considers the terms "dominance" and "dominant position" equivalent and uses them interchangeably through the document.

[4] As set out in the Authority's Competition Guidelines, the "hypothetical monopoly test" identifies a group of products which are sufficiently close substitutes to be regarded as being in the same market. The approach is to assume that the products are supplied by a hypothetical monopolist. If the monopolist is able to profitably maintain a "small but significant non-transitory increase in price" ("SSNIP") for those products, then the appropriate market boundary has been defined (i.e. to include only those products), as no other products are regarded as being close demand-side or supply-side substitutes.

[5] See "Competition Guidelines: Guidelines issued by the Telecommunications Regulatory Authority", 18 February 2010 (Ref: MCD/02/10/019).

international outgoing calls services to act independently of its competitors or customers and exercise market power.

13. The Telecommunications Law refers to two concepts of market power, namely a Dominant Position and SMP. The Competitions Guidelines interpret the distinction to be in terms of the markets in which the concepts apply.[6] Dominant Position[7] applies to an assessment of market power at the wholesale level while SMP applies to market power assessments at the retail level.

14. Findings of dominance and SMP impart different ex ante regulatory obligations on the affected operators:

    a. Article 57 of the Telecommunications Law states that an operator with a dominant position in a market shall make available access and interconnection services by way of a Reference Offer, with tariffs, terms and conditions that are fair, reasonable, non-discriminatory and based on forward-looking incremental costs; and

    b. Article 58 of the Telecommunications Law states that operators with SMP shall be subject to tariff controls as specified by the Authority by way of Regulation or Licence conditions.

15. Article 1 of the Telecommunications Law defines both SMP and a Dominant Position. An operator with SMP is defined as holding a share of 25% or more of the relevant market as determined by the Authority.[8] However, in determining whether an operator has SMP, the Authority must also take into account a number of other factors, including the ability of the Licensed Operator to influence market conditions, its turnover relative to the size of the market, its control over access to end users, its financial resources, and its experience of providing products and services in the market. The Authority may determine that a Licensed Operator has SMP even if its market share is less than 25%, or that it does not hold SMP even though its market share exceeds 25%. The SMP assessment is thus carried out for all operators based on their market shares.

16. In practice, the Authority considers that the concepts of SMP and dominance are similar and seek to capture similar types of behaviour,[9] namely the ability of a firm to act independently of its competitors, its customers and ultimately of consumers, for example by sustaining prices above the competitive level.[10] However, the legal definition of SMP in the Telecommunications Law places special emphasis on market shares while recognising the need to consider carefully the ability of an operator to influence market conditions, i.e. to act independently.

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[6] See Paragraph 90, “Competition Guidelines: Guidelines issued by the Telecommunications Regulatory Authority”, 18 February 2010 (Ref: MCD/02/10/019).

[7] We use the terms Dominant Position and Dominance interchangeably throughout this document.

[8] See Page 8, Telecommunications Law of the Kingdom of Bahrain. Available at http://www.tra.org.bh/media/document/TelecommunicationsLaw-secondedition-English.pdf

[9] See Paragraph 92, “Competition Guidelines: Guidelines issued by the Telecommunications Regulatory Authority”, 18 February 2010 (Ref: MCD/02/10/019).

[10] For example, the regulatory framework governing the EU telecommunications sector considers the concept of SMP to be equivalent to that of dominance.

17. The Authority notes that the aim of undertaking an *ex ante* assessment of market power is to understand how competitive the market currently is and whether this is likely to change within a reasonable timeframe. As noted in the Competition Guidelines, the Authority typically takes the following factors into account when undertaking such a forward-looking competition assessment:[11]

    a. the market shares of individual entities;

    b. competitive constraints arising from existing competitors, potential competitors, barriers to entry and expansion, and the degree of countervailing buyer power; and

    c. evidence on behaviour and pricing.

18. In its competition analysis, the Authority would follow the so-called Modified Greenfield approach.[12] The first step of this approach is for the Authority to assume that there is no retail regulation in place. The next step is for the Authority to consider the impact of any existing wholesale regulation on the competitive outcomes at the retail level. In its analysis, the Authority specifically identifies which existing regulations impact its findings (and how).

19. In reaching its conclusion, the Authority has considered relevant facts and information, including information that the Authority has gathered through its periodic market data questionnaires, residential and business surveys as well as other sources of information.

20. In the following sections, the Authority defines the relevant retail market relating to the provision of international outgoing calls from Bahrain (Section 5.2) and then evaluates whether any Licensed Operator has SMP in the relevant retail market (Section 6).

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[11] See Paragraph 93, "Competition Guidelines: Guidelines issued by the Telecommunications Regulatory Authority", 18 February 2010 (Ref: MCD/02/10/019).

[12] This approach is common in the European regulatory framework. . See the explanatory note for the Commission's Recommendation on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC. . Available at http://ec.europa.eu/digital-agenda/en/news/commission-recommendation-relevant-product-and-service-markets-within-electronic-communications.

3 Findings in the Strategic and Retail Market Review 2008 and Summary of existing regulation

21. This section summarises the findings on market definition and competitive assessment in the Strategic and Retail Market Review of 2008 ("the **2008 Review**")[13].
22. It also provides a summary of the current regulations imposed on the SMP operator.
23. Details on the reasoning behind the Authority's market definition and competitive assessment in the 2008 Review have been included in Annex 2.

3.1 Conclusions of the 2008 Review

24. The Authority has previously considered the retail market for international outgoing calls from Bahrain as part of the Strategic and Retail Market Review of 2008[14]. After presenting its findings for public consultation on 27 August 2007, the Authority took on board responses received from operators and presented its final analysis and conclusions on 3 June 2008[15].
25. Routes were grouped by zones and separate markets were defined for these because the competitive dynamic differed between them. For each of these zones, the Authority defined separate markets for fixed and mobile originated international calls because of the differences in the pricing of these services. The Authority defined the markets to include calls made via PPCCs, Carrier Pre-Selection (CPS) and direct dial services. A single market was defined for residential and non-residential consumers.
26. Thus, the Authority defined the following markets for retail international outgoing calls from Bahrain:
    a. the retail market for fixed originated international calls to Zone 1[16]. (Market 3a);
    b. the retail market for fixed originated international calls to Zone 2[17]. (Market 3b);
    c. the retail market for fixed originated international calls to Zone 3[18]. (Market 3c);
    d. the retail market for fixed originated international calls to Zone 4[19]. (Market 3d);
    e. the retail market for mobile originated international calls to Zone 1. (Market 3e);
    f. the retail market for mobile originated international calls to Zone 2. (Market 3f);

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13 Available at http://216.25.41.102/en/pdf/Strategic_and_Retail_Market_Review_Consultation_Final.pdf

14 Available at http://216.25.41.102/en/pdf/Strategic_and_Retail_Market_Review_Consultation_Final.pdf

15 Available at http://www.tra.org.bh/media/document/FINALSMPDetermination20080603.pdf

16 Zone 1 countries: GCC: Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates (UAE).

17 Zone 2 countries: South Asian countries; Bangladesh, India, Pakistan, the Philippines and Sri Lanka.

18 Zone 3 countries: Australia, Canada, France, Germany, Greece, Italy, Iran, New Zealand, Thailand, the United Kingdom (UK), the United States of America (USA), Yemen

19 Zone 4 countries: Rest of the world, i.e. all countries not in Zone 1-3

g. the retail market for mobile originated international calls to Zone 3. (Market 3g); and

h. the retail market for mobile originated international calls to Zone 4. (Market 3h).

27. Based on an analysis of market shares, barriers to entry, market developments, etc. as per the competition guidelines, Batelco was found to have SMP in the retail markets for fixed originated international calls to Zone 1 and Zone 3 countries.

3.2 Summary of existing regulation

28. Article 58 of the Telecommunications Law provides that a licensed operator with SMP shall be subject to tariff controls specified by the Authority through regulations.

29. Following the 2008 SMP Determination and the issuance of the Retail Tariff Notification (RTN) Regulation in 2010[20], the services that Batelco supplies in the retail market for fixed originated international calls to Zone 1 (Market 3a) and to Zone 3. (Market 3c) are subject to the RTN Regulation. As a result, any changes to Batelco's tariffs for these services must be notified to the Authority before their introduction, with Batelco required to confirm that such tariff changes adhere to a set of tariff controls.

30. The tariff controls set out in the RTN Regulation are designed to ensure that the proposed tariffs do not give rise to anticompetitive practices, including but not limited to undue discrimination, excessive pricing, margin squeezes, predatory pricing, or abusive tying or bundling.

[20] See "Retail Tariff Notification Regulation", 21 February 2010. Available at http://www.tra.org.bh/media/document/Retail%20Tariff%20Notification%20Regulation.pdf

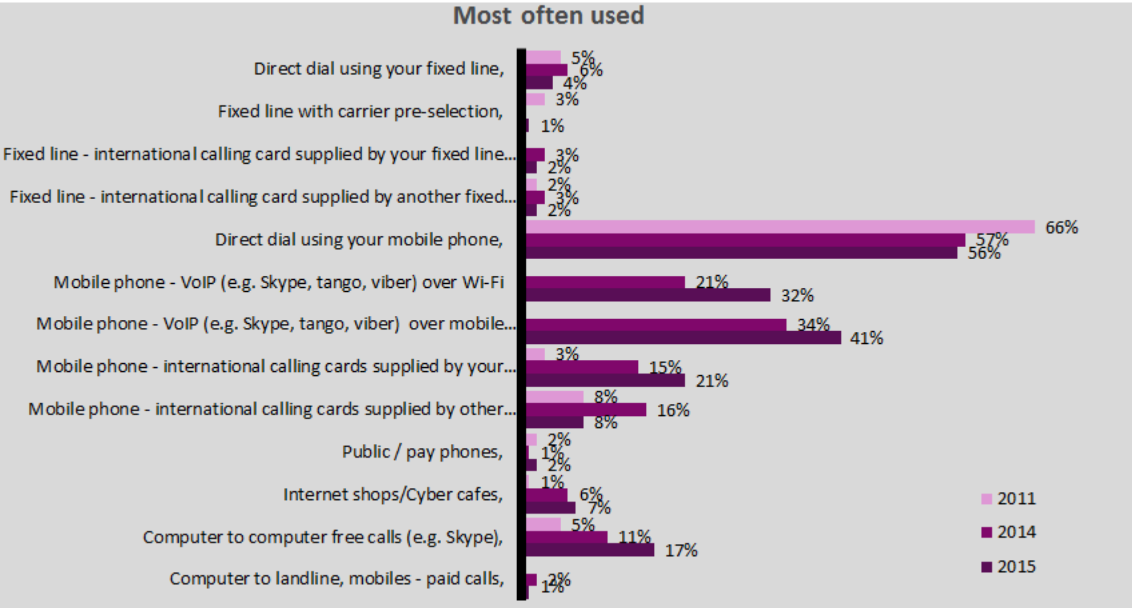
4 Developments since 2008

31. Since the 2008 review, a number of developments in the sector have affected the competitive environment in which international calls are provided. This includes the increased uptake of mobile services and OTT calling services.

4.1 Developments in take-up of mobile

32. Historically, the major operators in the international call markets were Batelco, Kalaam, Mena, Viacloud, and Zain. However, since 2008, Viva has entered the market and become a key player, whilst the volume of mobile originated traffic has more generally increased significantly. As a result, Mena's, Kalaam's and Viacloud's combined market share has fallen from 34% of traffic to less than 6%.
33. Indeed, Batelco, Viva and Zain had, in 2014, a combined traffic market share of 94%.
34. The emergence of OTT (notably Skype, Viber and WhatsApp) has had an impact on the international calls market, especially on the calling behaviour of private users (but arguably, also in terms of the competitive behaviour by local licensed operators and on the prices offered to some destinations) .
35. As an example of the changing call behaviour of end-users, one of the questions asked in the consumer survey from 2014 related to the most common ways in which (residential) consumers make international calls. While mobile direct dial remains the option used most often (57% of respondents in 2014, down from 66% in 2011), the use of mobile VOIP-based services to make international calls has increased significantly – in 2014, 34% of respondents used VOIP (e.g. Skype, Viber, Tango) over mobile broadband (up from 0% in 2011), and 21% used VOIP over WiFi (0% in 2011). These were the 2nd and 3rd most often used ways of making international calls in 2014. . The results from the survey are shown in Figure 1.

Figure 1: Survey results on means used to make international calls

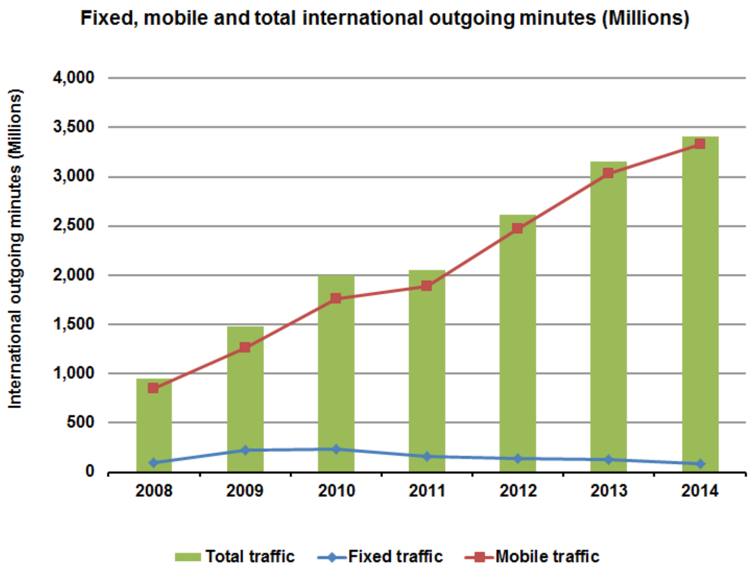


Source: Telecommunications Services in Bahrain, Residential Services Survey, commissioned by the Authority in 2015.

36. Total international outbound traffic minutes have more than tripled since 2008, increasing from 953 million minutes in 2008 to 3.4 billion minutes in 2014, as seen in

37. Figure 2. Of these minutes, the number of minutes originated on mobile networks has increased from 853 million to 3.3 billion, with this shift to mobile being behind the increase in the combined market share of the three mobile operators.

Figure 2: Breakdown of total international outgoing minutes

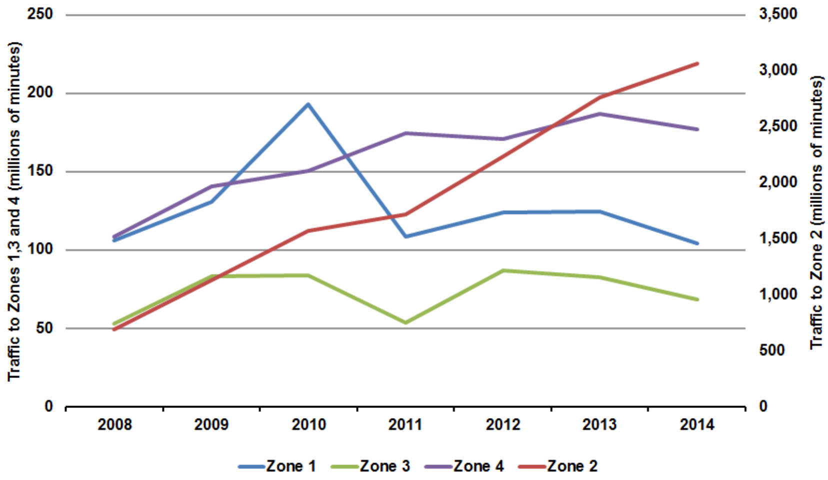


Source: The Authority analysis based on operator data

4.2 Developments in traffic across zones

38. The increase in international traffic has largely been driven by increases in international outgoing minutes to Zone 2 countries, which has increased by 37% between 2012 and 2014. Traffic to Zone 1 (GCC) and Zone 3 countries has fallen since 2012, whereas the traffic to destinations in Zones 2 and 4 has increased consistently over time.

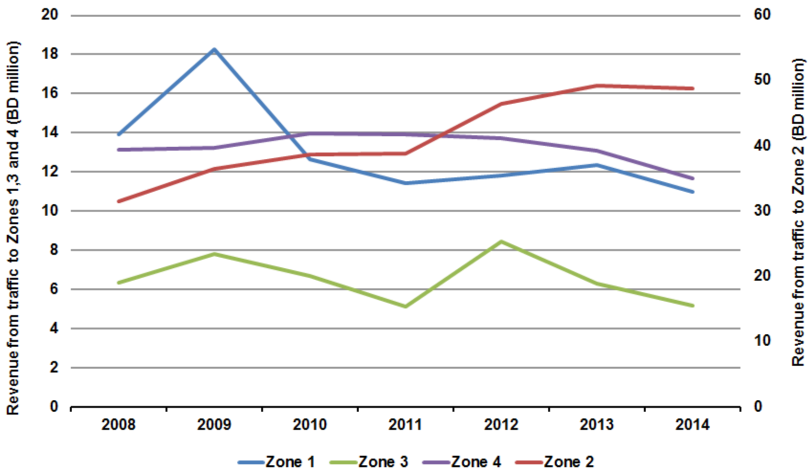
Figure 3: Total outgoing international traffic per Zone



Source: The Authority analysis based on operator data

39. International call revenues have increased since 2008 by 18%. Again, much of this increase came from calls to Zone 2 destinations, while revenue from calls to all other zones has remained more stable.

Figure 4: Total outgoing international revenue per Zone, BD

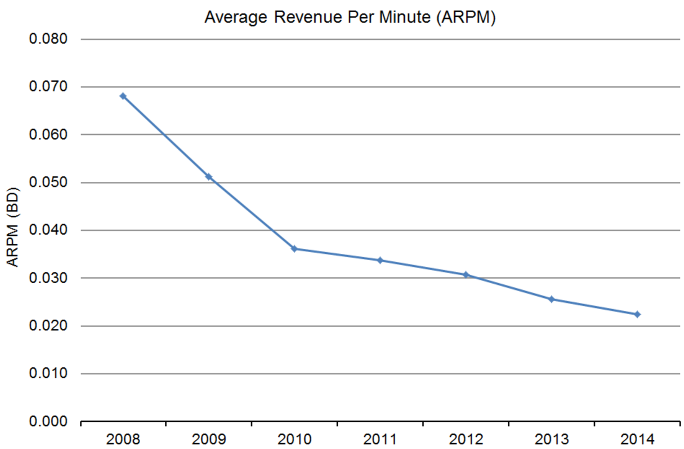


Source: The Authority analysis based on operator data

4.3 Developments in measures of price

40. Average Revenue per Minute (ARPM) for international traffic has fallen by 68% since 2008.

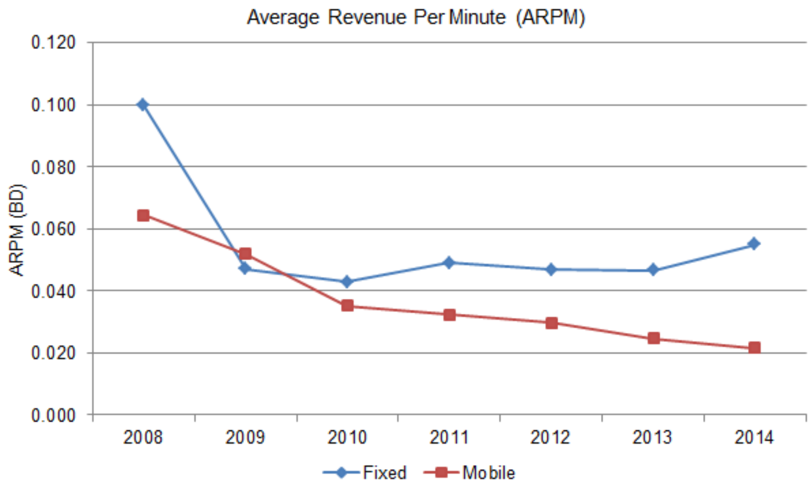
Figure 5: Average revenue per minute, including both fixed and mobile



Source: The Authority analysis based on operator data

41. This reduction has occurred across both fixed and mobile international call origination, with a large part of the reduction occurring in 2008 and 2009, as can be seen in Figure 6.

Figure 6: Average revenue per minute, separately for fixed and mobile



Source: The Authority analysis based on operator data

5 2015 Strategic Market Review (SMR) and identification of the relevant retail market

5.1 Conclusions in the 2015 SMR

42. As mentioned previously, the SMR analysed the developments since 2008 which have been highlighted in Section 4. Based on this analysis in the SMR, the Authority no longer considered the market definition as per the 2008 determination appropriate.

43. The Authority concluded in the SMR that:[21]

    a. the separation into Zones should be removed, and there should be only one relevant retail market for international outgoing calls; and

    b. fixed outgoing and mobile outgoing calls should belong to the same relevant market.

44. The key reasons for these changes in market definition are:

    a. The Zone definitions do not reflect the features and characteristics of demand or supply in the international call market today.

    b. Another reason for moving away from geographic (‘Zone’) markets is strong supply-side substitution, since suppliers of outbound international calls from Bahrain will often use international carriers who aggregate traffic and offer conveyance services to many destinations.

    c. The rapid increase in mobile originated international calls has led to a situation where fixed outgoing volumes constitute a minor share of total outgoing international switched traffic overall.

    d. There is evidence of substitution from fixed calls to mobile calls in both aggregate traffic data and the Authority’s residential and business surveys. This supports a conclusion that fixed and mobile outgoing international calls are likely to be viewed by end users as close substitutes.

    e. The strong consumer uptake and use of OTT services in the last few years (especially from smartphones) imply that these services may increasingly provide some competitive constraint to the licensed providers.

45. The Authority’s conclusion was therefore that the market should be defined as ‘the retail market for international outgoing calls from Bahrain’ which would include both fixed and mobile outgoing calls to all Zones.

[21] The abolition of zone-wise separation of markets is in line with EC precedent on market definition relating to calls markets.

5.2 Identification of the relevant retail market

46. As explained in the introduction in Section 1, the analysis necessary for a market definition exercise was carried out in the SMR and a market definition was suggested.

47. Since the SMR, 2014 data has become available, which has been analysed to assess if the market definition suggested in the SMR is appropriate.

48. Based on this assessment, this section therefore defines the retail market for international outgoing calls from Bahrain.

5.2.1 Updated traffic and revenue data

49. The updated traffic data continues to show an upwards trend in total outgoing traffic with an increase of 8% between 2013 and 2014.

50. Fixed calls declined by 42 million minutes in 2014, a reduction of 34%. In contrast, mobile calls increased by 295 million minutes in 2014, an increase of 10%.

Figure 7: Total international outgoing traffic

Minutes (In Millions)	2008	2009	2010	2011	2012	2013	2014	Growth (2013 - 2014)
Fixed	100	225	233	160	144	124	83	**-34%**
Mobile	853	1,258	1,764	1,890	2,474	3,032	3,328	**10%**
Total	954	1,483	1,998	2,050	2,618	3,157	3,410	**8%**

Source: The Authority analysis based on operator data

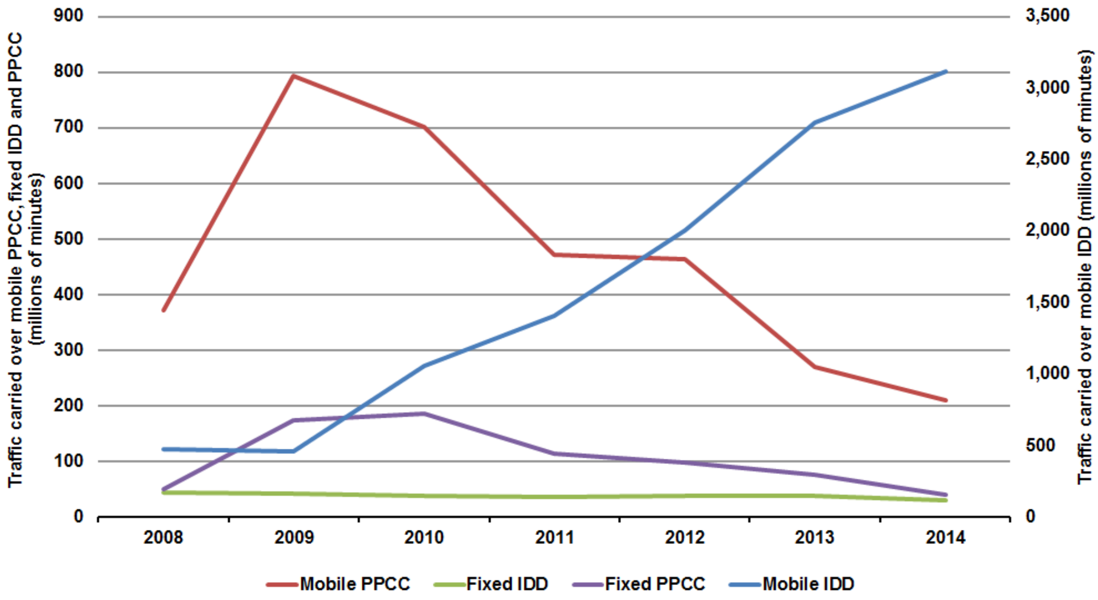
51. The trends continue to suggest that substitution exists between fixed and mobile originated international calls.

52. As mentioned in Annex 2on previous determinations, although the Authority defined a single market for residential and non-residential consumers in 2007, it had considered that there may have been some grounds for defining separate markets for the two consumer groups.

53. This was based on evidence such as the Consumer Survey conducted by the Authority in 2007 which found that residential customers saw PPCC as more of an alternative to IDD than business customers did. Furthermore, CPS services were primarily targeted at business users because of the economies of scale resulting from the larger spend on international calls that typically comes from businesses rather than residential customers.

54. This no longer appears to be the case. . The increasing use of mobile IDD services from around 2010 has led to a decline in the use of PPCC over both fixed and mobile networks. As Figure 8 below shows, traffic carried over mobile IDD has increased while that carried over mobile PPCC and fixed IDD and PPCC has either stayed stable or declined after an initial peak in 2009.

Figure 8: Evolution of traffic carried over IDD and PPCC

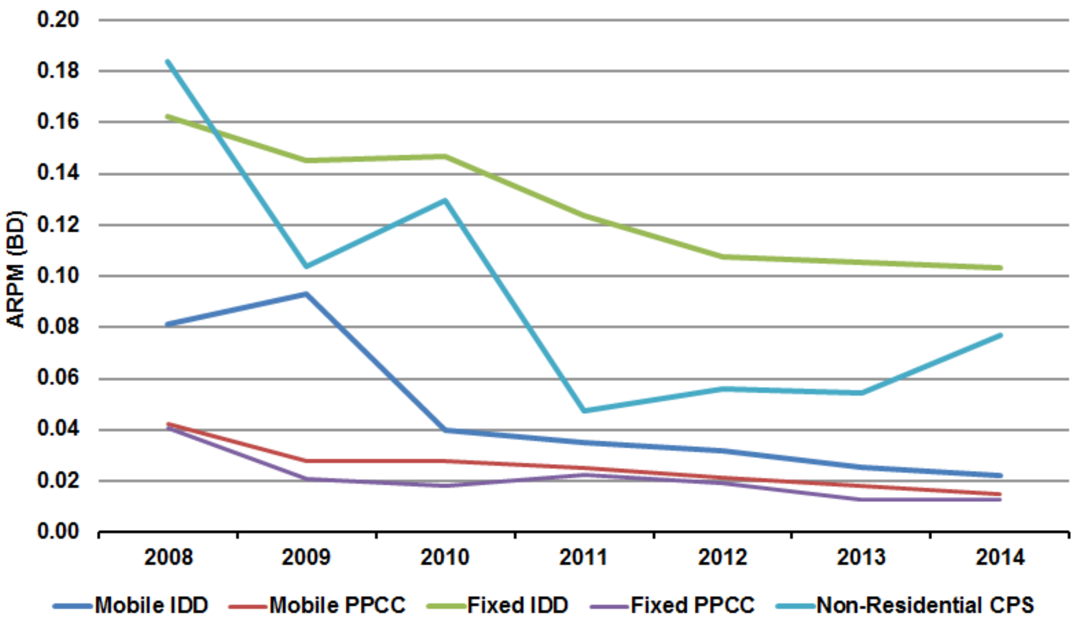


Source: The Authority analysis based on operator data

55. PPCC thus no longer appears necessary as a substitute for fixed IDD because of the increasing use of mobile IDD. The difference between residential and non-residential consumers' perceptions of substitutability between PPCC and IDD is no longer a relevant consideration.

56. Furthermore, although CPS may continue to be attractive for non-residential consumers, the ARPMs for fixed CPS lie between the ARPMs for mobile and fixed IDD as seen in Figure 9. Thus, again, mobile IDD is more likely to be a substitute for non-residential consumers now than it was at the time of the previous review.

Figure 9: Evolution of ARPM for fixed and mobile



Source: The Authority analysis based on operator data

57. Given the trends in traffic and ARPMs, the factors that may have led to separate markets for residential and non-residential consumers no longer apply. Given that mobile would be a substitute for both customer groups, and that the outcome of the competitive assessment would be unaffected under either definition, a single market remains reasonable.

5.2.2 Customer surveys

58. The Authority has also carried out residential and business customer surveys in the period from May to July 2015 to assess satisfaction, perceptions on quality as well as propensity to switch.[22]

59. According to the residential survey, 60% of respondents said that they would switch to making international calls through mobile if the price of international calls from a fixed line increased by 10%. 40% of respondents to the business survey stated that they would switch to a mobile service if faced with a 10% increase in the price of international calls from a fixed line.

60. This survey evidence gives additional support to the evidence from traffic, revenue and price trends which point to fixed-mobile substitutability for international calls for both

22 The results of the surveys will be published in the Authority's website by December 2015

customer segments. A single market for residential and non-residential consumer therefore remains appropriate.

61. When a similar question was asked regarding OTT services, 61% of respondents to the residential survey stated that they would switch to an OTT application if faced with a 10% increase in the price of international calls from a fixed line. The business survey found that 31% of respondents said that they would switch to making international calls through mobile if the price of a fixed line call increased by 10%.

62. The evidence also points to potential substitutability between OTT services and fixed-line services in the international calls market. At the very least, it does suggest that there may be competitive constraints on fixed services being placed through these OTT services.

63. However, unlike for mobile services, there is no revenue and traffic evidence to demonstrate the trends in usage and switching from fixed and mobile services to OTT services over time. It also makes it difficult to distinguish between substitutability and complementarity of OTT and traditional voice services.

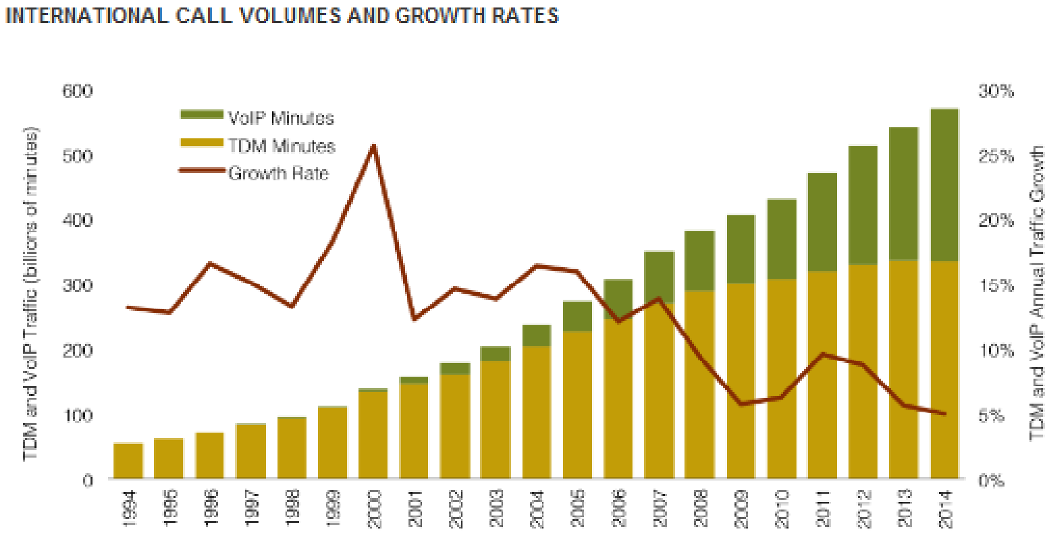
64. International evidence paints a mixed picture.

65. Figure 10: International call volumes over Time Division Multiplexing (TDM) and VoIP

66. shows the international calls made over Time Division Multiplexing (traditional voice calls) and Voice over Internet Protocol (VoIP) for 69 countries in the world. The volume of calls over TDM has remained largely stable since 2008 while the volume of VoIP calls has increased. This could be indicative of complementarity between the two, rather than substitutability.[23]

[23] TRA recognises that a more detailed analysis would be required to understand the extent to which there really is substitutability or complementarity between the two types of service in these particular countries.

Figure 10: International call volumes over Time Division Multiplexing (TDM) and VoIP



Source: Telegeography[24]

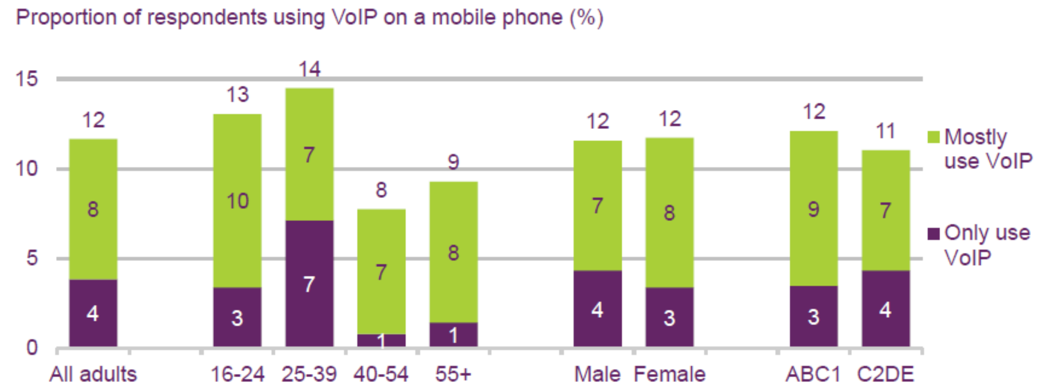
67. This reasoning is in line with the UK telecommunications market regulator's (Ofcom) findings in its 2015 Communications Market Report.[25] Its survey found that 61% of VoIP users used a smartphone to make VoIP calls and that most people using VoIP on a smartphone were using it to complement traditional calls.

[24] Available at https://www.telegeography.com/research-services/telegeography-report-database/

[25] The Communications Market Report, 6 August 2015, Ofcom. . Available at http://stakeholders.ofcom.org.uk/binaries/research/cmr/cmr15/CMR_UK_2015.pdf

Figure 11: Use of voice services on mobile phones, Ofcom survey evidence

Figure 4.11 Use of voice services on mobile phones: 2015



Source: YouGov VoIP 24-31 March 2015
Base: Online UK adults who use VoIP on their smartphone 16+ (617), 16-24 (118), 25-39 (181), 40-54 (175), 55+ (143), male (258), female (359), ABC1 (343) and C2DE (274)
Q7. You've stated that you use VoIP on your smartphone and/or feature phone. Thinking specifically about voice calls (i.e. not using video), which of the following best describes your use?

Source: Communications Market report, 2014, Ofcom

68. The EC, in its most recent recommendation on the relevant product and service markets within the electronic communications sector found that OTT services are not yet at a level in which they can be considered actual substitutes to the services provided by infrastructure operators.[26] However, the EC pointed out that certain technological developments, such as the growing importance of smartphones and the forthcoming expansion of LTE will likely result in a continuous expansion of OTTs.

69. For the purpose of the present review, the Authority does not find it necessary to determine whether or not to include OTT services are part of the relevant market for international outgoing calls from Bahrain. As the inclusion or exclusion of OTT services will not alter the outcomes of the competitive assessment in this market (see Section 6), the Authority chooses to remain agnostic on the matter at this point in time.

5.2.3 Market definition

70. Given the above evidence, the Authority believes that the relevant market is as suggested in the SMR.

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[26] See Explanatory Note accompanying the Commission Recommendation on relevant product and service markets within the electronic communications sector. . Available at https://ec.europa.eu/digital-agenda/en/news/explanatory-note-accompanying-commission-recommendation-relevant-product-and-service-markets

71. The market is therefore defined as the retail market for international outgoing calls from Bahrain, which includes fixed and mobile outgoing calls.

Q1. Do you agree with the Authority's definition of the market for international outgoing calls from Bahrain? If not, please explain why.

6 Assessment of whether there is SMP in the relevant retail market

72. On the 31st of August 2015 the Authority published its latest SMR[27] with the preliminary conclusion that the international calls market is effectively competitive and that no operator holds SMP in the relevant market. This was, in large part, due to the redefinition of the retail market for international calls and its evident implications for the assessment of market power.

73. Since the publication of 2015 SMR, 2014 data has become available. The following section uses this information to carry out the competitive assessment in the market for international outgoing calls from Bahrain.

74. Consistent with the Modified Greenfield approach[28], the existing RTN Regulation has been excluded from the Authority's assessment of competition in the retail market. Consequently, the Authority's assessment focuses on the competitive constraints that operate independently of any SMP finding in this market.

75. As outlined in the Authority's Competition Guidelines[29], several factors can be considered in assessing SMP and dominance. Given the characteristics of the markets under consideration and their evolution since 2008, the most important factors are described briefly below[30]:

    a. Market shares and existing competition: A current snapshot of market shares indicates the market position held by each operator. Analysing market shares over time reveals how competition is evolving and allows a forward-looking assessment of how shares may continue to evolve. This is because the trend in market shares shows whether competition is intensifying or weakening, and therefore if the market power of current operators is likely to decrease or increase.

    b. Barriers to potential entry and expansion: The extent to which the threat of potential entry or expansion by other operators will constrain existing operators will depend on whether barriers to entry or expansion are significant. Entry barriers occur when an existing operator in a market has an advantage over potential entrants. Barriers to expansion are similar but relate to the ability of an existing operator to expand. For example, where an existing competitor faces capacity constraints that limit its ability to increase its scale of production.

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27 Strategic Market Review, Future Ex-Ante Market Regulation and Other Regulatory Measures to Foster a Dynamic Sector Development, The Authority, 31 August 2015. Available at http://www.tra.org.bh/media/document/MCD%2008%2015%2062%20Final%20SMR%20Report%20-%20Public%20version.pdf

28 See paragraph 18 above.

29 See "Competition Guidelines: Guidelines issued by the Telecommunications Regulatory Authority", 18 February 2010 (Ref: MCD/02/10/019).

30 The Authority also considered other factors such as evidence on prices and profits which have been discussed in other sections of this document, and the evidence found supports the conclusions of this section. .

c. Countervailing buying power: Countervailing buyer power refers to the ability of buyers to limit the ability of sellers to exercise market power. It refers to the relative bargaining power of buyers and sellers, and is most evident where buyers and sellers have to negotiate. Countervailing buyer power is enhanced where the following conditions apply:

   i. the buyer is well-informed about alternative sources of supply;

   ii. the buyer could switch to alternative sources of supply without incurring significant costs;

   iii. the buyer could produce the input itself or “sponsor” new entry by another supplier; and

   iv. the buyer is an important outlet for the seller and therefore the seller would be prepared to negotiate i.e. limited alternative buyers.

   v. Two parties negotiate a reciprocal agreement such as in the case of two-way interconnection, internet peering, or wholesale international mobile roaming agreements between two operators.

76. These factors are discussed in more detail in the sections below.

6.1 Market shares and existing competition

77. Batelco’s revenue market share has declined steadily since the 2008 SMP Determination from [40-50]% to [20-30]%. Meanwhile, Batelco’s traffic market share has increased from a low of [5-15]% in 2012 to [10-20]% in 2014.

78. The difference in these trends suggests that Batelco has had to reduce its share of revenue to retain its share of traffic. This implies that Batelco has reduced prices to maintain its traffic market share, pointing to an increase in competition in the market.

79. Furthermore, it is possible that declining prices due to higher mobile competition since 2008 has led to a decline in PPCC use. As was seen in Figure 8, traffic for mobile IDD has increased while that of mobile PPCC has declined. Figure 9 showed that ARPM for mobile IDD and mobile PPCC also follow a similar trend.

80. The increased substitutability between fixed and mobile call origination has led to operators providing fixed services only to have a smaller market share. For example, Kalaam’s share of traffic fell from [20-30] % in 2008 to less than [10]% in 2014. The three mobile operators, Batelco, Viva, and Zain, now account for 94% of international call-origination traffic and 96% of revenue, see Figure 12 and Figure 13 below.

Figure 12: Comparing traffic market shares between 2008 and 2014

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Source: The Authority analysis based of operator data

Figure 13. Comparing traffic market shares over time

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Source: The Authority analysis based of operator data

81. As can be seen in Figure 13 above, market shares of Kalaam and Mena have declined over the years, while VIVA and Zain's shares increased in the last four years. Viva's share

appears to have stabilised since 2012. Batelco's share has been increasing since 2012, but is still below the 2008 level of [20-30]%.

Figure 14. Comparing revenues market shares over time

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Source: The Authority analysis based on operator data

82. Under the new market definition, Viva is the largest operator in terms of both volume and revenue, with over [40-50]% market share in both cases.
83. This is above the threshold of 25% set by the Competition Guidelines for SMR. However, as is mentioned in the Guidelines, the finding of SMP is based on a market share threshold of 25%, providing this is supported by other evidence.
84. The Authority has considered the evolution of market shares, the competitive dynamic of prices and profits and the constraint from other fixed and mobile operators.
85. Although the Authority does not think it appropriate to include OTT players in the defined relevant market, the extent of the competitive constraint from these services is also considered.
86. On balance, the Authority finds it unlikely that Viva, or any OLO, has sufficient market power to act independently to a significant extent from competitors or consumers, even if the market share is above the threshold of 25%.
87. Furthermore, while market share is in excess of the 25% required to consider SMP, this increase in market share has happened over time and does not stem from any inherent advantages that may come from being a former incumbent.

88. Based on this assessment and in keeping with the Modified Greenfield Approach, the Authority is of the preliminary view that absent regulated access at the wholesale level, there would still be competition in the retail market for international outgoing calls from Bahrain.

6.2 Potential entry and expansion

89. The Authority finds that the barriers to entry and expansion in this market are likely to be low and surmountable.
90. Operators need access to international capacity to provide international calling services. Operators that already provide domestic calls services would therefore be able to provide international calling services without much difficulty.
91. Furthermore, operators providing calls to certain zones would easily be able to expand their operations and provide calls to other zones. Thus, the supply-side substitutability between zones implies that the barriers to expansion are also low.
92. The Authority therefore maintains, as it did in the 2008 SMR determination, that barriers to entry and expansion in this market are low.[31]

6.3 Countervailing buyer power

93. The Authority considers that demand for international outgoing call services at the retail level is highly fragmented, which leaves consumers with limited negotiating power.
94. The Authority's preliminary view is that customers of international outgoing call services in the Kingdom of Bahrain have little or no countervailing buyer power.

[31] See "Significant market power designation in certain relevant retail markets", The Authority, 3 June 2008. Available at http://www.tra.org.bh/media/document/FINALSMPDetermination20080603.pdf

6.4 Preliminary conclusion on SMP

95. The Authority acknowledges that the three largest operators have a combined market share of nearly 96% of the billed revenue from international calls from Bahraini operators. However, the evaluation does not consider the substantial international call volumes generated by OTT communications providers, and the additional competitive constraint from OTTs.

96. Based on the above, the Authority's preliminary view is that the market is effectively competitive and that no operator holds SMP in the redefined retail market (i.e. the retail market for international outgoing calls from Bahrain).

Q2. Do you agree with the Authority's view that that no operator holds SMP in the retail market for international outgoing calls from Bahrain? If not, please explain why.

7 Overall conclusions on SMP and implications

97. In this concluding section, the Authority summarises its preliminary conclusions on whether any operator has SMP in the relevant market. The Authority also sets out the implications of such conclusions in terms of the regulatory obligations that would be imposed on operators at both the retail and the wholesale level to remedy such positions of SMP / dominance.

7.1 Summary of findings and preliminary conclusions

98. The Authority last reviewed the retail market international outgoing calls from Bahrain in the 2008 SMP Determination.

99. In that Determination, the Authority defined eight markets, separated by geographical destination (Zone) and whether the call originated on a fixed or mobile device. Batelco was found to have SMP in the following markets:

    a. Fixed originated international calls to Zone 1 countries ; and

    b. Fixed originated international calls to Zone 3 countries.

100. Following the 2008 SMP Determination and the issuance of the Retail Tariff Notification (RTN) Regulation in 2010, the services that Batelco supplies in the retail market for fixed originated international calls to Zone 1 (Market 3a) and to Zone 3. (Market 3c) are subject to tariff controls.

101. Since 2008, there have been a number of developments in these markets. Most notably, the three key ones being:

    a. Increased competition in the market for international calls driven by the rise of mobile services as a substitute for fixed calls; and

    b. The emergence of OTT (notably Skype, Viber and WhatsApp) providers of international services.

102. The relevant retail market has consequently been redefined as a single market including both fixed and mobile (i.e. the retail market for international outgoing calls from Bahrain).

103. Given the competitive assessment carried out in Section 6, it is the Authority's preliminary view that no licensee has a position of SMP in the retail market for international outgoing calls from Bahrain.

7.2 Implication

104. In the event that the Authority makes a final determination that no licensee has SMP in the retail market for international outgoing calls from Bahrain, Batelco will no longer be subject to tariff controls under Article 58 of the Telecommunications Law and the RTN Regulation in respect of such services. As a result, Batelco will no longer be required to notify the Authority of any changes to Batelco's retail tariffs for these services.

Q3. Do you agree with the Authority's overall conclusions and the resulting implications? If not, please explain why.

Annex 2 – Findings in the Strategic and Retail Market Review 2008

A2.1 Market definition

105. The Authority has previously considered the retail market for international outgoing calls from Bahrain as part of the Strategic and Retail Market Review of 2008.[32] After presenting its findings for public consultation on 27 August 2007, the Authority took on responses received from operators and presented its final analysis and conclusions on 3 June 2008.[33]

A2.1.1 Route-level definition

106. The Authority found a definition of separate markets for each of the 237 international routes to be impractical and instead grouped the routes into four zones.

Table 1: Zonal grouping of routes

Zones	Countries
Zone 1	GCC countries: Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates (UAE)
Zone 2	South Asian countries; Bangladesh, India, Pakistan, the Philippines and Sri Lanka
Zone 3	Australia, Canada, France, Germany, Greece, Italy, Iran, New Zealand, Thailand, the United Kingdom (UK), the United States of America (USA), Yemen
Zone 4	Rest of the world, i.e. all countries not in Zone 1-3

Source: the Authority

107. For each of these zones, the Authority defined separate markets for fixed and mobile originated international calls because of the differences in the pricing of these services.

108. The Authority also defined the market for mobile originated international calls separately to the mobile services market because of demand and supply side substitutability.

109. On the demand-side, although access and calling services were typically bought together, the Consumer Survey and the activities of OLOs in the mobile originated international calls market showed that mobile users often purchase international calls from a different operator to the one they bought the mobile access product from. For instance, according to the Authority's consumer survey in 2007, 38% of mobile residential customers use pre-paid calling cards ("PPCC") for international calls from their mobile.

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32 Available at http://216.25.41.102/en/pdf/Strategic_and_Retail_Market_Review_Consultation_Final.pdf

33 Available at http://www.tra.org.bh/media/document/FINALSMPDetermination20080603.pdf

110. On the supply-side, the Authority found that there was only one-way substitution because of barriers to entry in the mobile services market. That is, in response to a SSNIP in the mobile access and domestic calls market, a provider of international calls would be unable to enter the mobile services market within a reasonable timeframe due to barriers to entry.

111. Furthermore, given that the market for mobile originated calls appeared more competitive than the market for mobile services, the Authority thought to separate mobile originated international calls from the mobile services market.

A2.1.2 Product-market definition

112. The Authority defined the markets to include calls made via PPCCs, Carrier Pre-Selection (CPS) and direct dial services. This was based on considerable evidence of switching between calling cards and direct dial (including CPS) services for international calls. Although the user experience from PPCC and IDD were likely to be different, the Authority concluded that they should be included in the same market. The Authority found that PPCC being priced at a discount to IDD was reflective of the difference in user experience as well as the competition between the two mechanisms.[34]

A2.1.3 Customer-level definition

113. The Authority recognised that there may have been some grounds for defining separate markets for residential and non-residential consumers. For instance, the Consumer Survey conducted by the Authority in 2007 found that residential customers saw PPCC as more of an alternative to IDD than business customers did. Furthermore, CPS services were primarily targeted at business users because of the economies of scale resulting from the larger spend on international calls that typically comes from businesses rather than residential customers.

114. However, the Authority found that potential competition and regulatory concerns for each category of users could be addressed without separate market definitions. Also, because the outcome of the competitive assessment would be unaffected by a combined market definition, the market was defined to include both residential and non-residential customers.

A2.1.3 Final market definition

115. The Authority therefore defined the following markets for retail international outgoing calls from Bahrain:

    a. the retail market for fixed originated international calls to Zone 1[35]. (Market 3a);

    b. the retail market for fixed originated international calls to Zone 2[36]. (Market 3b);

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[34] See Page 140 , "Strategic and Retail Market Review - A public consultation document", 27 August 2007, Available at http://216.25.41.102/en/pdf/Strategic_and_Retail_Market_Review_Consultation_Final.pdf

[35] Zone 1 countries: GCC: Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates (UAE).

c. the retail market for fixed originated international calls to Zone 3[37]. (Market 3c);

d. the retail market for fixed originated international calls to Zone 4[38]. (Market 3d);

e. the retail market for mobile originated international calls to Zone 1. (Market 3e);

f. the retail market for mobile originated international calls to Zone 2. (Market 3f);

g. the retail market for mobile originated international calls to Zone 3. (Market 3g); and

h. the retail market for mobile originated international calls to Zone 4. (Market 3h)

116. These were defined to include both residential and non-residential customers.

A.2.2 Competitive assessment

117. The Authority came to the view that Batelco had SMP in the following international calls markets:

a. The retail market for fixed originated international calls to Zone 1 (Market 3a)

b. The retail market for fixed originated international calls to Zone 3. (Market 3c)

118. The Authority concluded that no operator had SMP in the other international calls markets. (Markets 3b,d,e,f,g,h).

119. This was based on a quantitative analysis of the international traffic. At a high level, the main insights from the analysis were:

a. The volume of international traffic had increased dramatically while overall revenues had fallen significantly as a result of price competition; particularly for calls to Zone 2 but less so for calls to Zone 1.

b. OLOs had gained significant market share in some markets, particularly the Zone 2 markets, indicating the development of competition.

c. Batelco had retained substantial market shares in fixed originated international calls to Zones 1 and 3, and to a less extent Zone 4.

d. Batelco had substantial market shares for mobile originated international calls to Zones 1 and 3. Zain had a substantial market share for mobile calls to Zone 4.

e. Batelco’s market shares based on revenues had been systematically higher than its market shares based on volume.

120. The Authority considered that, through access to regulated wholesale services, OLOs have been able to enter the mobile international calls markets and to exert competitive pressures on Batelco and Zain.

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36 Zone 2 countries: South Asian countries; Bangladesh, India, Pakistan, the Philippines and Sri Lanka.

37 Zone 3 countries: Australia, Canada, France, Germany, Greece, Italy, Iran, New Zealand, Thailand, the United Kingdom (UK), the United States of America (USA), Yemen

38 Zone 4 countries: Rest of the world, i.e. all countries not in Zone 1-3

121. On balance, the Authority found that with the exception of international calls originated from fixed lines to Zone 1 and Zone 3 countries, the remaining markets were competitive. For mobile originated calls, Zain was found to provide a sufficient competitive constraint to Batelco and vice versa. For Zone 4, Batelco's market share has been continually decreasing and so no competitive concern was raised.

A2.1.3 Conclusion

122. Thus, the Authority defined the following markets for retail international outgoing calls from Bahrain:

    a. the retail market for fixed originated international calls to Zone 1[39]. (Market 3a);

    b. the retail market for fixed originated international calls to Zone 2[40]. (Market 3b);

    c. the retail market for fixed originated international calls to Zone 3[41]. (Market 3c);

    d. the retail market for fixed originated international calls to Zone 4[42]. (Market 3d);

    e. the retail market for mobile originated international calls to Zone 1. (Market 3e);

    f. the retail market for mobile originated international calls to Zone 2. (Market 3f);

    g. the retail market for mobile originated international calls to Zone 3. (Market 3g); and

    h. the retail market for mobile originated international calls to Zone 4. (Market 3h)

123. Batelco was found to have SMP in the retail markets for fixed originated international calls to Zone 1 and Zone 3 countries.

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[39] Zone 1 countries: GCC: Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates (UAE).

[40] Zone 2 countries: South Asian countries; Bangladesh, India, Pakistan, the Philippines and Sri Lanka.

[41] Zone 3 countries: Australia, Canada, France, Germany, Greece, Italy, Iran, New Zealand, Thailand, the United Kingdom (UK), the United States of America (USA), Yemen

[42] Zone 4 countries: Rest of the world, i.e. all countries not in Zone 1-3

Annex 3 – List of questions

Q1. Do you agree with the Authority's definition of the market for international outgoing calls from Bahrain? If not, please explain why.

Q2. Do you agree with the Authority's view that that no operator holds SMP in the retail market for international outgoing calls from Bahrain? If not, please explain why.

Q3. Do you agree with the Authority's overall conclusions and the resulting implications? If not, please explain why.

Annex 4 – List of tables and figures

List of tables

List of figures