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SRI LANKA'S TELECOMMUNICATIONS INDUSTRY: FROM PRIVATISATION TO ANTI-COMPETITION?

Sisira Jayasuriya
University of Melbourne, Australia
and
Malathy Knight-John
Institute of Policy Studies, Sri Lanka

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Further details: Fiona Wilson, Centre Secretary
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Institute for Development Policy and Management, University of Manchester,
Crawford House, Precinct Centre, Oxford Road, Manchester M13 9GH, UK
Tel: +44-161 275 2798 Fax: +44-161 275 0808
Email: crc@man.ac.uk Web: http://idpm.man.ac.uk/crc/

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INTRODUCTION

The fundamental and rapid changes being experienced by telecommunications markets throughout the world, brought about both by technological developments and by competition-oriented reform policies, are also reflected in changes to the Sri Lanka's telecommunications industry since the 1980s. These changes have been driven by some major government initiatives to open up the sector to new entrants and greater competition. With restructuring of the state-owned telecommunications entity, the deregulation of value-added telecommunications services, and the entry of two new players into the fixed-access sector in 1996, Sri Lanka's telecommunications industry has been profoundly transformed, and has become one of the most open and competitive among developing countries in the Asia-Pacific region.

But since the partial privatisation of the restructured state-owned entity in 1997, there is evidence of significant resistance from within the government itself to the progress of pro-competitive reforms. This paper examines the evolution and present state of Sri Lanka's telecommunications industry, the regulatory policy framework, and pertinent competition policy issues in the sector, with particular attention to the apparent shift of government policies away from its earlier strong pro-competitive stance.

HISTORY AND RATIONALE FOR TELECOMMUNICATIONS REFORM

The changes in the telecommunications sector in Sri Lanka are directly linked to the recognition that an improved telecommunications sector was essential to achieve faster economic growth, and to the policy shift towards a greater role for the private sector in all areas of the economy, including infrastructure services.[1] The telecommunications sector was very backward sector of the economy right up to the 1990s. This was not accidental. Until quite recently infrastructure development in Sri Lanka was largely the preserve of the state, a historical legacy from the British colonial era. However, under-investment in infrastructure, other than in irrigation and, to some extent in hydro-power, was a notable feature of post-independence Sri Lanka, with short-term political, rather than long-term development imperatives guiding infrastructure investments. Even after radical policy reforms were

initiated in 1977 to shift the economy in a liberal, market driven and export oriented direction, large scale infrastructure investment was almost entirely concentrated on a few selected projects, and did not extend to the telecommunications sector. [2]

The deficiencies of the telecommunications sector became increasingly apparent with the increase in business activity in the post-1977 years. There was high unmet demand for telecommunication facilities, with long waiting periods, and transmission quality and system reliability were poor (World Bank, 1994). Clearly there was inadequate investment in the sector, but not because the telecommunications sector itself was unprofitable; rather, it reflected overall government fiscal constraints and investment priorities.[3] The impetus for telecommunications reform, as in other infrastructure industries, arose from the recognition that the benefits of policy liberalisation in terms of export growth and attraction of foreign investment could only be realised if adequate infrastructure services were available. An efficient, modern telecommunications network was obviously essential if Sri Lanka's potential as a regional financial, commercial and communications hub was to be achieved. Added pressure for improved telephone and fax services came from rural areas with the very large numbers of rural workers now employed overseas.

But the state, saddled with large fiscal deficits, could not undertake the required investments with its own resources. Nor was it able to tap foreign aid or foreign borrowings as in the past. The ideological shift in the donor community had shifted towards private sector funding of infrastructure investments in sectors such as telecommunications; they also disapproved of government borrowings from international capital markets for such investments. Their preferred strategy for infrastructure development was via BOO/BOT type arrangements and strategic public-private partnerships (Knight-John, 1997). The government’s own policy orientation, favoured private sector initiatives in potentially profitable services sectors, whenever that was politically feasible. This combination of factors led to a range of institutional and policy changes in the telecommunications sector from the early 1980s onwards.

OWNERSHIP AND INSTITUTIONAL CHANGES IN THE TELECOMMUNICATIONS INDUSTRY

Reforms in the telecommunications sector have had three inter-related strands: the restructuring of the state-owned telecommunications entity, the deregulation of value-added services, and the establishment of regulation.

Restructuring of the State-Owned Telecommunications Entity

Until 1980, the telecommunications industry was organised on the lines of the Post, Telegraph and Telephone (PTT) model, with the state owning and operating both telecommunications and postal services. The first major reform involved a de-linking of the two services. This was a decision consistent with international experience that rapid technological developments in telecommunications tended to make it functionally incompatible with the less dynamic postal sector.

But even after the de-linking of the two sectors however, telecommunications continued to be inefficient, and the state-owned entity functioned as a monopoly shielded from competitive pressures, and gained no significant injection of funds. Although limited steps toward competition were introduced in some sectors in 1981 (paging) and 1985 (customer premises equipment), these sectors were of marginal importance to the operations of the state enterprise. Moreover, attempts to restructure the incumbent Department of Telecommunications (DOT) failed because of the climate of political instability during the late 1980s and trade union opposition to the restructuring of state enterprises. The conversion of the DOT into a government corporation, Sri Lanka Telecom (SLT), in 1991, did not change its basic administrative and financial dependence on the government. The radical alternative of privatisation was not seriously raised in policy discussions at this time: the international paradigm shift towards privatisation of public utilities had not yet developed the momentum it was to acquire later, and the political obstacles to privatisation were severe.

Pervasive government interference in the operations of SLT prevented it from functioning as a commercial enterprise, and it was constrained for investment funds because government priorities lay elsewhere. In 1993, the government set up a state-owned company, Sri Lanka Telecom Services Ltd. (SLTS) as a subsidiary of SLT with more financial and administrative independence to accelerate network rollout. However, there was little improvement in service

quality and both corporatisation and the creation of a subsidiary entity were seen as threats by elements within SLT (Samarajiva, 2000b).

It was widely expected that radical restructuring of state enterprises would cease with the election of a new government in late 1994 that included 'socialist' and 'communist' parties. Popular opposition to many privatisation measures of the previous regime had been exploited by the opposition during the elections and the new government promised even in late 1994 that there would be no privatisation. No plans for such privatisation were included in the President's Economic Policy Statement in January 1995 (see Government of Sri Lanka, 1995). But the new government's actual economic policy agenda was quite different to its public proclamations during the elections. In fact it proceeded to accelerate the policy liberalisation process, particularly in the area of privatisation. It soon went public with restructuring plans for telecommunications, that were clearly aimed at privatisation though the term privatisation was initially avoided because of political sensitivities. It exploited its close political links with trade union leaders to effectively neutralise opposition to privatisation and was helped by the fact that by this time, privatisation of public utilities had become ideologically accepted across the broad mainstream political spectrum, including the 'socialist' and 'communist' parties in the government.

In 1996, SLT was converted to a public company, Sri Lanka Telecom Ltd. (SLTL), as an initial step toward partial privatisation. In 1997, the government sold 35 per cent of its shareholding in SLTL for US$ 225 million to Nippon Telegraph and Telephone (NTT) the incumbent state-controlled operator in Japan (with a reputation for anti-competitive behaviour according to The Economist (22-28 July 2000). The government retained 61.5 per cent share ownership and SLTL employees were given the balance 3.5 per cent. The employee share ownership plan was used to counter anticipated union resistance to privatisation. (Subsequently some employees sold their shares to NTT so that in late 2000 it held 35.2 per cent SLTL shares.)

The government also signed a five-year management agreement with NTT to provide technical and management expertise to SLTL. The agreements signed with NTT, along with subsequent changes to the license of the incumbent operator, committed the government to issuing no further licenses for wireline as well as international telephonic services until

August 2002 and to a tariff re-balancing program (Samarajiva, 2000b). The agreements also suggested that SLTL will enjoy a monopoly in international telephony until 2002.

SLTL's performance in terms of network expansion and modernisation, quality of service and customer relations, and internal operational efficiency improved with privatisation. For instance, new connections increased from 72,457 in 1997 to 143,075 in 1998, the average waiting time fell from seven years to less than one year, call completion rates rose to around 40 per cent, and fault clearance improved to 52 per cent (Duff & Phelps, 2000). This performance, together with optimism about future growth and profit prospects, raised SLTL's profile among investors. A US$ 1.5 million debenture issued by SLTL in March 2000 to finance its expansion program, was rated AA + by Duff and Phelps Credit Rating Lanka Ltd. and was over-subscribed on the opening day. Indeed, this debenture issue was hailed as a landmark, being the single largest rated and listed debenture by an unlisted corporate in Sri Lanka.

This encouraged the government to move to undertake further sales of its shares to bring its stake below 51 per cent, with part of the sale to be listed in the Colombo market and the remainder in a foreign market. It contemplated a private placement of 10.5 per cent of its shareholdings, as a preparatory step, prior to the Initial Public Offering (IPO) with the aim of bringing in technology-driven partners who would add value to the company. Extensive negotiations were held towards this with Singapore Technologies, a subsidiary of Singapore Telecom, and the second largest company in Singapore (next to Singapore Telecom). However, this was unsuccessful because Singapore Technologies wanted a bigger management role than NTT or the government were willing to concede. The IPO re-scheduled for June/July 2000 and was expected to raise around US$ 400 million. But this has now been indefinitely postponed, with the government blaming increased country risk due to the intensification of the civil war and the plunge in international technology and telecommunications stocks for the postponement.

COMPETITIVE REFORMS AND THE DEVELOPMENT OF THE REGULATORY FRAMEWORK

The major changes in the sector came initially from pro-competitive reforms that progressively deregulated value-added services. These started in 1981, with the entry of

private paging operators who started services initially without formal licenses, and were only subsequently brought into the regulatory system.

In the first phase of deregulation, from 1981 to 1995, competition was introduced only in the periphery of the industry. Despite this cautious approach, around twenty system operators, including the incumbent operator, were licensed during this period, following the enactment of the Sri Lanka Telecommunications Act No.25 of 1991. The second phase of competition saw the entry of two wireless loop operators (WLLs), Suntel and Lanka Bell, in 1996, brought in to compete directly with SLTL in the fixed-access market. Suntel is a joint venture between Telia of Sweden, Townsend Ltd. of Hong Kong, and the Metropolitan Group of Companies and the National Development Bank of Sri Lanka. Lanka Bell is a joint venture between Transmarco of Singapore, an infrastructure fund AIDEC, and Nortel, an equipment supplier. These operators were given duopoly status in WLL services until the year 2000, with the possibility of a five-year extension if they met performance targets, such as the provision of 100,000 lines by the year 2000. But their duopoly status was eroded when SLTL was also permitted to operate WLL services within a specified range of frequencies (Samarajiva, 2000b). The position in the sector in late 2000 is shown in Table 1.

Establishment of Regulation

The foundation for telecommunications regulation was laid with the enactment of the Sri Lanka Telecommunications Act No.25 of 1991. This legislation led to the trifurcation of the sector, with operational functions being assigned to SLT, regulation being the responsibility of the Office of the Director General of Telecommunications (ODGT), and telecommunications policy remaining within the Ministry.

The ODGT was a single-person authority, modelled on the lines of Britain's OFTEL, with the Director General handling regulatory issues and advising the Minister on policy matters. However, the ODGT, a government department with low remunreration, was unable to attract well-qualified employees. With a shortage of skilled workers, ODGT could not carry out many of its key regulatory functions, such as consumer protection, public hearing procedures, and enforcement of license conditions. Moreover, the separation of regulatory and operational functions, as envisaged in the 1991 Act, did not materialise in practice, with both the ODGT and SLT reporting to the Ministry.

Table 1: Licensed Telecommunications System Operators (as at May 11, 2000)

Service	Operator
Fixed Telephony	Sri Lanka Telecom Ltd.
	Suntel (Pvt.) Ltd.
	Lanka Bell (Pvt.) Ltd.
Mobile Telephony	Lanka Cellular Services (Pvt.) Ltd.
	Mobitel (Pvt.) Ltd.
	MTN Networks (Pvt.) Ltd. (Dialog GSM)
	Celltel Lanka Ltd.
** Facilities-Based Data Communications Services	Lanka Communication Services (Pvt.) Ltd.
	Electroteks (Pvt.) Ltd.
	SITA-Societe Internationale De Telecommunications Aeronautiques
	Lanka Internet Services Ltd.
	Ceycom Global Communications Ltd.
	ITMIN Ltd.
**Non-Facilities-Based Data Communications Services	Millanium Communications (Pvt.) Ltd.
	MTT Network (Pvt.) Ltd.
	Metropolitan Telecom Services (Pvt.) Ltd.
Internet-Based Data Services (ISPs)	Eureka Online (Pvt.) Ltd.
	Pan Lanka Networking (Pvt.) Ltd.
	Projects Consultants International (Pvt.) Ltd.
	D.P.M.C. Electronics (Pvt.) Ltd.
	Celltel Lanka Ltd.
	Dynaweb Services (Pvt.) Ltd.
	Victra-Soft (Pvt.) Ltd.
	East West Information Systems Ltd.
	Lanka Global Online (Pvt.) Ltd.
	Visual Internet (Pvt.) Ltd.
	Dynanet Ltd.
	MTN Networks (Pvt.) Ltd
Public Payphone Services	The Payphone Co. (Pvt.) Ltd.
	TSG Lanka Ltd.
Paging Services	Infocom Lanka Ltd.
	Bell Communications Lanka (Pvt.) Ltd.
	Fentons Ltd.
	Intercity Paging Services (Pvt.) Ltd.
	Equipment Traders (Pvt.) Ltd.
Trunked Radio	Dynacom Engineering (Pvt.) Ltd.
Leased Line Services	MTT Network (Pvt.) Ltd.
Other	Air Lanka Ltd.

Source: Telecommunications Regulatory Commission of Sri Lanka

Note: Facilities-Based operators can set up their own transmission facilities (any line, radio, or other electro-magnetic or optical system or any other similar technical system); Non-Facilities-Based operators cannot establish their own transmission facilities, but can use the facilities of other licensed operators to connect subscribers and sites.

A draft amendment to the 1991 Act was prepared in 1993 to address some of these problems faced by the regulatory authority, by creating a more independent agency with reduced Ministry control over the ODGT. But this was not accepted by the government. Legislation was introduced later in 1996, by way of the Sri Lanka Telecommunications (Amendment) Act No.27, that converted the ODGT to the Telecommunications Regulatory Commission (TRC). The single-person authority was replaced by a five member Commission comprising three part-time members, with security of tenure, and two *ex-officio* members. The part- time members were drawn from law, finance, and management; the two *ex-officio* members were the Secretary of the Ministry, serving as Chairman, and the Director General of Telecommunications, serving as the Chief Executive Officer of the Commission.

TRC was expected to follow the broad objectives set out in a 1994 government telecommunications policy document. Its responsibilities included advising the government on the granting of licenses and on tariffs, pricing and subsidy policies; determining, in consultation with the Minister, tariffs and methods for calculating tariffs; approving interconnection charges where operators reach a mutual agreement on these charges and determining the charges in the absence of such agreement; functioning as the sole manager of the frequency spectrum; ensuring that operators comply with quality standards specified in the 1996 Act; and protecting consumer interests. It was also expected to approve the types of telecommunications equipment used by operators to ensure network compatibility.

While the TRC was supposed to operate within the government policy framework, with its mandate to advice the Minister it could also exert some influence on government policy. The objectives delineated in the 1994 policy document included provision of telecommunications facilities to all at cost-based tariffs, achievement of universal service provision of an acceptable quality of service, elimination of waiting lists, and protection of defence, security and environmental interests of the country. Unlike its predecessor, the TRC did not have to depend on state funds but could draw on license and other fees to finance its operations. However, the independence of the regulatory authority was limited by the appointment of the Secretary to the Ministry as the *ex-officio* Chairman of the Commission. Its independence was further compromised when it absorbed several former employees of the SLT.

A new and more independent phase of regulation came in 1998, with the hiring and training of new personnel and the initiation of several pro-competitive regulatory measures. The

TRC's stance signalled that competition rather than excessive regulation should be the driving force in the industry during this period. Its mission statement developed at this time also emphasised consumer interests and competition (Samarajiva, 2000). The government decision to commit to the Regulatory Reference Paper, a part of the Fourth Protocol to the General Agreement on Trade in Services of the World Trade Organisation (WTO) signalled a similar commitment. (Incidentally, Sri Lanka is the only South Asian country to have made this commitment so far.**)** But subsequent developments to be discussed later demonstrated that implementing pro-competitive policies is not a smooth process.

Structure and Performance of the Industry

The telecommunications sector, is, for the purpose of regulatory policy, differentiated according to market structure and technology, a formal monopoly in the fixed wireline sector (SLTL), a duopoly in the fixed wireless sector (Suntel and Lanka Bell) and competition in the mobile sector (four mobile operators). But many of these services are close substitutes and often necessary complements. Further, service providers often operate in more than one segment of the industry and the development of convergence-friendly technologies enhances incentives for this to occur. Hence the actual industry structure is more complex, and market segments cannot be treated as independent for analytical or regulatory purposes.

SLTL remains the dominant player with extensive market power in the overall telecommunications market, controlling approximately 60 per cent of the total industry.[4] Although its main focus of operations is the fixed-access market, it is also the leading Internet Service Provider (ISP), operates its own payphones, and provides leased circuit and data communications services. It also controls 40 per cent of one of the mobile firms, though the 1994 national policy on telecommunications specifically states that fixed-access operators will not be permitted to provide mobile services. By Sri Lankan standards, SLTL is a massive corporate entity; its revenue in 1999 was equivalent to 1.7 per cent of the country's GDP (Central Bank of Sri Lanka, 1999).

In the fixed-access market, where it has a formal monopoly in wireline services, SLTL has a 86.3 per cent market share, whilst Suntel and Lanka Bell have market shares of approximately 9.59 and 4.11, respectively.[5] According to government sources (The Daily News, 23 February 2000), the three fixed-access operators have invested around US$ 600 million in the past five years and more investments have been foreshadowed. Having initially

drawn most subscribers from residential customers, they are now attempting to make inroads into the corporate and business segments by offering bulk discount packages and a range of sophisticated services, sometimes in comjunction with foreign firms. For example, Suntel has recently linked up with Airspan Networks, London, to provide high-speed access to the Internet and to public and private data networks, targeting corporates and small and medium businesses.

The performance in the fixed-access market has been mixed. Based on Central Bank of Sri Lanka and TRC statistics, we estimate that fixed phone tele-density increased from 0.73 in 1991 to 1.8 in 1997 and to 3.5 in 1999. Approximately 55 per cent of these fixed-access lines are located in the Greater Colombo area indicating a continuing urban bias in this segment (Gunawardene, 1999b). Service quality has improved, and as mentioned, average waiting time for a SLTL connection has fallen from seven years to less than a year, and WLL operators have no significant waiting lists. (A 1999 regulatory decision to compensate consumers for delayed connections probably helped cut waiting times (see Gunawardene, 2000). The WLLs have superior performance in terms of call completion rates and faults statistics. However, they complain that they have been unable to consistently achieve the 50 per cent and above call completion rate specified in their licenses, allegedly because of call blocking by SLTL. [6] SLTL, has revamped its billing procedure, particularly after a 1998 public hearing on billing issues initiated by the TRC,[7] and introduced itemised billing in 2000. Service quality is expected to further improve with the publishing of TRC's quality of service rules, and its linking of tariff increases to service quality.

There has been more extensive pro-competitive reforms in the mobile market which is characterised by greater competition than the fixed-access market. For many customers mobiles have been a substitute for fixed lines, and the sector has grown very rapidly. Its compound annual growth rate during 1995-1998 was 48.6 per cent as against 36.5 per cent in the fixed-access market (ITU, 1999). Overall mobile penetration increased from 0.01 in 1991 to 1.35 in 1999, and the combined fixed-mobile tele-density reached 4.9 in 1999 (Samarajiva, 2000b). Sri Lanka now has a mobiles to fixed ratio of around 40:100.

Investment in the mobile market, over the past five years, amounts to around US $420 million. [8] Intense competition amongst the mobile operators has led to a movement from analogue to higher capacity digital networks, a proliferation of value-added products such as

Wireless Access Protocol (WAP) and other Internet-mobile services, extensive advertising campaigns, and prices have declined at an annual average real rate of 18 per cent to 20 per cent. According to ITU (1999), Sri Lanka's cost of US $17.80 for a 100-minute basket of mobile tariffs compared favourably with average costs of US $39.69 and US $38.15 for, respectively, lower-middle income countries and the world. Although mobile rates in Sri Lanka are still above fixed-access rates, introduction of home-zone pricing for mobile calls and the tariff re-balancing process in the fixed-access market is eroding this gap (Samarajiva, 2000b). Further, mobiles can be immediately obtained, and mobile operators offer services such as pre-paid card schemes, tri-lingual customer services, and easy international direct dialling (IDD) facilities in direct competition with SLTL (Duff & Phelps, 2000). Nevertheless, despite the fact that mobile technology has a distinct advantage over basic telephony in rural areas given the difficulty in laying cables in rough terrain, mobile penetration rate in the rural sector is low at only around 0.1 per cent.

Though there are no formal entry restrictions in other sub-sectors, such as pay phones, data communications services, and pagers, they are growing at a slower rate. The pagers appear to be priced too high with respect to mobile phones and numbers have contracted in recent years. The dominant position of SLTL is a major issue in these markets. Suspicions exist that SLTL may be cross subsidising its payphones. SLTL has also had conflicts with the large data communication service providers over the provision of enhanced voice services. Several small private telecommunications bureaux (resellers) also provide informal competition, and provide a useful public service though the need for regulation has arisen because of alleged overcharging and other malpractices. The TRC recently implemented a scheme to regulate the activities of these bureaux by issuing permits to the three fixed-access operators and holding them responsible for issuing certificates to these resellers.

Internet access in Sri Lanka is seen as a future growth area, but internet connectivity is still low, with only 0.29 hosts per 10,000 inhabitants in 1998. It is constrained by high cost of leased lines and computer equipment and the low level of computer literacy.

REGULATION AND COMPETITION POLICY ISSUES

The transformation of the telecommunications industry from a monolithic, monopoly structure to a more competitive industry has resulted in better operational efficiency and a greater degree of consumer responsiveness. But much remains to be achieved. In this

section, we discuss some of the major regulatory issues in the industry, and assess the success of the policy responses to these problems.

Barriers to Entry and Exit and Anti-Competitive Strategic Behaviour

There are several barriers to entry operating in the Sri Lanka telecommunication sector market. These include several legal/regulatory entry barriers and others that also deter new entrants and impede competition. Some issues pertaining to actual or potential strategic behaviour on the part of the dominant operator is discussed in more detail later in sections on specific regulatory issues.

The existing legal monopoly status enjoyed by SLTL in fixed wireline phones, the (disputed) restrictions on international calls, the duopoly in the fixed wireless sector, and limitations on licences in other sectors are the major legal or regulatory barriers to entry. The number of licences is now an immediate issue in the mobile telephony market as current restrictions on issuing licenses for mobile telephony expires in 2000. Incumbent operators claim that the mobile market is saturated and cannot sustain more operators, but international experience suggests that competition may be a better option given that there is no obvious way to determine how many mobile operators should be allowed. The dominant position of the SLTL also confers it advantages in the other markets it operates in and may act at a barrier to greater competition.

From the consumer side, the significant switching costs that have to be incurred at present by consumers moving from one operator to another create a serious barrier to competition that deters entry, both in the fixed-access and in the mobile markets. The high non-refundable connection charges in the fixed market effectively tie consumers to a particular provider's network, as does lack of number portability.[9] Moreover, the standards problem, where the technology used by one operator is not compatible with the technology used by another, also creates a lock-in effect in both markets but will become less of a problem soon if convergence becomes a reality.

Interconnection

The importance of all-to-all (any-to-any) connectivity requires the joint use of network facilities, but also helps incumbent or dominant operators to gain a strategic-competitive advantage over their rivals. In common with other countries, Sri Lanka also faces the

challenge of how to establish a fair interconnection regime that ensures efficient provision of access to networks. Sri Lanka is a signatory to the WTO Regulatory Reference Paper that commits it to ensure that interconnection with a major supplier will be provided on non-discriminatory terms, in a timely fashion, and at cost-oriented rates that are transparent and sufficiently unbundled. But implementation has proved difficult.

The regulatory authority intervenes in interconnection issues only if operators cannot come to a negotiated agreement on access. In November 1996, following the failure of the SLTL and the new WLL operators to reach a negotiated settlement, the TRC issued a determination (effective till 1998) on interconnection in the fixed-access market that followed the principles of sender-keeps-all for domestic calls; a 35 per cent rebate on the collection rate for outgoing international traffic from the WLL networks but no payment for incoming international traffic, and the costs of physical links being fully borne by the WLLs (Gunawardene, 1999a). Interconnection charges between the WLLs, was on a sender-keeps-all basis with the two operators splitting interconnection costs on a 50:50 basis.

As in most developing countries, inbound traffic far exceeds outbound traffic in Sri Lanka. The "no payment for incoming international traffic" clause in the 1996 determination, combined with SLTL's (disputed) exclusive gateway rights in the international segment, clearly disadvantaged the WLL. Attempts to reach a negotiated settlement were again unsuccessful and the TRC was compelled to make a new determination in November 1998. The basic ingredients of the new determination were as follows: sender-keeps-all system to be replaced by a mutual compensation arrangement for local call termination, with the transition to the new arrangement being subject to conditions such as the provision of common directory services and the elimination of the surcharge on local calls made by SLTL customers to WLL customers; national call transit and termination to be also on the basis of mutual compensation; the WLL operators to remit 80 per cent of the collection rate to SLTL for all international calls originated from WLL networks and SLTL to pay a fee of Rs. 9.50 per minute (approximately US $ 0.120) to the WLLs for international calls terminating in the WLL networks; the WLLs to bear the full cost of physical interconnection links up to the interface connection unit and SLTL to be responsible for providing the interface unit. [10] Given the difficulties in obtaining acceptable cost data in Sri Lanka, the interconnection rates were benchmarked on European Union (EU), International Telecommunication Union (ITU) and Federal Communications Commission (FCC) rates. Though this new arrangement was

somewhat more favourable to WLLs, none of the three parties were satisfied with it. But whilst the WLLs complied with the regulatory directive, SLTL continued with the pre-1998 arrangement and took the issue to court. SLTL later agreed to comply with the 1998 determination, pending the court decision.

The WLLs have also charged that SLTL was blocking calls originating from the WLL networks and succeeded in obtaining enjoining restraining orders on the SLTL, until a full inquiry is made. This issue of unfair interconnection practices may also go to the WTO. This issue also relates to another major legal dispute over use of enhanced voice services by the WLLs as cheaper gateways for international calls. The distinction between voice telephony and data communications, sharper at the time the three data communications licenses were issued has been rapidly blurred by technological changes. At present, there are three facilities-based data communications operators in the market with licenses to provide enhanced voice services, and they have provided this service to the WLLs. According to SLTL, its exclusive right over international voice telephony precludes any others from providing those services. The enhanced voice operators claim the right to do so on the basis that their licenses were issued prior to the SLTL privatisation. To add to the confusion, the WLL licenses clearly state that they can interconnect with any licensed operator. The courts have determined that SLTL had failed to establish a *prima facie* case that it had a monopoly, Meanwhile, one of the enhanced voice operators filed action against the Sri Lankan government at the International Center for Settlement of Investment Disputes claiming US$ 200 million in damages for contravening their investment protection agreement. [11]

The terms and conditions imposed by SLTL in the case of the fixed-mobile interconnection regime that prevailed until 1999 showed similar apparently anti-competitive behaviour. For instance, mobile operators had to pay the higher national rate calling charges for calls terminating on SLTL's network, and full retail charges for international calls originating in their networks; they could only interconnect at one point and had to bear the full costs of physical interconnection; and, SLTL did not pay the mobile operators for calls terminating on their networks (Samarajiva, 2000b). In contrast, the WLL-mobile and mobile-mobile interconnection arrangement is sender-keeps-all, with these operators sharing physical interconnection costs on a 50:50 basis.

Whilst a 1999 TRC determination on fixed-mobile and mobile-mobile interconnection addressed most of the anti-competitive elements mentioned above, the proposed implementation of a calling party pays (CPP) system in the mobile sector still hangs in the balance. Under the current mobile party pays (MPP) system, the mobile operators pay SLTL for calls terminated on its network but are not compensated for calls terminated by SLTL on their networks. As such, the mobile user bears the cost of termination in the form of an incoming call charge. For outgoing calls, mobile operators charge a fixed rate other than for intra-network calls. Fixed operators have some differential rates for outgoing calls.

Mobile operators argue that the MPP system has resulted in low call completion rates, because users prefer to keep their handsets switched off to avoid the incoming call charge, and that CPP schemes are emerging as an international standard. However, CPP raises the problem of market power in termination charges on the supply-side, given that a customer cannot choose how a given call will be terminated even when they are charged different rates depending on where the call is terminated **(**Noll, forthcoming). The fixed-access operators have opposed CPP, arguing that it will impose a greater burden on fixed-access users, most of whom, they claim, are from the poorer segments of the population, a claim with seemingly little evidence to support it and naturally disputed by mobile operators. The regulatory authority initiated public hearing on the feasibility of CPP in June 1999, but has yet to make a conclusive determination.

Universal Service Obligations

USO obligations in Sri Lanka primarily involve provision of telecommunications facilities to the rural areas, and to the low income groups. Although twice as many connections have been provided in the past five years than in the entire previous century of telephony in Sri Lanka (Samarajiva, 2000b), rural coverage remains low, with SLTL and the mobile operators recording rural penetration rates of approximately 1.70 and 0.01, respectively, and around 75 per cent of the WLLs' operations being concentrated in urban areas. [12] Rural demand for telecommunications services however, is high, with it is cited as the second most important unmet need in a rural survey conducted by the TRC.

The government's commitment to universal service is set out in the 1994 telecommunications policy document as well as in Sri Lanka's schedule of WTO commitments, where it is specified that universal service obligations (USO's) must be administered in a transparent,

non-discriminatory, and competitively neutral manner. The government's main approach to universal service provision has been to connect remote post offices to the SLTL network using Treasury funds. However, this practice goes against the WTO principles that state that USO's have to be administered in a transparent and competitively neutral manner. According to the TRC, post office connections provide more limited access at a higher cost than payphones. The TRC implemented a scheme from 1999 to subsidise payphone facilities to rural and sub-urban areas using its own cess and license funds. The scheme is to be phased out when the set target of 100 payphones in each of the country's 25 administrative districts has been reached. In 1999, it recommended that all fixed and mobile-access operators bid to connect clusters of post offices, subject to a ceiling of US $ 5400 (Samarajiva, 1999). This recommendation is yet to be implemented.

There seems to be a clear conflict between the current situation and WTO commitments: the SLTL has no legally binding universal obligations, but the WLLs do have some USO type commitments built into their licence agreements. SLTL statistics indicate that more connections are being provided in urban areas since privatisation in 1997 (Gunawardene, 1999b). The controversy over interconnection has also spilled over into the area of universal service. SLTL has argued that because its profits from international calls are reduced when it has to pay the WLLs for international calls terminating on their networks, its ability to cross-subsidise and expand network roll-out is diminished. (This fee, however, amounts to less than 20 per cent of settlement revenues (Samarajiva, 1999).)

The WLLs, on the other hand, are required to have at least ten working telephones in each secondary switching area by the end of 2000, with one telephone in the rural area being considered equivalent to ten telephones as an additional performance incentive. Indications are that they are unlikely to meet them, though they face an annual penalty of US $ 80,000 if they fail to meet these targets (a penalty too low to force compliance).

The question remains as to who should be responsible for universal service provision. In view of the special treatment it gets, it may be argued that SLTL should also bear the greater responsibility for universal service provision. In any case the experience in Sri Lanka, as in many other countries, may confirm that competition may produce better universal service outcomes than monopolies. [13]

Tariffs

The government, both in its 1994 national telecommunications policy and through the WTO agreements is committed to provide access to telecommunications facilities at cost-based prices. But again, in the absence of sound cost data, implementing that policy through regulation is not easy.

At present, no formal principle on tariff regulation is applied in the telecommunications sector. Whilst the licenses given to SLTL and to the WLL operators contain provisions on price-cap regulation, they are currently on hold and may not he imposed until the year 2005 if they meet certain performance criteria (Samarajiva, 1998). The government decision to re-balance SLTL rates over a five-year period, effectively suspends price-cap regulation for SLTL for that period. Whilst the licenses given to the mobile and Internet operators contain price-cap language, light-handed regulation is practised in these segments. The other segments of the telecommunications industry are subject to price-cap tariff regulation.

The official justification for tariff re-balancing mirrors the International Telecommunications Union (ITU) position that the practice of cross-subsidising the domestic market using net settlement payments from abroad should be abandoned (Utsumi, 2000). The unilateral decision of the United States' telecommunications regulatory authority, the Federal Communications Commission (FCC), to establish lower benchmarks on settlement rates also impacts on developing countries like Sri Lanka which have long benefited from the transfer of financial resources from developed countries under the current international telecommunication settlement rate system. According to the FCC transition schedule, Sri Lanka has to reach the benchmark rate of US$ 0.23 by January 1, 2002. Currently, US carriers pay SLTL a settlement rate of approximately US$ 1 per minute for terminating calls originating in the US.

SLTL reduced international tariffs by 8 per cent in 1998, and reached an agreement with the government to increase domestic tariffs to increase its domestic revenue in five stages between 1998 and 2002: 1998 and 1999: 25 per cent; 2000: 20 per cent; 2001 and 2002: 15 per cent. Whether these increases are justified on a cost basis cannot be assessed because of the absence of sound cost data, but the possibility that a dominant (and privileged) operator may use tariff re-balancing to charge anti-competitive, ‘quasi-monopoly’ rates in the domestic market cannot be ruled out. SLTL certainly extracted significant rents from the

international segment (see Antelope Consulting, 1998). With that source of rents drying out, and amidst fears that rival operators such as Suntel, which are linked to large multinational companies, may divert substantial international traffic, the incentives for SLTL to exploit the domestic market more intensively are obvious.

But what are the implications for the majority of users? The WLL operators appear to follow the SLTL as the market leader in tariff setting. This, together with the high and stable domestic rates are suggestive of tacit price collusion amongst operators in the fixed market. Although some price flexibility has been introduced (peak and off-peak prices; unbundling of customer premises equipment from installation and rental charges) overall rates remain high, given that the middle one-third of users pay between US$5.70 and US$14.30 per month for local and national calls, respectively, and that the lowest one-third pay between US$2.60 and $5.70 in a country where around 21 per cent of the population lives below US $ 12.6 per person per month. TRC has recognised that if domestic prices continue to increase, affordability may become a serious problem for lower income subscribers and it introduced special tariff schemes to partially shield low and medium users from tariff increases in the first two years of rate re-balancing. Given that the vast majority of fixed-access customers subscribe to domestic call services, and only a small proportion have access to international direct dialling facilities, there can be little doubt that rate re-balancing will have a negative impact on the welfare of most consumers: according to industry sources, in 1999, SLTL's international sector penetration was a mere 2.28 IDD lines per 1000 persons and the WLLs' subscriber base showed that only around 30 per cent of their clientele had IDD facilities.

The Political Economy of Anti-Competition

These issues highlight the fact that the movement towards a more competitive market is not a smooth one. In fact there is a discernible shift in the government attitude towards competition; its enthusiasm for fostering competition has waned perceptibly and some recent initiatives have a clear anti-competitive thrust. What explains the shift in government attitude from pro-competition and privatisation to one of ‘anti-competition’? We believe that the answer lies in the changed opportunities for rent extraction for politicians and favoured bureaucrats.

In an earlier analysis of the telecommunications industry (Jayasuriya and Knight-John, 1998), we linked the early pro-competitive phase in the 1980s to the political inability of the

government at the time to make fundamental changes to the existing state (monopoly) entity. The strength of the trade unions in the telecommunications sector was a factor, but another was the prevailing ideological paradigm that services such as telecommunications should be provided by the public sector. Opening up of new sectors (mobile, paging services) etc. to new entrants was politically easier, in line with the pro-private sector bias in policy, and a profitable source of rent extraction from licence seekers. But this changed when privatisation became a realistic option. Privatisation of state assets, particularly large and valuable public utilities, offered the possibility for rent extraction on a scale unimaginable in the past. This had been demonstrated during the last years of the previous United National Party (UNP) administration, albeit in a more limited scale. The politicians in opposition (and their favoured friends and supporters) learned the lesson well. The shift to a pro-privatisation strategy once in power was not difficult to understand. But privatisation offered even greater rents to those controlling the process if the enterprises to be privatised could be guaranteed monopoly profits. It helped that such policies could be lent legitimacy on the basis of maximising revenues from the sale of state assets: buyers of state assets would pay more if future profits were higher, and obviously hey would be higher if monopoly power could be entrenched in lucrative markets. From the view point of politicians and bureaucrats dealing with potential investors, regulatory restrictions that impeded future competitive threats was a complementary policy to privatisation. The less transparent the processes of privatisation, the closer the ties between regulatory agencies and those in charge of the privatisation process, the greater the opportunity to maximise rents to politicians and new investors at the expense of public interest.

It is often argued that privatisation of state assets offers only a one-off opportunity for rent extraction to those with control the state; once privatised, that opportunity disappears, so the one time 'loss' is worthwhile as a more efficient industry now emerges. But this is not always true. When what is being privatised is a public utility that was a state monopoly, the buyer of the incumbent monopoly has an incentive to avoid pro-competitive regulations. The regulatory structure and the composition of the regulatory body itself become critical to the evolution of competition in the industry. The regulatory body can either aggressively pursue pro-competitive policies or it can entrench the market power of the new private firm. If those who use their control over the state and the privatisation process to extract rents can also control the composition and mandate of the regulatory body, there is a double dividend from

the process: privatisation is all the more privately profitable for politicians if it is followed by anti-competitive regulations.

This suggests a motive for, and an explanation of, the reasons why governments, apparently committed to pursuing quite radical market-friendly policies shift their position from pro to anti competition in privatised industries. A hold on the levers of regulatory processes ensures that rent extraction can be maintained. While we do not suggest that this political economy logic explains the policy shifts in telecommunications in Sri Lanka it does seem quite consistent such an interpretation. To that extent it provides an illustration of the general point we seek to make regarding the link between rent seeking behaviour, privatisation and anti-competitive regulatory policies.

CONCLUSIONS

International experience has shown that effective and, at times aggressively assertive, regulatory interventions are necessary to foster competition, if privatisation of telecommunications is to result in an efficient, dynamic, technologically innovative industry that delivers cheaper, better quality services to consumers. This was the rationale for the setting up of the TRC. As stipulated in the provisions of the 1996 Act, the Commission has to foster effective competition in the industry and accommodate the interests of a wide spectrum of stakeholders. Our analysis of the structure, conduct and performance of Sri Lanka's telecommunications industry suggests that some very crucial regulatory policy challenges need to be urgently addressed if the TRC were to be a credible and effective entity. There is a widespread perception, not entirely unjustified, that the regulatory balance has tilted in favour of the dominant operator, SLTL.

Whilst the regulatory task of balancing conflicting stakeholder interests is difficult, even under the best of circumstances, the politicisation of the regulatory process makes the regulatory authority more vulnerable to capture by particular players in the industry, and casts doubts on its impartiality. This makes it more difficult to attract investment into the sector, sends negative signals to the entire investor community, and undermines its capacity to play its full role in the economic development process. Ensuring the independence of the regulatory body and transparency of its procedures is the central political task facing the government, if its claims to uphold public interest are to be credible. It is time to move from managing the industry to insulate the dominant, politically favoured operator from

competitive pressures, and focus on enhancing market competition, improving consumer welfare and stimulating dynamic growth.

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Notes

[1] See Jayasuriya and Knight-John (1998) for a more detailed account of the liberalisation process and the political and ideological background to economic reform.
[2] See Athukorala and Jayasuriya (1994) for a discussion of the 1997 reform process and investment programmes.
[3] Profitability of telecommunications industries in developing countries have been generally higher than in developed countries (see Jayasuriya, Maddock and Tourky, 1997) for a discussion of the 'investment paradox' in telecommunications).
[4] The TRC itself has neither formally defined what constitutes market power nor made a formal determination involving the concept of market power.
[5] Estimated on the basis of data from TRC and industry sources.
[6] This issue relates to the controversy in the industry over enhanced voice operations and the alleged infringement of SLTL's monopoly rights in international telephony, and is discussed later.
[7] Incidentally, this was the first public hearing initiated by the regulatory authority, despite the fact that the provision for public input into telecommunications regulation has been in place since 1991.
[8] Calculated using figures cited in The Daily News, 19 August 2000.
[9] The numbering system that currently exists in the Sri Lankan telecommunications market, distinguishes operators by allocating particular pre-fixes and a particular number of digits to a given provider. Attempts by the TRC to adopt a closed numbering plan have been stalled by SLTL.
[10] See http://www.trc.gov.lk/onews.html
[11] This operator also claimed to have plans to seek legal redress against the Sri Lankan government at the United Nations Human Rights Commission (UNHCR), New York, for arresting one of the firm's engineers under the Prevention of Terrorism Act (PTA) on a complaint made by SLTL.
[12] These statistics are for 1999 and come from personal communications with SLTL, WILL, and mobile sector sources.
[13] See Wellenius (2000) for a discussion of universal service in competitive environments.