



IMPLICATIONS OF THE LIBERALISATION OF TELECOMMUNICATIONS FOR THE CARIBBEAN

Innovation and change in telecommunication and information technologies have proceeded at a rapid pace in the past decades. The dynamism in these sectors has resulted from two important features of the sectors. The first is the ability to create or build new services on old systems or platforms, for example, standard radio technology could be adapted to carry data and voice material. The second is the scope for creating new services in the sector and to transform and increase productivity in traditional activities by these technologies. As figure 1 below shows, international telecommunications traffic, revenue and competition have grown rapidly between 1990 and 2000.

A crucial new trend, the convergence of information and communications technologies will continue to have a profound impact on progress in societies. Further, technological advances, including the move from analog to digital transmission systems, have transformed telecommunications from a supply-constrained to a demand-driven¹ sector. This implies that the objective of universal access to telecommunications services in countries is now much more feasible than a decade ago.

Table 1: Ten Years of Change in the Telecom Sector

Indicator	1990	1995	2000
International Traffic (billions of minutes)	33.5	61.6	132.7
Revenues from International Traffic (billions of US\$)	\$37	\$55	\$70
Countries Permitting Carrier Competition	6	18	49
Top 20 Carrier's Share of World Traffic	86%	72%	50%
Market Share of New Carriers	<1%	5%	31%
Countries Permitting International Simple Resale (ISR)	0	2	35

Note: New carriers include only carriers that began facilities-based operation after 1989.

¹ The technology is now available to supply telecom services to most consumers in countries, subject only to consumer income and demand.

Source: TeleGeography research (2001)

In the Caribbean, telecommunications technology until recent times have centred on the traditional telephone, fax and other such services. However, with the development of the new technologies in the area, the region has been accessing the newer systems, including cellular telephony, software and data services and voice-based systems. More than ever, today telecommunications is influenced by the confluence of supply and demand factors. On the supply side, rapid change and innovation in technology have improved the quantity and quality of products and services. Meanwhile on the demand side, the liberalisation of the sector in many countries has accelerated, as a means of improving benefits of technological advancement for both producers and consumers. However, from a political economy perspective, analysts² suggest that liberalisation is pushed by transnational corporations as a means of diffusing their products and processes to increase their return on investment.

Traditional telecommunications services in the region, like financial and other services, were developed as part of a chain of multinational enterprises, in particular, Cable and Wireless in fixed line telephone, fax and other services market. These services were provided under a monopoly market structure, with little or no competition. Indeed, the high costs of telecommunications infrastructure and equipment meant that the sector was regarded as a 'natural monopoly' thereby precluding supply under competitive markets. This led to high relative user charges compared with developed countries and often inefficient and unreliable service delivery. The captive market provided by the monopoly arrangement also dampened the impetus for modernisation, innovation and research and development in the regional sector. In fact, services were provided on a tacit take or leave it understanding. These factors contributed in no small way to calls for the liberalisation of the sector.

The Liberalisation Process in the Caribbean

In the 1980s in particular, the liberalisation of the services sector was put squarely on the agenda of the General Agreement on Tariffs and Trade (GATT). At first six services areas were considered for liberalisation: transportation, financial services, telecommunications, construction, tourism and professional services. Liberalisation of telecommunications was due as much to political economy forces as to technological change and upgrading. The reality was that a strong constituency evolved in developed countries in favour of liberalisation, in the expectation of penetrating markets in monopoly regimes around the world. Commensurate with this, telecommunications were defined as "trade in services" implying that natural monopolies are barriers to trade which should be eliminated. Importantly, the institutional oversight for telecommunications moved from the International Telecommunications Union to the GATT/WTO. Since the WTO has teeth to enforce regulations, countries could face sanctions for not honouring their obligations and commitments under the General Agreement for Trade in Services (GATS).

In the early stages of the GATT negotiations, natural monopolies were allowed in basic telecommunications services, but it was stipulated that enhanced services should be progressively liberalised. Also, countries were required to move to cost-based pricing instead of

² For example, Stephen McDowell in looking at the Indian Telecom policy and William H Melody in assessing the Information Society.

cross-subsidisation of different segments of telecommunications services and to provide non-discriminatory access to national services for foreign users.

The need for liberalisation in the telecommunications sector in the Caribbean assumed significance under the structural adjustment and economic liberalisation programmes supported by the International Monetary Fund (IMF) and other International Financial Institutions (IFIs) as early as the latter 1980s. Liberalisation, it was felt, could catapult competitiveness in the sector, lower prices and provide the impetus for new sectors and products. However, no real momentum was achieved until regional governments signed on to the GATS in 1997. The GATS commitments provided a powerful and credible force for liberalisation, since governments could put Cable and Wireless, the monopoly provider of services, on notice that liberalisation was part of compliance with international obligations.

Unfortunately, the Caribbean Community (CARICOM) failed to devise a region-wide approach to liberalisation and, instead, individual countries have been following their own process and time table. In the Organisation for Eastern Caribbean States (OECS), the High Court ruling in Dominica in 1999, declaring Cable and Wireless' exclusive licence unconstitutional provided the impetus for reform in the subregion. The Incumbent provider, Cable and Wireless, was granted 12 to 18 months before the market was opened for competition. As of 1 April 2002, phase one of liberalisation began with the opening of internet provision to competition.

The governments of the OECS established the Eastern Caribbean Telecommunications Authority (ECTEL) in 2000 to oversee the liberalisation and regulation of the sector. The liberalisation process is proceeding in the subregion. The legal framework has been harmonised, a number of licences have been issued and issues such as spectrum management and interconnection have been dealt with. Licences have been mainly for the provision of mobile services, since this was expected to be the first major area of competition. A number of carriers, including AT&T, Digicell and Carib Globe have been issued licences in the different islands. Importantly, the OECS has put in place obligations for carriers to meet minimum quality standards and a mechanism with penalties to address customer complaints. Notably, ECTEL has a fair measure of independence of and insulation from political manipulation, thereby ensuring a fair degree of transparency in its operations.

Cable and Wireless Jamaica Ltd. (CWJ) had exclusive licence to provide telecommunication services in Jamaica until March 2000. In 1999, an agreement was reached to break the monopoly of CWJ and to liberalise the sector in three phases. The first phase from 1 March 2000 to 31 August 2001 saw the liberalisation of the mobile market. Phase two, which was slated to end in February 2003, saw the issuing of licences for domestic carriers, provision of internet service provider (ISP) licences and resale of domestic voice minutes. Phase three, which was slated to begin in March 2003, would see the opening of all services, including international voice telephony to competition. Phase two of the liberalisation process is now in train with a number of firms being granted licences to provide fixed and mobile services and ICT services. Mobile players including Digicell, an Irish-based company, Centennial and CWJ Mobile are now active in the market.

In spite of the fact that the market is not liberalised, at 42 lines per 100 inhabitants, Barbados has a high teledensity relative to other Caribbean countries. Although monopoly rights for the incumbent Cable and Wireless were slated to extend to 2012, the government hopes to introduce competition by 2003. Independent operators already provide internet services, leading to limited competition.

Atlantic TeleNetwork (ATN) of the US Virgin Islands holds 80% of the shares in the Guyana Telephone and Telegraph Company (GT&T). In keeping with trends in the region, the government plans to open the sector to competition, but has been met with resistance from ATN.

Trinidad and Tobago attempted to open the mobile segment to competition in 1999. However, this was blocked by a challenge in the courts. Legislation was passed in 2000 to prepare for liberalisation, but no serious effort has been made to date to open up the market.

Countries seem set to continue the stage-by-stage approach to opening up the telecommunications sector. This should help to keep regulation somewhat abreast of liberalisation. Interestingly, many of the new players in the market have been attracted to the newer segments such as mobile, which, unlike fixed line services are perceived as the new growth areas. This might be due in part to a perception that fixed line services are still close to natural monopolies as a result of the high outlay of fixed costs.

In recent times, Caribbean countries have also witnessed increasing use of newer technologies such as Voice over Internet Protocol (VoIP), multimedia and network services. VoIP, in particular, could become more attractive in the future as a means of providing cheaper international telephony services.

Implications of the liberalisation Process for the Caribbean

Liberalisation of telecommunications and other sectors is often seen only as a beneficial process but there are risks that must also be considered. With their significant thrust into services, Caribbean governments and people are quite aware of the need for affordable, reliable and efficient telecommunications services. Moreover, although in the past the concept of universal access was a forlorn hope³, policy makers now recognise that deeper and more diverse access to telecommunications is crucial to creating the critical mass of knowledge for a service-driven information society.

Pricing and tariff structures in the regional telecommunications sector have been major areas of complaint and dissatisfaction. The reality is that Cable and Wireless, the previous monopoly provider of services, negotiated lucrative agreements that ensured guaranteed profit margins⁴ with insufficient attention being paid to cost and quality of service. Although not far advanced, the liberalisation process in the region has already been shifting the focus of telecommunication carriers from revenue-optimised tariffs/prices to more competitive and cost-based prices. Indeed, even the partial liberalisation of the sector in the Caribbean has led to

³ See IT and Public Sector Reform in the Caribbean: A Role for the Internet?, COMNET- IT Forum

⁴ In Jamaica, Cable and Wireless was guaranteed a rate of return on investment of not less than 17.5% nor more than 20% on revalued assets annually. This was rather generous by most standards.

declining prices for households and businesses. Attesting to the power of opening up, the decline in prices, particularly in the long distance calls segment, has been greatest in Jamaica where the liberalisation process is most advanced. Also in Jamaica, for example, the average household spends about 5.5% of disposable income on telecommunication services, but this is expected to decline with liberalisation, providing savings for other items of expenditure such as education. However, the incumbent service provider has been rebalancing rates by charging higher prices for domestic services to compensate for the decline in prices of international calls. By contrast, the near monopoly situation in Trinidad and Tobago has resulted in the maintenance of relatively high prices.

Of tremendous importance has been the impact of liberalisation on the range and quality of telecommunications services offered in the Caribbean. There has been more rapid growth in fixed line telephony services. In Jamaica, for instance, there were around 1.4 million telephone lines in mid-2002; this was roughly twice the number in service at the end of 2001. Liberalisation has opened a window of opportunity for small and more flexible operators to enter the market for mobile phones, multimedia and network services. Most Caribbean countries experienced growth in these services during the last five years, which provided opportunities for small domestic enterprises. In Jamaica, for example, by mid-2002, about 900,000 cellular lines were installed with roughly half of these provided by Digicell, the new service provider. In fact, it is foreseeable that Jamaica could become significantly oriented towards cellular telephony in the not too distant future, especially given the difficulty of installing fixed lines in more remote areas. Other services such as VoIP have also caught on as a means of bypassing Cable and Wireless' network and providing cheaper long distance telephone calls.

Notably, regional policy makers are seeking opportunities that result from the convergence of ICT. Most governments in the region have been promoting informatics and telematics and e-commerce services. However, although the region possesses advantages in terms of a trainable workforce, English language proficiency (in CARICOM) and the proximity to the United States, high telecommunications costs and low quality service have hindered the growth of the sector. Full liberalisation of the telecommunications sector presents a major opportunity for capturing niches in middle to high skilled database management, software development and multimedia segments of the market. This could contribute in no small way to the restructuring of regional economies and make an important dent in the unemployment situation in the region. Much would depend, however, on how the region continues to position itself to take advantage of new opportunities that arise from ICT. It must be emphasised that technological advancement does not eliminate the development problem. Therefore policy makers still need to facilitate the development of the "infrastructure" in terms of education and training, acquisition and diffusion of the technology and research and development to optimise the benefit from the new technologies.

Of signal importance is the part that telecommunications liberalisation can play in structural transformation and economic diversification. This underscores the wider development potential of the sector and situates it within the whole ICT revolution. The role of telecommunications as an industry in itself has been noted, but probably even more important is its potential for revitalising and transforming traditional industries and services. This potential can be realised through enhanced value added and productivity of these sectors. The economic

literature has pointed to the importance of clusters of services in promoting innovation and new products. Telecommunications liberalisation, by facilitating entrance into old and new segments of the market for conventional and value added services, for instance, could create a cluster of affordable but high quality telecommunications services that could help to transform traditional sectors.

With respect to specific sectors, tourism in the region has already benefited much from online bookings, all-inclusive electronic settlements and streamlined managerial processes on account of the use of ICT. Lower telecommunications prices and new products could accelerate the process in this critical sector. The services component of many manufacturing industries is quite high in today's world. Telecommunications technology can be used to rationalise many of these service operations through reduction in paperwork, real time transmission of information and responding to customer demands and needs.

As the liberalisation process gathers momentum, three critical areas need to be addressed with care and attention. These are inter-operability and inter-connection. Universal service obligation (USO) must be an essential plank of policy in an effort to bridge the growing digital divide in the region. The USO is designed to guarantee that geography or location does not deprive people of basic telecommunications services. It is a tacit acknowledgement that such services are essential to the well-being of consumers. Indeed, even the World Trade Organization (WTO) recognises the USO principle and allows members to define their own USO provided that it is transparent, non-discriminatory and competitively neutral. In the Caribbean, USO is only now being enshrined as a principle of telecommunications policy - a major bonus of the liberalisation process. Importantly also, USO in the region is configured to include access to internet and other new telecommunications services, which is a progressive and proactive move. With respect to inter-connection and inter-operability, countries have introduced legislation to ensure fair and reasonable access to the networks of incumbents for new carriers.

Increased competition that is galvanised by liberalisation is expected to lead to more diffused access to telecommunications services. This has occurred in the television (TV) market with competition from cable TV and satellite networks raising the spread of TV viewing even in remote areas. Also, teledensity, the number of main lines per 100 inhabitants, has actually increased with even the limited opening in the region. Interestingly, the burgeoning growth in cellular/mobile telephony has provided crucial access to telecommunications for persons who have been for a considerable length of time on the waiting list for fixed lines. Growth in demand for mobile phones have been spurred by reduced costs, the introduction of 'calling party pays' and roaming technology that allows use of cellular phones in other countries on standard carrier platforms. For example, users in Jamaica and the OECS, which are on the same Cable and Wireless platform, can use their cellular phones in each other's countries. From a commercial standpoint, it is hoped that mobile phones would be used increasingly for conducting business transactions, especially since ICT convergence now allows phones with internet access, e-mail and other options.

Although liberalisation holds many potential benefits for the region, it also presents a number of challenges and threats. As is often said, it is not only what liberalisation entails that is important, but also how it is implemented that matters. A critical factor that will influence the

success or failure of liberalisation is regulation. The possibility is not too remote that the region could replace public sector monopoly with private sector oligopoly that engages in collusive pricing to the detriment of consumers. The only way to prevent this is to institute proactive and effective regulation. Referring to the case of Jamaica, Stirton and Lodge noted the need for regulation to be embedded in the social and cultural environment. This, they argue, leads to regulation that is focused not only on regulatory actors and capacity, but also on the structural factors that facilitate the creation of development networks that promote the institutionalisation of regulatory practices.

The reality is that even in a liberalised market, incumbent providers tend to have a fairly entrenched dominant market position. This is evident in the case of Cable and Wireless. Adequate regulation is critical in such a situation as a safeguard to prevent dominant players from adopting uncompetitive and discriminatory practices against new entrants. There are a number of practical issues that have to be dealt with to ensure fair competition. An important requirement is separate accounting for the value-added segment of operations and the domestic retail segment to ensure transparency of operations. Regulation must also ensure that the prices that the incumbent charges for retail, value-added services and inter-connection reflect real market costs rather than subsidised costs.

Regulation must also cover issues relating to the allocation of spectrum, medium, the numbering plan⁵ and licences. With respect to licences, countries have found it difficult to devise an optimum solution. Jamaica has favoured the auction system of allocating licences since this has the advantage of maximising revenues, a portion of which has been used by the government to diversify into ICT activities such as call centres. In the OECS, however, ECTEL, the regulatory authority is concerned that the auction favours large investors to the detriment of smaller players. In addition, although governments are concerned that local and regional entrepreneurs will be able to capture a segment of the market; active government support to them is deemed to be industrial policy that contravenes WTO rules. Importantly, as the market becomes more competitive, public sector regulators need to retreat and allow private sector actors more room for implementing regulatory measures.

Given past public dissatisfaction with the provision of service, regulatory bodies have included consumer protection as an important plank of policy. Consumer protection is really geared towards ensuring that the strategies of providers do not have adverse effects on consumers. Some countries have considered whether general consumer protection policy is not sufficient to cover telecommunications. However, at this early stage of liberalisation it seems that specific consumer protection measures for telecommunications are required to prevent abuse by more dominant market players.

One important aspect of consumer protection that has come with liberalisation is the customer service guarantee. The reality is that although the universal service obligation ensures that a person can have a phone or other telecommunications service where he lives, it says nothing of the quality of the service. To protect consumers, regulators in the region are including minimum customer standards for basic services.

⁵ The numbering plan is the form of organizing telecom service numbers. It is made up of groups of digits containing specific elements used to identify services to specific geographic areas, networks and customers.

However, as essential as regulation is to telecommunications liberalisation, it is far from sufficient for its success. The fact is that liberalisation must be complemented by a number of capacity building and infrastructure requirements to impact positively on development. It is beyond dispute that the human resource capacity of the region is inadequate to meet the technical and managerial demands of a rapidly changing telecommunications sector. If the region is not to be relegated to low-end segments of this crucial sector, a clear and pragmatic human resource development programme needs to be put in place quickly to meet its manpower needs. Policy makers, to their credit, have been making some efforts in this area, but with changes taking place so rapidly on so many fronts (technology, management, negotiations, etc.) there is need for a rapid process of catching up with training demands. Moreover, the training of a cadre of skilled persons in telecommunications is particularly important, since the sector presents many opportunities for small operators to capture niches in the high quality segments of value added services such as VoIP, multimedia services and mobile services.

Telecommunications, the Information Society and the Way Forward

What then is the pivotal role of liberalisation in the dynamic political economic environment of today? It seems that an important plank of this role or function must be strategic positioning to benefit from the information society. The information society means different things to different people. But in essence, it is founded on the ICT revolution and refers to a society in which production, exchange and human interaction is progressively influenced by the use and exchange of information. In fact, the information society is a wider dimension of the 'knowledge-based' society. The dramatic changes in modes of production and trade means that competitive advantage will increasingly be based on mastery in the use and dissemination of information.

Whether, Caribbean governments and people subscribe to the notion of an information society as such, without doubt there is a need for the region to be more resourceful in the use of information. Liberalisation of telecommunications provides a launch pad for more creative ways of using such services as an information system to add value to production and enhance efficiency in managerial and administrative systems. Practical efficiencies can result from reducing paper work in business and administration, reducing the time-to-market for products, limiting inventory and having real time knowledge of consumer wants and preferences.

The thrust into services in the region calls for an integrated strategy in dealing with ICT. The use of electronic networks and digitalisation in services holds the potential for creating significant positive 'network externalities' that can accelerate productivity in the sector. An important factor is that the variable cost for additional digital services is quite low. Therefore, once the fixed cost in hardware and software has been covered, additional services can be 'produced' at minimum cost. This suggests that liberalisation of telecommunications, acting as a catalyst for ICT, could lead to increasing e-business, e-government, e-health and other electronic services in the region. Although e-commerce and other electronic activities have not yet taken off as expected, countries, such as Jamaica and to a lesser extent the OECS, where the liberalisation of telecommunications is proceeding most rapidly, have probably the greatest potential for developing these activities in the medium term.