Banded Forbearance:

A New Approach to Price Regulation in Partially Liberalized Telecom Markets

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Abstract

Fast growing telecom markets, especially in the developing world, are attracting new types of users, especially those at the Bottom of the Pyramid (BOP). Innovative pricing is needed to respond to this increasingly heterogeneous demand. However, many regulators still claim to regulate prices using methods from the monopoly era, despite lacking capacity to effectively regulate proliferating tariff plans. What actually happens is that tariffs are "approved" for the most part without proper review.

One response has been asymmetric regulation/forbearance, wherein the regulator determines that certain operators do not have significant market power (SMP) and frees them from regulatory burdens, including, in many cases, tariff regulation. This still leaves a few operators (possibly one each in different markets such as fixed, mobile, and broadband) under tariff regulation. They are required to file tariffs, and if not go through formal proceedings, at least go through a staff review. Given the leakiness of most regulatory agencies, this puts them at a significant disadvantage because their competitors can prepare precisely targeted and timed responses, unencumbered by regulation.

Forbearance was included in the 1997 legislation that created the Telecom Regulatory Authority of India (TRAI) prior to the EU asymmetrical regulation model being fully developed. Possibly as a result, TRAI did not forbear from tariff regulation on the basis of SMP: all tariffs in urban areas were forborne, with some limited regulatory authority retained in rural areas. The results were some of the lowest tariffs in the world (Nokia, 2008a; LIRNEasia, 2008, 2009).

Based on this lesson, it is proposed that "banded forbearance" be introduced, even in countries with far fewer competitors than in Indian circles (licensing areas). In this form of benchmark regulation, the regulator will: define a benchmarking methodology such as an adaptation of the OECD basket methodology, including peer countries and weights; define a band of allowed variance above and below, what is likely to be a moving benchmark, within which prices will be fully forborne; and specify competition-related criteria that will be used to evaluate price movements below the lower band (e.g., limited to tests on predation and price squeeze). Durations of validity for the bands and default outcomes can also be specified in order to reduce uncertainty.

The introduction of bands and specified criteria will allow operators to use innovative marketing strategies, while allowing the retention of regulatory safeguards that may be important in markets with few competitors and possibly significant control over essential facilities by incumbents. It will also result in refocusing regulatory energies on creating the conditions for competition rather than sterile calculations of the X in RPI-X. The production and timely dissemination of standard price, minutes-of-use, and call-distribution data needed for OECD type benchmarking will also result in reducing the opacity of pricing for consumers, thus sharpening competitive pressures and improving the customer experience.

1.0 INTRODUCTION

Fast growing telecom markets, especially in the developing world, are attracting new types of users, especially those at the Bottom of the Pyramid (BOP) (Nokia, 2008b; Prahalad, 2004). Innovative pricing is needed to respond to this increasingly heterogeneous demand. Yet many regulators are still attempting to regulate prices using methods from the monopoly era, despite lacking capacity to effectively regulate proliferating tariff plans.

This article investigates the feasibility of regulating prices in telecom markets, focusing on approaches such as regulatory forbearance and asymmetric regulation. It then proposes a regulatory mechanism termed '*banded forbearance*', derived from benchmark regulation and especially useful for regulating prices in microstates with few competitors, but with possibly broader application.

Section 2.0 reviews the relevance of present price regulatory practices in fast-growing markets, and is followed by an explanation of the proposed regulatory tool, banded forbearance, in Section 3.0. Section 4.0 discusses the suitability of this approach in microstates, and the article concludes with a comparative analysis of banded forbearance in Section 5.0.

2.0 PRICE REGULATION IN DYNAMIC TELECOM MARKETS

Liberalization in the telecom sector

From 1990 to 2003, 128 developing countries allowed private participation in their telecom markets (Izaguirre, 2005), moving from monopolistic to partially or fully competitive market structures. According to the International Telecommunication Union's World Telecom Regulatory Database, only 10 percent of the developing economies do not allow competition in mobile telephony. Liberalization, including, but not limited to, the privatization of state-owned incumbent operators, has yielded significant improvements in sector performance (Dasgupta, Lall & Wheeler, 2001; Megginson & Netter, 2001; Gutierrez, 2003; Samarajiva, 2002); the presence of an independent regulator in addition to competition and privatization has also proven to be beneficial to telecom sector growth (Wallsten, 2001; Ros, 2003). These market reforms have had positive impacts in terms of increasing

access paths per hundred people, operating efficiencies, and improvements in the quality and price of telecom services (Megginson & Netter, 2001), and are also claimed to contribute significantly to overall economic growth (Röller & Waverman, 2001).

Dasgupta, Lall and Wheeler (2001) claim that liberalization and privatization in the 1990s increased telecom penetration significantly, with most growth occurring through the spread of mobile phones.[3] Many of these new connections come from the lowest social strata or the BOP (de Silva, Zainudeen & Ratnadiwakara, 2008) who are highly value conscious. As such, service providers are increasingly under pressure to innovate with packages and prices in order to meet the growing heterogeneous demand.[4] Ramirez (1998), Samarajiva (2001) and others discuss how regulatory mechanisms are hobbled by administrative, financial and operational problems, which inhibit effective and timely action. Accordingly, some regulators are prioritizing and shedding low-priority tasks where possible. The importance of this for effective regulation is detailed in Melody (1999).

Regulatory forbearance

Based on the premise that there is little need for intervention as the number of service providers grows and competition increases in a market place, regulators can refrain or forbear from intervening or imposing controls in a market. Schultz (1994) considers this a means to give new firms without market power the space needed to flourish.

Deeming sufficient competition to exist in the Indian telecom sector, the Telecom Regulatory Authority of India (TRAI) forbears from price regulation in urban areas, although it does regulate some prices in rural areas. The Authority requires that all operators who provide basic, national long distance, or international long distance services, file a standard postpaid tariff[5] and a prepaid recharge card tariff[6] at least five days prior to their taking effect; if the Authority does not act on the submission within the

[3] There was an approximately 25-fold increase in China, 33-fold increase in India, and five-fold and two-fold increases in Latin America and Sub-Saharan Africa respectively.

[4] http://www.ictregulationtoolkit.org/en/Section.2196.html.

[5] Termed the "Reference Tariff Package of the Service Provider"; the plan has to include a monthly rental and airtime charge per minute, with a pulse duration for airtime charge of 30 seconds.

[6] The denomination of recharge card has to be less than INR 300 (approx. USD 7) with a corresponding validity of at least one month.

five days, the plans can be implemented by the operator without any explicit approval from the regulator (Sinha, 2002).

India now has some of the lowest mobile tariffs in the world (LIRNE*asia*, 2008, 2009; Nokia, 2008a) and a flourishing mobile market – the compound annual growth rate for 2000-2005 for mobiles was 90.6 per cent (International Telecommunications Union, 2007). The findings of the Telecom Regulatory Environment (TRE) assessments[7] carried out by LIRNE*asia* in 2006 and 2008, indicate that India received the highest scores on the tariff regulation dimension among the countries studied (Prem & Baburajan, 2009), indicating that TRAI's approach is appreciated by informed stakeholders.[8]

Forbearance does not necessarily mean that the regulator relinquishes all responsibility for regulation; the regulator may choose to forbear on certain aspects only based on assessments of market power and potential for predatory pricing; and regulation may be re-imposed if justified. In the case of regulating the markets for terminal equipment, wireless services and toll services, the Canadian Radio-Television Commission (CRTC) forbore from regulating these markets deeming them 'workably competitive'. In the terminal equipment market, the Commission forbore on the sale, lease and maintenance of single-line, multi-line and data equipment. In the wireless services market, regulatory forbearance was enforced in markets for mobile phones and data and wireless devices; however conditions were included to safeguard customer confidentiality with regard to interconnection (Organization for Economic Cooperation and Development, 2002). The toll-services market, on the other hand, was only partially forborne, with the CRTC requiring price and cost filings only in the market for long distance tolls. To decide on the competitiveness of a market, the Commission took

[7] The TRE assessment is a is a perceptual index which gauges regulatory performance across six (and in 2008, seven) dimensions, based on the elements of regulation identified by the Reference Paper of the GATS Protocol 4 (Market entry, management of scarce resources, interconnection, universal service, and enforcement of competition and regulatory rules) with an additional dimension: tariff regulation. Quality of service regulation was added in 2008. It is based on the perceptions of efficacy, by informed respondents.

[8] In 2006, India obtained 3.5 out of 5 for mobiles and 3.7 out of 5 for fixed connections, while the other five countries obtained scores between 2.2 and 2.9 for both mobile and fixed connections. In 2008, the score was 3.9 out of the maximum possible 5.

into account the market share of the largest firm, the price elasticity of demand and the contestability of the market.[9]

In another example, the Office of the Telecommunications Authority (OFTA) in Hong Kong, removed some regulations imposed on PCCW's prices in 2005, exempting the dominant operator from having its prices, plans for discounts and other responses to price competition approved by OFTA prior to execution, but maintained that the operator had to have any amendments to published interconnection tariffs, including tariffs for broadband services and virtual private network (VPN) services approved. PCCW has to still meet its accounting separation requirement as well as supply information to OFTA to make decisions regarding costs (Painter & Wong, 2007).

The level of competition is a defining factor for the success of regulatory forbearance and the reason for India's accomplishments can be attributed to the fact that it has the highest levels of competition in the South Asian region,[10] as well as at the Circle (or intra-regional) level.[11] But there are concerns that need to be addressed regarding regulatory forbearance in less-than-perfectly competitive markets. For instance, there are the potential risks of predatory pricing and/or a vertical price squeeze.

Asymmetric regulation

In a newly liberalised market a single operator, usually the incumbent, is better positioned than any new entrants to the market as it already has an established customer base and infrastructure in place. In such a case, it would seem most appropriate to implement asymmetric regulation, so as to deter this service provider from hindering competition. With this kind of regulation, authorities place certain restrictions on the tariffs and other aspects of service provision of the incumbent or the operator with significant market power (SMP), while all others are exempted from regulation. It may also be the case that regulatory burdens are imposed on fixed operators (only one service provider most of the

[9] http://www.crtc.gc.ca/archive/ENG/Decisions/1994/DT94-19.HTM, http://www.crtc.gc.ca/archive/ENG/Decisions/1996/DT96-14.HTM and http://www.crtc.gc.ca/archive/ENG/Decisions/1995/DT95-19.HTM.

[10] According to the Hirschman-Herfindahl Index (HHI) for December 2007, India ranks lowest (0.16), followed by Pakistan (0.27), Bangladesh (0.31) and Sri Lanka (0.36) (Source: Authors).

[11] Circle-wise HHIs for India indicates that the figures for March 2007 are much lower than those for September 2003 (Source: TRAI).

time) while mobile operators remain unregulated. As part of being regulated, the dominant service provider may have to supply cost information to the regulator, and access to its networks to competitors (Liu, 2001; Bourreau & Dogyan, 2001).

Pakistan follows such an approach with somewhat encouraging results. The Pakistan Telecommunications Authority (PTA) identifies the SMP operator in the mobile market and imposes a requirement to file all tariff plans. Once the authorities review them, the SMP operator may implement the plans. If the PTA fails to respond within a certain period of time, the tariff plan is considered approved and goes into effect. While the findings of LIRNE*asia*'s Mobile Benchmarks study (2008) showed that Pakistan's mobile tariffs are even lower than India's, the TRE Assessments indicate that PTA's efforts are not fully appreciated by informed stakeholders in Pakistan.[12] Interestingly, for the SMP operator's tariffs are not set using price-cap or rate-base rate of return regulation. What may actually be in operation is forbearance.

Similarly, the Moroccan regulator, Agence nationale de réglementation des télécommunications (ANRT), imposes price controls for basic fixed services offered by the incumbent operator, Maroc Télécom. For other value-added services such as mobile and data, the regulator monitors the situation and intervenes only when required (ITU, 2001).

PCCW, the incumbent operator in Hong Kong SAR, came under tariff orders in 1993 and 1998 respectively (Chou & Liu, 2006). However, as discussed above, OFTA partially forbore on regulation in 2005. In China, regulators imposed tight tariff regulation on China Unicom, the SMP, in order to level the playing field in its duopoly telecom market (Gao & Lyytinen, 2000).

In Europe, the United Kingdom was among the earliest to initiate asymmetric regulation on its dominant carrier in 1984; Germany, France, and Portugal then followed in 1993, 1995, and 1998 respectively. The United States of America also began asymmetric regulation of AT&T in 1989 (Chou & Liu, 2006). These cases and others have been discussed in detail in several studies, including

[12] Pakistan scored 2.7 out of 5 in the fixed market, and 2.6 out of 5 in the mobile market.

those of Baak and Mitusch (2005); Crandall, Sidak and Singer (2002); Crandall and Hazlett (2000); Dewenter and Haucap (2003); Knieps (1997); and Peitz (2005).

There are several reasons for applying asymmetric regulation in newly competitive markets. In addition to the rationale based on prioritization, Schankerman (1996) states that this regulatory approach is most suited when the incumbent has the capacity to strategically deter entry into the market, and is the least costly way in terms of efficiency to correct the problem. However, there are concerns about the long-term applicability and implementation of asymmetric regulation.

Given the leakiness of most regulatory agencies, dominant operators are at a significant disadvantage because their competitors can prepare precisely targeted and timed responses, unencumbered by regulation; in their paper, Besen and Farrell (1994) mention that unregulated rival operators will charge prices slightly below that of the SMP, causing discontent among dominant operators as well as not passing on the benefits of competition to consumers.

In addition to these problems, asymmetric regulation is resource intensive, due to the administrative work involved in establishing criteria for determining the SMP operator. There is a need to identify the incumbency advantage and its impact on market outcomes (Peitz, 2005), and regulators lack information to do so.

It is also of concern that regulators may end up favoring some operators over others (Schankerman, 1996), damaging competition (Paredes, 2005), hurting the incumbent financially, and allowing inefficient firms into the market (Armstrong & Sappington, 2006; Gual & Trillas, 2003). Lyon and Huang (1995) assert that the asymmetric regulation approach may stifle innovation in general, as it creates an environment such that only unregulated firms find it profitable to innovate. Accordingly, the benefit of implementing such regulation in a market is lost as it will have a significant negative impact on investment and growth of the telecom network (Paredes, 2005).

As differences between operators diminish and conditions for competition set in, there is less need for the regulation of a single service provider; according to Perrucci and Cimatoribus (1997) this kind of

regulation can distort this transformation and impact the overall efficiency of the market.[13] On the same lines, Crandall, Sidak and Singer (2002) claim that asymmetric regulation usually leads to "managed competition" which can be said to be far more difficult to sustain than traditional monopolistic regulation. Deciding which tool to employ for regulating tariffs is also problematic, as price-caps and rate of return (ROR) regulation, the two most common tools for regulating tariffs in telecom markets, each have their own limitations.

In price-cap regulation, regulators enforce a cap or limit on the average prices an operator can charge for each of its services; the cap is adjusted for inflation over time and is commonly called the X-factor (Littlechild, 1983). This gives operators stronger incentives to cut production overheads and improve operating efficiencies (Bernstein & Sappington, 1998), while allowing some pricing flexibility (Abel, 2002) and curtailing abuse of market power (Armstrong & Sappington, 2006). However, the calculation of X in the price-cap formula RPI-X[14] can be tedious and almost impossible to work out[15], and is generally ineffective as a regulatory tool where inflation is high or volatile.[16] For the most part, the X is negotiated based on cost studies or otherwise. Iozzi (2004) discusses how price-capping can limit the development of competition.

ROR regulation, on the other hand, focuses on capping the earnings of an operator (Weisman, 2002), and as such provides the least amount of flexibility for operators to set their tariffs/prices (Guthrie, 2006). Unlike in price-cap regulation where the caps are adjusted relatively frequently, ROR regulation is not conducive to such change and revision, and therefore it is no longer appropriate in today's context of fast changing mobile markets. Given these issues, the approaches and tools used in regulating tariffs in the telecom sector need reconsideration.

[13] Baumol and Sidak (1994) and Sappington and Weisman (1996) discuss in further detail the impacts on efficiency due to the imposition of asymmetric regulation.

[14] Where RPI is the Retail Price Index and X is the value of inflation over time.

[15] Regulators have little guidance from the economic literature in calculating the X factor, say Bernstein and Sappington (1998).

[16] Adjusting the price cap too frequently can have a negative impact on an operator's planning, and can mean over-regulation, while maintaining a fixed cap over a long period of time can mean that the prices are capped either too high or too low at some point (Acton & Vogelsang, 1989).

3.0 A NEW APPROACH TO PRICE REGULATION: BANDED FORBEARANCE

Even though formal forbearance and asymmetric regulation (in practice, informal forbearance) have yielded both low prices and high satisfaction among stakeholders, this does not mean that regulators should completely abandon regulating prices in the telecom sector. In the case of markets that have no sustainable or effective competition, or where there exists a service provider with significant market power (SMP), some kind of regulatory mechanism to ensure that competitors are not harmed by abuse of market power is necessary. '*Banded forbearance*' is proposed as such a mechanism.

What is banded forbearance?

Derived from benchmarking regulation, banded forbearance lies between complete forbearance and asymmetric regulation. Banded forbearance entails identifying a peer group, selecting a benchmarking methodology to compare tariffs across the group, and defining the band within which the tariffs can move. Regulators will also specify competition-related criteria that will be used to evaluate price movements below the lower band. Differential treatment of below-the-band pricing by operators with market power versus those without may also be specified. The differentiation could be simply based on control of essential facilities that may short-circuit esoteric debates on defining significant market power.

How does it work?

To begin with, we will explain what benchmarking is in terms of tariff regulation: to benchmark is to set the price of an individual service based on the rate at which the same service is charged for in a jurisdiction or jurisdictions that have been identified as a standard. For instance, SingTel, the largest mobile operator in Singapore, benchmarks its mobile tariffs against those in neighbouring Asian countries, and selected major metropolitan regions.[17] Similarly when the dominant fixed operator BTC in the Bahamas rebalanced its prices under regulatory direction, the company benchmarked their international long distance (ILD) prices against those of sixteen countries in the region (Public Utilities Commission of the Bahamas, 2005).

[17] http://www.ictregulationtoolkit.org/en/Section.2149.html.

There are five main steps that must be followed in order to implement banded forbearance for the purpose of regulating tariffs. Each step is described in detail below, using mobile prices in Bhutan, a micro state which recently introduced a second mobile operator, as a test case.

1. *Identification of the indicator to be benchmarked*
   - *Identification of the methodology and definition of the indicator; the regulatory authority should ensure that it is comparable and representative.*

We first consider the monthly cost of using a mobile phone as the indicator for benchmarking. There are three widely used indicators of mobile price/cost. One is set out in '*The Core ICT Indicators document, Partnership on Measuring ICT for Development*' which takes into account the cost of 100 minutes of use per month, and is intended to represent an average use basket which is applicable to individual consumers.[18] The '*ITU basket of call charges*' considers separate indicators for connection charges, rental, SMS and the price of a 3-minute local call. The most comprehensive indicator, however, is the '*Organization for Economic Co-operation and Development (OECD) T-basket*', which applies usage charges (voice, SMS and more recently MMS), line rental, connection charges (depreciated over a three year period), and applicable taxes to low, medium and high use levels, for the computation of the average monthly cost of using a mobile phone.[19] This methodology takes the most holistic approach of the three indicators, providing accurate and comparable results that are potentially useful to regulators and operators (for benchmarking monthly mobile phone costs), and consumers (for reliable price/cost comparisons on any given tariff plan).

Given the significant differences in mobile usage between the OECD and the developing South Asian region including Bhutan,[20] the use of unmodified OECD price baskets is problematic. Accordingly we use LIRNE*asia*'s modfication of the basket methodology to South Asia which better reflects the monthly costs of using a mobile phone in the region.[21] The methodology is applied to the eight

[18] http://www.itu.int/ITU-D/ict/partnership.

[19] http://www.teligen.com/t_basket.asp; Similar baskets are calculated for the use of fixed phones and Internet.

[20] For example the present OECD medium-user basket is 119 Minutes of Use (MoUs)/month and 50 SMS/month, with no differentiation between prepaid and postpaid. The South Asian prepaid medium-user basket is made up of 175 MoUs/month and 23 SMS/month and a postpaid medium-user basket is 535 MoUs/month and 39 SMS/month.

[21] The most recent findings are at http://lirneasia.net/wp-content/uploads/2007/08/09-02-sa-baskets-explained-v1-0.pdf.

member states of the South Asian Association for Regional Cooperation (SAARC), and provides comparable indicators for mobile prices within the region.[22] The findings show that Bhutan's monthly mobile prices are higher than the norm, at all levels of mobile phone use.

2. Identification of a peer group

A suitable peer group is identified, as this will be the basis of defining an appropriate benchmark (Step 3). Table 1 gives a non-exhaustive list of the many different ways in which a peer group can be selected.

There are many ways to classify a peer group and in the case of the Bahamas, as discussed in the example above, the sixteen regional peers for benchmarking ILD prices were selected based on the level of competition that existed in those telecom markets, as well as their economic importance, per capita income, and economic structures in relation to the Bahamas (Public Utilities Commission of the Bahamas, 2005). Peer groups can also be defined by geographic or demographic criteria.

The monthly mobile price derived from LIRNE*asia*'s South Asian mobile basket methodology may be adopted as the indicator for benchmarking tariffs in Bhutan, making the SAARC[23] the peer group. Though these countries represent a single region, the geographical, economic and other differences within the group may call for alternatives. For example, the Maldives and Bhutan have significantly higher costs in providing telecom services simply because of their different and difficult topographies, when compared with the costs of providing the same services in Pakistan or India. There are differing levels of competition in all these markets. For the purposes of benchmarking, however, comparisons of this nature are necessary and there will always be an error factor given that no two countries are absolutely similar. It is advisable to select the peer group through a broadly consultative process that involves all stakeholders, in order to enhance the legitimacy of the final choice.

[22] There had been no significant variance between the levels of phone use of OECD countries and those in South America, according to DIRSI. Therefore,, DIRSI makes use of the OECD methodology without any adjustments. The findings are at: http://www.dirsi.net/english/files/background%20papers/affordability_english_2.0_final.pdf.

[23] The South Asian mobile benchmarks are calculated for the members of SAARC, namely, Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka.

Table 1: Criteria for selecting peers for benchmarking

Criteria	Description
GDP per capita	Countries with similar GDP per capita
Geography	Countries with similar geographical attributes, such as land-locked countries, or island nations, countries located in a single region, microstates
Market structures	Countries which have either monopolistic, duopolistic or competitive telecom markets
Market size (by subscribers)	Countries with similar numbers of fixed or mobile subscribers

3. Defining the benchmark from among the peer group

Once the indicator and an appropriately-selected set of peers have been identified, the benchmark needs to be determined; this will be dependant on how well the country ranks in relation to its peers. The benchmark can be set based on the lowest or even highest, or average figure among those in the peer group. The European Union (EU) uses the third from the bottom as its benchmark. In our example, we take the benchmark as the average of all countries other than Bhutan in the SAARC region; for a medium (or average) user, this means that the benchmark figure works out to approximately USD 11. How often the benchmark is revised (annually or biennially) can also be decided at this stage.

4. Determining the bands

The next step in applying banded forbearance is to determine the workable band or margin of allowed variance around the defined benchmark. The floor and ceiling values will determined after taking into account differences between the country being regulated and the benchmark country (or countries). The effective price change that the regulatory authority wishes to have will also be a factor in determining the margin of variance. This is most likely to be a moving band, driven by prices changes and exchange-rate movements, within which prices will be fully forborne.

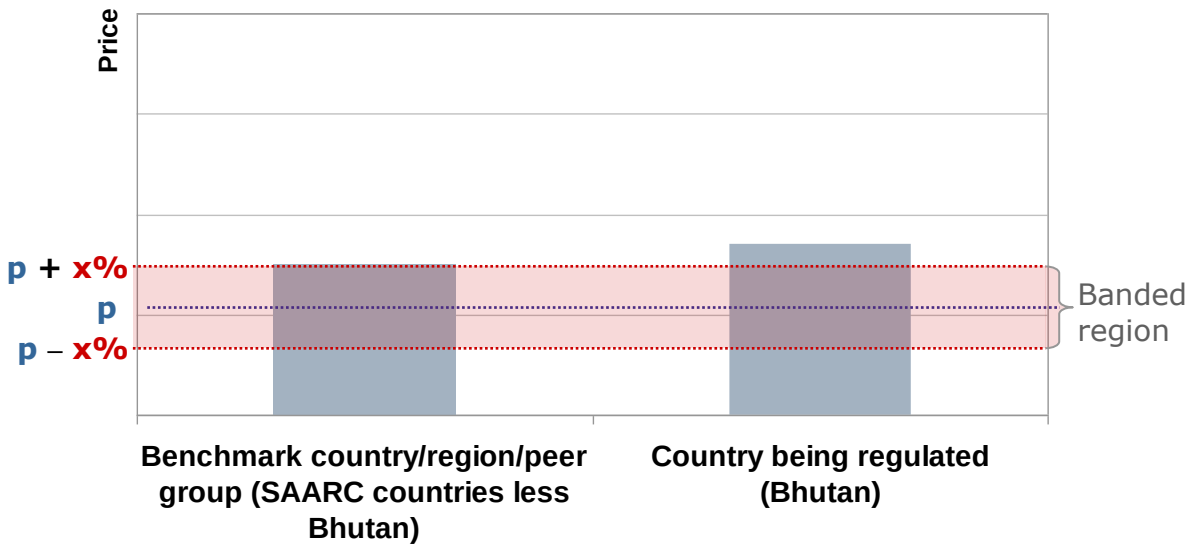
In our example, there was a USD 3 difference between the actual monthly mobile cost in Bhutan and the benchmark at the point the study was done. Taking into account the fact that there is currently

very limited competition in the mobile sector in Bhutan[24], the regulatory authorities can/should define a narrow band that does not fall too far below the current costs prevalent in Bhutan as this would be unfair to the new entrant. The imposition of a narrow band, in this case, will limit the larger operator from behaving anti-competitively. Accordingly, the proposed upper limit can be determined to be 15 per cent (i.e. upper limit = benchmark + 15 per cent) and the lower limit can be equated to the benchmark value (lower limit = benchmark);[25] this would mean that both operators will have to ensure that an average user is charged between USD 11-15 a month.[26]

Figure 1 is a graphical representation of the benchmark, *p*, and the specified band is between $p \pm x$ *per cent*.

Figure 1: Setting the bands

Figure 1: Setting the bands



5. Regulating the operators

[24] B-Mobile, the incumbent mobile service provider, has been in operation since 2002, while Tashi Cell, the only other mobile operator in Bhutan, was licensed to provide mobile services only in 2007 (retrieved from http://www.bicma.gov.bt/telecom/telecom.html).

[25] These percentages are arbitrary in this example and can be determined in a have been taken as examples and need not be the case every time.

[26] Bands can also be calculated for low as well as high users based on the above specifications.

The benchmark and the defined margins should be communicated to all operators along with clear rules on how tariff plans will be evaluated as falling within or outsidethe band. Authorities can impose the requirement that all proposed price plans have to be filed and approved before taking effect. They will also have to specify competition-related criteria for approving price movements below the banded limit, and explicate the consequences of predatory pricing or price squeezing.

Key considerations

Getting the peer group right at the start is a worthwhile investment. In the interests of reducing uncertainty, it is important that the peer group be constant over a long period. Flexibility can be provided by the band.

Furthermore, the regulator needs to determine specific intervals for setting and revising benchmarks and bands. This may be determined based on the rate of inflation or level of competitiveness in the market. For instance, the intensely competitive environment in South Asia has seen rapid declines in prices; meaning that the benchmark and bands identified in our Bhutan case have to be revised more regularly (annually or even biannually) in order to reflect these declining tariffs.

Regulatory authorities should avoid making sudden and extreme changes to benchmarks and bands. All price revisions should be gradual. Stakeholders should be consulted and kept involved in the decision making process of setting benchmarks and defining the bands.

4.0 APPLICABILITY TO MICROSTATES

Although there seems to be no consensus on the definition of a microstate in the literature, we consider the definition used by the United Nations in this article. According to Rapaport, Muteba and Therattil (1971) a microstate is defined by United Nations as a country with a population below one million.[27] In such countries, the markets for telecommunications as well as for other goods and services are significantly smaller than elsewhere. Despite a few micro states such as Iceland and Macau successfully supporting multiple operators, most of these telecom markets are duopolies.

[27] Examples include Bahrain, Bhutan, Maldives, Qatar, and Samoa.

The constraints of a microstate preclude a large regulatory agency, with abundant human capacity and financial resources. Therefore, regulators in these countries must be highly disciplined in allocating limited regulatory resources to the most important tasks.

Banded forbearance, therefore, provides a suitable solution to the problem of regulating tariffs in a microstate. All operators in the telecom market are required to file tariffs with the regulatory agency and this will not put unreasonable pressure on only the dominant operator to do the same as in the case of asymmetric regulation. The band will provide safeguards against predation and vertical price squeeze.

5.0 COMPARATIVE ANALYSIS OF BANDED FORBEARANCE

Banded forbearance is more efficient in terms of allocating limited regulatory resources. The use of banded forbearance for regulating tariffs will result in refocusing regulatory energies on creating the conditions for competition rather than the sterile calculations of the X in RPI-X for price-cap regulation. It is superior to the status quo of de facto forbearance that prevails despite the appearance of asymmetric regulation and formal tariff regulation, because it reduced uncertainty for the companies and removes the likelihood of arbitrary pressures being exerted on operators.

While asymmetric regulation also conserves regulatory resources by deregulating non-dominant operators, there is still cause for concern as this type of regulation breeds discontent on the part of the SMP or dominant operator and creates opportunities for rent-seeking within the regulatory agency. In any case the regulator has difficulty properly regulating the tariffs of the dominant operator through price-cap or ROR methods. Due to evolving market structures, regulators have to constantly reassess their markets and alter the regulations in place, especially if they are regulating asymmetrically. In oligopolistic and or duopolistic conditions, non-dominant operators may just shadow the incumbent’s prices reducing the competitiveness of the sector.

Banded forbearance on the other hand, applies to all operators and conserves regulatory resources . It enables the deregulation of the SMP player and safeguards against predation and vertical price squeeze. Although regulatory agencies will incur some search costs in obtaining accurate information from multiple sources, this will be far lower than the cost of hiring consultants to make the necessary calculations for RPI-X or ROR regulation, and even to conduct SMP reviews.

Forbearance within benchmark limits allows for intelligent and responsible regulation, in a manner less intrusive than other types of tariff regulation, and is conducive to the Budget Telecom Network business model implemented in South Asia.[28] The introduction of bands and specified criteria will allow operators to use innovative marketing strategies, while retaining safeguards that may be important in markets with few competitors and possibly significant control over essential facilities by incumbents. The production and timely dissemination of standard price, minutes-of-use, and call-distribution data needed for OECD type benchmarking will also result in reducing the opacity of pricing for consumers, thus sharpening competitive pressures and improving the customer experience.

India has shown that complete forbearance on tariff regulation combined with lots of market entry can yield good sector performance. Yet there is concern that complete forbearance in the absence of India-like concentration ratios, could lead to new entrants and small players being wiped out by the incumbent's aggressive pricing. Banded forbearance allows for safeguards against this possible outcome, creating the conditions for a transition to full forbearance.

As with all policy solutions, the devil is in the details. If the band is defined very narrowly and long durations are adopted, one may not realize flexibilities. Similarly, rigid applications may preclude a new entrant from offering prices based on disruptive innovation (Christensen and Raynor, 2003), sabotaging the original intent of creating space for innovative pricing strategies.

However, it must be noted that for banded forbearance to be applied effectively, there is a need for accurate and timely operator-level data, such as minutes of use per month, call distributions by

[28] The Budget Telecom Network has resulted in the lowest Total Costs of Ownership (TCO) in the world and is likely to spread through the developing world (Nokia, 2008a and Nokia, 2008b).

destination and time, etc. The data also has to be comparable to ensure the trouble-free computation of the benchmark value around which the band is centred on. Without these prerequisites, the application of banded forbearance will be a challenge.

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