

COMPETITIVE TELECOMMUNICATIONS MARKETS, REGULATORY RISK AND CAPTURE

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¹ The views expressed in the paper are strictly those of the author and in no way reflect the views of the Office of Utilities Regulation (Office).

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ABSTRACT

The last three years since competitive entry to the Jamaican telecommunications markets were marked by significant developments as the legal monopoly of Cable and Wireless Jamaica (C&WJ) came to an end. Two new mobile operators entered the industry in 2001 (Digicel and Oceanic Digital) and a fourth licence was recently issued. Consequently, aspects of the retail markets have become somewhat competitive in the face of the new entrants to the industry. The mobile industry is now characterized by consistent promotional activities on the part of all the players. However, there are still concerns in relation to market power in both the retail and wholesale markets, (particularly with respect to call termination services).

National Regulatory Agencies (NRAs), through regulatory intervention, play a pivotal role in these telecommunications markets in terms of facilitating competitive outcomes. However, although the Jamaican retail mobile markets are generally viewed as competitive, survey data indicates there may still be a relatively high degree of market concentration. Further, markets such as mobile call termination are considered to be monopolistic. This is in spite of attempts by the OUR to regulate these markets.

This paper maps some of the changes in the mobile markets that resulted from competitive entry and gives an insight into the dynamics of competitive markets in relation to price and quantity supplied. Additionally, the presentation seeks to demonstrate that in the quest for the competitive outcome via independent and transparent regulation, regulatory risk and regulatory capture can be formidable obstacles.

Introduction

The Telecommunications Act, 2000 (the Act) mandates the Office of Utilities Regulation (the Office) to function as the independent regulatory body for the telecommunications sector in Jamaica.

Among the objects of the Act are the promotion and protection of the interest of the public. In the confines of the regulatory framework, the Office is responsible for promoting and protecting the interest of two main groups, consumers and operators. Among other things, the Office must:

- (a) promote fair and open competition in the provision of specified services and telecommunications equipment; and
- (b) promote access to specified services;

while ensuring that the utility service providers (operators) have an opportunity to make a reasonable return on capital invested in providing the service.

In an effort to achieve these objectives the Office issued several Determination Notices. These include:

- [Termination charges for Incoming International Calls. June 9 2004](#)
- [Decision on Settlement Rates as of May 8, 2004](#)
- [Telecommunications Markets Information Requirements: Determination Notice, April 8, 2004](#)
- [Modification of Settlement Rate Decision February 20, 2004](#)
- [International Settlement rates January 2004.](#)
- [The Determination Notice on The Jamaican National Numbering Plan, Nov, 2003](#)
- [Dominant Public Voice Carriers, August 14, 2003](#)
- [Principles and Methods of Asset Valuation for Regulatory Purposes, July 31, 2003](#)
- [Access to Directory Database Information, July 2002](#)
- [Interconnect Pricing - Reference Interconnect Offer, May 2002](#)
- [Cable & Wireless Jamaica Limited – Application for Stay and Reconsideration, Feb. 2002](#)
- [Assessment of Cable & Wireless Jamaica’s Reference Interconnect Offer, Feb. 2002](#)
- [Modifications to the Existing Interconnect Regime", November 22, 2001 .](#)
- [View the Cable & Wireless Jamaica’s Price Cap Plan](#)
- [View the Reference Interconnect Offer \(RIO\) stipulating the terms and conditions under which C&WJ proposed to permit interconnection to its telecommunications networks.](#)

The effectiveness of these decisions is thought to be critically dependent on the process by which they are taken. This paper maps some of the changes in the telecommunications markets that resulted from competitive entry (facilitated by some of these decisions) and gives an insight into the dynamics of competitive markets in relation to price and quantity supplied. Additionally, the paper seeks to demonstrate that in the quest for the competitive outcome via independent and transparent regulation, regulatory risk and regulatory capture can be formidable obstacles.

Regulatory & Industry Situation before the New Act

Between 1993 and 1999, the Fair Trading Commission (established in 1993) investigated several complaints against the Cable and Wireless Jamaica (the incumbent telecommunications operator, CWJ) for abuse of dominance and misleading advertising. The OUR (established in 1995), was unable to effectively regulate CWJ until the OUR Act was amended in October 2000.

Through an established consultative process, the OUR & CWJ initiated a rebalancing program for telephone rates. In 1999, access lines’ share of CWJ’s profit was negative 45% while incoming international calls contributed 110%.

Table 1.0: Approximate Share of Profit by Fixed line Service: OUR's Estimates in 1999

Service	Profit Share
Incoming international calls	110
Outgoing international calls	10
Access lines	-45
Intra-Parish calls	-10
Inter-Parish calls	5
Other services	30
Total	100

This skewed distribution of profit was attributable to the imbalanced rates for international calls and domestic customer access services (lines and calls). The rate-rebalancing program that commenced in the late 1990s continued under the four year price cap regime of 2001.

Table 1.1: Change in International call Prices and Access Service Prices (line rental and call), 2001 – 2004

Service Description	2001/2002	2002/2003	2003/2004
Direct Dialed Intl. Outgoing Calls - Zone 1 peak	- 9%	- 31%	- 8%
Intra-Parish calls peak	5%	64%	30%
Inter-Parish calls peak	5%	34%	5%
Intra-Parish Calls (toll free) peak	16%	18%	283%
Inter-Parish Calls (toll free) peak	13%	6%	100%
Access lines			
Business Exchange Lines Rental	12%	19%	14%
Residential Exchange Lines Rental	11%	23%	5%
Low User Exchange Lines Rental	18%	18%	15%

With the privatisation of the incumbent operator during the 1990s, the fixed line telephone penetration increased from about 5% in 1991 to 19% in 2000 but remained concentrated in the urban areas. Although penetration increased four folds, the waiting list for fixed line service in 2000 was over 214,000, 42% of the fixed lines in service at that time. Mobile penetration increased from 0.6 in 1992 to 9.6 in 2000 but remained low relative to liberalized markets. Low penetration coupled with the absence of competition, resulted in high prices.

Regulatory & Industry Situation Post Liberalization

Partly as a consequence of the rebalancing process (which resulted in higher domestic tariffs), fixed line telephone penetration decreased from about 19% in 2000 to 16.9% in 2003. Additionally, the waiting list for fixed line service reduced from 214,010 in 2000 to 164, 880 in June 2003.

Two new mobile carriers commenced operations in 2001 (Digicel & Oceanic Digital). Facilitated primarily by the reference interconnection offer (RIO) and the resulting agreements between CWJ fixed carrier service Division and the new mobile operators, mobile penetration increased rapidly from 9.6 in 2000 to an estimated 61.5% in 2003.

The fierce competition in the market for international outgoing calls contributed to the per minute (pm) charge for fixed line calls moved from \$27 to call USA, Canada, and UK in 2000 to \$16.50pm in Sept. 2003. Obviously, the rebalancing process contributed to this decline but competition exacerbated the rate at which prices tumbled.

Domestic Industry/Market Analysis

The OUR commissioned a household and corporate survey (December 2003 – January 2004) with a sample size of 1,200 households across the Island and 100 companies from various industries. In relation to the household survey, 86% of the householders indicated that they have access to at least one telephone line. Of this group, 55% had mobile phones only, 38% had both mobile and fixed lines and 7% had fixed lines only.

Fixed Telephony Line Access Market

Until November 2002, the market for fixed line access was monopolized by C&WJ. Since that market was liberalized in September 2002, 29 domestic carrier licences were issued but only one new operator (GoTel) has started offering service. Even so, the degree of market concentration has remained basically the same as 99% of the market was controlled by C&WJ up to March 2003. The extent of C&WJ's market power was confirmed by the survey result, which showed that C&WJ controlled over 98% of the fixed line market for telephony access.

Changes in the Fixed Line Market Structure over Time

Although GoTel's entry into the fixed telephone access market has reportedly satisfied the necessary conditions for effective competition², this is not sufficient to ensure the realization of an effectively competitive market. Entry barriers and competitive constraints sometimes limit the competitive environment in the fixed telephone access markets.

According to a FTC publication, it ... "will generally consider an enterprise to be dominant if it has a 50 percent market share."³ Based on the EU's Article 82 (the equivalent to the Fair Competition Act's Section 20) dominance is presumed if a company has a market share that is consistently over 50%. Up to the entry of GoTel in November 2002, C&WJ's share of the fixed access market was 100%. As at December 31, 2002, C&WJ's market share was 99.5% and as at March 31, 2003, its market share was 99% (see Table 1.2). This is well above the 50% threshold indicative of a presumption of dominance.

Table 1.2 Fixed Telephony Access Line Market Share

Date	1988 - 2001	Dec' 2002	Jan' 2003	Feb' 2003	Mar' 2003
Fixed Telephony Access Lines					
C&WJ	100.0%	99.5%	99.3%	99.1%	99.0%
GOTEL	0.0%	0.5%	0.7%	0.9%	1.0%
OTHER	0.0%	0.0%	0.0%	0.0%	0.0%

Source: OUR calculation based on data from Cable & Wireless and GoTel

Entry Barriers

The FTC's guidelines indicate that, "An enterprise with a persistently high market share may not necessarily hold market power if entry to the market is easy"⁴. However, persistently high market share coupled with high entry barriers points to a dominant market position.

Effective Duplication of Local Loop Access: The local loop is generally viewed as the last area of dominance in the world's telecommunications industry. In the UK, after 16 years of deregulation, British Telecom retained over 80% of the fixed-access market (business and residential) and the rate of erosion of their market share continued to decline.⁵ In most regulatory jurisdictions, the telecommunications legislation enforced by the national regulatory authority (NRA) provides for local loop unbundling (LLU)⁶. This provision is in

² As at 2003, GoTel had installed capacity to serve over 50% of the existing demand for fixed line service.

³ See the FTC's publication: A Guide to Anti-Competitive Practices.

⁴ See the FTC's publication: A Guide to Anti-Competitive Practices.

⁵ <http://program.intel.com/solutions/shared/en/resource/insight/indtrends/stateoftheuk.htm>

⁶ Under Section 83(1) of the Telecommunications Act (2000), the power to make rule in relation to the local loop was deferred until phase three of the liberalization process.

recognition of the fact that it is not economically feasible to duplicate the local loop on any significant scale. In addition to the cost of duplicating the local loop, an entrant would also have to invest additional amounts to encourage subscribers to switch to their service. Ensuring appropriate levels of quality (inclusive of redundancy) would be a major determining factor of substitutability.

It is yet to be seen if GoTel or any other public voice carrier can overcome these hurdles. In the case of the UK, if OFTEL had allowed BT's prices to be removed from price cap regulation based on the liberalization of the fixed access market, the entry of a competitor in 1984 and the further opening of the market since the review of the BT-Mercury duopoly in 1991, then BT's continued dominance would be further prolonged and OFTEL would have failed to protect consumers.

As indicated in the OUR's Guidelines for Assessing Dominance, the OUR has adopted the commonly used Hirschman-Herfindahl index (HHI)⁷ to measure market concentration. The US merger guidelines and those used by EU competition authorities contain explicit thresholds indicating the degree of market concentration as indicated by the HHI. Markets that are not concentrated have an HHI below 1000. A market with an HHI of between 1000 and 1800 is regarded as 'moderately concentrated' and a market with an HHI of above 1800 is regarded as 'highly concentrated'. A market that is highly concentrated is subject to regulatory scrutiny since a monopoly or dominant firm may be operating in this market. A monopoly would have an HHI of 10000, which is the maximum possible value of the index.

It is evident from the market share data in Table 1.2 that the market for fixed telephone access lines is highly concentrated. This is confirmed by the HHI in Table 1.3, which indicates an HHI value greater than 9,700 as at March 2003. This suggest that the market is highly concentrated and, given the rate of decline and the height of market entry barriers, the OUR expects the HHI to remain above 1,800 (the threshold for concentrated markets) for the foreseeable future.

Table 1.3 MARKET CONCENTRATION – HHI

Date	1988 – 2001	Dec' 2002	Jan' 2003	Feb' 2003	Mar' 2003
Fixed Telephony Access Lines	10,000	9,908	9,864	9,820	9,716

Source: OUR calculation based on data from Cable & Wireless and Gotel

Consequently, in August 2003, the OUR determined that Cable and Wireless Jamaica remained dominant in the markets for fixed telephony access and associated domestic calling markets.

The retail mobile markets for access and calling services are distinctly different and much more dynamic when compared to the relatively static markets for fixed line services.

⁷ The Herfindahl-Hirschman-Index (HHI) is calculated by squaring the market share of each firm competing in the market and then summing the resulting numbers. The HHI approaches zero when a market consists of a large number of firms of relatively equal size. The HHI increases both as the number of firms in the market decreases and as the disparity in size between those firms increases. For example, a market three operators with market shares of 30 percent, 30 percent, and 20 percent has an HHI of 2200 ($30^2 + 30^2 + 20^2 = 2200$). The HHI ranges from 10,000 (in the case of a pure monopoly) to approximately zero in perfectly competitive markets. See http://www.usdoj.gov/atr/public/guidelines/horiz_book/15.html

Mobile Telephony

Pre-paid vs. Post-paid Mobile Line Access

Most household respondents (97.5%) indicated that they subscribe to a pre-paid package. This is so even though the post-paid rates are generally lower than pre-paid rates for both on-net and off-net services. What may explain this difference is the fact that post-paid packages require a \$700 to \$5,500 monthly subscription charge.

Market Structure

Regarding the mobile voice service market, the effect of liberalization can be demonstrated by the degree of market concentration⁸.

Based on the number of mobile subscribers, market concentration moved from a high of 10,000 in March 2001 when C&WJ was the only service provider, to 5,482 in December 2001, after the two new licensees entered the market. On the basis of this data, it seems that the markets for retail mobile products and services were initially becoming increasingly competitive. However, market concentration increased from 5,482 in December 2001, to 6,159.83 in December 2003 (see Table 1.4).

Table 1.4: Concentration in Mobile Voice Access & Service Markets

Date	HHI
Mar-2001	10,000.00
Jun -2001	7,261.28
Sep-2001	6,240.20
Dec-2001	5,482.26
Dec-2003	6,159.83

Source: OUR [calculated by number of subscribers].

Calling Rates and Registration Fees

Apart from the rebalancing program, there were other factors acting to reduce international calling prices. These include mandated reductions in the settlement rate and competitive pricing by mobile operators. International mobile calling rates to the USA reduced from a high of \$53 per minute in 2000 to \$17.75 per minute in 2003. In fact, these rates are now lower than some domestic mobile -to-mobile off-net rates. Also, with the phenomenal growth of the prepaid service, registration fees which were as high as \$1500 were driven to nil.

Table 1.5: Peak Retail Prices for Mobile Calls, 2000 - 2003

		2000	2001	2002	Sept. 2003
Registration Fee					
- 4 months		1500	0	0	0
CWJ Fixed to Mobile					
To CWJ Mobile	J\$/min	5	7	7	7
To Digicel Mobile	J\$/min	-	12	12	7
Mobile to Fixed					
Digicel Prepaid	J\$/min	-	12	12	12
CWJ Prepaid	J\$/min	18	10	10	10
International Mobile Rates*					
CWJ to USA, Canada and UK	J\$/min	53	28	18	18
Digicel to USA, Canada and UK	J\$/min	-	30	17.75	17.75

Source: OUR

⁸ See http://www.usdoj.gov/atr/public/guidelines/horiz_book/15.html

In relation to settlement rates, while the FCC has not dropped its benchmark below US\$19 cent per minute, there are reports of termination rates to Jamaica at and below US\$13.08 cent per minute. One operator reports that calling number delivery is on average less than 50% for incoming international calls. This may have contributed to a “reverse whipsaw effect” where US carriers may now be in a position to indicate to a Jamaican carrier that it can secure lower termination rates to terminate traffic to Jamaica than that quoted by a particular carrier.

Domestic Mobile (Cross Network) Retail and Termination Rates

Based on information available to the OUR, in 2002, the mobile subscriber access was about evenly split between C&WJ and Digicel. However, the 2003 survey revealed that Digicel controlled as much as 75% of the mobile access market based on the number of subscribers. About 11% of the respondents indicated that they have access from two or three providers. The respondents (83%) indicated that the main reason for having more than one provider is to avoid cross provider calls.

Respondents to the 2003 survey indicated that there are two main factors that are considered when deciding which service provider to use. These are the cost of making calls (30.8%) and the coverage of the service (28.1%). In relation to the price of making calls, a comparison between the off-net and on-net MTM charges demonstrates what a prominent economist (Jeff Rohlf) refers to as the “waterbed effect”. That is, as the on-net charges fall, off-net charges tend to move in the opposite direction. In 2002, ODJ had the lowest on-net rate of \$7.00 per minute (pm) and an off-net rate of \$17.70 pm. In 2003 its on-net rate declined to \$4.00 pm while its off-net rate increased to \$19.70 pm.

It is important to note that the off-net MTM rate changes were due to adjustments in terminating charges by the terminating carrier. In most jurisdictions that use the CPP regime, the regulators are of the view that mobile call termination is in fact a monopoly service. Thus, operators are able to set termination charge without being constrained by competition.

Call Termination: The Major Potential Problem in Mobile Markets

Given the dynamic nature of retail mobile markets, the level of concentration is likely to vary due to competitive pressure. However, it is also possible for these markets to become increasingly concentrated as a result of anticompetitive behaviour from operators with market power. Thus, although the retail markets for mobile services are treated as competitive, these markets need to be monitored regularly to ensure that they remain competitive. This underscores NRA’s need for accurate and timely data from licensees. To this end in April 2004, the Office issued its decision on Information Requirements for telecommunications markets.⁹

Increased market concentration may also be symptomatic of a greater problem, of excessive pricing for mobile call termination. For example, some fixed line subscribers may opt to join the network with the relatively higher fixed-to-mobile (FTM) rate in order to avoid the high cost of calling subscribers to that network from their fixed line, choosing in some cases to make cheaper on-net mobile -to-mobile calls instead.

During the consultation on mobile call termination, the OUR’s position, although subject to change depending on information submitted during the consultative process, was that the markets for this service are monopoly markets. This was based on the fact that mobile termination for each mobile operator’s network is a distinct market with no competition. This allows mobile operators to set interconnection rates above cost. It is not coincidental that at least five major regulators have come to the same conclusion.

Australia

On June 4, 2004 the Australian regulator -- Australian Competition and Consumer Commission (ACCC) -- issued its final report on mobile termination, confirming its draft decision to maintain regulation. The final decision introduces a direct pricing principle, which requires mobile termination rates to move toward cost.<<http://www.accc.gov.au/content/index.phtml/itemId/520448/fromItemId/459302>>

France

On April 16, 2004, the French regulator -- Autorite de Regulation des Telecommunications (ART) -- published its first formal public consultation document concerning voice call termination on individual mobile networks.

⁹ See <http://www.our.org.jm/PDF-FILES/Information-Requirements-Determination-08-04-04.pdf>.

ART finds the three main mobile operators on the French mainland (Orange, SFT, and Bouygues Telecom) with SMP and puts forward obligations of, among others, a glide-path to reduce termination charges (with defined maximum charges for years 2005, 2006, and 2007), leading to a cost-based rate in 2007.

www.art-telecom.fr/publications/c-publique/consult-16av04.pdf

Ireland

On July 30, 2004 (the EC cleared in July), the Irish regulator -- Commission for Communications Regulation (ComReg) -- after an extensive market review, designated the four mobile operators (Vodafone, 02, Meteor, and 3) with SMP on their own networks and now must impose ex ante regulatory obligations. ComReg has consulted on such obligations and had proposed a requirement to reduce termination rates to the costs of an efficient operator. <http://www.comreg.ie/fileupload/publications/PR300704.pdf>

Sweden

On July 6, 2004 (the EC cleared in June), the Swedish regulator -- Post-och Telestyrelsen (PTS) -- ruled that TeliaSonera, Tele2, and Vodafone have SMP and must have cost-based interconnection. The cost-based rates are to be phased in over 4 periods: July 1, 2004 and each July 1 thereafter until 2007. <http://www.pts.se/Sidor/sida.asp?SectionId=1349>

U.K.

On June 1, 2004, the British regulator -- Ofcom -- published its final decision in the Mobile Termination Market Review, finding the four mobile operators (Vodafone, 02, T-Mobile, and Orange) with SMP and ordering the mobile operators to reduce average termination rates. <http://www.ofcom.org.uk/consultations/past/wmvct/wmvct.pdf>

European Union

On February 11, 2003 the European Commission (EC), in its Recommendation on Relevant Product and Service Markets, identified the mobile termination market as suitable for ex ante (i.e., before the event) regulation as part of the new EU regulatory Framework, which came into effect July 25, 2003.

http://europa.eu.int/information_society/topics/telecoms/regulatory/maindocs/documents/recomen.pdf

Dominance in Mobile Voice Call Termination Markets

The Office commenced its "Assessment of Dominance in Mobile Call Termination" in March 2000 and issued its Decision in September 2004. Dominance in telecommunications markets is defined in accordance with Section 19 of the Fair Competition Act (FCA). This section states that, "... an enterprise holds a dominant position in a market if by itself, or together with an interconnected company, it occupies such a position of economic strength as will enable it to operate in the market without effective constraints from its competitors or potential competitors." That is, the analysis of dominance must take place in a defined relevant market and should demonstrate that an entity has sufficient market power that enables it to act (by itself or in concert with other entities) without being effectively constrained by its competitors or potential competitors.

*Relevant Markets*¹⁰

The relevant markets in relation to voice call termination are the:

- wholesale market for voice call termination on Mossel's (Digicel's) mobile telephone network
- wholesale market for voice call termination on Cable and Wireless' (C&WJ's) mobile telephone network
- wholesale market for voice call termination on Oceanic Digital's (ODJ's – formerly Centennial) mobile telephone network

Market Share

Since there is no effective substitute for call termination on a given network, all mobile operators have 100% of their respective call termination markets. According to an FTC publication, it ... "will generally consider an

¹⁰ For a detailed definition of the relevant markets, see the Office's Decision on the "Assessment of Dominance in Mobile call Termination" at http://www.our.org.jm/PDF-FILES/Mobile%20Call%20Termination_Determination%20Notice31-08-04.pdf.

enterprise to be dominant if it has a 50 percent market share.”¹¹ Based on the EU's Article 82 (the equivalent of the Fair Competition Act's Section 20) dominance is presumed if a company has a market share that is consistently over 50%. However, since market share does not provide conclusive evidence on dominance in a relevant market, an assessment of entry barriers and other competitive constraints is necessary.

Entry Barriers

Given that mobile voice call termination to each mobile operator's network constitutes a separate market, there are no existing competitors. From a wholesale level, there are no technologies that allow an originating operator to choose the network on which a call is terminated. Further, since each operator is obligated under the Act to provide its subscribers with any-to-any connectivity and end-to-end operability, originating operators must purchase mobile voice call termination services from mobile operators. This technological entry barrier is further reinforced by the CPP arrangement. Since the calling party pays the total price of a call to a mobile phone (and indirectly for the charge for termination service), there is a disconnection between the calling party, and the person who makes the choice of the terminating mobile network and who therefore, influences the level of the termination charge. Thus, because its customers are not affected by high termination rates, mobile operators lack incentive to reduce these rates.

Even if the technology existed for callers to mobile subscribers or originating operators to select a terminating mobile operator based on price, the practice of SIM card locking would limit, if not nullify any effort at an alternative. Therefore, the markets for mobile voice call termination are viewed as having technical barriers to entry. Using existing technologies, a call to a mobile subscriber can only be terminated on the network that the called subscriber is on. The originating operator cannot use the voice call termination service of one operator as an alternative to the mobile voice call termination service of a mobile operator. These kinds of technological exclusion create barriers to entry, which usually justify *ex ante* regulation.¹²

Market Power and Dominance

Increased competition between mobile service providers is expected to reduce the on-net MTM retail rates. But, competition for subscribers is not likely to reduce the off-net and FTM call termination rates. The fact is termination on one mobile network cannot be substituted for termination on another network. That is, at the wholesale level, there are no technologies that allow an originating operator to choose the network on which a call is terminated. At the retail level, a caller from the PSTN or from mobile network *A* who desires to contact a subscriber on mobile network *B* cannot use the termination service offered on mobile network *C* since the subscriber is not located on that network. Mainly due to the technological barriers to entry, the Office determined that each mobile carrier is dominant with respect to the call termination service offered.

This position was in direct contrast to the views held by the political directorate. As expressed in the Ministerial Order of April 2002, the OUR was directed not to intervene in the mobile markets, even though it was within its legal authority to do so. May be the thinking behind this directive was that regulation should be limited to the incumbent and new entrants should not be subject to regulation. It is possible that the success of the entrants convinced the political directorate that regulation is not necessary. However, in a market environment where operators participate in both competitive and non-competitive markets, it is quite possible that for perceived non-dominant players to evolve into major dominant players.

If the Office had turned a blind eye to the issue of mobile termination, it would have ignored its responsibility under the Act. Also, its action would have been in favour of the operators and at the expense of the customers, a cardinal 'regulatory sin' based on the principles of proper decision-making. The Office's decision to continue to pursue this matter in court is clear evidence of the degree of transparency which it is will to submit to.

¹¹ See the FTC's publication: A Guide to Anti-Competitive Practices.

¹² See Saunders and Dempsey, May 2002, Market Definition for Regulatory Obligations in Communications Markets (A Study for the European Commission).

The Quest for the Competitive Outcome via Independent and Transparent Regulation

Irrespective of the gains of competition in some markets, the OUR must guard against complacency. Based on the estimates of subscribers to the various service providers, the industry is beginning to show a tendency towards increased concentration. Where this is due to the abuse of market power, this must not go unchecked. However, the path to competitive outcomes via regulation is fraught with obstacles. There is the possibility of increasing investment risk through increased regulatory risk and the ever-present danger of regulatory capture. Arguably, if NRAs continue to improve on their degree of transparency, consistency, expedition, accountability and independence, this will consistently reduced regulatory risk and the possibility of capture.

At the World Dialogue for Regulation (WDR) Expert Forum, the third agenda item ...“focused on improving [the] regulatory processes and performance. The overall assessment was that, despite significant improvements in many countries with respect to transparency, consistency, expedition, accountability and independence, most countries could implement further improvements and a large number of countries still have a long way to go. Some countries have lost ground in recent years, including the US where most major issues are bound up in lengthy and costly legal disputes. It was suggested that the identification and measurement of regulatory performance indicators is needed to benchmark NRAs. But there is no agreement yet on what they should be or how they should be measured.”¹³

In relation to this assessment, it is important to examine Jamaica’s and the OUR’s standing with regards to the degree of transparency of its procedures and decisions; and how the level of transparency impacts on the degree of regulatory risk and the likelihood of regulatory capture.

Independent Regulator

It often said that a desirable feature of a utility regulator is independence. To function effectively, the utility regulator must be independent of all stakeholders (government, operators and consumers). The independent regulator should balance the interest of operator and consumers in an effort to achieve a welfare-maximizing outcome.

Based on Rogoff’s model of “Delegation to an Independent Regulator”¹⁴, there will be under-investment by a utility service provider unless the government is able to commit to a price rule before investment is made that guarantees a sufficient return to the firm. According to Rogoff, revisions of the rule will be indistinguishable from reneging unless the basis for these revisions is completely transparent.

Similar to the independent central bank which main purpose is to eliminate the temptation to engage in surprise inflation, the primary purpose of independent utility regulator is to eliminate the temptation to engage in a surprise cut in the regulated price, or surprise regulation of unregulated markets. If such surprises can be eliminated, this will act to support rather than discourage investment.

Before the OUR makes any decision or determination on an issue (price or otherwise), it issues a consultative document and invites responses from the public on the matters raised therein. Time is allotted for comments on these responses before any determination is made. Additionally, the Office is obligated to give the reasons for its decision. The consultative document, responses, comments and the determination notice are all placed on the OUR’s website. Also, copies are placed in the OUR’s Information Centre.

This consultative process can be supplemented by other ways of gathering information and soliciting views. These include:

- Public hearings
- Public meetings, seminars or workshops
- Individual meetings between interested parties and the OUR’s staff
- Working groups of representatives of service providers and/or consumers to address specific questions; and
- Consultations with independent advisors

¹³ See <http://www.regulateonline.org/forum2003/expertforum.htm>

¹⁴ <http://www.econ.surrey.ac.uk/plevine/lst2002version8%5B1%5D-4.pdf>.

The Office also notifies the public of its decision by publishing a notice in both major daily newspapers. Given this level of transparency, it is not expected that the decisions of the OUR should result in under-investment. Operators and consumers can correct any errors of fact, provide clarifying information, suggest changes in the OUR's approach or methodology or make any other suggestion in relation to the OUR's proposed course of action. Further, the Office's decisions can be challenged by appeal to the Telecommunications Tribunal and through the courts.

Let us examine a recent example. In relation to mobile call termination, in February 2001 the Office decided to fix the maximum retail rate for fixed-to-mobile calls at \$12.0832 per minute and the minimum retail rates that can be charged are the retail rate for calls from C&WJ's fixed network to C&WJ's mobile network. This approach worked well for new entrants since it allowed them to charge a relatively high price for a non-competitive service. However, based on subsequent information obtained by the Office, this price range was in excess of cost.

Now, if the Office had simply decided to reduce these rates without conducting a transparent consultation on the matter, this would amount to what Rogoff describes as a revision of the price rule that is tantamount to renegeing on the earlier commitment. The likely consequence of this change would be under-investment as suggested by Rogoff.

At least one respondent to the consultation on dominance in mobile call termination indicated that the likely impact of a declaration of dominance by mobile operators is under-investment. Two major reasons explain why this is not likely to be the case:

- 1) The fact that the Office gave the basis for the likely revision in the prices via a completely transparent consultative process; and
- 2) If price remain above cost, this is likely to transmit the wrong signal to the rest of the economy, resulting in under-investment in other sectors. Setting prices that are cost oriented will free resources that can be allocated to other economic activities. Consumer welfare is expected to increase with lower price and higher equilibrium output in terms of calls terminated – an improvement in allocative efficiency.

Regulatory Capture

The capture theory of regulation defines regulatory capture as the ...“control of a regulatory agency by those entities, usually the businesses of a particular industry, that the agency is designed to regulate. Those industries subject to economic regulation that is intended to protect the public interest (consumers) invariably find it beneficial to exert influence over the regulatory agency. One common way of doing this is to have former or future employees in the industry "temporarily" work for the regulatory agency.”¹⁵

Given the limited human resources available in many developing countries, employees often move between the regulator and the operators. This is certainly the case in Jamaica. Based on the labour laws and a country's constitution, it is not possible or desirable to restrict employee movement to minimize regulatory capture. Regulatory capture is most likely minimized by facilitating increased levels of transparency.

It is generally believed that the consultative process and any decision coming from this process must protect the legitimate interests of shareholders and customers. However, some (including Rogoff) have argued that, in itself, protecting the rights of investors, reduces investment risk premia and the cost of capital and hence further reduces the costs of investment to the utilities and thereby lowers prices to consumers. Thus, one could go further by suggesting that regulatory capture is of little consequence since the consumers will benefit once the regulator acts in the interest of the operator.

This may be true for competitive markets; however, if the telecommunications markets were truly competitive, there would be no need for a regulator. As in the case in Jamaica, telecommunications markets any jurisdiction is likely to be composed of a mix of competitive and non-competitive markets. Where markets are not competitive there is no guarantee that the benefit of lower output cost will be passed on to the customers. Although Jamaica (like many other developing countries) has opened its telecommunications markets to

¹⁵ See <http://www.amosweb.com/cgi-bin/gls.pl?fcd=dsp&key=capture+theory+of+regulation>.

competition by removing the major licensing restrictions, there are still formidable entry barriers to some of these markets. Therefore, whenever markets are not effectively competitive, the NRA must seek to balance the interest of operators and customers.

To the extent that the decision making process is transparent, NRA's will be constrained by both operators and customers to the extent that both participate in the consultation process. Therefore, transparency is an important principle in ensuring that NRAs balance the interest of operators and customers, and avoid the risk of regulatory capture. As expounded by the Australian Communications Authority the principles of proper decision-making are:

- Decisions must be within the legal authority of the regulator;
- The regulator must consider all relevant matters and disregard all irrelevant ones;
- Decisions should be made in good faith and for proper purposes;
- Factual underpinnings of the decisions must be based on evidence;
- Decisions must be reasonable;
- Those affected by the decision must be accorded procedural fairness (including the right to respond to prejudicial arguments and evidence that may be taken into account);
- Government policy must be taken into account; and
- Independent regulators must not act on the direction of other persons

To conclude, if guided by these principles, the NRA will be well positioned to facilitate the growth of truly competitive markets and effectively regulate those markets where entry barriers are still too high. Particularly related to transparency, it is expected that there is a negative correlation between transparency, and regulatory capture and risk. That is, the higher the degree of transparency, the less likely is the risk of capture and the lower will be the regulatory risk.

Since telecommunications regulation is a tool to achieve national goals, effective management of policy issues requires a national regulatory agency (NRA) with adequate powers, transparent decision-making, and clear and stable policies. Further, telecommunications in developed countries is increasingly being affected by regulatory decisions in other countries. Therefore, effective and responsible management by the government and NRA in one country of their relations with NRAs in other countries is necessary. "This could not be more clearly demonstrated than by the impact of the... "benchmark" decision on accounting rates by the FCC, although the FCC is not the only regulatory agency, which makes unilateral decisions which broadly impact carriers from other countries. Decisions with far-reaching international effects should be made only after extensive bilateral or multilateral consultation."¹⁶

¹⁶ http://www.itu.int/osg/spu/wtpf/wtpf98/trade/reg_coll/7th/7th_colloquim.html.

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