

Retail Cellular Mobile Market Review and Assessment under Section 39(1) and (2) of the Communications Act, 2009

Preliminary Determination

ECS 01/2022

Issued: 25 March 2022

Initial Response Date: 25 April 2022

Comments on Responses Date: 26 May 2022

Table of Contents

1		Introduction	3			
	1.1	Procedures for Making a Determination	4			
	1.2	Legislative Framework for Market Analysis	5			
	1.3	How to respond to this Consultation	6			
	1.4	Structure of the remainder of this document	7			
2	URC	CA's Preliminary Determination	8			
3	Con	text for this Preliminary Determination	10			
	3.1	Background to this Market Review	10			
	3.2	Key Recent Market Developments	14			
	3.3	Analytical Approach to Market Review	23			
	3.3.	1 Defining Relevant Markets	24			
	3.3.	2 Competition and Dominance Assessment	25			
	3.3.	3 SMP Obligations and Remedy design	27			
4	Defi	inition of the Relevant Retail Market	29			
	4.1	Product Market Definition	29			
	4.1.	1 Mobile Access and Domestic Call and Messaging Services	29			
	4.1.	2 Outbound International Call and Messaging Services	32			
	4.1.	3 Outbound International Mobile Roaming Services	33			
	4.1.4	4 Mobile Data Services	35			
	4.1.	5 Prepaid and Postpaid Subscriptions	38			
	4.1.	6 Residential and Business Subscriptions	42			
	4.1.	7 Assessment of Non-Mobile Services	44			
	4.2	Geographic Market Definition	58			
	4.3	Preliminary Conclusion on Product and Geographic Market	59			
5	Don	ninance Assessment in Retail Mobile Market	60			
	5.1	Relevant Retail Market – Assessment of Single Dominance	60			
	5.2	Relevant Retail Market – Assessment of Joint/Collective Dominance	72			
	5.3	Ex ante Remedies for Retail Mobile Market	82			
6	Con	onclusion and Next Steps				

1 Introduction

With this Preliminary Determination, the Utilities Regulation and Competition Authority ('URCA') informs Licensees, other stakeholders and the public in general of its preliminary economic assessment of the competitive dynamics in the retail cellular mobile market in The Bahamas. The assessment set forth in this Preliminary Determination does not cover the relevant wholesale markets for Mobile Access and Call Origination ('MACO') and other such services including wholesale mobile termination services. URCA further advises that it is conducting a separate study on the feasibility of a third mobile entrant in The Bahamas and based on the outcome of the study, URCA may review the relevant wholesale markets as necessary.

URCA is statutorily empowered to determine whether electronic communications markets are effectively competitive and delivering benefits for customers in The Bahamas. Promoting sustainable competition is one of URCA's core objectives. Amongst other things, URCA fulfills this mandate by periodically assessing competition at the retail and wholesale service levels. The legal basis for this review is set out in the Communications Act, 2009 (the 'Comms Act' or the 'Act'), especially sections 39(1) and 8 as summarized in sub-section 1.2 of this document.

The Bahamas Telecommunications Company Limited ('BTC') is currently the SMP (Significant Market Power) operator by virtue of the presumption of dominance in mobile in section 116 and Schedule 4 of the Comms Act, the ECS Policy dated 7th October 2009¹ and URCA's 22 April 2010 Final Decision (ECS 11/2020).² That Final Decision has not been reviewed since due to the monopolistic market structure which remained in place until 2016. Upon Be Aliv Limited's ('Aliv') entry in late 2016, URCA indicated its intention to review the mobile markets once Aliv had fully established itself. URCA believes that this condition has now been met and thus URCA has embarked on this review of the retail cellular mobile market.

URCA's analysis in this market review follows its own methodology for *ex ante* competition reviews as per section 39(1) and (2) of the Act, as summarized on sub-section 1.2 below. As well, URCA has taken into account other relevant provisions of the Comms Act. In particular, URCA first identifies the relevant product and geographic scope over which to assess competition in the provision of retail mobile services in The Bahamas (market definition stage). URCA then assesses the level of competition observed and expected in the foreseeable future in the defined market(s), in order to identify any prevailing economic bottlenecks, as well as Licensees that hold a dominant position/SMP in the market considered in this analysis (competition assessment stage). The market analysis presented in this document is both current

¹Available at <u>https://www.urcabahamas.bs/wp-content/uploads/2017/01/Electronic-Communications-Sector-Policy-1.pdf</u>

²Available at <u>https://www.urcabahamas.bs/wp-content/uploads/2017/02/ECS-11-2010-Final-Decision-Obligations-Imposed-on-Operators-with-Significant-Market-Power..pdf</u>

and forward-looking, taking into consideration all relevant competitive constraints operating in the defined retail mobile market now and within a foreseeable period of time.

The analysis is informed by operator specific data, specific conditions in the relevant market(s), the results of a URCA commissioned survey of fixed and mobile end-users across the entire Bahamas,³ and international precedent.

URCA highlights the aim of the consultation as follows:

- To identify the scope of the relevant market for retail mobile service;
- To identify Licensees that are singly or jointly dominant in the relevant market;
- To assess whether or not to impose, amend, or withdraw regulatory obligations relating to retail mobile services; and
- To invite written comments on URCA's review and provisional findings.

This Preliminary Determination is issued by URCA to initiate a public consultation process pursuant to URCA's responsibilities under section 11 of the Comms Act to seek inputs from interested third parties on matters of public significance. URCA now invites written feedback from Licensees and other segments of Bahamian society on its preliminary findings and supporting arguments as set out in sections 4 and 5 below. To this end, the document contains four (4) questions to assist respondents in preparing their written submissions to URCA. URCA shall publish all written comments received as part of this consultation by posting them on its website as soon as possible after receipt. The due dates for submitting responses to the consultation are set out in sub-section 1.3 of this Preliminary Determination.

1.1 Procedures for Making a Determination

URCA was established as an independent regulatory and competition body on 1 August 2009 following the promulgation of the URCA Act, 2009. The Comms Act, 2009, which came into force on 1 September 2009, gave URCA wide-ranging powers of regulation and competition oversight of the Electronic Communications Sector ('ECS') in The Bahamas. Amongst others, the ECS includes radio and TV broadcasting, pay TV, voice and Internet services.

Based on the Comms Act, if, on its own motion, URCA has reason to believe that a determination is necessary, it may make determinations relating to:⁴

- (i) any obligations on a Licensee regarding the terms or conditions of any licence, including obligations in licence conditions and regulations,
- (ii) any activity set out in the Comms Act, and
- (iii) where the Comms Act provides for URCA to "determine" or "to make determinations" as is the case under Part VI-SMP Licensees.

³The survey instrument was administered by Public Domain during the period from 14 July to 2 August, 2021 based on a representative sample of customers throughout the Commonwealth of The Bahamas.

⁴ Section 99(1)(a) and (b)

In making any determination, URCA has to have consulted persons with sufficient interest under section 11 of the Comms Act and provide written reasons for its determination. Section 11(2) of the Comms Act prescribes that regulatory instruments referred to in section 13(2) of the Act such as regulations, shall be considered regulatory measures of public significance and under section 11(1), URCA shall afford persons with sufficient interest a reasonable opportunity to comment on URCA's proposals.

1.2 Legislative Framework for Market Analysis

URCA conducts this market analysis of the Bahamian cellular/mobile market pursuant to its powers under the Comms Act. Section 39(1) of the Comms Act empowers URCA to determine that Licensees have SMP or market power. URCA's functions and powers are specified in sections 7 and 8 of the Comms Act. In relation to section 8(1) of the Act, URCA has power *inter alia* to:

"(a) make determinations in accordance with the terms of sections 99 to 102;

(e) issue directions, decisions, statements, instructions and notifications;

...

(j) conduct inquiries, investigations and oral hearings;

(I) conduct market investigations and market reviews and publish regular information and reports; and

(m) exercise any other powers assigned to it by this Act or any other law."

Section 39(1) sets out that URCA may at any time determine:

"a licensee is an SMP licensee if the licensee, individually or with others, enjoys a position of economic strength which enables it to hinder the maintenance of effective competition on the relevant market by allowing it to behave to an appreciable extent independently of competitors, consumers and subscribers."

In accordance with section 39(2), URCA (after consultation) set out in document number ECS 20/2011 the criteria against which single and/or joint (collective) SMP will be assessed. URCA shall apply these criteria in conjunction with the provisions of the Comms Act, established precedent and taking utmost account of local circumstances.

Section 5 of the Comms Act sets out a number of principles that should underlie regulation and other measures:

"All policy measures, decisions and laws to take effect in the electronic communications sector in The Bahamas shall be made with a view to implementing the electronic communications policy objectives and shall comply with the following guidelines –

(a) market forces shall be relied upon as much as possible as the means of achieving the electronic communications policy objectives

(b) regulatory and other measures shall be introduced –

(i) where in the view of URCA market forces are unlikely to achieve the electronic communications policy objective within a reasonable time frame, and

 (ii) having due regard to the costs and implications of those regulatory and other measures on affected parties;

(c) regulatory and other measures shall be efficient and proportionate to their purpose and introduced in a manner that is transparent, fair and non-discriminatory; and

(d) regulatory and other measures that introduce or amend a significant ... regulatory measure ... –

- (i) shall specify the electronic communications policy objective that is advanced by the policy or measure; and
- (ii) shall demonstrate compliance with the guidelines set out in paragraphs (a), (b), and (c)."

Pursuant to section 40(1) of the Comms Act, URCA may impose specific, *ex ante* conditions on Licensees determined to have SMP. Those conditions may include, but are not limited to, obligations relating to: (i) access and/or interconnection to any services and/or facilities in which the Licensee has SMP; (ii) retail price regulations; (iii) cost accounting systems (Accounting Separation); (iv) sharing of infrastructure, facilities and systems used for the provision of electronic communications services; and (v) such other obligations as URCA may consider necessary in pursuance of the electronic communications policy objectives and the sector policy. These obligations supplement the basic obligations on SMP providers set out in section 40(4) of the Comms Act and Part G of the standard Individual Operating License ('IOL').

1.3 How to respond to this Consultation

URCA invites responses on this Preliminary Determination from all interested parties. Initial responses on this Preliminary Determination should be submitted to URCA by 5:00 p.m. on **25 April 2022**. Interested parties will then have the opportunity to further comment on responses made by other respondents by **26 May 2022**.

Written responses or comments on this Preliminary Determination should be sent to URCA's Chief Executive Officer, either:

- by hand, to URCA's office at UBS Annex Building, East Bay Street, Nassau; or
- by mail to P.O. Box N-4860, Nassau, Bahamas; or
- by fax, to (242) 393-0153; or
- by email, to info@urcabahamas.bs.

Persons may obtain copies of this document by downloading it from the URCA website at <u>www.urcabahamas.bs</u>.

URCA reserves the right to make all responses available to the public by posting responses online on its website. If a response is marked confidential, reasons should be given to facilitate evaluation by URCA of the request for confidentiality. URCA may publish or refrain from publishing any document or submission, in its sole discretion.

URCA will review responses and comments received on this Preliminary Determination on responses made by other respondents before publishing a Final Determination.

1.4 Structure of the remainder of this document

URCA has structured the remainder of this Preliminary Determination in the following way:

- Section 2 sets out URCA's preliminary determination;
- Section 3 provides context for this preliminary determination;
- Section 4 presents URCA's preliminary views on the product and geographic scope of the retail mobile service market;
- Section 5 presents URCA's preliminary dominance (SMP) assessment in the retail mobile market; and
- Section 6 concludes and sets out next steps.

2 URCA's Preliminary Determination

This section sets out the Determination which URCA proposes to make, subject to URCA's consideration and review of any written representations and objections raised by interested parties. URCA's Determination will be addressed to, and will be binding upon, the Licensees referred to in the Determination:

"WHEREAS,

- (i) Section 39(1) of the Communications Act, 2009 empowers URCA to determine that a Licensee has Significant Market Power ('SMP') in a market where the Licensee "... individually or with others, enjoys a position of economic strength which enables it to hinder the maintenance of effective competition on the relevant market by allowing it to behave to an appreciable extent independently of its competitors, consumers and subscribers.";
- (ii) pursuant to section 39(2) of the Communications Act 2009, URCA issued ECS 20/2011, the "Methodology for Assessment of Significant Market Power (SMP) under Section 39(2) of the Communications Act, 2009" (the "SMP Methodology"), containing criteria relating to the definition of product and geographic markets in the electronic communications sector, and against which individual and joint/collective dominance may be assessed; and
- (iii) URCA, having conducted this competition review of the retail mobile services in The Bahamas in accordance with all relevant provisions of the Communications Act, 2009 and the SMP Methodology document considers that it is appropriate to make certain determinations regarding the definition of the retail market in question, the existence of Licensees having SMP in the relevant market, and the extent to which *ex ante* regulation is appropriate and necessary in this market.

URCA proposes to make the following determination:

1. Determination of Relevant Mobile Market at Retail Level

Having reviewed all available evidence in its possession and in line with the analytical approach taken in sub-section 3.3 below, URCA proposes the following relevant product and geographic markets for the provision of retail mobile services in The Bahamas:

- (a) **Product Scope**. There is a single, national market covering all mobile products, across all the relevant contract types and customer segments. In particular, the relevant retail market for mobile services includes the following products/services:
 - Mobile access services;
 - Domestic mobile and international outgoing mobile call services;
 - Domestic and international outgoing mobile messaging services;
 - Mobile data services;⁵
 - Access to ancillary services such as calling features and Bahamian emergency numbers; and

⁵ Includes bonus or zero-rated inclusions of data for social media.

outbound international mobile roaming services.

For the avoidance of doubt, fixed access and call services, Over-the-Top ('OTT') call and messaging services and fixed broadband services are not part of the described mobile market at retail.

The scope of the product market is defined on a technology neutral basis and thus includes retail mobile services delivered over GSM, HSPA and LTE/4G technologies and any other mobile network technology deployed by Licensees or that may, in the future (e.g., 5G), be deployed by Licensees for the purpose of operating/providing cellular mobile services in The Bahamas.

(b) Geographic Scope. URCA has defined a single national market for retail mobile services in The Bahamas.

2. SMP/Dominance Determination

Having reviewed the available evidence in its possession and in line with the analytical approach set out in sub-section 3.3 below, URCA has not identified any Licensees as holding a dominant position in this market.

3. Revocation of Ex ante Remedies

In view of the above, the *ex ante* Retail Pricing Rules shall no longer apply to BTC's retail mobile only bundles and standalone mobile calls, messaging or data services. This means that the notification/approval procedures and bi-annual margin squeeze test reporting obligations set out in ECS 35/2016 shall no longer apply to these services.

However, the current requirements of the *ex ante* Retail Pricing Rules, Part G of BTC's IOL, section 40 of the Act and the Consumer Protection Regulations shall still apply to any bundle, tied product or package containing non-mobile services which are subject to retail price regulation, as a result of BTC's dominance in other retail markets.

URCA proposes to implement these changes within fifteen (15) calendar days following the publication of the Final Determination concerning this review of the Retail Mobile Market in The Bahamas.

Beginning in the 2022 financial period, BTC is no longer required to submit Accounting Separation and Cost Accounting results in relation to its retail mobile activities.

URCA will continue to closely monitor developments in the market. Should URCA identify, in future, reasons to believe that the market is no longer exhibiting effective competition to the ultimate benefit of Bahamian consumers, it may conduct another market analysis, with a view to considering whether it is necessary to reimpose some form of *ex ante* measures.

3 Context for this Preliminary Determination

3.1 Background to this Market Review

As is customary in the global market, the Bahamian mobile service market is concerned with electronic communications services which are provided via cellular mobile network and infrastructure. Cellular mobile technology enables end-customers to stay connected and use their mobile services anywhere within the mobile service coverage area, because, unlike fixed telephony or fixed broadband connections, mobile access and related services are not tied to a specific, fixed location.

At the retail (downstream) level, end-customers register their mobile phone or digital device to a particular mobile network via a SIM card (including a dedicated Bahamian mobile number). This allows the end-customer to gain access to mobile services including the ability to make/receive calls, send/receive text messages or use data to browse the Internet or send/receive emails. Additionally, end-customers can use their SIM card/Bahamian mobile number to make/receive calls and send/receive text messages or use data during foreign travel. Retail mobile services are available to both residential and non-residential consumers on prepaid or postpaid payment methods.

The described retail mobile services are currently supplied by two mobile network operators (MNOs), namely BTC and Aliv. Both operate under 15-year licenses and are assigned Bahamian mobile numbers and Mobile Network Codes. There is currently no mobile virtual network operator ('MVNO') or reseller of the mobile services to retail customers in The Bahamas.

At the upstream or wholesale level, mobile operators need access, call origination and call termination in order to provide retail mobile services. Both of the existing MNOs self-supply Mobile Access and Call Origination ('MACO') services and self-supply and sell termination services, in order to compete in the downstream (retail) mobile service market. Access to backhaul (transport links) is an important input or access product MNOs must have to link their cell sites/towers and other network nodes. BTC self-supplies its own backhaul requirements whereas Aliv relies on backhaul services from Cable Bahamas Limited and BTC. Radio frequency spectrum is a critical resource for MNOs.

URCA has, to date, conducted three ex-ante reviews of cellular mobile markets in The Bahamas: (i) an initial market review in 2010 covering retail and wholesale mobile services as well as other electronic communications services; (ii) a targeted review of wholesale national roaming services in the context of mobile liberalization; and (iii) a review of wholesale mobile termination services only in 2016.

The **first market review** was completed in April 2010 as part of a wider competition assessment of key communications markets in The Bahamas at retail and wholesale levels. That review stemmed from the interim presumptions of SMP under section 116(1) and Schedule 4 of the Comms Act, 2009 wherein the

following Licensees were presumed to have market power in the provision of one or more of the following retail services:⁶

- BTC in the provision of fixed voice services;
- CBL in the provision of high-speed data services and connectivity services;
- BTC in the provision of mobile voice and mobile data services; and
- CBL in the provision of pay-TV services.

In compliance with the Comms Act, URCA consulted extensively on its proposals to impose certain types of *ex ante* obligations or remedies on the two SMP Licensees (BTC and CBL). Having studied the responses received from interested parties,⁷ URCA issued its Final Decision on 22 April 2010 setting out the scope of the relevant retail and wholesale markets for mobile and fixed services (including Internet, business connectivity services and pay TV).⁸

From a market definition standpoint, URCA within its 2010 Final Decision established the following economic market for retail mobile services: Market for retail mobile communications services covering access, domestic and outbound international calls and messaging in addition to data.

This market was national in scope, in line with the geographic scope of BTC's cellular/mobile license. At the time, URCA also defined the economic markets for wholesale mobile services, as summarized in Table 1 below.

URCA also confirmed that BTC was dominant in the mobile markets and URCA imposed certain *ex ante* obligations on BTC relating to mobile services. This included retail price regulation of BTC's mobile services, and the obligation to develop separated accounts in accordance with URCA's Accounting Separation Guidelines (All SMP Retail Products incl. mobile voice, messaging and mobile data).⁹

With the expiration of BTC's mobile exclusivity on 7 April 2014, URCA pursuant to the ECS Policy, began work on a range of measures relating to mobile liberalization in The Bahamas. These measures were designed to create a level playing field for a second mobile operator to enter and compete in The Bahamas. Amongst the measures introduced by URCA (after consultation) was the requirement for BTC to provide (wholesale) **national roaming services** to the second mobile Licensee on appropriate and

⁶Section 116 and Schedule 4 of the Comms Act.

⁷ Cable Bahamas Limited, System Resources Group Limited and The Bahamas Telecommunications Company Limited. ⁸ECS 11/2010 available at <u>https://www.urcabahamas.bs/wp-content/uploads/2017/02/ECS-11-2010-Final-Decision-Obligations-Imposed-on-Operators-with-Significant-Market-Power.pdf</u>

⁹ECS 12/2010 issued 22 April 2010 available at <u>https://www.urcabahamas.bs/wp-content/uploads/2017/02/ECS-12-2010-Final-Guidelines-Bahamas-Telecommunications-Company-Ltd-Accounting-Separation-and-Cost-Accounting.pdf</u>

proportionate terms.¹⁰ The national roaming obligation imposed on BTC was for a limited period only and would be discontinued when the second mobile operator completed its network buildout.

URCA then conducted a review of mobile termination markets. This was motivated by a concern that the second mobile Licensee (Aliv) could exercise market power for the termination of calls and SMS/text messages on its own network. Having found this to be the case, URCA required Aliv to publish cost-based charges and non-price terms or conditions for mobile termination on its network, in line with the obligations imposed on BTC for wholesale termination services.^{11,12}

Apart from the reviews mentioned above, URCA (after consultation) revised the Retail Pricing Rules ('RPR') applicable to BTC's retail mobile services in 2016.¹³ The revised pricing rules gave BTC greater pricing flexibility and predictability while requiring BTC to submit to URCA, for review, a bi-annual margin squeeze test.

The range of SMP obligations relating to retail and wholesale mobile services that resulted from URCA's decisions as noted above are summarized in Table 1.¹⁴

Relevant Products	Susceptible to <i>Ex</i> ante regulation	SMP/Dominant Operator	SMP Obligations
Relevant Retail Products			
Mobile access	Yes	BTC	Retail price regulation,
Local mobile calling			based on Retail Pricing Rules
Domestic long distance mobile			
calling			Bi-annual margin squeeze
International long distance			test
mobile calling			
Mobile messaging and data			
Incoming international calls to			Removal of charges for
mobile numbers			incoming international calls
			to mobile customers
			BIC to develop separated
			accounts in accordance with
			UKCA'S Accounting

Table 1: Current Regulatory Setting for Retail and Wholesale Mobile Markets

¹⁰ECS 18/2016 available at <u>https://www.urcabahamas.bs/wp-content/uploads/2017/01/Final-Determination-and-</u>Order-National-Roaming.pdf

¹¹The only difference being that Aliv does not face the requirement to develop separated accounts and the level of the regulated termination charges differed between Aliv and BTC in the initial years (but have since converged to the same level based on a multi-year glidepath).

¹²ECS 33/2016 available at <u>https://www.urcabahamas.bs/wp-content/uploads/2017/11/Final-Determination-SMP-in-Call-Termination-on-NewCo-Cellular-Mobile-Network-.pdf</u>

¹³ECS 34/2016 at <u>https://www.urcabahamas.bs/wp-content/uploads/2017/02/ECS-34-2016-Final-Determination-on-Pricing-Rules-for-Non-Price-Capped-Service.pdf</u>

¹⁴In addition to these measures, BTC and Aliv, by virtue of section 40(4)(a) of the Act and relevant license conditions, must refrain from showing undue preference or undue discrimination in providing mobile services.

Separation Guidelines (All SMP Retail Products incl. mobile voice, messaging and mobile data)

Relevant Wholesale Products Mobile Call and SMS Termination	Yes	втс	Publication of cost-based
		-	charges and non-price terms within BTC's Reference Access and Interconnection Offer ('RAIO')
	Yes	Aliv	Publication of cost-based charges and non-price terms on Aliv's website
Mobile Call Transit	Yes	BTC	Same as (i) above
Mobile Access and Call Origination (MACO)	Yes	BTC	Provide national roaming services to Aliv.
			BTC to develop separated accounts in accordance with
			Separation Guidelines (All SMP Wholesale Products
			including mobile termination/transit services)

Since BTC was first declared to have SMP, the most significant development in the Bahamian communications sector has been Aliv's entry into the market in late 2016. As a result, two MNOs are currently providing retail (and wholesale) mobile services in The Bahamas, namely BTC and Aliv:

- **BTC**¹⁵ operated the only cellular mobile network in The Bahamas for a number of years. BTC is jointly owned by C&W Communications ('CWC')¹⁶ and the Government of The Bahamas, with CWC having management control. CWC is owned by Liberty Latin America ('LLA').¹⁷ The special or exclusive rights granted to BTC under section 114 of the Comms Act expired in April 2014 and this set the stage for the licensing of the second cellular mobile network operator.
- In late 2016, **Be Aliv Limited or Aliv** (formerly NewCo2015 Limited) became the second cellular mobile Licensee to offer retail and wholesale mobile services in The Bahamas. Following a competitive selection process, on 30 June 2016, URCA granted NewCo2015 an Individual

¹⁵https://www.btcbahamas.com/

¹⁶<u>https://www.cwc.com/live/past-present/our-history.html</u>

¹⁷https://lla.com/who-we-are

Operating License and an Individual Spectrum License. The operating license permits the establishment, maintenance and operation of a cellular mobile network and infrastructure or the provision of cellular mobile services to the Bahamian public; and the spectrum license permits and authorizes the use of specific spectrum bands. The licenses are national in scope and have been awarded for a term of fifteen (15) years, until 29 June 2031.

Aliv is a joint venture between Cable Bahamas Ltd. ('CBL') and the Government of The Bahamas, with CBL holding a 48.25% share and having Board and management control, and the Government holding the remaining 51.75% shares through a special purpose holding company, known as HoldingCo2015 Limited.¹⁸

 Aliv became active in the mobile market in late 2016, initially relying on national roaming services on BTC's mobile network. This allowed an Aliv customer to roam onto BTC's network. Having met its network rollout obligations in its license, the national roaming arrangement with BTC was discontinued. As a result, both operators now use their own mobile network and infrastructure to support their own retail activities and sell wholesale termination services to each other. Put differently, the current mobile landscape in The Bahamas comprises of two vertically integrated MNOs (i.e., both self-supply MACO services and self-supply/sell termination services, in order to compete in the downstream (retail) mobile service market). There is, as shown in the table below symmetry in the current holdings of key premium spectrum bands used by both MNOs to supply mobile services.

Table 2: Bahamas MNO Key Spectrum Assignments

Source: URCA's Spectrum Assignment Table for Cellular/Mobile Networks

3.2 Key Recent Market Developments

In this sub-section, URCA highlights key observations and market trends in the provisioning of retail mobile services in The Bahamas since Aliv's entry in 2016 which URCA considers critical to its competition assessment of these services:

Bundling of retail mobile services – The two MNOs described in sub-section 3.1 above provide a similar range of retail mobile services to the same range of customer segments and compete using bundled services - meaning mobile access and other mobile services (such as, calls, mobile messaging and/or data

¹⁸CBL offers pay-TV, fixed broadband internet, and high-speed data services and connectivity. Through an affiliated company named Systems Resource Group Limited ('SRG'), CBL provides fixed voice telephony services to customers in New Providence, Grand Bahama, Abaco, and Eleuthera. <u>https://www.rev.bs/about/</u>

services) offered as a single package or subscription to customers. A variety of retail mobile bundles are available with varying inclusions of data, calls and messages to appeal to subsets of consumers. Some bundles come with outbound international calls and messaging to specified destinations and roaming allowances within USA, Canada and FLOW markets. Customers may also purchase mobile services as part of a fixed services bundle covering fixed telephony, fixed broadband and/or pay TV.

BTC and Aliv refer to their retail mobile plans as prepaid or postpaid, and prepaid includes Pay As You Go ('PAYG'). As of year-end 2020, 82% of all mobile users were on a prepaid plan, with the remainder of mobile users subscribing to postpaid plans. However, prepaid and postpaid mobile services are increasingly becoming alike as both are offered as bundles with varying inclusions of data, and calls and mobile messaging. Compared to postpaid users, prepaid users are not tied into a contract, thus it is easier for them to switch or churn to other mobile plans or between service providers when they are dis-satisfied with their current mobile service offering.

Details of the range of prepaid and postpaid mobile bundles advertised on BTC and Aliv's websites are captured in the tables below.¹⁹

Licensee	Product	Validity Period	Price ²⁰	Data Included	Calls/Minutes Included	SMS/MMS Included
BTC	Combo	1 Day	\$3.90	1GB + 1 hour of free data for Youtube + unlimited WhatsApp/Facebook Messages	1000 BTC to BT, US/Canada 100 minutes	BTC to BTC 1000 SMS
	Combo	7 Day	\$6.90	650MB + 1 hour of free data for Youtube + unlimited WhatsApp/Facebook Chat, Roll over data with auto renew	60 BTC to BTC minutes + US/Canada 60 minutes	BTC to BTC 60 SMS
	Combo	7 Day	\$11.80	2GB + 1 hour of free data for Youtube + Unlimited WhatsApp/Facebook Chat, Roll over data with auto renew	Unlimited BTC to BTC + US/Canada 500 minutes	BTC to BTC 3000 SMS
	Combo	7 Day	\$14.70	3GB + 1 hour of free data for Youtube + Unlimited (for 30 days) WhatsApp/Facebook Chat, Roll over data with auto renew	Unlimited All net + Unlimited US/Canada minutes	All net 3000 SMS
	Combo	10 Day	\$19.60	6GB + 1 hour of free data for Youtube + Unlimited	Unlimited All net + Unlimited	All net 3000 SMS

Table 3: Selected Prepaid Mobile Plans

¹⁹For mobile data only tariff plans see Table 10, sub-section 4.1.4 below
 ²⁰Prices are VAT inclusive

				WhatsApp/Facebook Chat, Roll over data with auto renew	US/Canada minutes	
	Combo	30 Day	\$38.30	4GB + 1 hour of free data for Youtube + Unlimited WhatsApp/Facebook Text, Roll over data with auto renew	Unlimited All net minutes + Unlimited US/Canada minutes	All net 3000 SMS
Aliv	freedom 4	1 Day	\$4.00	1GB	30 minutes + Unlimited Aliv to Aliv minutes	30 SMS + Unlimited Aliv to Aliv SMS Messages + 10 MMS
	freedom 6	7 Day	\$6.00	0.6GB	50 minutes + Unlimited Aliv to Aliv minutes	50 SMS + Unlimited Aliv to Aliv SMS Messages + 15 MMS
	freedom 12	7 Day	\$12.00	2.5GB	100 minutes + Unlimited Aliv to Aliv minutes	100 SMS + Unlimited Aliv to Aliv SMS Messages + 30 MMS
	freedom 35	7 Day	\$35.00	Unlimited	Unlimited minutes + Unlimited Aliv to Aliv minutes	Unlimited SMS messages + Unlimited Aliv to Aliv SMS Messages + 300 MMS
	liberty 30	30 Day	\$30.00	3GB	330 minutes + Unlimited Aliv to Aliv minutes	330 SMS + Unlimited Aliv to Aliv SMS Messages + 60 MMS
	liberty 45	30 Day	\$45.00	6GB	450 minutes + Unlimited Aliv to Aliv minutes	450 SMS + Unlimited Aliv to Aliv SMS Messages + 90 MMS
	liberty 60	30 Day	\$60.00	12GB	600 minutes + Unlimited Aliv to Aliv minutes	600 SMS + Unlimited Aliv to Aliv SMS Messages + 130 MMS
	liberty 90	30 Day	\$90.00	18GB	900 minutes + Unlimited Aliv to Aliv	900 + SMS Unlimited Aliv to Aliv SMS Messages + 225 MMS

	liberty 140	30 D	vay \$1	140.00	Unlimited		Unlimited minutes + Unlimited Aliv to Aliv minutes	 Unlimited SI messages + Unlimited AI to Aliv SMS Messages + 1000 MMS 	∕IS liv
Source:	Accessed	18	March	2022	<u>https://ww</u>	<u>/w.btcbaha</u>	mas.com/mobile/pl	ans/prepaid	and
https://w	ww.bealiv.	com/s	store/pla	ns/					

Table 4: Selected Postpaid Mobile Plans

Licensee	Product	Monthly Price ²¹	Data Included	Calls Included	SMS/MMS Included
BTC	Bimini	\$44.99	5GB	Unlimited BTC to BTC + 300 Off-Net, US/Canada minutes	BTC to BTC 3000 SMS
	Exuma	\$64.99	12GB	Unlimited BTC to BTC + 500 Off-Net, US/Canada minutes	BTC to BTC 3000 SMS
	Grand Bahama	\$79.99	15GB	Unlimited BTC to BTC + 800 Off-Net, US/Canada minutes, Roam (US/Canada and FLOW markets)	BTC to BTC 3000 SMS
	Abaco	\$99.99	20GB	Unlimited BTC to BTC + 1300 Off-Net, US/Canada minutes, Roam (US/Canada and FLOW markets)	BTC to BTC 3000 SMS
	Andros	\$149.99	150GB	Unlimited BTC to BTC + Unlimited Off-net, US/Canada minutes, Roam (US/Canada and FLOW markets)	BTC to BTC 3000 SMS
Aliv	liberty more	\$59.99	12GB	700 minutes + Unlimited Aliv to Aliv minutes	700SMS+Unlimited Aliv toAlivSMSmessages+120MMS
	liberty prime	\$74.99	15GB	800 minutes + Unlimited Aliv to Aliv minutes	800 SMS + Unlimited Aliv to Aliv SMS messages + 200 MMS
	liberty premium	\$99.99	20GB	1200 minutes + Unlimited Aliv to Aliv minutes	1200 SMS + Unlimited Aliv

²¹Prices are VAT exclusive

					to Aliv SMS messages + 250 MMS
	liberty elite	\$149.99	Unlimited data	Unlimited local minutes + Unlimited Aliv to Non- Aliv minutes + US/Canada minutes	Unlimited SMS messages + Unlimited Aliv to Aliv SMS messages + 1000 MMS
-					

Source: Accessed 18 March 2022: and <u>https://www.btcbahamas.com/mobile/plans/postpaid_and</u> https://www.bealiv.com/store/plans/

Network coverage and service availability - BTC and Aliv offer the same mobile retail services, on a similar coverage level and to a similar quality level, at least for calls - as shown in Table 5.

Table 5: Network Service Availability and Quality

	BTC	Aliv
Network Availability – Voice	94.77%	95.22%
Network Availability -Broadband (LTE/4G):	98.38%	99.76%
Call Completion Rate (Average monthly across all cell sites)	99.00%	99.95%
Drop Call Rate (Average monthly drop call rate)	0.17%	0.09%
Drop Call Rate (Average monthly busy hour drop call rate)	0.13%	0.07%
Drop call rate (Average monthly drop call rate for hour with worst performance)	0.46%	0.34%

Source: Quarterly submissions received from MNOs

Mobile connection and penetration levels - Cellular mobile technology and services remain an important and prevalent mode of communications in The Bahamas. Total mobile connections (including mobile data only service) increased by 14.26% between 2016 and 2020, from 365,840 to 417,992 connections. As shown in Figure 1 mobile penetration rate reached 98 per 100 population around the time of Aliv's entry and between 2016 and 2020 the mobile penetration rate further increased by 10%, from 98 to 107 per 100 of total population. Underpinning the upward trends in mobile take-up levels has been a 2.3% and 32% increase penetration for mobile voice and messaging and/or data and mobile data only connections. However, the growth in mobile penetration appears to be slowing, as shown in Figure 1.





Usage trends – Figure 2 depicts usage trends in domestic mobile call and messaging services. In particular, after a decline during the period 2014-17, average mobile calling per user increased from 77 minutes per month to 133 minutes per month between 2017 and 2020. This is likely to be the result of an elasticity effect (driven by underlying price reductions, as set out under the 'price trends' analysis below) and large or unlimited allowances of domestic calling minutes within retail mobile bundles.

In contrast, Figure 2 depicts a declining trend in SMS usage before and after Aliv's entry. The volume of SMS traffic per mobile user declined from 28 messages per month in 2016 to 8 messages per month in 2020, despite the mobile operators offering generous allowances of domestic SMS within their retail mobile bundles.



Figure 2: Average Mobile Usage (Mins/SMS) per Month²² Source: URCA Analysis based on MNOs data

²²Values for the period 2015-2017 based on BTC's data only

Mobile data is an increasingly important mode to access the Internet in The Bahamas, as evidenced by the increasing take-up of smartphone bundles (with calls, messaging and data) and mobile data only service. Indeed, BTC and Aliv offer a variety of retail mobile bundles with pre-specified or unlimited data allowances, with BTC also offering additional data for social media. In URCA's opinion the increased mobile data usage correlates with growing demand for data-based services including Over-the-Top ('OTT') call and messaging services (e.g., WhatsApp, Facebook) and content streaming by Bahamian consumers. Indeed, only a small share (2%) of persons surveyed did not hold a smartphone or tablet.²³ This suggests that there is a high level of smartphone and/or tablet ownership in The Bahamas with the ability to access the Internet and/or send emails.

Price trends - Pricing is a key factor in consumers' decisions on whether and which mobile service provider to choose. Aliv's entry has initiated fierce price competition for the retail mobile services considered as part of this market review. Both mobile providers compete using short-term price reductions (i.e., special promotions), headline price reductions and offering additional mobile services within their mobile retail bundles.

However, pricing behavior has tended to focus around promotional offers rather than straightforward price reductions. Promotional offers may take various forms including a short-term discount on the headline price or increased in-plan allowances which reduce the effective price to end-users during that promotional period. Indeed, BTC and Aliv appear to rely on promotions to build goodwill and loyalty with their customer base, minimize churn and improve their market position. For example, both offer special promotions for customers porting their numbers to their networks. Based on the available information, more than 55% of all mobile price changes BTC introduced between 2017 and February 2022 were promotions.

Given the prominence of promotions in the mobile space, URCA recognizes that headline prices may not reflect actual price levels experienced by end-users. URCA therefore reviewed monthly average revenue per (mobile) user (ARPU) trends instead.²⁴

Figure 4 depicts a declining monthly ARPU (in real terms) trend of 28.29% between 2015 and 2020.²⁵ It is worth noting that a 20% decline occurred around the time of Aliv's entry in 2016. This suggests to URCA that the sheer threat of entry from a second MNO might have resulted in the incumbent reducing prices during the years leading up to the market entry. Meanwhile, total monthly ARPU continued to fall until 2019, but then increased by 9% in 2020 (which could be a link to the Covid-19 pandemic increasing the demand for voice and data communications services).

²³See sub-section 4.1.4 below

²⁴ While monthly ARPU is not a pure measure of prices as it includes usage, it does provide an indication on the average cost to end-users and the average revenues to MNOs. This approach is especially important in markets where there is not a single price and where promotions are common, as being the current case.

²⁵Based on mobile revenues the operators receive from their end-users monthly combined for the two networks.



Figure 3: Total Monthly ARPU, in real terms²⁶ Source: URCA Analysis based on MNOs data

URCA attributes the declining monthly ARPU trends to competitive dynamics in the retail mobile market. This view is supported by the fact that mobile usage in terms of average call minutes and mobile data usage has not declined, but increased during that period. With call and data usage increasing during the period, arguably the declining monthly ARPU trends are underestimating the extent of the drop in effective unit prices to end-users. However, in URCA's view, this does not necessarily imply that mobile prices in The Bahamas are at the levels they would be in a market with effective competition.

Crucially price competition has generated benefits for consumers, in terms of increased take-up/usage and growth of traditional mobile telephony and data and is supported by survey evidence.²⁷ For example, the respondents to the URCA-PD survey said Aliv's entry has resulted in lower pricing and greater data allowance (45%/43%) as well as greater call SMS allowance (23%).

Consumer switching behaviour - In a competitive market consumers should be able to switch between service providers with as little cost as possible. As such, Mobile Number Portability ('MNP') was introduced in 2017 as a pro-competitive measure to reduce switching costs.²⁸ The MNP framework allows mobile consumers to retain their telephone numbers when they change mobile providers. Figure 4 presents the breakdown of successful porting transactions by mobile operator.

²⁶Based on All Items CPI Index 109.71 for January 2021 as published by the Department of Statistics of The Bahamas at https://www.bahamas.gov.bs/wps/wcm/connect/5ec60dca-640f-4e06-b70a-f0e75ae1cc46/Bahamas+All+Iterms+CPI+%28Jan+2018+-+Jan+2021%29.pdf?MOD=AJPERES
²⁷See footnote 3 above

²⁸ ECS 1/2017 Statement of Results, Final Determination & Order, The Implementation of Mobile Number Portability in The Bahamas Pursuant to Section 80 of the Comms Act, 2009 available at <u>https://www.urcabahamas.bs/wpcontent/uploads/2017/02/ECS-01-2017-ES-01-2016-Statement-of-Results-and-Final-Determination-on-Mobile-Number-Portability.pdf</u>



Figure 4: Breakdown of Successful Porting Transactions Source: URCA Analysis

As shown in the table below, take-up of MNP varies from 7.48% of total mobile connections in 2017 to 2.79% in 2020. This means that on average about 6.34%²⁹ of mobile consumers port their numbers each year. However, switching will not be all via MNP process, so MNP figures are likely to underestimate switching in this market.

It is worth noting that only 6% of persons surveyed have switched mobile providers according to survey evidence. In justifying their decision not to switch their mobile service provider, 88% of them said that they were satisfied with their current mobile provider or mobile plan (despite being a prepaid dominated market and end-users being price sensitive). This suggests to URCA that the vast majority of mobile consumers might have little or no incentive to switch their current mobile provider.

Table 6. Ported Wobile Numbers as a % or Total Wobile Connections					
	2017	2018	2019	2020	
Total Successful Ports	23,435	34,633	27,738	11,663	
Total Mobile Connections	365,840	403,761	424,757	417,992	
Porting as a share of Mobile Connections	7.48%	8.56%	6.53%	2.79%	

Table 6: Ported Mobile Numbers as a % of Total Mobile Connections

Source: URCA's Analysis based on MNP data

OTT call and OTT messaging services - An increasing number of Bahamian consumers are using OTT apps to make/receive calls or send/receive messages to and from domestic and international destinations. Amongst the persons surveyed, 40% said that OTT has impacted their use of traditional mobile calls and

²⁹Simple average for the period 2017 to 2020

messaging services. The respondents admitted that due to OTT services they send less SMS, make less domestic and outbound international calls whilst using more mobile data. Some have even purchased a SIM card just because of OTT services.

3.3 Analytical Approach to Market Review

The main purpose of a market review is to identify the competitive conditions prevailing in a market by systematically assessing the competitive constraints faced by Licensees in the relevant market. A market review commences by defining a market, which is then analyzed to ascertain the degree of effective competition in that market. Defining markets and assessing competition within those markets involves a degree of judgment, with the overarching objective being to ensure that all relevant competitive constraints operating in a market are identified and considered. This principle is also enshrined within the electronic communications regulatory framework applicable to The Bahamas.

In conducting market reviews, URCA must take account of specified procedures in section 39(1) and (2) of the Comms Act, and the analytical framework (i.e., procedures and criteria) set forth in URCA document reference ECS 20/2011 (*"Methodology for Assessment of Significant Market Power [SMP] under Section 39(2) of the Communications Act, 2009"*).³⁰ This document sets forth the procedures and criteria URCA will employ when undertaking market reviews for ex ante regulatory purposes.

As illustrated in Figure 5 below and referred to in URCA's SMP Methodology, there are three main stages to market reviews:

- Market definition defining relevant product and geographic markets over which the competition assessment will take place (stage 1);
- Competition and dominance assessment identifying operator(s) with SMP in each defined market(s), if any (Stage 2); and
- Remedy design where a Licensee is found to have SMP in a market, considering the appropriate SMP obligations in relation to that market. This includes establishing the need for ex ante regulation in the market under consideration, based on an assessment of three criteria, and identifying the underlying market failures/anti-competitive concerns any *ex ante* regulation seeks to address.

Figure 5: Three stages of URCA's market review process



³⁰Issued 13 October 2011 and available at <u>http://www.urcabahamas.bs/download/059384700.pdf</u>.

3.3.1 Defining Relevant Markets

Market definition focuses on the substitutability of differentiated products or services. There are two main dimensions to market definition: (i) relevant product market; and (ii) relevant geographic market. Under standard market analysis, a relevant product market comprises all those differentiated products or services that are regarded as sufficiently interchangeable or substitutable by customers or suppliers by reason of product characteristics, intended use and pricing, such that that a hypothetical monopolist in the provision of one product could not profitably increase the price of that product from the competitive level.

Product Market Definition

In defining the relevant economic markets, URCA followed the principles of the *Small but Significant Nontransitory Increase in Price* ('SSNIP') test, otherwise known as the *Hypothetical Monopolist Test* ('HMT'). The SSNIP test assesses customer (demand-side substitution) and supplier (supply-side substitution) behaviour in response to a hypothetical increase in the price of a product above the competitive level (taken to be in the range of 5-10%). This is to determine whether customers (producers) have the ability and incentive to switch to (from) an alternate product in response to a SSNIP (of 5-10% above the competitive level). If they can, these alternative products are included in the same economic market as the product under consideration (the focal product).

- When assessing <u>demand-side substitutability</u>, the question is whether the price increases provoke
 a sufficient number of customers to switch to alternative products offered by any existing supplier
 such that it would make the hypothetical price increase of the focal product unprofitable. If
 sufficient subscribers would switch to the alternate product thereby making the price increase
 unprofitable, then the alternative product is included in the relevant product market (i.e., it is
 deemed to be a demand-side substitute of the focal product).
- For <u>supply-side substitutability</u>, the SSNIP test assesses whether the price increase could provoke an existing supplier that is currently not producing the focal product to switch production capacity and start supplying the focal product. Such supply-side substitution would only constitute an effective constraint were it to make the price increase of the focal product unprofitable for the hypothetical monopolist. In this case, the alternative product is included in the relevant product market (i.e., it is deemed to be a supply-side substitute of the focal product).

The SSNIP test is carried out for any given number of alternative products, which by their characteristics, prices and intended use, may constitute an effective substitute to the product in question. If switching to these alternative products is sufficient to also render the SSNIP unprofitable, then these are also included in the definition of the relevant product market.

While such economic tests can usefully be employed to examine demand- and supply-side substitution possibilities, it is also important to ensure that the approach to market definition is pragmatic and exhibits commercial common-sense. Given that conducting a SSNIP test formally is often not possible (including in this instance, given the lack of quantitative information on potential switching), URCA has examined, in

this case, the likely response of consumers and producers to a price increase by examining the four factors listed in Section 3.1 of ECS 20/2011 for product market definition analysis, namely:

- evidence of previous substitution;
- consumer preferences;
- barriers and switching costs; and
- quantitative studies (including surveys, studies of other markets).

When determining the relevant product market, it is also important to assess the relevant customer market dimension. In the context of retail electronic communications services, this commonly requires assessing the need to define separate markets for residential and business offerings and/or different contract types (i.e., prepaid vs postpaid product offerings). This, again, is undertaken based on a review of the product characteristics and the demand- and supply-side substitutability of services. For example, if a sufficient number of business customers could purchase either the residential or business product and, given their specifications, would consider them as substitutes, these two customer segments could be considered as part of the same product market. Similarly, the two products are likely to be supply-side substitutes, if a provider of residential services could quickly switch, following a SSNIP in business services, to also provide business services and vice versa (e.g., since both products are delivered based on similar infrastructures and distribution channels).

Geographic Market Definition

The geographic market is defined with respect to the scope of service within a defined region or territory within which competitive conditions are sufficiently homogenous or similar. The relevant geographic market considers the degree to which demand/supply-side substitutes for products vary by geography. The geographic boundaries are considered within the SSNIP test and the reach of any demand and/or supply-side substitutes identified. The test is applied on a product-by-product basis, meaning if particular products are offered in different geographic areas, the product market definition may vary by geography.

There are also instances where the geographic market coincides with the territory in which the Licensees are licensed to operate their networks or provide their service.

URCA has supplemented the SSNIP tests (demand/supply-side substitution) with other relevant information including the listed criteria below to further inform and refine its geographic market definition analysis:

- past evidence of consumers diverting orders to suppliers in other areas;
- basic demand characteristics;
- barriers to switching; and
- views of third parties.

3.3.2 Competition and Dominance Assessment

The second stage of the framework seeks to identify Licensees that have SMP in the defined market(s), if any. Under section 39(1) of the Comms Act, a Licensee is an SMP Licensee if the Licensee,

"... individually or with others, enjoys a position of economic strength which enables it to hinder the maintenance of effective competition on the relevant market by allowing it to behave to an appreciable extent independently of its competitors, consumers and subscribers."

The initial starting point for SMP assessment in a defined market would be "the Licensee's market share."³¹ Although the Comms Act does not specify a market share threshold for SMP, URCA in ECS 20/2011 (Section 3.2, p.6) has established presumptions of dominance, wherein:

"1. a Licensee with less than 40% market share will not generally be presumed to have SMP; and 2. a Licensee with a market share of 40% and above may be presumed to be an SMP Licensee."

In addition to market share, URCA must also consider the criteria listed in section 39(3)(b), (c), (d) and (e) of the Comms Act, namely:

- "(b) the Licensee's ability to influence market conditions;
- (c) the Licensee's access to financial resources;
- (d) the Licensee's experience in providing products to the market; and
- (e) any other criteria considered relevant by URCA".

ECS 20/2011 further sets out the approach URCA will take to assess any joint (collective) SMP by more than one Licensee. Guided by local conditions and international best practice, URCA, if necessary, will investigate whether the characteristics of the relevant market are conducive to coordination, tacit or otherwise. This will be based, amongst others, on a review of market concentration thresholds (measured by the Hirschman-Herfindahl Index ('HHI')) and other criteria which will allow URCA to assess whether the conditions in the relevant market are conducive to coordination by two or more Licensees.

A list of the other indicators URCA may consider for assessing SMP are set out in section 3.2 (p.6 to 7) of ECS 20/2011. These are summarized in Table 7 below.

SMP/Dominance	Criteria assessed
Single SMP/ dominance	 Market structure The Licensee's market share The Licensee's ability to influence market conditions The Licensee's access to financial resources Whether there are high and non-transitory barriers to entry and expansion Whether countervailing buyer power ('CBP') may constrain a SMP Licensee's ability to price excessively Whether the level of prices and profitability observed in the market are reflective of those in competitive markets Whether a party benefits from vertical integration Whether a party benefits from its overall size Whether a party controls infrastructure that cannot be easily duplicated

Table 7: Overview of criteria assessed to determine single/joint dominance

³¹Section 39(3)(a) of the Comms Act.

	 Whether a party benefits from technology advantages or superiority Whether a party benefits from a highly developed distribution and sales network Whether a party benefits from network effects Barriers to switching
	Market concentration as measured by the HHI
	 Homogeneous services/products
Joint SMP / dominance	• Whether the market is mature /stagnant (i.e., stagnant or moderate growth on the demand side)
	 Whether market players have similar cost structures
	 Whether market players have similar market shares
	 Whether there is a lack of technical innovation / mature technology
	Whether excess capacity is available in the market
	 Whether there are high and non-transitory barriers to entry
	 Whether countervailing buyer power ('CBP') may constrain the SMP Licensees' ability to price excessively
	 Whether there is a lack of potential competition
	• Whether there are informal or other links between the Licensees concerned
	 Whether there is scope for retaliatory mechanisms in this market to punish market players deviating from a collusive outcome
	Whether there is a lack or reduced scope for price competition
	Low elasticity of demand

3.3.3 SMP Obligations and Remedy design

The third and final stage of the market review involves determining the regulatory obligations, if any, that should be imposed on SMP Licensees to remedy any potential effects of SMP where there is a strong likelihood of an abuse by the SMP operator of its dominant position, absent ex ante regulation.³²

URCA notes that best practice, including in the EU regulatory framework³³, suggests that the need for exante intervention should be based on three criteria (commonly referred to as *Three Criteria Test*). Where at least one of these criteria is not met, regulatory authorities should not impose ex ante regulation. The three criteria are that:

- the market is characterized by significant and non-transitory barrier to entry;
- the market does not tend towards effective competition; and
- ex post competition law would be unsuitable for dealing with any problems that emerge (for example, because it may require frequent intervention).

Whilst the three criteria test provides a helpful framework to ensure that ex ante remedies are targeted URCA notes that, in practice, the first two criteria are similar in nature to factors covered in the competition assessment. For example, the existence of barriers to entry constitutes one of the market characteristics assessed as part of competition. Further, a best practice market review will assess not only the competitive dynamics at the time of the review, but also take into account any expected changes to

³²Absent a determination that one or more licensees have SMP in any of the defined markets, URCA would not employ the procedures and criteria set out in the third stage.

³³Dated 17 December 2007 (2007/879/EC)

the level of competition within the market in the foreseeable future (i.e., commonly interpreted as within the next 12-24 months).²¹ Given this, in URCA's view, once a Licensee has been found to have SMP, the three criteria test primarily requires an assessment on whether *ex post* competition law would be sufficient.

Once the need for *ex ante* regulation is confirmed, any regulatory obligations must be:

- targeted and efficient (i.e., they should represent the least intrusive way of addressing a competitive concern identified);
- proportionate (i.e., the resulting regulatory burden on the SMP operator should not outweigh the benefits from remedying the competition concern); and
- transparent, fair and non-discriminatory.

This means that where URCA believes that market forces alone are unlikely to achieve its policy objectives within the referenced timeframe, URCA may introduce regulatory requirements, having due regard to the costs and implications for affected parties.

Prior to imposing remedies under section 40(1) of the Comms Act, URCA must follow the procedures specified in sections 5 and 40(2) of the Act.

4 Definition of the Relevant Retail Market

The first stage in any market review process is to identify the scope of the economic markets over which any competition assessment shall be conducted. Based on the market definition adopted in 2010 and by applying the hypothetical monopolist or SSNIP test described in sub-section 3.3, URCA has identified below the relevant product, customer and geographic scope of the market(s) for retail mobile services in The Bahamas.

The starting point for this market definition exercise is the scope of the retail mobile service market, as defined in URCA's previous market review in 2010. In that review, the evidence available to URCA at the time led it to define a single national retail mobile market in The Bahamas. In this market definition exercise, URCA therefore revalidates the previous market definition by considering whether there is a need to define separate product markets for any of the mobile services, or sub-sets thereof, or indeed whether retail mobile services actually form part of a wider communications market involving other services.

URCA has structured the remainder of this section in the following way:

- Product Market Definition (Section 4.1);
- Geographic Market Definition (Section 4.2); and
- Preliminary Conclusion on Product and Geographic Markets (Section 4.3)

4.1 Product Market Definition

There are several considerations to be made when defining the relevant product scope of retail mobile service markets. These are as follows:

- the extent to which retail mobile access, domestic call and messaging, and mobile data services may constitute separate markets;
- the extent to which prepaid and postpaid subscriptions form distinct markets; and
- whether residential and business subscriptions form distinct markets.

URCA considers each of these issues in turn below.

4.1.1 Mobile Access and Domestic Call and Messaging Services

Mobile access is the use of mobile devices to log on or gain access to the range of retail services delivered over mobile networks. This provides the ability to make/receive calls, send/receive messages or use data for Internet purposes. Mobile access represents the minimum mobile service end-users must have to communicate with other end-user within and outside The Bahamas. Besides purchasing a mobile device, such as a smartphone, a prospective mobile end-user must also acquire a SIM card in order to use the portfolio of mobile services provided by the operator supplying the SIM card.

Mobile end-users in The Bahamas buy access with/without a monthly usage allowance or preloaded credit as part of a bundle with other mobile services (i.e., a mobile plan that offers mobile access and an allowance for mobile calls, messages and/or data usage). In contrast, bundled mobile access and other mobile services enable them to make/receive calls, send/receive messages or use data for Internet purposes. When access is offered on a standalone basis, the end-user can receive calls, and messages, but cannot make calls, send messages or use data without facing additional charges.

Demand-side Substitution

URCA assesses that mobile access is not substitutable for domestic mobile calls and messaging services. Rather, mobile access complements domestic calls and messaging and therefore forms part of a cluster of mobile services that are jointly consumed.

Considering the similarities in *product characteristics* between mobile access and domestic calls and messaging, URCA notes that access and domestic calls and texting are available at non-fixed locations and are maintained when moving between different points. However, from a functionality point of view, access and domestic calls and messaging serve different purposes. For this reason, a marginal but significant price increase on access would not induce a significant number of end-users to switch away from access to domestic calls and messaging or the other way around. As above, mobile customers must have access (i.e., mobile device/SIM card) in order to consume the range of retail services delivered by the network operator supplying the SIM card. On this basis, the demand for mobile access correlates with end-customers' desire to consume traditional mobile telephony and messaging services or data. URCA thus takes the provisional position that mobile access and domestic mobile calls and messaging are complementary.

In the URCA-PD survey, 71% of all respondents (1109) said they currently used mobile access in combination with calls and/or messaging services. This supports URCA's preliminary view that in the Bahamian context mobile access and domestic calls and/or messaging services are complementary or jointly consumed.

In addition to this, Bahamians generally purchase mobile access and domestic calls and messaging and/or data as part of the same product bundle. Indeed, as shown in Tables 3 and 4 above, BTC and Aliv sell access in combination with domestic calls and messaging services as part of the same prepaid or postpaid mobile bundle. Postpaid bundles are valid for 30 days, priced between \$44.99 and \$149 per month and end-users get charged out-of-plan or overage tariffs for usage beyond their in-bundle allotments. As at year-end 2020, postpaid mobile customers represented 17% of all mobile customers using bundled services.

By comparison, 83% of mobile bundled service customers are on prepaid plans. Under this option, endusers purchase a SIM card along with a prepaid bundle. These bundles are priced between \$3.90 and \$140 and vouchers are valid for 1, 7, 10 or 30 day(s). End-users pay out-of-plan or overage tariffs for usage beyond their in-bundle allotments. Even where a service is not part of a primary mobile bundle, the enduser can access the service without the need to acquire a new SIM card. Aliv offers a range of add-ons that allow prepaid customers to augment their primary bundle allowances for calls, messaging or data services. These add-ons are shown in the table below and marketed exclusively to prepaid customers that have an active 7 day freedom plan or 30 day liberty plan.

Table 8: Prepaid Plan Add-ons

	Add-ons	Validity Period	Price	Unit
7 day freedom plans	Talk	Weekly	\$4.46	100 Minutes
	Messaging	Weekly	\$4.46	100 SMS
	Data	Weekly	\$4.46-\$27.68	1-10GB
30 day liberty plans	Talk	Monthly	\$4.46	100 Minutes
	Messaging	Monthly	\$4.46	100 SMS
	Data	Monthly	\$4.46-\$27.68	1-10GB

Source: Aliv's letter dated 4 August 2021 to URCA

As noted, mobile end-users in The Bahamas can buy access with/without a monthly usage allowance or preloaded credit. BTC sells a SIM only product (i.e., without a plan or preloaded credit) for \$15. URCA understands that this category of customers also add credit from BTC to their account as needed, which they then use to either buy a BTC prepaid bundle with domestic calls and SMS or pay for call, messaging or data as needed.

Altogether, for all the options described, it is possible for end-users to consume domestic mobile service once a SIM card is purchased (i.e., with/without a plan or preloaded credit). In the context of the above, URCA agrees with the position taken by regulators elsewhere that when "... choosing amongst the different packages available, end-customers are likely to consider the overall price (i.e., any fixed cost of the access, plus the total cost of expected domestic calls and SMS/MMS usage) and characteristics (e.g., coverage, quality of service, flexibility)."³⁴

Supply-side Substitution

Mobile access and domestic call and messaging services are delivered over the same mobile network infrastructure and sales and distribution channels. As elsewhere, in The Bahamas, the two existing MNOs have built their networks and infrastructure to provide core retail services including access, calls and messaging and data. This means that, in the case of a SSNIP by a hypothetical monopolist in mobile access services, a provider of domestic mobile call and messaging could begin to offer mobile access services without incurring any additional capital investment (and vice versa). This is because mobile networks are designed and deployed to supply access and other retail mobile services including domestic calls and messaging services.

In concluding, URCA notes that although access and domestic calls and messaging are not demand substitutes, they complement each other. On the supply-side access and domestic calls and messaging are substitutable in the event of a supply-side SSNIP on either services. This is in line with recent mobile market definition exercises in Trinidad & Tobago, Oman, Saudi Arabia and EC merger cases.³⁵

³⁴See sub-section 3.1.1 of Determination: Retail Domestic Mobile Telephony Market Definition available at <u>https://tatt.org.tt/DesktopModules/Bring2mind/DMX/API/Entries/Download?Command=Core_Download&EntryId =1395&PortalId=0&TabId=222</u>

³⁵As part of its recent merger investigations into mobile network operators, the EC has defined mobile voice and data services to be part of a single market for retail mobile telecommunications services. This has mostly been based

4.1.2 Outbound International Call and Messaging Services

In this sub-section, URCA explores whether outbound international calls and messaging should be considered part of the same product market as access, domestic call, and messaging services, as defined in sub-section 4.1.1 above.

Demand-side Substitution

Provisionally, URCA assesses that there is limited substitutability between outbound international calls and messaging and domestic calls and messaging. Nevertheless, these services form part of the cluster of mobile services that are jointly consumed.

From a *product characteristics* viewpoint, the functionality of international mobile service and domestic mobile service are not the same. Outbound international mobile service involves calls and messaging from The Bahamas to service providers' customers overseas. In contrast, domestic mobile service involves calls and messaging to service providers' customers within The Bahamas. Naturally, outbound international calls and messages get terminated on networks overseas while domestic calls, messages are terminated on networks inside The Bahamas. This means that a hypothetical price increase in domestic mobile service or the other way around.

However, URCA notes that the way in which end-users in The Bahamas purchase outbound international mobile service is not fundamentally different from how they purchase domestic mobile service. In particular, it is noteworthy that Bahamians may consume outbound international mobile service:

- as part of a prepaid or postpaid bundle in combination with domestic mobile service;
- as a standalone prepaid service; or
- as needed and on a Pay As You Go ('PAYG') basis.

On the basis of the above, there is a very strong basis for URCA to include outbound international mobile service in the same product market as domestic mobile service.

BTC's prepaid and postpaid bundles typically come with outbound minutes to specified international destinations. ³⁶ End-users on both payment schemes get charged out-of-plan or overage tariffs for usage beyond their in-bundle international call allotments.

By comparison, Aliv's prepaid and postpaid bundles come with domestic calls, messages and data only.³⁷ On prepaid, end-users may purchase outbound international calls either as part of a standalone calling

http://ec.europa.eu/competition/mergers/cases/decisions/m6992_20140528_20600_4004267_EN.pdf

on supply-side substitutability and end users' common usage of mobile devices to make calls and access the Internet. See, for example:

³⁶See Tables 3 and 4, sub-section 3.2 above

³⁷Aliv's liberty elite plans comes with outbound international minutes to USA and Canada.

plan and/or on a per call/message basis, without the need to purchase a separate SIM card. On postpaid, end-users pay the relevant out-of-plan rates for making outbound international calls or texting.

Product	liberty global Haiti	liberty global Caribbean	liberty global China	liberty global Europe	
Minutes included	30	50	250	400	
Price ³⁸	\$10.00	\$21.00	\$21.00	\$21.00	
Source: Accessed 18 March 2022: https://www.bealiy.com/store/plans/					

Table 9: Aliv's Pre	epaid Plans - Inter	rnational Calling Plans
---------------------	---------------------	-------------------------

Crucially, both prepaid and postpaid end-users can consume outbound international calls and messages without having to buy a new SIM card. In that the same SIM card (mobile phone number) used to access domestic mobile services (calls and messages) is also used to make/send outbound international calls/text messages. URCA surmises that mobile consumers are likely to treat the various options available as add-ons to their primary domestic mobile plan. For all the options described, it is possible for end-users to consume outbound international mobile service once a SIM card is purchased. In view of this, URCA considers that from a demand-side perspective outbound international mobile service constitutes part of the cluster of mobile services that are jointly consumed.

Supply-side Substitution

BTC and Aliv provide domestic and outbound international mobile services pursuant to the terms of their operating licenses and utilize the same sales and distribution channels to provide these two sets of services.

Furthermore, domestic and outbound international mobile services are delivered using the same domestic networks and infrastructure. In case of a SSNIP on domestic mobile services, a provider offering outbound international services only, but wishing to start offering domestic mobile services would most likely already have the relevant infrastructure (or wholesale inputs) in place to deliver domestic services.³⁹

In conclusion, URCA is of the preliminary view that outbound international mobile calls and messaging services form part of the same product market as retail mobile access and domestic calls and messaging services. As already explained, this is due to both demand and supply-side factors and is in line with recent mobile retail market definition exercises elsewhere.

4.1.3 Outbound International Mobile Roaming Services

In this sub-section, URCA looks at whether outbound international mobile roaming service should form part of the same market as other retail mobile services.

Outbound mobile roaming provides subscribers with the possibility to make/receive voice calls or access other mobile services when travelling outside the geographical coverage area of their home network by

³⁸Price are VAT inclusive

³⁹URCA notes that the reverse may not apply due to additional investments that the domestic service provider would need to undertake to purchase international connectivity and access an international gateway.

means of using the mobile infrastructure of a visited network. The same mobile SIM card (mobile telephone number) is used for outbound mobile roaming and other mobile services.

In The Bahamas, international mobile roaming services are available to end-users on prepaid and postpaid payment schemes. In all instances, it is possible for a prepaid or postpaid mobile subscriber to make calls back to The Bahamas, call a local number in the visited country or call a third country. Subscribers can also access mobile data for Internet purposes and send/receive text messages.

Demand-side Substitution

URCA considers that mobile access and domestic mobile services and outbound mobile roaming are not demand-side substitutes in The Bahamas.

From a product functionality viewpoint, mobile access and domestic mobile services and outbound mobile roaming service serve different purposes. While mobile access and domestic mobile services are used within the territorial boundary of The Bahamas, outbound mobile roaming services are used during foreign travel. This means that when faced with a price increase of 5-10% in domestic mobile services, end-users are unlikely to switch away from such services to outbound mobile roaming services.

Supply-side Substitution

There is limited potential for substitutability in response to a supply-side SSNIP on domestic mobile services. This is because international roaming services have different requirements to domestic mobile services. In principle, a provider wishing to start providing international roaming services would need to own or gain access to some parts of the mobile network infrastructure in The Bahamas and requires agreements with MNOs abroad to provide mobile services using their network while a customer is abroad. URCA notes that there are specialized international roaming providers operating globally. However, owing to the high non-transitory barriers to entry, URCA deems it unlikely that a SSNIP in domestic mobile services would provoke a supplier of international roaming services to start offering domestic mobile services.

Although demand-side and supply-side substitution between international outbound roaming and domestic retail mobile services are likely to be limited, URCA considers it reasonable to include these services in the same product market. This is because Bahamians have the same choice of mobile operators for all retail mobile services including outbound mobile roaming service. Indeed, BTC and Aliv already supply outbound roaming services as part of their portfolio of mobile services and there are no specialist MVNOs in the market which only provide roaming services to Bahamian end users. This, in turn, increases the likelihood of end users using the same mobile provider for roaming and domestic mobile services and not treating international roaming as a separate and distinct purchase decision. Further, BTC and Aliv utilize the same sales and distribution channels to provide outbound mobile roaming as they do for other retail mobile services. Because SIMs are automatically provisioned for roaming, Bahamians have a reasonable expectation that they can use their mobile SIM to make/receive calls, send/receive messages and/or use data services during foreign travel.

Reflecting on the above, URCA preliminarily finds that outbound international mobile roaming services should be in the same market as other retail mobile services. This is in line with the 2003 European Commission Recommendations on Relevant Retail Markets. In particular:

"From a demand perspective, the retail provision of international roaming services appears to be a separate market. However, a domestic supplier of other mobile telephony services could respond to a price increase by a hypothetical monopolist by making agreements with foreign operators so as to supply retail roaming services. Therefore, it is possible to define a broader outgoing calls market at the retail level that includes national, international and roaming calls".⁴⁰

Additionally, Nkom of Norway has determined that outbound mobile roaming and domestic mobile services are closely related and constitute part of the mobile product market at retail level because:

"Consumers expect to also be able to use their ordinary subscriptions during foreign travel. On the basis of the bundling of ordinary mobile subscriptions with international roaming, ... international roaming is part of the relevant product market at retail."⁴¹

Furthermore, within the context of its 2020 market assessment, Telecommunications Regulatory Authority ('TRA') Oman posited that outbound mobile roaming service and domestic mobile service belong to the same market at the retail level. While acknowledging that demand switching between these services is unlikely, the Authority argued that:

"..., end-users have the same choice of providers for international roaming services as they do for domestic mobile services. That is, there are no specialist MVNOs in the market which only provide roaming services to Omani end users. This, in turn, increases the likelihood of end users using the same supplier for roaming and domestic mobile services and not treating international roaming as a separate purchase decision."⁴²

4.1.4 Mobile Data Services

Mobile data is a wireless Internet service that is delivered over cellular mobile networks to PCs, smartphones and other digital devices. Internationally, mobile data is becoming the leading technology for Internet purposes. The evidence currently available to URCA indicates that mobile data along with other mobile services belong to the same product market at retail level. This is explained below.

Demand-side Substitution

⁴⁰<u>https://www.pts.se/globalassets/startpage/dokument/legala-dokument/eu-regler/explanatorynote-</u> 201410091.pdf

 ⁴¹Analysis of the market for access and call origination on public mobile networks, Annex 1 Case 1804194,
 26.03.2020 Norwegian Communications Authority (Nkom)

⁴²Market Definition and Dominance (MDD) Report, 2020 Public Consultation July 2020 at <u>https://www.tra.gov.om/En/ViewPublicConsultations.jsp?code=25</u>

From a *product characteristics* viewpoint, in The Bahamas, mobile data is purchased jointly with other mobile services; and/or as a standalone (i.e., mobile data only) service. This is in line with how mobile data service is generally packaged and sold internationally.

The joint purchase of mobile broadband with other mobile services (i.e., <u>smartphone bundles</u>) relate to mobile bundles with allowances for calls, messaging and data. BTC and Aliv offer a range of smartphone bundles, as shown in Tables 3 and 4 above.

<u>Mobile data only plans</u>, by way of contrast, contain zero allowance for calls and messaging services. These are dedicated data connections using a SIM card or MiFi/USB-dongle and connect to the Internet via laptops/PC, and smartphones. Mobile data only products may be used for WiFi offloading/tethering 'on the go' or at a fixed location (e.g., at home) and with multiple devices connecting to the Internet simultaneously. Details of a range of mobile data only plans currently advertised on BTC and Aliv's websites are captured in Table 10 below.

As to their functionality, mobile data only and mobile data usage over smartphones (i.e., voice/messaging and data combine) are used to log on to the Internet with the objective of sending/receiving emails, browsing the Internet and downloading mobile applications.

While consumers may switch between buying a bundle including data, and buying standalone data only plans, it is also the case that mobile voice and data serve different purposes. While mobile data is used for Internet purposes, mobile voice calls and messaging are used to communicate instantly with mobile or fixed numbers within and outside The Bahamas. URCA acknowledges the differences in the products but considers that they form part of the same product market because of supply-side substitution.

Service availability and take-up

In terms of take-up, smartphone data usage stood at 359,719 subscribers in 2017 compared to 390,142 subscribers at year-end 2020. By contrast, mobile data only usage was 18,983 subscribers in 2017 compared to 27,850 at year-end 2020; or 7% of total mobile connections in 2020. This suggests that mobile data usage in The Bahamas is dominated by smartphone data usage.

82% of persons surveyed said they currently use mobile data as part of a smartphone bundle compared to 25% that use mobile data only service (i.e., no allowance for calls, messaging) for Internet purposes. Clearly the vast majority of them consume mobile data as part of a smartphone bundle with calls, messaging and data. Mobile data users also rely on other technologies to access the Internet. 65% of mobile data only users said they have more than one way of accessing the Internet, with 57% acknowledging that they also use mobile data service on their smartphone.

Additionally, 98% of the respondents said they hold a smartphone or tablet with the ability to access the Internet and/or send emails, with more than 50% of these respondents stating that they own more than one smartphone and/or tablet with Internet capability. This means that only a tiny share (2%) of respondents did not hold a smartphone or tablet. The high mobile penetration rate in The Bahamas and
nationwide coverage of mobile data services suggests that mobile data service is readily available throughout the entire Bahamas.

Relative prices

URCA now considers whether a SSNIP may lead to demand-side substitution from smartphone data usage to mobile data only and vice versa. URCA finds that the cheapest *mobile data only* plan available to meet the "average" monthly data usage of mobile data users of 3.78 GB⁴³ is the BTC \$29.70 plan with 6.6 GB of data.⁴⁴ The *cheapest smartphone bundle* (prepaid) to meet that level of mobile data demand is BTC's Combo plan with 4GB of data for \$38.30 per month.⁴⁵

Licensee	Type Plan	Product	Validity period	Price ⁴⁶	Data included	
BTC	Prepaid		1 Day	\$3.80	550MB, Roll over data with renew: No	auto
			10 Day	\$8.30	1.1GB, Roll over data with renew: Yes	auto
			30 Day	\$15.40	2.2GB, Roll over data with renew: Yes	auto
			30 Day	\$29.70	6.6GB, Roll over data with renew: Yes	auto
			30 Day	\$38.50	15GB, Roll over data with renew: Yes	auto
Aliv	Prepaid	mifi75	30 Day	\$75.00	50GB	
		mifi90	30 Day	\$90.00	125GB	
		mifi140	30 Day	\$140.00	200GB	
	Postpaid	mifi basic	Monthly	\$65.00	50GB	
		mifi plus	Monthly	\$75.00	125GB	
		mifi preferred	Monthly	\$135.00	200GB	
Source: https://ww	Accessed w.bealiv.com/	18 March store/plans/	2022:	https://www.btcbahar	mas.com/mobile/plans/prepaid	and

Table 10: Selected Mobile Data only Plans

With respect to postpaid, the average mobile data only user would be able to meet their monthly data consumption by purchasing the BTC Bimini plan with 5 GB of data for \$44.99 per month. URCA considers that the observed price differences are not significant enough to prevent switching, in case of a SSNIP in mobile data only services.

Supply-side Substitution

 ⁴³This is the weighted average mobile data usage for prepaid and postpaid subscribers (sub-section 4.1.5 below).
 ⁴⁴See Table 10, sub-section 4.1.4 above.

⁴⁵ See Table 3, sub-section 3.2 above

⁴⁶Prepaid prices are VAT inclusive ad postpaid prices are VAT exclusive

Mobile data offered as a standalone product or as part of a smartphone bundle with voice and messaging are likely supply-side substitutes. Calls, messaging and data services are supplied over the same network and infrastructure as well as through the same sales or distribution channels.

Altogether, URCA provisionally finds that mobile data offered as part of a smartphone bundle (with calls and messaging) or as a standalone mobile data only service, belong to the same retail market as other retail mobile services. This finding is in line with recent mobile market definition exercises in Trinidad & Tobago, Oman and EC merger cases.

4.1.5 Prepaid and Postpaid Subscriptions

Aliv and BTC refer to their mobile retail plans as either prepaid or postpaid, and prepaid includes PAYG. In this sub-section, URCA looks into whether prepaid and postpaid mobile services form distinct product markets.

Demand-side Substitution

The similarities in *product characteristics* between prepaid and postpaid mobile services are likely to render them substitutable in the case of a 5-10% price increase on either service. Indeed, prepaid and postpaid mobile services:

- cover access and the ability to use the range of retail services delivered over the two mobile networks;
- are offered mostly as part of a product bundle with varying allowances for calls and text messages to domestic and international destinations and/or data;
- involve seamless access to mobile service when end-users travel abroad;
- render the same level of access to emergency facilities and other ancillary services; and
- render similar call quality, coverage and connectivity.

This also means that prepaid and postpaid services are increasingly becoming alike as both are offered as bundles with varying inclusions of data, calls and messaging. This is likely to promote demand-side switching between prepaid and postpaid mobile services. At the same time, differences exist between how prepaid and postpaid services are offered in The Bahamas. These differences relate to billing arrangements and administrative requirements:

(1) Billing Arrangements

- (i) In The Bahamas mobile services are supplied to consumers through two types of retail plans. Prepaid is where the end-user pays for mobile service upfront. Prepaid subscribers buy credit upfront via SMS or online top-up, etc. The credit is then used to purchase mobile services as needed, or to purchase one-off bundles with calls, messages and/or data or to pay for out-ofbundle usage.
- (ii) Postpaid is where the end-user pays at the end of each month of service. Postpaid customers have contracts with their mobile providers and pay a monthly subscription fee after the services are used. End-users also pay out-of-bundle/overage tariffs for usage beyond their bundle inclusions. The monthly bill comprises the agreed monthly subscription fee for the chosen postpaid plan and any extra for usage beyond the monthly allowance. This portion of the monthly bill will vary depending on service usage and unit price.

(2) Administrative Requirements

As URCA understands it prepaid is available to anyone subject to a proof of identification. Meanwhile there are certain administrative requirements that subscribers must meet in order to access postpaid mobile services, as follows:

- (i) Security deposits: Customers opting for a postpaid account get charged a security deposit. This is an amount paid upon initial sign up of the postpaid account. For Aliv the amount is \$149.99 and \$100 for BTC. However, the actual amount paid may vary depending on the desired service.
 ⁴⁷ Still, both companies reserve the right to waive the deposit at sign up and/or deferred payment at a later date.
- (ii) *Credit limits and credit checks*: Customers opting for a postpaid account must not have any past due account or balances with BTC. BTC assigns each customer a credit limit when they sign up for postpaid services and this may be adjusted upon request by the customer.
- (iii) Contract length: The minimum contract period for postpaid subscriptions is 12 and 24 months⁴⁸ whereas prepaid vouchers have a validity period 1, 7, 10 or 30 day(s) after which a user can switch to a different voucher if they wish (either from the same MNO or by purchasing a SIM from another provider).

and

⁴⁷Accessed 18 March 2022: <u>https://www.bealiv.com/fair-use-policy/</u> <u>https://www.btcbahamas.com/support/category/50-getting-started/faqs#faq-90</u>

⁴⁸See Table 3, sub-section 3.2 above

URCA holds the view that these differences are not sufficient to constrain demand-side substitution to postpaid services from customers on prepaid, when faced with a SSNIP in prepaid services. For instance, the "credit limits" for postpaid payment schemes give subscribers financial control which mimics the financial control of a prepaid subscription plan".⁴⁹ Switching would also be possible the other way round. This is because it would be easy for a postpaid customer to switch to prepaid as there are no extra administrative requirements for prepaid services when compared to postpaid services.

Service availability and take-up

Given the level of mobile network coverage, prepaid and postpaid services are universally available throughout The Bahamas. Based on Figure 6 from 2014 to 2020, end-users on prepaid schemes consistently exceed 80% of total mobile connections. As at year-end 2020, prepaid and postpaid connections totaled 341,897 and 76,095, respectively. The corresponding values for 2014 are 265,971 and 47,431. Within the period, prepaid and postpaid connections increased by 28.55% and 60%, respectively. This meant that prepaid's share of total mobile connections (including mobile data only) declined slightly, to 81.80% in 2020 compared to 84.87% in 2014. These trends, however, offer no clear evidence on demand-side substitutability between the services. This is because these are likely to be part of broader changes in the nature of demand, rather than specifically being driven by relative price changes between prepaid and postpaid mobile services.



Figure 6: Prepaid vs Postpaid Mobile Connections Source: URCA Analysis based on MNOs data

 ⁴⁹Section
 3.3
 available
 at

 https://tatt.org.tt/DesktopModules/Bring2mind/DMX/API/Entries/Download?Command=Core
 Download&EntryId

 =1395&PortalId=0&TabId=222

Relative Prices

URCA has considered whether a SSNIP may lead to demand-substitution from prepaid to postpaid mobile services and the other way around. Prepaid is typically geared towards more budget sensitive customers will lower usage profiles, whereas postpaid is targeted at less budget sensitive customers with higher usage profiles.

URCA estimates that the typical consumer spends an "average" amount of \$37 per month (or \$33 in real terms, Figure 3 above) on mobile services and that prepaid customers currently use on average 45 minutes of domestic calls and 2.67 GB per month compared to average use of 88 minutes of domestic calls and 8.97 GB per month for postpaid users. Faced with a SSNIP in prepaid, a customer with an average use of about 45 mins/2.67 GB per month is not likely to find a corresponding postpaid plan and therefore is unlikely to consider switching from prepaid to postpaid services. The cheapest postpaid plan available to meet the average usage of prepaid users is priced at \$44.99⁵⁰ which is above the average monthly expenditure across all mobile users of \$37. This means it is unlikely to be rational for a price sensitive customer with average levels of usage (expenditure) to switch, especially when also taking into account of the deposit requirement for postpaid plans.

However, a postpaid customer (with an average use of about 88 mins/8.97 GB per month) is likely to consider switching to prepaid when confronted with a SSNIP in postpaid. In this case the cheapest prepaid plan available to them is priced at \$60 per month⁵¹ which is below the average monthly expenditure across all postpaid users of \$61.82.⁵² In view of this, it is reasonable for URCA to assume that end-users are more likely to switch from postpaid to prepaid rather than the other way around.

Overall, URCA considers it reasonable to consider both prepaid and postpaid mobile services in the same product market, especially when taking into account of supply-side considerations.

⁵⁰The BTC Bimini plan with 5 GB of data, unlimited on-net mobile calls, 300 off-net calls, and 3000 on-net text messages.

⁵¹The Aliv liberty 60 plan with 12 GB of data, 600 off-net minutes and unlimited on-net minutes ⁵² This is the Aliv liberty 60 plan with 12 GB of data.

Supply-side Substitution

Supply-side SSNIP exists between prepaid and postpaid services because both are delivered over the same network infrastructure and spectrum bands. There is usually an overlap in the sales and distribution channel used to deliver both services to end-users. Even if there are cost differences in terms of billing and collection, with postpaid (but not prepaid) requiring bills, revenues collection and managing bad debt, these are not sufficiently large to represent a barrier to supply-side switching. Therefore, when confronted with a SSNIP in prepaid services, a supplier of postpaid services could switch easily and start supply of prepaid services, and vice versa, without substantial additional expenditure or investment.

In summary, postpaid end-users are more likely to find a suitable prepaid plan when faced with a SSNIP in postpaid. Meanwhile, prepaid end-users are unlikely to find a suitable postpaid plan when faced with a SSNIP in prepaid. This means that sufficient users are unlikely to consider switching from one service to the other and render a 5-10% price increase unprofitable for the hypothetical monopolist. Owing to supply-side factors, URCA finds that that there is a single, combined market for postpaid and prepaid mobile service. This covers access, calls and messaging regardless of destination, and data purchased under prepaid and postpaid payment schemes. Outbound international mobile roaming, and access and calls to ancillary services are also included. This finding is also in line with recent mobile retail market definition exercises in Trinidad & Tobago, Oman, Saudi Arabia and EC merger cases.

4.1.6 Residential and Business Subscriptions

Determining the relevant product market commonly requires an assessment of whether there is a need to define separate markets for residential and non-residential (business) consumers. In this sub-section, URCA assesses that retail mobile services provided to residential and non-residential customers should be part of the same mobile market at retail level.

Demand-side Substitution

URCA considers that limited substitution could take place between retail mobile services delivered to residential and non-residential customers. Although URCA has preliminarily concluded that there could be substitution, URCA has also considered possible reasons why this might not be the case and concluded that these reasons are not sufficient to change URCA's conclusions.

Product characteristics and requirements

From URCA's point of view there might be limited demand-side substitution between residential and non-residential mobile services due to differences in administrative requirements and product characteristics.

In particular, there are administrative barriers for residential customers to switch to non-residential service. In The Bahamas, the requirements for non-residential service include presentation of business license (or receipt pending license), VAT TIN certificate and photo ID. While the only requirement for residential mobile service is presentation of a Government issued ID. The requirements for non-residential mobile services are likely to restrain demand switching to non-residential mobile services from residential, when faced with a SSNIP in residential services. However, switching in the other direction (from non-

residential to residential) seems more likely because non-residential customers could use their personal ID to purchase residential mobile services. Indeed, smaller business customers could switch to residential service as they are likely to have similar demand profiles to residential customers which is reflected in the plans offered to them. They can also easily switch to a residential plan without the MNOs noticing.

URCA considers that this is less likely to be the case for large/corporate customers with different demand profiles and often get bespoke offerings (i.e., tailored to their specific needs). This means that large/corporate enterprises are less likely to consider switching to residential mobile services when confronted with a SSNIP in non-residential mobile services. From URCA's viewpoint, it is likely that in some cases, employees of particular organizations will be provided with a mobile connection by their employer, with that connection also used for personal use, despite it actually being offered to the employer on a specific corporate plan. These factors further narrow the distinction between non-residential and residential usage and mean that, in reality, at least at the margins, there could be some degree of substitutability between residential and non-residential retail mobile services.

Differences also exist between residential and non-residential retail mobile plans in terms of tariffs offered, volume of inclusive minutes, messages and data, etc and are likely to impede demand substitution. For example, BTC and Aliv offer non-residential mobile plans with large allowances of minutes, data and SMS that can be allocated among employees on the plan. Also, non-residential mobile plans may vary by the number of mobile connections that can be used on the service. By contrast, residential mobile plans typically refer to only one mobile connection per subscription, with any allowances of minutes, SMS and data only available to one user.

URCA, however, considers that this is still not sufficient to change URCA's views as there still remains a number of similarities between both services that would encourage demand switching. For one, the outof-bundle tariffs per minute, MB of data and messaging in postpaid non-residential mobile plans might be comparable to those of postpaid residential mobile plans. As well as the differences in fee structure, including a higher subscription fee on non-residential plans, reflects the ability to make 'free' calls to numbers registered as part of the same business.

Second, it is not possible for a mobile operator to differentiate the network quality of services offered to residential and non-residential users. This further narrows the actual difference between mobile plans offered to both customer segments.

Further, URCA notes that the minimum contract period offered to both customer segments is broadly the same and for residential and non-residential mobile services. This further narrows any actual difference existing between residential and non-residential mobile plans.^{53 54}

⁵³BTC's stated contract period varies from 12 months to 36 months for SMEs and up to 60 months for large enterprises. On the residential side the minimum contract period is 12 months. Aliv stated contract period (minimum) for all customer SME, large/corporate customers and residential is 24 months.

⁵⁴BTC's letter to URCA dated 29 July 2021 and Aliv's letter to URCA dated 4 August 2021.

In view of all this, the customer segmentation for mobile services is not clear cut because of the overlap between the retail mobile services that could be purchased by a residential and non-residential customer. Put differently, there is sufficient interchangeability between residential and non-residential retail mobile services from a demand-side perspective. Given this, on balance, URCA considers it reasonable to consider both segments in the same market, especially when taking into account of supply-side considerations.

Supply-side substitution

Supply-side SSNIP exists between residential and non-residential services. This is because the existing MNOs deliver residential and non-residential services using similar mobile network and spectrum bands. However, there are differences in the retail marketing and customer service activities used for both segments. For example, larger business customers are likely to be offered greater levels of customer support, including dedicated customer service representatives or specific marketing channels. Both BTC and Aliv explained that separate sales teams are assigned to residential and non-residential customers. URCA, however, considers that any difference in the sales channels used for residential and non-residential customers do not appear to be sufficiently enough to limit supply substitutability. As such, when faced with a SSNIP in residential services, a supplier of non-residential services could switch to the supply of residential services, and vice versa.

Altogether, demand and supply-side switching exist between mobile services delivered to residential and non-residential customers. On the demand-side, switching from non-residential to residential mobile service is more likely than the other way around. This is especially as it relates to SMEs' demand for communications services that are not differ materially from the demand of a typical residential consumer. Meanwhile, supply substitutability is feasible for all customer segments and types, given that there are no fundamental differences in the network infrastructure and sales/distribution channels use to deliver mobile services to residential and non-residential consumers. This provisional view is supported by recent mobile retail market definition exercises in Oman, Trinidad & Tobago and EC merger cases.

4.1.7 Assessment of Non-Mobile Services

In this sub-section, URCA explores whether retail fixed voice telephony, fixed broadband and OTT calls/messaging should be part of the same market as retail mobile services.

4.1.7.1 Are Retail Fixed Access and Calls and Mobile Access and Calls in the Same Product Market?

In The Bahamas, fixed access and calls are mainly offered by BTC and CBL. BTC provides fixed access and telephony throughout the territorial boundary of The Bahamas. CBL's affiliate Systems Resource Group Limited ('SRG') provides fixed access and domestic telephony but only to residents of New Providence, Grand Bahama, Abaco and Eleuthera.

Demand-side substitution

As both fixed and mobile telephony services are widely available and used in The Bahamas, the more important issue then comes on the product characteristics mostly likely constraining any substitution

which is also reflected in the survey evidence. At year-end 2020, the number of fixed landline connections⁵⁵ was 88,398 compared to 121,178 in 2016. Within the same period, mobile connections⁵⁶ (voice and messaging and/or data) increased to 390,142 from 365,840. The fixed penetration rate in 2020 was 74.9% of total households (118,000) compared to a mobile penetration rate of 104% of total population. While both services are universally available and used (and hence switching could be considered by most users), mobile take-up has increased over the period considered, which does not support actual switching in significant numbers (especially as fixed take-up has fallen during this period).



Figure 7: Fixed and Mobile Connections⁵⁷

Source: Based on MNOs data and fixed operators' data

Mobile access and telephony and fixed access and telephony are similar in *product characteristics* with both providing the option to make/receive calls to and from domestic and international destinations. The ability to call local emergency numbers and ancillary services is also a feature that is common to both access technologies. These similarities in product characteristics suggest that fixed telephony could be a potential substitute when faced with a SSNIP in mobile services.

However, the differences in product characteristics between these services could either inhibit or promote demand switching from mobile services to fixed services. As argued in sub-section 4.1.5 above, mobile consumers purchase calling services either as part of the same prepaid plan or postpaid plan. It is customary for these plans to cover varying inclusions of on/off-net mobile calls. Some plans come with pre-specified volume of calls to specified destinations and outbound mobile roaming services. End-users get charged out-of-bundle tariffs for usage beyond their bundle inclusions.

⁵⁵ Residential and non-residential customers

⁵⁶ Prepaid and postpaid voice, SMS and/or data

⁵⁷ Voice and messaging and/or data.

Meanwhile, fixed access and calls are available on postpaid only and these often come with varying inclusions of on/off-net fixed calls. Fixed calls may be purchased as part of a multi-product bundle comprising fixed broadband connection. End-users also pay out-of-bundle or overage tariffs for usage beyond their fixed bundle inclusions. Clearly, this reduces the likelihood of end-users regarding fixed telephony services to be potential substitutes for traditional mobile telephony when confronted with a SSNIP in mobile access and call services. Based on survey evidence, there are other factors that further limit the likelihood of fixed services being a demand-side substitute for mobile services in The Bahamas.

In particular, it is not technically feasible to send/receive messages via a fixed landline connection in The Bahamas. Indeed, 55% of the survey respondents said they send messages from their mobile phone. Mobile end-users that value the ability to send/receive messages are less likely to view fixed access and telephony as substitutable for mobile services.

Crucially, fixed end-users lose the ability to make/receive calls or access ancillary services 'on the go'. Evidence from elsewhere (e.g., Trinidad & Tobago, Oman) highlights the differences in mobility as the main deterrence to mobile to fixed call substitutability. In the URCA-PD survey 51% of them said mobility is the number one advantage of their mobile plan to fixed services. As evident in Figure 8, those valuing service reliability, service availability, Quality of Service ('QoS') and price are 39%, 38%, 36% and 30%, respectively. On the contrary, 53% see fixed services as having no advantage over mobiles.



Figure 8: "When comparing your current mobile access and call plan to a fixed line service, what are, in order, the three (3) key advantages of your mobile phone plan?" Source URCA-PD Survey

Faced with a 5-10% price increase in mobiles (see Figure 9 below) only 5% of them said they would switch to fixed access and calls. On the contrary, 17% said they would not take any action or 'do nothing'. 22% would simply make fewer mobile calls, while 30% would resort to using OTT call/messaging and 21% would switch to another mobile plan.



Figure 9: "If the price of your current mobile access and call services is increased by 5-10%, which of the following actions would you take?" (One Response Only) Source URCA-PD Survey

Relative prices

URCA has also considered whether a change in relative price levels for mobile and fixed telephony is sufficiently similar to possibly induce some level of switching from mobile to fixed services, when faced with a SSNIP in mobile services. Based on the current fixed and mobile retail tariff offerings and average mobile usage, URCA concludes that, all other equal, relative prices would not prohibit mobile end-users (with the average usage of 133 mins/month) from considering to switch to fixed access and telephony services.

On **prepaid**, BTC and Aliv provide a bundle with allowances of unlimited calls and messaging (on/off-net) in combination with limited data, priced at \$38.30 and \$140 per month. As well, Aliv offers prepaid bundles with unlimited (on-net) calls and messaging, limited (off-net) calls and messaging and limited data, priced between \$30 and \$90 per month. On prepaid, end-users can purchase add-ons allowances of data, calls and messaging or purchase calls as needed on a PAYG basis.

Compared to prepaid, fixed landlines customers pay a one-off non-refundable installation fee and a security deposit and thereafter a monthly bill reflecting the agreed monthly subscription fee (including monthly line rental) plus charging for usage beyond their monthly allowances. Details of the fixed bundled plans supplied in The Bahamas are captured in Table 11 below.

Licensee	Product	Monthly Price	Calls included
BTC	Basic Landline	\$15.00	Free local landline calls, 100 minutes for local mobile calls
	Talk 300	\$22.00	Free local landline calls, 300 for local mobile calls, The Bahamas, US, Canada and UK + 2 free calling features

Table 11: Selected Fixed Access and Telephony Bundles

	Talk 600	\$28.00`	Free local landline calls, 600 minutes for local mobile calls, US, Canada and UK + 4 free calling features
	Talk 24/7	\$35.00	Free local landline calls, Unlimited minutes for local mobile calls, US, Canada and UK + All calling features free
CBL/SRG	REVTALKPrime	\$16.99	Unlimited local minutes to any REVTALK number + Free calling features
	REVTALKPro	\$25.00	Unlimited local minutes to any REVTALK number + 900 domestic & international minutes + Free calling features
	REVTALKPremium	\$30.00	Unlimited local minutes to any REVTALK number + Unlimited domestic & international minutes + Free calling features

Source: Accessed 18 March 2022: <u>https://www.btcbahamas.com/home-phone/overview</u> and <u>https://www.rev.bs/phone/</u>

It is not apparent to URCA that mobile prepaid represents the lowest cost option for an average mobile telephony user in The Bahamas (i.e., a user who makes 133 minutes of mobile calls per month).⁵⁸ Such a user could meet his or her monthly mobile needs by using BTC's prepaid Combo plan with unlimited All net calls (on-net mobile/off-net mobile to mobile/fixed) for \$38.30 per month, or Aliv's prepaid liberty 30 plan priced at \$30 per month with 330 off-net mobile to mobile/fixed minutes and unlimited on-net mobile minutes.⁵⁹ However, fixed bundled plans offer a cheaper means to make 133 minutes of domestic calls (e.g., through a fixed bundled plan with free local landline calls and 300 fixed-to-mobiles or one with unlimited on-net fixed-to-fixed minutes and 900 off-net fixed-to-fixed/mobile minutes for \$22 or \$25 per month, respectively).⁶⁰

Postpaid plans typically come with unlimited on-net mobile minutes and a pre-specified amount of offnet mobile-to-mobile and mobile-to-fixed minutes. All postpaid plans cover data ranging from 5 GB to unlimited, priced between \$44.99 and \$149.99 per month. BTC's cheapest postpaid plan for \$44.99 per month could meet the monthly call needs of the average user and comes with unlimited on-net mobile minutes and 300 off-net mobile-to-mobile/mobile-to-fixed minutes, as could Aliv's cheapest postpaid plan.⁶¹ Again, fixed bundled plans offer a cheaper means to make 133 minutes of domestic calls by using a fixed bundle.

Supply-side substitution

Supply-side SSNIP does not exist between mobile access and domestic calls and fixed access and domestic calls. This is because both services are delivered over separate network infrastructure and technology. As argued in sub-section 5.1 ("Barriers to entry") below in the context of single dominance assessment, the

⁵⁸Figure 3, sub-section 3.2 above

⁵⁹Table 3, sub-section 3.2 above

⁶⁰ This assumes the average user already have a fixed landline connection

⁶¹Table 4, sub-section 3.2

mobile market under review is characterized by high and non-transitory barriers to entry which means that supply-side substitution for a fixed service provider not currently offering mobile services is unfeasible in the event of a SSNIP in mobile access and domestic mobile calls.

On the whole, URCA concludes that fixed access and domestic calls and mobile access and domestic calls are not supply-side substitutes. On the demand-side, mobile-to-fixed substitutability is limited given endusers' desire to consume mobile services while 'on the go'. This means that fixed access and domestic call services should not form part of the same product market as retail mobile services. This is in line with mobile market definition exercises in Trinidad & Tobago and Oman.

4.1.7.2 Are Retail Fixed Broadband and Mobile Data Services in the Same Product Market?

URCA now investigates whether the mobile market at retail level should be widened to include retail fixed broadband services.

Demand-side substitution

Fixed broadband services are supplied mainly by BTC and CBL, though a number of smaller providers also supply broadband in limited geographic areas, mostly using wireless networks and infrastructure. While fixed and mobile broadband/data services are widely available and used the vast majority of broadband end-users rely on mobile data for Internet purposes, compared to only 60% that said they currently used fixed broadband access to the Internet and email. URCA infers from this that the vast majority of mobile broadband users consume data as part of a product bundle with calls and messaging and are unlikely to give up their mobile data for fixed broadband when confronted with a SSNIP on mobile data services.

Considering similarities in *product characteristics*, both fixed broadband and mobile data services provide the option to log on to and browse the Internet or send/receive email. Both technologies require endcustomers to buy access and a personal device to connect and use the Internet. In The Bahamas, fixed broadband is available as a standalone product or as part of a fixed bundled plan covering fixed broadband, fixed telephony and/or pay TV in one package.⁶² Data on fixed broadband take-up suggest that most fixed broadband users opt for the standalone option. Meanwhile, consumers mostly consume mobile data as part of a prepaid or postpaid mobile bundle with calls, messaging and data. These similarities in product characteristics would not deter mobile to fixed broadband substitutability.

URCA has also looked into whether differences in how mobile data and fixed broadband services are offered would discourage switching from mobile data to fixed broadband. Of note, there is, in The Bahamas, a significant difference in actual observed download speeds, with average mobile download

⁶²For example, BTC advertises on its website various double-play packages containing fixed broadband and fixed telephony or Pay TV in addition to triple-play bundles with fixed broadband, fixed telephony and Pay TV. End-users on CBL's network can bundle fixed broadband with fixed telephony and/or pay TV services in one package. Details of all standalone and multi-product offerings are available at https://www.rev.bs/bundles/ and <a href="https:

speeds of 32.63 Mbps compared to fixed download speeds of 55.89 Mbps.⁶³ URCA, however, notes that this would not constrain mobile-to-fixed broadband substitutability (i.e., a mobile customer would be unlikely to be put off from switching to fixed services, following a SSNIP in mobile services, because of a difference in the download speeds available).

However, and most crucially, fixed broadband is available at predetermined fixed locations. This means that an end-user switching from mobile to fixed services would thus lose the ability to browse the Internet or send/receive emails 'on the go'. Indeed, the differences in mobility are the main deterrence to mobile to fixed broadband substitutability in The Bahamas, with 45% of respondents saying "mobility" is the main advantage of mobile data compared to fixed broadband. Based on Figure 8, end-users also value convenience (33%), service availability (31%), reliability (29%), download/upload speeds (19%) and price (14%). 26% of them see fixed broadband having no advantage compared to mobile data.



Figure 8: "When comparing your mobile data service via USB dongle/MiFi modem to fixed broadband Internet services what are, in order, the three (3) key advantages of mobile data?" (Check All that Apply) Source: URCA-PD Survey

With fixed broadband being available on postpaid only this may also constrain demand-side substitution for prepaid mobile data end-users. Additionally, fixed and mobile broadband are used differently. In particular, fixed broadband is usually shared in a household, whilst mobile broadband is commonly used for personal broadband access (although this might not hold for mobile broadband offerings with WiFi routers). These services may be complements as a result of this, with mobile broadband services primarily being used outside the home and 'on the go', but with customers often "offloading" to fixed (WiFi) broadband services at home, even if using a mobile device.⁶⁴

⁶³ Accessed 16 September 2021: <u>https://www.speedtest.net/global-index/the-bahamas#mobile</u>

⁶⁴ Determination: Retail Domestic Mobile Telephony Market Definition available at <u>https://tatt.org.tt/DesktopModules/Bring2mind/DMX/API/Entries/Download?Command=Core_Download&EntryId</u> <u>=1395&PortalId=0&TabId=222</u>

Relative prices

URCA has also assessed whether relative prices are such that a SSNIP in mobile broadband and data services could lead to some substitution to fixed services. There are two dimensions to consider here: average data usage/allowances and download speeds offered. URCA estimates that mobile data users currently use on average 3.78 GB per month and experience average (download) speeds of 34.67 Mbps.

- Download speeds offered. BTC's standalone fixed broadband plans come with download speeds of 8 Mbps to 600 Mbps, priced between \$30.99 and \$129.99 per month. Whilst CBL's fixed broadband plans come with download speeds ranging between 30 Mbps and 105 Mbps, priced from \$49.50 to \$124.75 per month. Assuming no differences in advertised and actual average download speeds on fixed broadband plans⁶⁵, an end user would have to pay at least \$43.99 per month for a fixed broadband plan to experience similar download speeds as the 34.67 Mbps experienced on average on mobile data plans. By comparison, BTC offers mobile data only plans for \$15.40 and \$29.70 with monthly data allowances of 2.2 GB or 6.6 GB. Thus, mobile end-users primarily concerned about download speeds are unlikely to switch to fixed broadband services, in case of a SSNIP in mobile data only services.
- Data usage/allowances. All fixed broadband plans offer unlimited data usage (subject to a fair usage policy). While the monthly data allowances for mobile data only services vary between 2.2 GB to 200 GB, priced between \$15.40 to \$140 per month. Thus, a user of mobile data only service primarily concerned about meeting their average data usage of 3.78 GB per month would find a corresponding fixed broadband bundle in the event of a SSNIP to meet their monthly usage. The cheapest mobile data only plan that offers 3.78 GB is priced at \$29.70 (6.6 GB) per month. On fixed broadband services the mobile user would have to pay \$30.99 per month. The monthly price for fixed broadband services increases to \$43.99 per month if the user also wishes to obtain a similar download speed as the average speed experienced on mobile data services.

Licensee	Plan	Fixed/Mobile Broadband	Price	Data Allowances
BTC	Basic 8	Fixed BB	\$30.99	Up to 8 Mbps/2 Mbps
	Basic 20	Fixed BB	\$33.99	Up to 20 Mbps/4 Mbps
	Basic 50	Fixed BB	\$43.99	Up to 50 Mbps/10 Mbps
	Extreme 30	Fixed BB	\$35.99	Up to 30 Mbps/6 Mbps
	Extreme 100	Fixed BB	\$48.99	Up to 100 Mbps/24 Mbps
	Extreme 150	Fixed BB	\$69.99	Up to 150 Mbps/44 Mbps
	Extreme 300	Fixed BB	\$89.99	Up to 300 Mbps/98 Mbps
	Extreme 600	Fixed BB	\$129.99	Up to 600 Mbps/195 Mbps

Table 12: Selected Fixed Broadband and Mobile Broadband/Data ⁶	6
---	---

⁶⁵ URCA notes that advertised download speeds are likely to overstate the actual speeds experienced, on average, by fixed broadband customers.

⁶⁶Based on fixed operators' websites (Accessed 18 March 2022: <u>https://www.btcbahamas.com/internet-overview</u> and <u>https://www.rev.bs/internet/</u>) and Table 10 above

(CBL	REVNETPrime	Fixed BB	\$49.50	30 Mbps/6 Mbps
		REVNETPRO	Fixed BB	\$71.50	45 Mbps/9 Mbps
		REVNETPremium	Fixed BB	\$90.50	75 Mbps/15 Mbps
		REVNETPrestige	Fixed BB	\$124.75	105 Mbps/18 Mbps
I	BTC (Prepaid)		Mobile data only	\$15.40	2.2 GB
			Mobile data only	\$29.70	6.6GB
			Mobile data only	\$38.50	15GB
	Aliv (Prepaid)	mifi75	Mobile data only	\$75.00	50GB
		mifi90	Mobile data only	\$90.00	125GB
		mifi140	Mobile data only	\$140.00	200GB
	(Postpaid)	mifi basic	Mobile data only	\$65.00	50GB
		mifi plus	Mobile data only	\$75.00	125GB
		mifi preferred	Mobile data only	\$135.00	200GB

Switching evidence

Faced with a demand-side SSNIP aimed at mobile data only users, 14% of the survey respondents said they would switch to a fixed broadband connection. In contrast, 35% said they would 'Do Nothing' while 23% would switch to another mobile plan. This is in line with URCA's view that sufficient users would not switch away from mobile data or use it less in the event of a SSNIP.



Figure 9: "If the price of your current mobile data services via USB dongle/MiFi modem is increased by 5-10%, which of the following actions would you take?" One Response Only Source- URCA-PD Survey

Conclusively, fixed broadband is not an effective demand-side substitute for mobile broadband/data. The mobility of mobile data services and the switching evidence derived from survey respondents strongly suggest that sufficient end-users are unlikely to give up their mobile data services to make the price

increase in mobile data unprofitable for the hypothetical monopolist. It does, however, suggest that fixed broadband complements mobile data services.

Supply-side substitution

For similar reasons as set out in the context of fixed access and call services in the previous sub-section, URCA considers fixed broadband is not a supply-side substitute to mobile data/broadband services. This is because both services are delivered over separate network infrastructure and technologies.

On the whole, URCA therefore concludes that demand and supply-side substitutability do not exist from mobile data services to fixed broadband services to an extent that fixed broadband services should form part of the same product market as retail mobile services.

4.1.7.3 Are OTT Call and Messaging Services and Retail Mobile Call and Messaging in the Same Product Market?

OTT calls and OTT messaging services cover a range of real-time communications solutions delivered via IP networks and the public Internet. The figure below shows that current OTT service penetration in The Bahamas is very high, with only 3% of respondents stating that they do not use any OTT service. 93% of them said they use WhatsApp to make calls or send messages. 77% of them download other OTT apps (e.g., Skype, Facebook, iMessage and Viber) so that they can easily communicate with anyone they wish across multiple platforms and devices.



Figure 10: "Which of the following OTT call and message services (making calls or sending messages using an app or service over the internet like Skype, WhatsApp, etc) have you used at least once in the last month? (CHECK ALL THAT APPLY)

Source: URCA-PD Survey

In this sub-section, URCA looks into whether the relevant retail mobile market should be widened to include OTT calls and messaging services.

Demand-side Substitution

From URCA's viewpoint, OTT only services are not sufficient demand-side substitutes for traditional mobile call and access services. This means that when confronted with a demand-side SSNIP in mobile services, mobile customers are unlikely to switch from traditional mobile call services to using OTT services only. While Bahamian consumers often use mobile call and messaging and OTT call/messaging in substitution, the requirements for OTT services may impede such substitution. In particular:

- OTT services require users to have a personal device and download the same OTT app. This applies to both the party making OTT calls and/or sending OTT messages and the receiver of such calls and/or messages.
- OTT users must have a mobile connection and mobile data to use OTT services at any location.

These characteristics restrict OTT users' ability to switch entirely away from mobile services to OTT services. Indeed, while customers may decide to switch between these services for individual calls, this is less relevant in the current context, as Bahamian consumers commonly purchase bundled mobile services which include call, messaging and data allowances. Therefore, URCA believes that any substitution at the margin is unlikely to impact their decision to purchase mobile services.

Product characteristics

There are similarities in product characteristics between traditional mobile services and OTT services. Functionally, OTT calls and OTT messaging and mobile calls and messaging serve similar purposes with both providing the option to make/receive calls or send/receive text messages to and from destinations in country and abroad. Further, OTT services and traditional mobile services offer other functionality including the ability to make voice/video calls. URCA, however, does not consider OTT services as being sufficiently substitutable for traditional mobile call and messaging services at this time. This is explained below.

OTT Voice Services and Mobile Voice Services

URCA acknowledges that differences exist between OTT call services and traditional mobile call services that are likely to render the former ineffective demand substitutes for the latter. In particular:

- OTT voice services do not allow *interoperability* since an OTT call can only be terminated on the same app/software in which it was initiated. Although OTT apps like Skype and Viber allow calls to fixed and mobile numbers, no mobile apps allow users to receive calls originated from another OTT platform or a traditional fixed or mobile network. This limits demand-side substitution between OTT calls and mobile calls. Indeed, the non-interoperability between OTT platforms means that most OTT calls are between OTT users on the same platform. This is supported by survey data on OTT usage in The Bahamas. Amongst the survey respondents, 66% of them revealed that they mainly use OTT apps for voice calls to other OTT users.
- OTT users must have reliable *Internet connections* to make OTT calls (or send OTT messages). This is another important distinction that may constrain switching from mobile calls to OTT calls as an unreliable Internet connection would result in interrupted OTT calls and thus might result in users opting for mobile calls instead. However, unlike mobile services, there is very limited or no customer support for OTT services. Mobile end-users do not require Internet access to make mobile calls. Therefore, mobile calls can be made even in areas (subject to network coverage) where OTT calls are not possible.

URCA considers that differences in product characteristics by themselves are unlikely to restrain demandside substitution between OTT call services and traditional mobile call services.

OTT Messaging and Mobile Messaging

Again, OTT messaging and traditional mobile messaging services provide the option to send or receive messages to and from destinations within The Bahamas and abroad. However, OTT apps provide additional features including "instant messaging" which allow users to see when another end-user is online, when he/she is typing in addition to group conversation. These features are not offered on a traditional mobile messaging platform and may be desirable characteristics for a mobile messaging platform.

Sending OTT messages again requires a reliable Internet connection. By contrast, traditional mobile messaging services do not require an Internet connection. Indeed, only a minimum level of network coverage is required to use traditional mobile messaging services. This difference in service requirement could limit substitution between both services.

Service availability, take-up and usage trends

OTT call and messaging services are widely available throughout The Bahamas. 82% of persons surveyed said they have access to mobile data through a smartphone. Smartphone and tablet ownership is high in The Bahamas. 98% of respondents said they hold a smartphone or tablet with capability of connecting to the Internet and/or send emails and 50% owned two or more devices with the capability to access the Internet (and/or send email). This high level of smartphone/tablet ownership provides a strong foundation for the widespread use of OTT services in The Bahamas.

Indeed, 93% of survey respondents said they use OTT to make calls or send messages. In the URCA-PD survey, users stated that they frequently use OTT apps to:

- call fixed and mobile numbers in The Bahamas (11%/44%);
- call mobile numbers abroad (24%);
- texting mobile numbers abroad (24%); and
- texting other OTT users (51%), followed by texting mobile numbers abroad (24%).

In addition, 40% of users stated that OTT services have impacted their use of traditional mobile call and messaging services. According to them due to OTT services, they send less SMS, make less domestic and outbound international calls while using more mobile data. Some have even purchased a SIM just because of OTT.

Relative Prices

URCA has considered whether relative prices are such that a SSNIP in mobile services might induce sufficient switching to OTT services. URCA notes that WhatsApp and Facebook, which are the most popular OTT platforms used by Bahamians are available for free. Because of this, most OTT users do not face a per call charge for call made to other users. However, OTT users on the Skype and Viber platforms incur a per minute charge (Table 13) for calls to fixed and mobile numbers in The Bahamas. However, the relevant charge for a Skype call is cheaper than current out-of-plan rates set by BTC and Aliv.

Service	Call to Skype user	Call to Viber User	Call to Bahamian Fixed	Call to Bahamian
Provider			Landline	Mobile
BTC (postpaid)	N/A	N/A	\$0.15	\$0.15
Aliv (prepaid)	N/A	N/A	\$0.20	\$0.20/\$0.30
Skype	Free	N/A	\$0.07/\$0.12	\$0.07/\$0.12
Viber	N/A	Free	\$0.14	\$0.14

Table 13: Calls to Skype, Viber, Fixed and Mobile Users

Source: Accessed 18 March 2022: <u>https://www.btcbahamas.com/mobile/plans/postpaid,</u> <u>https://www.bealiv.com/fair-use-policy/, https://secure.skype.com/en/international-calls/Bahamas</u> and <u>https://account.viber.com/en/call-bahamas</u>

As regard to messaging, the potential price differential between OTT messaging and mobile messaging depends on the messaging scenario with both services potentially offering services at zero marginal cost. OTT messaging services do not attract a per message charge, but end users incur the mobile data related costs of sending the OTT message. Others have noted that this will depend on whether that end-user can use data within their monthly allowance or via an unlimited fixed broadband connection (in which case there is no extra cost); has to pay the out-of-bundle data charge or is on a PAYG scheme. This also holds for mobile messaging services, as most mobile bundles include allowance for mobile messaging, which results in the marginal cost for SMS faced by end-users also being zero. In view of this, it is not obvious to URCA that a price increase in mobile services would induce switching away from mobile services (due to monthly allowances of mobile voice and messaging).

Switching evidence

40% of respondents admitted that OTT has impacted their use of traditional mobile calls and messaging services. 62% said they send less SMS, 59%/32% make less domestic and outbound international calls whilst using more mobile data (47%). 35% have even purchased a SIM just because of OTT. This is broadly consistent with the SSNIP question⁶⁷ where 30% of the relevant respondents (740) said they would call less and use OTT instead, 22% would just make less mobile calls and 20% would switch to another mobile plan. The corresponding values for mobile messaging are 38%, 13% and 6%, respectively.

As noted earlier (Figure 3, sub-section 3.2 above), the average usage of SMS fell consistently from 28 messages a month in 2016 to 8 messages a month in 2020. The average usage of domestic mobile calls increased from 92 minutes a month to 133 minutes a month within the period. The usage trends in SMS thus suggests there may have been some substitution from mobile messaging to OTT messaging. While the growth in mobile calling is likely to be a result of mobile calls being relatively inexpensive and convenient. Both of the existing MNOs provide large or unlimited allowances of domestic calling minutes and messages within bundles, which means that the marginal costs to the consumer of making an additional call or sending SMS is zero.

These statistics do not necessarily mean that a sufficient number of Bahamians would switch further to OTT services in response to a SSNIP in traditional mobile services. As argued in the substitutability analysis

⁶⁷ "If the price for your current mobile access and call services is increased by 5-10%, which of the following actions would you take?"

between mobile calls and fixed landline calls, the increasing availability of OTT services has not resulted in any decline in mobile connection in The Bahamas. As has been the experience elsewhere, end-users in The Bahamas have not given up their mobile phone service entirely for OTT services as end-users still require a mobile connection and mobile data to be able to use OTT services from any location.

Supply-side Substitution

There is no supply-side substitutability between OTT services and traditional mobile services in The Bahamas. As argued in sub-section 5.1 ("Barriers to entry") below in the context of single dominance assessment, the mobile market under review is characterized by high and non-transitory barriers to entry which means that supply-side substitution for an OTT service provider not currently offering mobile services is unfeasible in the event of a SSNIP.

All things considered, URCA holds the view that OTT call and messaging services are not effective demand or supply-side substitutes for traditional mobile calling and messaging. Certainly, the evidence before URCA appears to show that the increasing availability and usage of OTT services in The Bahamas have impacted demand for traditional mobile services offered by BTC and Aliv (especially mobile messaging). That said it is very unlikely that OTT usage will completely replace traditional mobile telephony and messaging. Crucially, OTT users still need a mobile connection and data to place OTT calls and/or send OTT messaging. Most end-users in The Bahamas also purchase mobile services as bundles, inclusive of call, messaging and data allowances. Therefore, faced with a demand-side SSNIP on mobile services, URCA considers it unlikely that_a significant number of end-users would give up their mobile services for OTT services. Accordingly, URCA holds the position that OTT services do not belong to the same product market as retail mobile services, since there is no, or limited, demand-side or supply-side substitution. This finding is not out of step with recent retail mobile market definition exercises in Oman and Trinidad & Tobago.

4.2 Geographic Market Definition

The geographic market pertains to the territorial area in which BTC and Aliv compete to provide retail mobile services and in which the conditions of competition are sufficiently uniform. The geographic reach of the retail mobile market in question is national in scope. In coming to this preliminary view, URCA notes that:

- BTC and Aliv have network coverage that is consistent with a market that is national in scope;
- BTC and Aliv compete against each other throughout the entire Bahamas;
- the IOLs and ISLs granted to BTC and Aliv authorized both companies to build, own and operate mobile networks in the entire Bahamas;
- mobile pricing and product offers do not vary at a sub-national level; and
- customers consume the relevant retail mobile products 'on-the-go', including when travelling to/from different islands or regions of The Bahamas.

Having assessed the elements set out in sub-section 3.3 above, URCA did not uncover any supporting evidence for a geographical division of the retail mobile market and deems a national approach to market definition appropriate.

4.3 Preliminary Conclusion on Product and Geographic Market

Preliminarily, URCA concludes that there is a single, national retail market covering all mobile products (i.e., mobile access services, domestic and international call and mobile messaging services, outbound international roaming, ancillary services, and mobile data services), across all the relevant customers segments (i.e., both prepaid and post-paid, and both residential and business). The full scope of this market is set out in the table below.

Product Scope	Customer Segments	Geographic Scope
 Mobile access services Domestic and international call services Domestic and international mobile messaging services Mobile data services Access to ancillary services such as calling features and Bahamian emergency numbers Outbound international roaming services 	 Prepaid/postpaid mobile tariff offerings Non-residential/residential tariff offerings 	 Single, national market

Table 14: List of services included in the retail mobile service market

It should again be noted that fixed access and call, fixed broadband, OTT call services and OTT messaging services do not form part of the same market as retail mobile services. In common with recent market definition exercises in Trinidad & Tobago, Oman, Saudi Arabia and EC merger cases, the product scope of the retail mobile service market in The Bahamas has been defined on a technology neutral basis and thus includes access to voice, messaging and data services delivered over GSM, HSPA, LTE/4G and any other mobile network technology which is currently deployed or may in future be deployed by Licensees (including 5G). A technology neutral market is appropriate, because retail customers are generally not aware of the network technology used to deliver their services (although they may be aware when using mobile data services), whilst again, the same underlying infrastructure is typically used to deliver all mobile services.

<u>Consultation Question 1 – Retail Product/Geographic Market Definitions</u> Do you agree with URCA's proposed definition of the market for retail mobile access, calls and messaging and mobile data services in The Bahamas? If not, why?

5 Dominance Assessment in Retail Mobile Market

In this section, URCA assesses the evolution of competition in the retail mobile market, as defined in section 4 above, with a view to determine whether either single or joint dominance exists in this market.

Under section 39(1) of the Act:

"... a licensee is an SMP if the licensee, individually or with others, enjoys a position of economic strength which enables it to hinder the maintenance of effective competition on the relevant market by allowing it to behave to an appreciable extent independently of its competitors, consumers and subscribers."

SMP as defined above is equivalent to the economic concept of dominance in competition law. The existence of SMP or dominance indicates the absence of effective competition.

URCA begins this market dominance exercise by considering whether, on their own, either BTC or Aliv is likely to enjoy a dominant position in the defined market. Only if URCA determines that the structural conditions in the market are not supportive of single dominance will URCA investigate the possible existence of joint dominance.

5.1 Relevant Retail Market – Assessment of Single Dominance

In sub-section 3 (Table 7) of this document, URCA sets out the elements URCA will consider when assessing whether either Licensee enjoys a position of single firm dominance in the retail mobile market. Further, as noted in URCA's SMP Methodology document, at the outset of any dominance assessment URCA:

"...will review the relevant market shares to decide whether it could be appropriate to apply a presumption based on the above thresholds [40%]. In conducting such a review, URCA shall have regard to the criteria set out in s.39(3) of the Comms Act and, to the extent URCA considers necessary to ensure that the presumption is appropriate in all the circumstances,"⁶⁸

Provisionally, URCA concludes that there is insufficient evidence to warrant a finding of single firm dominance in the retail mobile market, despite the market being concentrated. This is explained below.

Market Structure and Market Share Trends

The *market structure* criterion is concerned with whether the market structure is likely to give rise to single firm dominance in the retail mobile market. URCA, however, does not infer single dominance based on this criterion. The described retail mobile services are currently supplied by two MNOs, namely BTC and Aliv. There is currently no mobile virtual network operator ('MVNO') or reseller of the mobile services to retail customers in The Bahamas. URCA appreciates that a duopoly market structure can still result in single firm dominance, where for example the incumbent still enjoys a very high market share, while the

⁶⁸Page 6 of ECS 20/2011

entrant struggles to gain market share. URCA, however, notes that this is clearly not the case in the current Bahamian context. From URCA's viewpoint, the analyzed market is still concentrated, with two MNOs only and high barriers to entry. At the same time, recent market trends, as discussed below, show that the market shares of the two players have converged. In URCA's view, this is not a sign that either Licensee has single firm dominance.

Market share trends provide an indication of how competitive a market is and measure the outcome of the competitive process. If a service provider has a persistently large market share it usually implies that there have been obstacles to effective competition in the past. However, there is no basis for URCA to make a finding of single firm dominance in the described retail market based on market share trends.

In particular, since Aliv joined the market in late 2016, BTC's market share has been in decline, such that market shares of the two parties have begun to converge. Furthermore, this convergence is not only driven by Aliv benefitting from a growth in the overall market – it has instead also gained customers from BTC. Indeed, BTC's absolute customer base has fallen from & to & over the period since Aliv's entry, with this decline more than offset by the expansion in Aliv's customer base. So, while Aliv has been able to attract new customers, it has also gained subscribers at the expense of BTC. This is also reflected in data on ported mobile numbers (Figure 11) which shows that the volume of mobile numbers ported from BTC to Aliv represented 78.65% (or 76,661) of total successful ports (97,469) between 2017 and 2020.



Figure 11: Successful Porting Transactions – by Operator- Cumulative Source: URCA Analysis

Figures 12 and 13 below summarize the market shares of the two existing MNOs by mobile connections and retail mobile revenue. Both Figures clearly demonstrate that Aliv has captured a considerable share of the market in terms of mobile connections and retail mobile revenue. Indeed, between 2016 and 2020, BTC's shares by mobile connections and retail mobile revenue decreased at an average annual compound rate of 10.45% and 12.58%, respectively. This meant that as of year-end 2020, BTC's shares of total mobile

connections and retail revenues fell to & and &, respectively. By comparison, Aliv's market shares increased to & and & over the same period.









Taken together, this suggests there has been a consistent and considerable erosion in BTC's market power in the retail mobile market. Based on market share figures alone, the market is almost evenly split between the two existing MNOs. In URCA's view, this does not warrant a finding of single dominance in the examined market.

Barriers to entry

Barriers to entry may take the form of legal and regulatory factors that constrain market entry in The Bahamas. Indeed, anyone wishing to enter and supply retail mobile services in The Bahamas needs a business license, an operating licence, authorization to use mobile spectrum in addition to a mobile network code and blocks of numbering resources.

Another important barrier relates to the high fixed and sunk costs required to build a mobile network with national coverage. The likely sunk costs relate to the costs of developing, building and establishing networks and infrastructure for retail mobile service.

In general, retail mobile markets are characterized by high and non-transitory barriers to entry. This appears to also apply to the Bahamian market context, as discussed below.

In considering the impact of barriers to entry on the market, URCA has considered two forms of possible entry to this retail market: MNO based entry and MVNO based entry.

- MNO based entry would require the entrant to incur significant sunk costs, especially when taking
 into account that there are two existing end-to-end mobile networks already deployed and the
 overall size of the Bahamian market.
- While relying on access to existing networks (i.e., via national roaming or MVNO access) would lower these sunk costs, this requires the new entrant to obtain such access based on commercially agreed or regulatory terms. There is currently no regulated access to mobile networks available in The Bahamas and URCA is not aware of any commercial access being offered to date. URCA is inclined to consider that negotiated access would not be achieved in a timely manner.

Although there are clearly barriers to entry in this market, neither of the two existing MNOs benefits from this compared to the other. As such, this does not warrant concluding that one of the MNOs (and not the other) is singly dominant in this market.

On the basis of the criteria above (market structure and share trends, and barriers to entry), it is clear that the retail mobile market in question is highly concentrated. However, it is also the case that it is not clear why one MNO would have SMP compared to the other MNO. Therefore, in the remainder of its assessment, URCA focuses on the competitive dynamics between BTC and Aliv to ascertain whether BTC or Aliv is singly dominant. To this end, URCA first assesses those criteria that may support a single firm dominance finding in the retail mobile market, followed by those which do not support such findings. On balance, and as referred to above, URCA preliminarily concludes that neither MNO has SMP.

Price trends

As established in Key Recent Market Developments (sub-section 3.2 above), BTC and Aliv compete using bundles, price and other related factors. Pricing is pivotal in the assessment of SMP in the retail mobile market. As per the URCA SMP methodology document "In a competitive market, a licensee should not be able to persistently raise prices above costs and sustain excess profits. As costs fall, prices should similarly

fall, if competition is effective. Factors that may explain higher prices, such as greater innovation and efficiency, would be considered in interpreting high profit margins."

Further, "In examining market power, and by extension the extent of market competition, focus is usually directed on the process of price formation in the relevant market."⁶⁹

The first point to note is that the retail mobile market in The Bahamas is characterized by declining monthly ARPU/unit prices (in real terms) to end-users. Indeed, based upon the available evidence there has been a 28.29% drop in total monthly ARPU for mobile services between 2015 and 2020. In the context of this exercise, URCA considers that patterns of monthly ARPU movements are a key piece of evidence that may shed light on the process of price formation in the described market. As illustrated in Figure 14 below, BTC has been experiencing declining ARPU trends since Aliv entered the market, with the ARPUs of both MNOs converging to similar levels by 2020.



Figure 14: Development in Monthly ARPUs, in real terms Source: URCA's Analysis based on MNOs data⁷⁰

As well as both appear to offer comparable per unit tariffs for out-of-bundle calls and messaging. As captured in the table below, the MNOs' out-of-bundle tariffs for outbound international call and messaging services are closely aligned.

⁶⁹Page 16, URCA's SMP Methodology document

⁷⁰Based on All Items CPI Index 109.71 for January 2021 as published by The Department of Statistics at <u>https://www.bahamas.gov.bs/wps/wcm/connect/5ec60dca-640f-4e06-b70a-</u> <u>f0e75ae1cc46/Bahamas+All+Iterms+CPI+%28Jan+2018+-+Jan+2021%29.pdf?MOD=AJPERES</u>

Table 15: Out of plan/Overage Rates -International Call and Messaging

ILD calls to:	BTC	Aliv		
US & Canada	\$0.32 per min	ute \$0.30 per minute		
Haiti Caribbean China Europe	\$0.51 \$0.51 \$0.70 \$0.70	\$0.50 \$0.50/\$0.55 \$0.80 \$0.27		
International SMS	\$0.15 per SN	AS \$0.15 per SMS		
Source: Accessed https://www.bealiv.o	18 March 2022: com/fair-use-policy/	https://www.btcbahamas.com/mobile/p	lans/postpaid	and

Price competition in this market has benefitted consumers, in terms of increased take-up and growth of traditional mobile telephony and data and is not out of step with survey evidence. For example, the respondents said that Aliv's entry has resulted in lower pricing and greater data allowance (45%/43%) as well as greater call and SMS allowance (23%).

In view of these considerations, URCA preliminarily concludes that neither MNO is singly dominant based on this criterion.

Profitability

A Licensee's ability to establish and maintain profits persistently and consistently above competitive levels or in excess of the minimum return required to compensate investors, is an important indicator of market power. High profitability over time may be indicative of economic dominance in that the operators have been able to maintain prices that are higher than they would have been in a market with effective competition. On the other hand, high profitability, especially in the short term, can also be linked to other factors such as rationalization gains and innovation.

According to available information, Aliv has not earned a positive return since entering the market in 2016, despite capturing - of mobile connections and retail mobile revenue. In its submission in relation to profitability, Aliv reported negative EBITDA⁷¹ of -, -, -, - and - from 2016 to 2019 and projected a positive EBITDA of - for 2020.

Based on BTC's regulated accounts, BTC has managed to sustain a level of profitability on its retail mobile activities beyond its regulated cost of capital $(11.71\%)^{72}$ even though profits have fallen from & to & between 2016 and 2020. This does not necessarily imply that BTC holds a dominant position in the examined market, especially on a forward-looking basis as its profitability has fallen significantly in recent years, in line with its market shares. This, in line with Aliv's profitability trends, would suggest that overall

⁷¹ Earnings Before Interest, Taxes, Depreciation, and Amortization

⁷²ECS 23/2009 dated 2 November 2009 available at <u>https://www.urcabahamas.bs/wp-content/uploads/2017/02/Final-Determinations-Cost-of-Capital-Designated-Significant-Market-Power-Operators.pdf</u>

the market is trending towards profitability levels more common in competitive markets. Clearly, the assessment of profitability criterion is not suggestive of single firm dominance on the part of either BTC or Aliv.

Barriers and switching costs – This criterion relates to the factors or costs that restrain a customer's ability to switch from one mobile provider to another. In a market with effective competition, consumers should be able to switch easily between service providers. It appears to URCA that barriers to switching have not been an issue so far in the analyzed retail market. For one, the market is predominantly prepaid and switching costs are low in prepaid dominated markets. This is because prepaid customers need only obtain a new SIM card from a competing MNO to switch.

URCA notes that number porting data indicates that consumers have been able to switch between the two competing MNOs quite easily. Number portability has long been recognized as a fundamental prerequisite of open competition and choice in communications markets. The volume of mobile number porting is a key indicator of the level of switching between BTC and Aliv. Mobile Number Portability ('MNP') was introduced in 2017 as a pro-competitive measure to reduce switching costs.⁷³ The MNP framework allows consumers to retain their telephone numbers when they change mobile providers. As recognized in Key Recent Market developments, on average only 6.34%⁷⁴ of Bahamian mobile subscribers port their numbers each year. However, switching will not be all via MNP process, so MNP figures are likely to underestimate switching in this market.⁷⁵

In the URCA-PD survey, 88% of respondents said that their main reason for not switching was that they were satisfied with their current mobile provider or mobile plan. This appears to indicate that the vast majority of mobile consumers might have little or no incentive to switch their current mobile provider. As well as in its review of complaints data, URCA has not identified the inability of consumers to switch as a common and persistent problem in the market. In 2017, URCA received complaints regarding delays in the MNP porting process but since then many of the issues have been resolved.

Further still, Aliv's success in capturing $\stackrel{\lambda }{\leftarrow}$ of market share supports URCA's proposition that switching costs in this market are likely to be low. As documented in the assessment of market shares in the context of single dominance, Aliv has built a sizeable customer base due in part to BTC customers switching to a competing brand. As demonstrated in Figure 14 above, between 2017 to 2020, the volume of numbers ported to Aliv consistently exceed the volume ported to BTC. Altogether switching costs appear low and neither of the existing MNOs has a commanding advantage over the other based on this criterion.

⁷³ ECS 1/2017 Statement of Results, Final Determination & Order, The Implementation of Mobile Number Portability in The Bahamas Pursuant to Section 80 of the Comms Act, 2009 available at <u>https://www.urcabahamas.bs/wpcontent/uploads/2017/02/ECS-01-2017-ES-01-2016-Statement-of-Results-and-Final-Determination-on-Mobile-Number-Portability.pdf</u>

⁷⁴ Simple average for the period 2017 to 2020

⁷⁵MNP figures do not capture those customers who switch and change their mobile number. Therefore, the actual level of switching is likely to be higher than suggested by the number porting data.

Vertical integration or relationships – Vertical concerns that may arise in retail mobile markets include an incumbent operator refusing to provide wholesale access to its network on reasonable terms – for example, either denying access or possibly creating a margin squeeze. URCA notes that the existing MNOs are both vertically integrated companies. This means that, with the exception of mobile termination services, neither MNO depends on wholesale inputs from the other to deliver its retail services. Accordingly, both MNOs are similarly positioned to leverage their market position into downstream (retail) or upstream (wholesale) markets.

Control over infrastructure that is not easily duplicated

As per URCA's SMP Methodology document "In certain circumstances the control of infrastructure not easily duplicated can make it feasible for a licensee to behave independently of other licensees and consumers. This may exist in specific situations in which the availability of certain infrastructure is:

- Necessary to produce a particular service/product;
- The required infrastructure is exclusively or overwhelmingly under the control of a licensee; and
- There are high and non-transitory barriers to substitute the infrastructure in question."⁷⁶

URCA's assessment does not reveal existence of single dominance in the retail mobile market based on this criterion. In particular, the existing MNOs self-supply their wholesale inputs and have their own retail distribution channels/networks. So, while those infrastructures are hard to replicate, this has not adversely impacted the ability of one of the existing players to compete with the other. In other words, URCA has no reason to believe of any of the existing MNO is in an advantageous position over the other based on this criterion.

Economies of scale and/or scope – Economies of scale and/or scope are common features of communications markets. *Scale economies* exist when the average cost of connecting an additional customer to the network is lower than the previous customer connected. By contrast, *scope economies* occur when it is more cost effective for a firm to produce a wider range of goods or services in tandem than producing less of a variety, or producing each good/service independently. Where a firm enjoys economies of scope, its long-run average and marginal cost decrease due to the joint production of goods and services. Economies of scale and/or scope may constrain entry as well as provide an incumbent with an advantage over entrants.

Given the existing MNOs' investment in large capacity upgrades, this typically results in *economies of scale* for both of them. That is, the high fixed costs required to build a network result in close to zero marginal costs until the MNO fully utilizes the installed capacity. Given their similarity in overall size and network coverage/capacity, URCA considers it reasonable that both MNOs benefit to a similar degree from any economies of scale. BTC, being part of a major multinational communications group with mobile networks around the globe, including Latin America and the Caribbean, may benefit more from

⁷⁶ Page 11, ECS20/2011

scale economies compared to Aliv. This is especially in achieving the purchasing power needed to negotiate volume discounts for handsets and other equipment; and marketing and sales. However, on its own, URCA does not consider that this is sufficient to give BTC market power – clearly, for instance, this has not prevented Aliv from growing its position in the market.

In the analyzed retail market, the most common activities that give rise to *economies of scope* are customer care, marketing, sales and distribution, administration and shared infrastructure. Based on in its preliminary assessment, URCA considers that both MNOs may benefit from economies of scope in retail mobile services (i.e., reducing the average cost of providing retail mobile services) by spreading joint and common costs amongst multiple retail markets and services. In particular:

- Apart from BTC's current position in the retail mobile market, BTC holds SMP in the market (national) for fixed voice telephony and fixed broadband market.⁷⁷ BTC sells high speed data and business connectivity services nationally in addition to pay TV services in some islands.
- In the same vein Aliv, being a member of the CBL group of companies, can spread the fixed/common costs of providing retail mobile services among multiple retail markets and services. For instance, CBL is SMP in pay TV and fixed broadband services in the major population centres.⁷⁸ CBL also provides high-speed data and business connectivity services and through an affiliated company⁷⁹ sells fixed voice telephony services to customers in major population centres.

Given this, neither MNO is expected to be in an advantaged position over the other based on this criterion.

Barriers to expansion - URCA believes that neither of the existing MNOs enjoys a commanding advantage over the other based on this criterion. As far as URCA is aware, barriers to expansion are likely to be low in this retail market. In particular, Aliv has expanded significantly in recent years, both in terms of network coverage and subscribers, as evidenced by its market shares.

URCA has seen no evidence to suggest that the existing MNOs are currently faced with capacity constraints on their networks and therefore unable to meet any anticipated growth in demand for existing or new services. As well, URCA has not been notified of any resource constraint (spectrum and numbering) that would render BTC or Aliv unable to meet any future growth in demand for mobile services. Neither is URCA aware of any current constraints in terms of international and domestic on-island and inter-island capacity. Altogether, URCA is not aware of any barriers to expansion going forward that may weaken competition on a forward-looking basis.

It bears repeating as well that both MNOs provide comparable network coverage using the same spectrum bands to deliver similar mobile services and products to the same customer segment at comparable service levels.

⁷⁷Those islands where there is no CBL infrastructure

⁷⁸ New Providence, Grand Bahama, Abaco and Eleuthera

⁷⁹ System Resource Group Limited ('SRG')

Network Effects - Network effects exist where a product gains value as more persons consume it. As such, a service provider may gain a competitive advantage when due to its larger customer base, all other things being equal, more customers are attracted to its network, relative to that of a smaller competitor. This effect may be further facilitated by the larger provider offering price and non-price terms that incentivize customers to joint its network (such as lower on-net prices or higher on-net monthly allowances).

Both of the existing MNOs are similarly sized, thus neither of them should benefit more from any network effect. This is also reflected in their current retail tariff offerings with most mobile plans containing all-net rather than on-net calls and messaging allowances.⁸⁰ URCA does not infer from this review that one operator has a commanding advantage over the other based on this criterion.

Absence of potential competition –Potential competition relates to whether operators that are not in the examined market today can contribute to increased competitive dynamics within this market analysis' time horizon. URCA currently holds no information on the prospect of a new licensee entering the market within the foreseeable future. However, in the context of the current Sector Policy⁸¹ and Comms Act, URCA is considering potential future developments in the supply of mobile services as it relates to deployment of 5G networks and services and the feasibility of a third mobile entrant in The Bahamas.⁸²

URCA is cognizant that without regulatory intervention, there is likely to be a limited possibility that an MVNO provider will join the market within the foreseeable future. This is because, any such MVNO entering The Bahamas would need to establish commercial arrangements with BTC or Aliv to buy end-toend services for resale to their own customers. For the avoidance of doubt, based on its preliminary assessment of the other indicators above, URCA does not consider either of the two MNOs to be singly dominant in this market.

URCA, however, recognizes that OTT operators may impose an indirect constraint on BTC and Aliv and in particular, their pricing of marginal minutes and messaging services. This is despite URCA's preliminary finding in the market definition exercise that OTT services do not provide a sufficient constraint to form part of the defined retail mobile market. ⁸³

Access to finance – URCA's review of this criterion does not warrant a finding of single dominance in the retail mobile market. URCA appreciates that whether a Licensee can access financial resources (i.e., capital markets and internal cash flow) on a scale and terms more favorable than others may represent a barrier to entry as well as a competitive advantage. However, it is not apparent to URCA that one of the existing MNOs can access financial resources on a scale and terms more favorable than the other. While BTC is affiliated with a major multinational communications group, this does not necessarily mean that BTC

⁸⁰ Tables 2 and 3, sub-section 3.2 above

⁸¹ <u>https://www.urcabahamas.bs/wp-content/uploads/2020/06/ECS-POLICY-2020-2023.pdf</u>

⁸² URCA/2022 available at <u>https://www.urcabahamas.bs/urca-draft-annual-plan-2022/</u>

⁸³ Sub-section 4.1.7.3

enjoys privileged access to financial resources compared to Aliv. Aliv, on the other hand, is a joint venture between Cable Bahamas Ltd. ('CBL') and the Government of The Bahamas, with CBL holding a 48.25% share and the Government holding the remaining 51.75% shares. Clearly, both MNOs have links with other telecoms companies that are supportive of their activities in this market. URCA therefore notes that unless there is evidence to the contrary, URCA is likely to conclude that neither BTC nor Aliv holds a commanding advantage over the other based on this criterion.

Countervailing Bargaining Power ('CBP') – This criterion relates to the relative strength of a mobile enduser in negotiations with their mobile providers. A buyer with high CBP has the ability to neutralize the bargaining power of the seller and negotiate more favorable terms and conditions of purchase. In general, URCA considers the retail mobile market is characterized by limited, if any, CBP. This particularly holds for residential and small business customers who commonly purchase mass-market products, with no one customer individually constituting a large part of any MNOs' output or cost base.⁸⁴

Meanwhile, large corporate customers are more likely to be in a stronger position to counteract the bargaining strength of both MNOs by negotiating discounts and other favorable terms. This is because large enterprises are more likely to purchase mobile plans with multiple mobile connections and large volume of minutes, messaging and/or data to distribute among their employees. In addition to mobile services, such packages may include fixed telephony in combination with broadband services and/or pay TV services. However, the ability of a large enterprise to exercise buyer power by negotiating on price or non-price terms is not the same as the exercise of CBP. While that buyer may benefit by way of volume discounts, its exercise of buyer power does not deter an MNO from increasing prices in general.⁸⁵

Despite the above, URCA provisionally finds that this criterion does not support the case for single dominance in this retail market. This is because CBP is less relevant to this market and there is no evidence that the level of CBP faced by either MNO differs.

Technological advantage or superiority – Much of the technology of the mobile industry is embodied in the network. The existing MNOs are using similar cellular-mobile technologies (GSM, HSPA and LTE/4G) to deliver services to end-users.⁸⁶ Furthermore, both of the existing MNOs offer equivalent network

- where the buyers' share of purchases represents a sizeable proportion of BTC's and Aliv's overall output;
- where a single or a few buyers' shares of purchases represent a sizeable proportion of BTC's and Aliv's total cost;
- where buyer could switch between service providers without incurring significant costs; and
- where the buyer could produce the service itself or could sponsor new entry by another supplier

⁸⁴The factors URCA looks at when considering CBP include:

⁸⁵URCA notes that the total number of non-residential subscriptions reported by BTC and Aliv in 2020 represent less around 10% of the total mobile subscription base and no more than 12% of total mobile revenues. This suggests that CBP is not relevant in this market. Based on data received from BTC and Aliv.

⁸⁶It is acknowledged in the URCA document for assessing market dominance that "technological advantage or superiority" may deter entry as well as provide an incumbent with advantage over existing competitors due to it having lower production costs or product differentiation.

service quality and sell similar products and services to the same segment of customers nationwide. URCA thus is currently not aware that either MNO holds a technological advantage or superiority which provides it with a degree of market power over the other.

Ability to influence market conditions – Provisionally, URCA finds that this criterion does not confer single dominance on either BTC or Aliv. Amongst other things, both are equally situated in terms access to scarce resources (including spectrum/numbering), access to the same mobile technologies and both benefit from network effects and economies and scale and/or scope. Both have the ability to leverage their market position horizontally in adjacent markets or vertically in upstream (wholesale) and downstream (retail) markets. In these circumstances, it is unlikely that one operator is in a strong position to influence market conditions over the other.

Experience in providing products to the market – As the situation currently stands, the MNOs in this market sell similar products/services to the same customer segment nationwide. Both have a significant presence in the marketplace, are well established entities and have brand recognition amongst consumers. In view of these considerations, URCA has no reason to believe that this criterion confers individual dominance on either of the two existing MNOs.

Overall size of the undertaking - This is concerned with any potential benefits and the sustainability of those benefits arising from the large size of the Licensee relative to its competitors. As set out in URCA's SMP Methodology document, these benefits may result from other activities of the Licensee outside the market in question but by and large these benefits may arise from economies of scale, access to finance, purchasing, production capacities, distribution and marketing. URCA recognizes that the two existing MNOs are sizeable undertakings which have operations beyond mobile in The Bahamas. URCA is not aware of this creating market power for either of them in the retail mobile market. In any event, market players do not have to be of equal overall size for competition to be effective.

Highly developed distribution and sales network - This is the final criterion URCA must consider in assessing single firm dominance in the described mobile market. This criterion is concerned with the methods or channels used by the existing MNOs to deliver their products and services to the Bahamian public. URCA concludes that neither of the two existing MNOs can gain a significant and sustainable competitive advantage over the other based on this criterion.

BTC and Aliv operate their own, independent sales and distribution channels, which are both physical and online. Their own websites are a big part of the distribution and sales networks operated by both companies. This is additional to the numerous physical sales outlets used by the companies to deliver retail products and services to end-users throughout The Bahamas. URCA considers that BTC and Aliv operate distribution and sales networks that are similarly effective in terms of reaching potential customers and/or serving existing customers. This means that neither of the existing MNOs is in an advantageous position relative to the other based on this criterion.

Preliminary Conclusion on Single Dominance

Having analyzed the relevant criteria set out above, URCA finds that neither MNO is singly dominant in the retail mobile market. Hence, URCA investigates in sub-section 5.2 whether the market exhibits conditions of collective or joint dominance.

In arriving at this preliminary position, URCA has also reviewed all other criteria listed in sub-section 3.3 (Table 7) of this document. However, as explained above, URCA further concludes that most of these criteria are not relevant for or have no bearing on the conclusion of whether either of the MNOs is singly dominant in this retail market.

Consultation Question 2 - Single Dominance Assessment in Retail Market

Do you agree with URCA's preliminary conclusion from its single dominance assessment in the retail mobile market? If not, please set out your alternative views and provide evidence to substantiate your position.

5.2 Relevant Retail Market – Assessment of Joint/Collective Dominance

The Comms Act contemplates that a Licensee may be in a dominant position jointly with others. Joint dominance means two or more Licensees operate in a market that is not effectively competitive and no single Licensee is dominant. In essence, a position of dominance is held by two or more Licensees that are able to tacitly collude or coordinate their behavior to a considerable extent independent of other market participants such as consumers or subscribers, such that they behave jointly, as if they were a single commercial entity. URCA notes that under EU competition law, the concept of tacit coordination is usually equated with joint dominance. Tacit coordination is achieved through implicit understanding between the undertakings, but without any formal arrangements. As the Body of European Regulators for Electronic Communications (BEREC) explained:

"...a behaviour that firms follow without explicit agreement to, i.e., firms settle for a certain strategy without explicit coordination to reach a higher joint profit. It occurs when firms implicitly arrive at uncompetitive market outcomes in markets where they might otherwise have competed ... Tacit collusion is typically equated with joint dominance, because the colluding firms act as if they were a single entity and as such could be described as having a jointly dominant position. Their joint strategies enable them to behave to a considerable extent independent of other market players such as consumers."⁸⁷

In sub-section 3.3 (Table 7) above, URCA sets out the elements it has used to evaluate whether joint/collective dominance is present in the retail mobile market. **Based on the available evidence, URCA provisionally concludes that the two existing MNOs are not jointly dominant in the retail mobile market.** This is explained below.

⁸⁷Section 4.2.2 of the 2015 "BEREC Report on oligopoly analysis and regulation" accessed 30 May 2021: <u>https://berec.europa.eu/eng/document register/subject matter/berec/reports/5042-draft-berec-report-on-oligopoly-analysis-and-regulation</u>
To this end, URCA has grouped the indicators under three headings, firstly those that may support a joint dominance finding, followed by those that do not point towards such an outcome; and the indicators that are not relevant in the assessment of competition in this market.

Criteria that may support a joint dominance finding

URCA considers that there are several market characteristics and market trends that may suggest that the retail mobile services market in The Bahamas is conducive to collective/joint dominance. However, as explained within each of these criteria, URCA remains uncertain on whether these conditions will indeed play out in that way going forward, which would require imposing *ex ante* regulation on BTC and Aliv at this point in time. Instead, URCA sees merits in closely monitoring the competitive dynamics in this market and review its finding as necessary as per the Comms Act.

Similarity in market share

To judge joint dominance, the distribution of market shares over time alongside other factors are critical. URCA has already analyzed the distribution of market shares in the context of single dominance (subsection 5.1). Using the same market share analysis, URCA now investigates the likelihood of joint dominance in the retail mobile market. From an economic viewpoint, the firms operating in a market with similar market shares have the potential to jointly limit competition, especially where those market shares are stable over time and high barriers to entry exist (i.e., allowing existing market players not to compete strongly and maintain higher levels of returns/profits, without a threat of further entry). As illustrated in Figures 14 and 15, market shares in the retail mobile market have not been stable over time. In particular, BTC has experienced consistent and considerable erosion in its market position since Aliv joined the market in 2016. Certainly, as demonstrated in sub-section 5.1 above there has been a period of active and successful competition by Aliv. However, the rate of change in market shares has decreased recently and market shares are converging. Accordingly, URCA considers that the market may be entering a more stable period from now on. This means that, going forward, BTC and Aliv may be reaching a degree of stable or static equilibrium position based on market shares.

URCA, however, is cognizant that the competitive dynamics in this market may develop differently from the assessment outlined above due to the presence of other factors. Indeed, as explained in the review of "Similar cost structure" criterion below in the context of joint dominance, URCA perceives that there could be non-trivial cost differences between BTC and Aliv in relation to the supply of retail mobile services. The presence of cost asymmetry between the two existing MNOs would weaken the incentive to coordinate practices leading to diverging interest and strategies for adaptation to the market. In fact, both MNO appear to have spare capacity (i.e., barriers to expansion are low) to meet additional demand when customers switch from one MNO to the other.

URCA considers the above not to support the presence of joint dominance in the mobile retail market.

Market concentration

Market concentration is an important structural factor in a market. Market concentration is a function of the number of active firms in the defined market and their market shares. As such, it indicates whether a

small number of providers are capable of capturing a large part of the market without any of them being in a position of single firm dominance. The Hirschman-Herfindahl Index ('HHI') is a popular measure of market concentration.⁸⁸

The existing MNOs' market shares based on retail mobile revenue is an appropriate parameter when assessing the intensity of competition in the retail mobile market. Based on 2020 revenue shares, this market has a HHI value of 5002. Indeed, the HHI value has fallen since Aliv joined the market from 10000 in 2015 to 9568 in 2016, 7629 in 2017 and 5216 by year-end 2019. This is consistent with increased intensity of competition and reduced market power for BTC since Aliv's market entry. URCA, however, notes that in a two-player market the HHI value will always remain high even if the market is deemed competitive. In view of these considerations, market concentration is expected to remain high during this market review period. URCA, however, considers that the successful entry of a third mobile provider would lower the level of market concentration as the market power would be split amongst three parties. However, as explained in the "Barriers to entry" criterion above in the context of single dominance the prospects for further market entry during this review period is highly unlikely.

There is no basis for URCA to infer joint dominance based on this criterion. While the HHI value on this market is high, market concentration is not determinative of a finding of joint dominance in the form of tacit coordination. As such, URCA deems it reasonable to closely monitor the competitive dynamics in this market and review its finding as necessary as per the Comms Act.

Mature market and stagnant or moderate growth on the demand side

Evidence of stagnant or moderate demand-side growth is integral to the assessment of joint dominance in this market. A mature market is one where the rate of growth slows, perhaps to zero. This may result in excess capacity, greater pressure on profits and competition being typically based on price, not product differentiation. In a mature market, entry and product differentiation may be less likely, so possibly providing an incentive and ability to coordinate behaviour.

Looking ahead, URCA perceives that the examined market may be approaching a degree of saturation. First, mobile penetration is around 107 per 100 of total population and as shown in Figure 15 the rate of take-up in mobile services appears to be slowing. As well, URCA does not consider that population growth in The Bahamas will trigger new demand-side growth within the foreseeable future (12-24 months). All other things being equal, URCA considers it is very unlikely that either of the existing MNOs will be able to increase its market position by attracting new customers to the market.

⁸⁸The structural conditions in the retail mobile market can be determined in references to various types of concentration indices. The HHI is derived by squaring the market share of each operator competitor in the market and then summing them. On page 8 of URCA's SMP Methodology document it was acknowledged that markets are un-concentrated if the HHI is less than 1000; moderately concentrated if the HHI is between 1000-1800; and highly concentrated if the HHI is greater than 1800.





Therefore, it is reasonable for URCA to think that the described market is likely to reach maturity in the review period. As such, there is a heightened risk that going forward, rather than competing aggressively to increase their market share, BTC and Aliv may tacitly coordinate to increase their total volume of sales, while maintaining the status quo in terms of market shares.

At the same time, there remains a reasonable degree of uncertainty on how the competitive dynamics in this market is likely to develop going forward. Despite similarity in market shares, there are other factors (e.g., scope for further price competition, barriers to expansion are low) that may weaken the incentive to coordinate practices. This implies that there is still scope for both MNOs to continue competing against each other rather than to tacitly coordinate their behaviours. In view of this concern, URCA will closely monitor the competitive dynamics in this market and review its finding as necessary as per the Comms Act.

Homogenous product

Within its SMP Methodology document URCA explains that similarity of products may provide an incentive to coordinate behaviors in the medium to long-term as prices equate over time. On the converse, products/services differentiation take place along multiple dimensions and collusive behaviours are harder to reach.

It bears repeating that the two existing MNOs offer similar products and services to the same customer segments using similar cellular/mobile technologies and spectrum bands and broadly similar network quality of service backed by nationwide coverage This would make it easier for them to tacitly coordinate.

Nonetheless, there has been some degree of product/service differentiation in the retail mobile market in terms of pricing, packaging and non-price terms or conditions. This is explained below.

- In the **prepaid** segment, there appears to be an array of plans that allows customers to maximize their own satisfaction levels. Indeed, persons on prepaid have more plans to choose from than persons on postpaid. Prepaid plans are available at a range of different price points and offer a range of different features and inclusions.
 - The majority of BTC's prepaid plans (seven) are valid for 1 to 10 day(s) with only one 30 day plan. Most plans offer the full range of domestic mobile services, outbound international calls to specified destinations and bonus inclusions of data for social media. Two of BTC's plans (valid for 1 and 3 day(s)) come with domestic calls only, meaning no allowances for SMS, data or international service are included. As far as URCA can tell BTC no longer offer add-ons in terms of domestic calls and SMS as part of a prepaid bundle. BTC allows end-users to rollover unused data to the next period.
 - Aliv does not provide any primary mobile plan with domestic call services only. Unlike BTC, all prepaid plans offered by Aliv contain domestic calls, messaging and data. Aliv offers five (5) 30 day prepaid plans and four (4) plans that are valid for either 1 or 7 day(s). As well as a range add-on⁸⁹ for persons on prepaid subscriptions to increase their in-bundle allowances for domestic mobile service, and standalone prepaid plans for calls to specified international destinations (i.e., Haiti, Caribbean, Europe, and China).⁹⁰
- Both MNOs offer a modest number of **postpaid** plans. A common feature of these plans is that they
 all contain data and unlimited allowances of on-net calls. However, differences do exist in terms of
 the volume of on/off-net SMS and off-net calls included. Further, BTC's postpaid plans generally come
 with outbound international calls to specified destinations and roaming within USA, Canada and
 FLOW markets. Recently Aliv revised its retail mobile plans to include pre-specified allowances of
 MMS.

Despite these differences, postpaid bundles are broadly aligned with respect to pricing and packaging. For example, both MNOs offer postpaid plans priced at \$99.99 and \$149.99 per month with unlimited on-net calls and data allowances of at least 20 GB.

The distinctions between the MNOs retail mobile plans/offers, as explained, are in line with the majority view that BTC and Aliv do not offer similar retail mobile plans.⁹¹ Reflecting on the differences above, URCA considers that there is still scope for the two existing MNOs to engage in reciprocal monitoring and retaliation in case one of them seeks to reduce retail prices towards levels more consistent with those in competitive markets.

URCA, however, notes that the retail mobile market in The Bahamas is predominantly prepaid which makes coordination practices on the part of BTC and Aliv less attractive. In view of this, URCA will closely

⁸⁹Table 8, sub-section 4.1.1

⁹⁰Table 9, sub-section 4.1.2

⁹¹ Only 4% said the BTC and Aliv offer similar mobile retail plans.

monitor the competitive dynamics in this market and review its finding as necessary pursuant to the Comms Act.

Lack of Countervailing Buying Power ('CBP')

URCA considers there is limited CBP in this retail market. This follows from the same discussion as set out in sub-section 5.1 above in the investigation of single dominance. As such, the two MNOs are not constrained by their customers in their pricing behavior. This could, all other equal, enable tacit coordination by BTC and Aliv.

Existence of incentive for tacit coordination

This criterion is concerned with whether BTC and Aliv have a common interest to tacitly coordinate on price or market shares. In particular whether both of them have an incentive to retain the current structure and outcome, as they appear to have reached a relatively stable equilibrium in terms of market presence, with limited external restrains on their position.

URCA considers that the dynamics in the market makes the risk of coordination higher. In fact, the focal point for joint coordination by both BTC and Aliv could be through sustaining prices above the competitive level appears to be the most likely focal point for coordination between the undertakings concerned. Despite the recent period of active and successful competition by Aliv, URCA considers that Aliv may have less incentive to continue its aggressive price competition now that it has $\stackrel{\sim}{\rightarrow}$ of the market and it needs to earn a reasonable return. Further, both MNOs to date appear to mostly rely on short term promotions with limited changes to permanent prices. Alternatively, URCA should add that the market is predominantly prepaid which makes coordination harder.

Ability to enforce the terms of a collusive agreement or tacit undertaking (including deterrent mechanism)

This criterion is about the ability to enforce the terms of coordination or tacit understanding, including retaliatory mechanisms. Market conditions must not only be conducive to tacit coordination, but such coordination must be sustainable during the 12-24 months' timeframe of this review. URCA now assesses whether the relevant criteria for sustainability of the coordinated strategy are cumulatively met.

Provisionally, URCA concludes that BTC and Aliv would have the ability to limit the risk of the other party deviating from a tacitly coordinated outcome. URCA believes that the market is sufficiently **transparent** meaning each of the existing MNOs would be able to detect any deviation from the agreed outcome by the other. It would not be a significant challenge, for example, for the existing MNOs to observe each other's pricing in the market. In fact, a lot of information on pricing is already available on the operators' websites and although the information is not always current, the available information can be cross checked against other in-house data on number porting⁹², mystery shopping, and customer surveys. Mainstream economic and financial media and annual company reports, industry reports and,

⁹²Especially as this relates to subscribers' responsiveness to new offers and promotional campaigns

promotional campaigns are additional channels to detect deviations. The operators may also gain insight on each other's pricing from business customers during the negotiations of conditions. Thus, the parties have similar possibilities to detect deviation from the coordinated outcome.

Regarding an effective **deterrent ("punishment") mechanism** for deviating from the tacitly agreed behavior, both MNOs may choose to engage in a price war in the form of promotional offers, or increase in-plan allowances while keeping the headline prices stable. This would have the effect of reducing the effective price paid by customers. Given the frequency of promotions in the market, this could also happen relatively quickly, thus increasing the scope for reciprocal retaliation. Further, it is very likely that both MNOs recognize their reciprocal ability to be harmful, and will hence avoid deviating. Both parties have spare capacity to sustain their retaliatory strategy such as the ability to increase supply to meet additional demand.

Additionally, while each of the existing MNOs could prevent the goals of the coordinated behavior from being achieved, there is minimal risk of disruption from factors outside the coordinated setting. Given high barriers to entry, it is unlikely that outsiders would be able to jeopardize the coordinated outcome. This also holds for OTT operators because of their reliance on the infrastructure operated by the existing MNOs and thus have limited ability to destabilize the coordinated outcome.

Criteria that do not support a joint dominance finding

While the market characteristics and market trends discussed above may suggest that the retail mobile services market is conducive to joint dominance, there are also several criteria that do not support such findings. These are discussed in turn below.

Similar cost structure

As stated in URCA's SMP methodology document "It is easier for firms to collude where they have similar cost structures, similar production capacity, or similar ranges of products. Cost asymmetry tends to rule out a 'focal point' for pricing policies and so negates the potential for firms to coordinate behaviours. It is therefore more likely that licensees may have different marginal cost functions which may render individual price preferences dis-similar for any given level of output."⁹³

The two existing MNOs provide similar products and services to the same customer segment nationwide using similar cellular/mobile technologies and spectrum bands. As well, the data on market shares suggest that both have more than 190,000 mobile subscribers and also benefit from economies of scale and/or scope.

Despite this, BTC appears to operate a larger mobile network and infrastructure compared to Aliv. For one, BTC's network consists of nearly twice the number of cell sites/towers operated by Aliv. In terms of staff size, BTC's mobile business is likely to employ a greater times number of personnel than Aliv. URCA

⁹³Page 17 of ECS 20/2011 available at <u>https://www.urcabahamas.bs/wp-content/uploads/2017/02/ECS-20-2011-</u> <u>Final-Decision-Methodolgy-for-Assessment-of-SMP.pdf</u>

further considers that BTC, as a member of a major multinational communications company, is likely to benefit more from scale economies compared to Aliv. In URCA's estimation, these differences might suggest non-trivial cost differences between both MNOs that would not support a finding of joint dominance based on this criterion. URCA notes that unless there is compelling evidence to the contrary, URCA is likely to find that the existing MNOs do not have similar cost structure in relation to the provision of retail mobile services. This would limit the prospect for the MNOs to exercise joint dominance.

Lack of technical innovation, mature technology

The lack of technical innovation is a relevant criterion in the assessment of joint dominance as it gives an indication on the extent of competition in the market, and the aspirations of currently active providers to surpass technologically their competitors. A significant innovation by one provider could change the status quo and perhaps reduce the incentives to tacitly coordinate with its competitors, as its advantageous position would lead to higher profits.

Given the current evidence on market dynamics, URCA considers it to be unlikely that one of the MNOs will be able to gain a substantial lead in the provision of a new service, such that it could "tip" competition in the market. This is because both MNOs have deployed mobile networks and infrastructure to a similar level across The Bahamas. Current spectrum holdings are symmetric between the two MNOs. Thus, URCA currently foresees it to be unlikely that one operator would gain an advantage on this front.

Nevertheless, this is a dynamic market from a technology perspective, with next generation technology likely to be deployed in the near future in The Bahamas. Unless collectively deployed by both MNOs, this could result in more competitive pressure between them. But for now, URCA has no reason to believe that new mobile technology would not be launched in a timely and competitive manner in The Bahamas.

Lack of or reduced scope for price competition

As per URCA's SMP Methodology document "Where competition is effective, there would exist a general expectation to see prices close to, or moving towards, costs. A potential result of collective dominance is evidence of a history of market price movement within a narrow range."⁹⁴ The assessment of this criterion suggests that there could be scope for the two existing MNOs to tacitly coordinate to sustain prices above competitive levels, but the incentives to do so may vary by MNO.

As acknowledged in the context of sub-sections 3.2 and 5.1 ("Price trends") above, there has been some level of price dynamism in the retail mobile market and total monthly ARPU declined by 28.29% between 2015 and 2020. Further, the increase in mobile call traffic per user and data usage suggests that in all likelihood declining ARPU trends may underestimate the extent of the drop in effective unit prices experienced by end-users.

At the same time, URCA notes that despite the declining ARPU trends, retail mobile prices/ARPUs in The Bahamas appear to be converging. Profitability has already been examined during the investigation of single dominance. While Aliv is yet earn a positive return on its capital employed, BTC has until 2020

⁹⁴ Page 14, ECS 20/2011 dated 13 October 2011

managed to sustain non-trivial positive returns on its retail mobile activities, although its profitability has been falling rapidly since Aliv entered the market. As such, going forward, there could be scope for further price reductions by BTC to gain market shares. This may, in turn, weaken BTC's incentive to tacitly coordinate with Aliv in order to sustain market prices above its marginal cost.

On the other hand, BTC may consider it more profitable to sustain current price levels, rather than actively competing with Aliv on prices. URCA considers this to be more likely if BTC had served a large share of the, often more valuable, postpaid customer segment (as this would require it to, going forward, compete more for lower value customers). However, based on the evidence reviewed to date, URCA sees no reason to support this. Indeed, monthly ARPUs across all subscribers of both MNOs have converged over recent years. Further, Aliv has only has a marginally lower market share of total revenues than total subscribers (& vs & in 2020).⁹⁵

At the same time, the presence of cost asymmetry between BTC and Aliv in relation to the supply of retail mobile services would be destabilizing for the existing MNOs to exercise joint dominance on price or market shares.

Lack of potential competition

This factor refers to the prospect of new licensees entering the market within the current review period (12-24 months). The retail mobile market in question exhibits high non-transitory barriers to entry. This, in combination with the observed maturity of the market and parity in market shares places some uncertainty on the level of competition between BTC and Aliv going forward. URCA has insufficient evidence to suggest if this is a major concern but will instead monitor market developments carefully to assess whether they are reflective of a competitive market environment.

Informal and other links between the undertakings concerned

URCA has not identified any informal and other links between the undertakings concerned that are conducive to joint dominance in the form of tacit coordination. URCA recognizes that the common ownership of the two existing MNOs may create an environment in which tacit coordination can be readily established, but URCA believes this does not necessarily mean they would tacitly coordinate and maximize joint profit. For example, the patterns of price movements do not conclusively indicate coordination behavior by BTC and Aliv to date. This is also especially in light of, amongst other things, uncertainty exists as to whether the existing MNOs will have a clear incentive to coordinate practices on price or market shares.

Preliminary conclusion on joint/collective dominance

In view of the discussion above, URCA preliminarily concludes that there is insufficient evidence to suggest that BTC and Aliv are jointly dominant in the retail mobile market. In coming to this position, URCA acknowledges the concerns regarding potential lessening of competition in the retail mobile market going

⁹⁵Based on data received from BTC and Aliv

forward. Although the market seems to be heading towards a likely change in the competitive dynamics, it is unclear at this point whether this will indeed result in tacit coordination by both MNOs.⁹⁶

In reaching this proposed market determination that joint dominance does not exist in this market, URCA has taken full account of the joint dominance criteria in Table 7, sub-section 3.3 above. In particular, the market under consideration exhibits high non-transitory barriers to entry and high concentration value. This, in combination with the observed maturity of the market and similarity in market shares result in some uncertainty on the level of competition going forward. This is supported by other considerations, notably:

- The retail mobile market in question is predominantly prepaid which makes coordination difficult to achieve.
- The presence of cost asymmetry between BTC and Aliv weakens the incentive to coordinate practices and thereby leading to diverging interest and strategies for adaptation to the market on the part of BTC and Aliv. Cost asymmetry between the operators would make muted price competition harder, because for a given price level costs asymmetry will produce different levels of profit.
- Scope for further price competition in this market is high, as the price levels currently in this market may not yet be at the levels that are likely to be in a competitive setting.
- The MNOs have spare capacity and each is in a position to meet additional demand when customers switch from one service provider to the other.

On balance, URCA considers there to be insufficient evidence to show conclusively that the competitive dynamics in the market will indeed result in a substantial lessening of competition and the emergence of joint dominance by both Licensees at this time. URCA will instead monitor market developments carefully to assess whether they are reflective of a competitive market environment.

Consultation Question 3- Joint/Collusive Dominance Assessment in Retail Market

Does the industry agree with URCA's preliminary conclusion from its joint dominance assessment in the retail mobile market? If not, please set out your alternative views and provides evidence to substantiate your position.

⁹⁶In arriving at this preliminary position, URCA has also considered all other factors listed in Table 7, sub-section 3.3 of this document. However, it preliminarily assessed that the criterion below is not relevant for or do not impact the conclusion.

[•] Low elasticity of demand - URCA finds this to be a relevant criterion in the assessment of competition in the retail mobile market. However, the data required for such an analysis is not available to URCA. As such and in line with sub-section 3.3 (Table 7) above URCA has assessed the other relevant criterion to establish whether collective dominance exist in the retail mobile market. See

5.3 Ex ante Remedies for Retail Mobile Market

The overall objective of *ex ante* regulation is to mimic competition in those markets in which competition has not yet emerged and to put regulatory remedies in place where there is the potential for SMP Operators to abuse their market position ("market failures"). Regulation also seeks to facilitate competition emerging in future. As such, *ex ante* regulation is a means to an end and needs to be gradually removed as competition develops. In particular, *ex ante* remedies are linked to dominance in a particular market. As such, they need to be removed if no licensee is found to be dominant in the market under consideration, with any *ex-ante* obligations being replaced by ex-post competition oversights.

As recognized in sub-section 3.1 above, BTC's retail mobile services are currently subject to the notification/approval procedures and bi-annual margin squeeze reporting requirements set out in ECS 35/2016.⁹⁷. BTC by virtue of section 40(4) of the Comms Act and relevant license conditions must refrain from showing undue preference or undue discrimination in providing mobile services.

Further to the provisional findings of URCA's dominance assessments as outlined in sub-sections 5.1 and 5.2 above, URCA preliminarily concludes that the relevant market for retail mobile services is no longer susceptible to *ex ante* regulation. As such, the continued need for *ex ante* remedies imposed on BTC's retail mobile activities is no longer appropriate in the context of section 5 of the Comms Act. Accordingly, URCA is now proposing to revoke the application of the *ex ante* pricing rules to BTC's mobile only bundle and standalone mobile calls, messaging or data services. This means that the notification/approval procedures and bi-annual margin squeeze reporting obligations set out in ECS 35/2016 shall no longer apply to these services. However, the current requirements of the *ex ante* Retail Pricing Rule, Part G of BTC's Individual Operating License, section 40 obligations of the Act and the Consumer Protection Regulations will continue to apply to any bundle, tied product or package comprising other services which are subject to retail price regulation, as a result of BTC's continued SMP in other markets.

URCA proposes to implement these changes within 15 calendar days following the publication of the Final Determination concerning this review of the Retail Mobile Market in The Bahamas.

Beginning in the 2022 financial period BTC is no longer required to submit Accounting Separation and Cost Accounting results in relation to its retail mobile services.

URCA reiterates the concerns raised in sub-section 5.2 regarding potential lessening of competition in the retail mobile market going forward. Although the market seems to be heading towards a likely change in the competitive dynamics, it is unclear at this point whether this will indeed result in a substantial lessening of competition and the emergence of dominance by one or both Licensees. Given the uncertainty, URCA will continue to closely monitor the market. Should URCA identify, in future, reasons to believe that the market is no longer exhibiting effective competition to the ultimate benefit of

⁹⁷"Regulation of Retail Prices For SMP Operators of Non Price-Capped Services – Rules" *iss*ued 30 September 2016 Version 1.0.1 – 23 January 2017 available at <u>https://www.urcabahamas.bs/wp-content/uploads/2017/02/ECS-35-2016-Regulation-of-Retail-Prices-for-SMP-Operators-of-Non-Price-Capped-Services-V1.0.1.pdf</u>

Bahamian consumers, it may conduct another market review, with a view to considering whether it is necessary to re-impose some form of ex ante measures.

Consultation Question 4 – Remedies in Retail Market

Do you agree with URCA's proposed timeframes for removal of the ex ante obligations as explained above in relation to BTC's retail mobile services? If not, please set out your alternative timeframes with reasons.

6 Conclusion and Next Steps

In this Preliminary Determination, URCA is seeking comments on its provisional assessment and findings on the competitive dynamics and resulting need for ex ante regulation in the market for retail mobile services in The Bahamas. In particular, as set out in more detail in sections 5.1 and 5.2, URCA preliminarily concludes that neither of the current MNOs is holding a position of market dominance in the provisioning of retail mobile services in The Bahamas. Therefore, URCA is proposing that the Retail Price Regulations imposed on BTC in 2010 should no longer apply to mobile only bundles and standalone mobile calls, messaging and/or data services. Beginning in the 2022 financial period BTC is no longer required to submit Accounting Separation and Cost Accounting results in relation to its retail mobile activities.

URCA invites interested parties to comment on its preliminary position by responding to the consultation questions set out in this Preliminary Determination. Upon consideration of written responses, URCA will publish a Final Determination on the results of the consultation along with next steps.