BENCHMARKING A CHINESE OFFER ON TELECOMMUNICATIONS:

CONTEXT AND COMPARISONS

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Introduction

The effort of this paper is to identify the range of issues and options facing China as it seeks to arrive at a satisfactory offer on telecommunications services as part of WTO accession. This subject is very much a moving target inasmuch as the recent U.S.-China Beijing summit has apparently been accompanied by a first-ever proposal from China to open up its telecommunications market. If indeed a proposal has now been made, China appears to have crossed a Rubicon that as recently as last year it was unwilling to cross—very promising news for our discussion here.

The paper is divided into three parts. First, it describes briefly the steps China already has taken to liberalize its telecommunications sector. What emerges from this account is that China could well commit to formalizing and maintaining existing levels of liberalization, with the central question becoming, to what timetable for future and further liberalization could China commit?

Second, the paper outlines possible benchmarks against which a Chinese offer on basic telecommunications could be gauged. After comparing in general terms the schedules filed pursuant to the Fourth Protocol, the Schedule filed by India is singled out for special consideration. This Schedule provides a relevant benchmark for a Chinese offer on the following grounds: (a) China has maintained throughout the negotiations that it ought to be held to the standards applied to developing countries in the WTO framework; (b) despite the size of its telecommunications network and the rapid pace of development, China's telephone penetration rates are comparable to those of other developing country WTO Members; and (c) China is still at a relatively early stage of the regulatory and institutional transformation of its telecommunications sector

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and thus cannot make unrealistic commitments to rapid open market access and national treatment. Reference is made as well in passing to the somewhat more ambitious limited liberalization schedules filed by transitional economy WTO Members such as Hungary and Poland and paralleled in some ways by countries such as Indonesia, the Philippines and Brazil. These might provide a relevant benchmark for a Chinese offer on the following grounds: (a) the trajectory of growth for Chinese telecommunications infrastructure exceeds that of restrictively liberalizing developing countries, which makes market access a more relevant and pressing issue; (b) the corporatization of China Telecom and China Unicom as well as the creation of the new Ministry of Information Industry as a precursor to independent regulation of telecommunications suggest the possibility of earlier rather than later independence of regulatory function and opening to other market players; and (c) given that China is in the midst of fashioning its own liberalization timetable for telecommunications, it might well be in its interest to lock in such a timetable through WTO commitments. One way of characterizing realistic outcomes for a Chinese telecommunications offer is: at the end of the day, will the offer be closer to the restrictive developing country schedules or to the limited liberalization transitional economy schedules? However, before we allow debate to polarize around this question, it is worth noting that a number of developing countries, including India, have already met and are on the way to exceeding scheduled commitments under the Fourth Protocol. This is because general pressures to liberalize telecommunications are considerable as economies come to depend more heavily on expanded and improved telecommunications infrastructure. In short, it is a dubious proposition that a failure by China to make an offer as liberal as that of Indonesia, the Philippines or Brazil, opting instead for an offer closer to that of India, ought to be a deal breaker. True, the telecommunications market is lucrative and of considerable economic interest to powerful WTO Members. But it should not be forgotten that China is already a major purchaser of foreign telecommunications equipment and that by 1996-97, two telecommunications equipment firms, Motorola (China) Electronics and Shanghai Bell Telephone Equipment Manufacturing Co. Ltd. were among the top ten foreign-funded enterprises in China. In short, telecommunications investment opportunities are already being exploited successfully and are on a rapid path toward expansion.

Finally, this paper addresses, gingerly, a subject that has arisen whenever liberalization of telecommunications in China is discussed: national security. Clearly, any new willingness on China's part to make an offer on telecommunications reduces the significance of this topic. However, for the purposes of clarity and completeness this paper notes that since 1993, China has had a legal framework for addressing national security issues that circumscribes the meaning of the term in a manner consistent with the GATS Article XIV(a) general exception relating to public order and Article XIV *bis* security exception relating to essential security interests. It is argued here that China has all the instruments it needs to address national security concerns at the same time as it liberalizes the telecommunications market.

I. China's cautious road to telecommunications liberalization

1. An overview of the Chinese Telecommunications market

China has been experiencing staggering growth in its telecommunications infrastructure, adding some 15 million new lines last year—the equivalent of a U.S. Baby Bell—and now has a total office telephone switchboard capacity in excess of 100 million lines, the second largest national fixed telephone network in the world, following that of the United States.² Growth in the cellular market has been phenomenal as well. In 1997, that market doubled to 13.6 million subscribers and is expected to reach over 22 million by the end of this year.³ The paging market is now the largest in the world, with 50 million subscribers. Yet China's national telephone penetration rate remains low, nudging 8%, although the urban rate is significantly higher at 26%. Some 40% of Chinese villages do not have telephone access. The ITU's latest statistics on main telephone lines produce the following relevant comparisons:⁴

Table 1: A Comparison of Main Telephone Lines

	Total (k) 1997	PER 100 INHABITANTS 1997
India	17,802	1.86
Indonesia	4,983	2.47
PHILIPPINES	2,078	2.83
CHINA	70,310	5.58
THAILAND	4,815	7.95
BRAZIL	15,106	9.57
RUSSIA	26,874	18.19
MALAYSIA	4,236	19.55

² "Second Largest Phone Network Formed" *Beijing Review* vol. 41, no. 5, February 1998. There are now in excess of 111 million telephones in China: see "Stronger Communications Capacity Built Up", *Beijing Review* vol. 41, no. 11, March 1998. As recently as 1980, China had just over 4 million telephone subscribers: see Matthew Miller, "Early starter becomes a late developer" *South China Morning Post*, June 11, 1998.

³ Andrew Chetham and Mark O'Neill "The future begins to take shape" *South China Morning Post*, June 11, 1998. See also Daniel Widdicombe, "Mobile-friendly trend is poised to continue" *South China Morning Post*, June 11, 1998, where the author describes the phasing out of the cellular connection fee from US\$1000 in 1994 to 0 in 2000. This has already contributed to dramatic growth given the otherwise low subscription fees and per minute charges.

⁴ International Telecommunications Union, World Telecommunication Indicators June 22, 1998.

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2. Toward liberalization: Emerging competition for china Telecom

The creation of China Unicom four years ago together with the reorganization of China Telecom as an "independent business-accounting enterprise" operating under the auspices of the Ministry of Post and Telecommunications represented the most dramatic step toward liberalization theretofore undertaken by China. China Telecom was to operate in a competitive environment, albeit a duopoly environment in which the second player was also state-owned, although run by a consortium of rival ministries.

Given that the current regulatory regime bans direct foreign investment in ownership, operations and management of telecommunications networks, and given that China Telecom is barred from entering into joint ventures with foreign firms, China Unicom has been the sole vehicle for foreign participation in the Chinese telecommunications market – and this very indirectly.⁵ Foreign partners seeking to invest must negotiate a pre-determined rate of return with Unicom and then link with a local partner in a joint-venture. The joint venture then funds Unicom. These are so-called Foreign-Chinese-Chinese or F-C-C joint ventures, since the foreign entity cannot enter into direct partnership with the Chinese telecommunications operator. As of March this year, 23 joint venture contracts of this kind worth US\$1.5 billion had been concluded with equipment sellers or operators for mobile networks.⁶

⁵ The following description of MPT policy was taken from the home page of China Telecom: "Apart from the permission of foreign investors' involvement in manufacturing of telecommunication equipment, they are also allowed, with the prerequisite that they are not involved in operation and management, to collaborate with Chinese partners in the following 8 forms: [numbering added]

(1) Providing loans; (2) Leasing; (3) BOT; (4) Joint venture projects. They could be two in kinds. One is the Chinese partner will, according to the agreement concluded by both sides, repay the foreign investment at an agreed date and pay fixed earnings to the foreign investor; (5) The other is that for a special joint venture project, the Chinese partner pays an agreed earning (the rate could be set up by a renowned certified accounting firm) to the foreign investor with the precondition that foreign investor shall not be involved in network operation and book account shall be clear enough. Chinese authorities are planning to define a rough limit for the return rate to be proposed for such joint ventures; (6) Attracting foreign investment in telecommunications projects by establishing telecommunications development foundation or issuing bonds; (7) Foreign investors may set up a joint investment firm with MPT's overseas companies, such as Hong Kong-based Tianbo Co., to initiate investment in mainland's post and telecommunication projects which will be operated by the mainland's post and telecommunication authorities when completed. The foreign investor will harvest returns according to bilateral agreement; (8) MPT may, with the approval of the State, make some selected projects be listed in overseas capital market; In addition to above-mentioned forms, cooperation may be established in other mutually benefited forms accepted by both sides.

The above 8 forms are simple in definition but could be difficult and complicated in implementation as the result of the tough restrictions imposed by the current policies in this sector."

⁶ Andrew Chetham, "Foreigners await outcome of post-merger restructuring" *South China Morning Post*, June 11, 1998.

Unicom's entry into the market has been met with stiff resistance from China Telecom, which has been successful in refusing or delaying interconnection. When Unicom sought to install its own fixed networks in Tianjin and Chengdu with funding from Asian American Telecom Corp., a division of Metromedia, and backed by Sprint and Sumitomo, China Telecom was incooperative. In the cellular market, where Unicom has managed to unroll its services, its market share remains a tiny fraction of that held by China Telecom: 5% as compared with 95%. Unicom has been somewhat more successful in the more competitive paging market, with some one million customers nationwide.

A third, perhaps surprising, but increasingly active player in the market is the People's Liberation Army (PLA), which has been using excess capacity on its own fixed telecommunications network together with spectrum allocated for military purposes to offer services. Like Unicom, the PLA has been exploring joint venture arrangements with foreign firms in its effort to establish a national CDMA mobile network.⁸

Last year, and with celerity that demonstrates the capacity of China to effect rapid change when it so decides, the Ministry of Post and Telecommunications created China Telecom (Hong Kong) (CTHK). The firm was established under the direct control of the MPT through an unlisted parent company, and was to serve as a "window company" to explore investment opportunities in Hong Kong for the cellular market on the mainland. The company was initially assigned the assets of the two largest provincial cellular networks under the control of China Telecom – Guangdong and Zhejiang – with the possibility of further asset injections in the future. The MPT agreed, in turn, that it would not participate in the provision of cellular service in any province where CTHK operates. Despite no shareholder role in controlling management, the initial public offering for CTHK, now listed on the Hong Kong and New York Stock Exchanges, raised US\$4.2 billion, this in the midst of the Asian financial crisis. In April of this year, CTHK purchased the China Telecom assets of a third provincial cellular network – Jiangsu. With this acquisition, CTHK now has over 30% of the cellular market in China. Further projected purchases of provincial networks could soon allow CTHK in effect to divest China Telecom of all of its cellular assets, paving the way for further reoganization of China Telecom.

Andrew Chetham, "China Telecom, bureaucracy stonewall Unicom", South China Morning Post, June 11, 1998. See also Duncan Clark, "Company misses out on mobile business boom", South China Morning Post, June 11, 1998 and Nick Ingelbrecht, "The China Syndrome", Communications Week International 1 June 1998.

 $^{^8}$ Andrew Chetham, "PLA muscling into sector with its separate network", South China Morning Post, June 11, 1998.

⁹ Andrew Chetham, "CTHK set to continue march into provinces", South China Morning Post, June 11, 1998. See also Mark O'Neill and Andrew Chetham, "Beijing retains telecoms control", South China Morning Post, August 4 1997.

¹⁰ See Figure 1 below setting out the shareholding structure of CTHK. Source: International Technology Consultants, "China Telecom (Hong Kong) Ltd.: Structure and Expansion Plans", *Telecom Market Report: China, India and Pacific Rim.* October 31, 1997.

CTHK's unlisted parent company, China Telecom (Hong Kong) Group, also holds 13% of Hongkong Telecom.

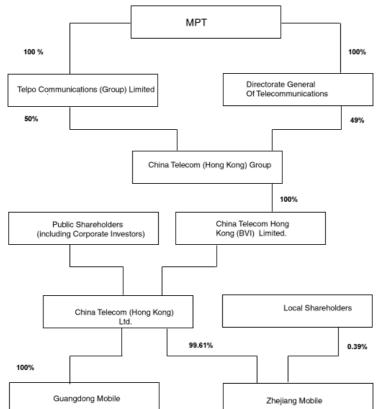


Figure 1: China Telecom (Hong Kong) Corporate Structure

In contrast to the cellular and fixed voice telephony markets, the pager market is currently open to domestic competition. 280 pager networks operate in 22 provincial capitals. There are thousands of small paging companies, many of them unlicensed to operate. China Telecom nevertheless has 75% of the market, followed by China Unicom, which has 2% of the market. Foreign firms have done extremely well in selling pagers, with Motorola holding 30% of the market. There is now considerable speculation that China will hive off the paging operations of China Telecom and merge them with the paging operations of the provincial telecommunications administrations (PTAs) so as to create a new listed national paging company in advance of opening the market to foreign competition. As CTHK acquires cellular assets, China Telecom

¹¹ Mark O'Neill, "National giant to counter competition", South China Morning Post, June 11, 1998.

¹² Mark O'Neill, "Paging sector to face consolidation before WTO entry", South China Morning Post, May 26, 1998.

could be left only with its local and long distance fixed network, which in turn might be separated into different entities.

Four service providers are currently authorized to offer internet access in China, but they must use MPT's international gateways. Two provide commercial services: ChinaNet, China Golden Bridge Network (GBNet), operated by Jitong Corporation, formerly a subsidiary of the Ministry of Electronic Industry. Two are established for academic purposes: CERNET, which is supported by the State Education Commission and connects 100 key universities and colleges, and CASNET, which is operated by the Chinese Academy of Sciences and links approximately 100 science and technology research institutes nationwide.¹³

Sales of information technology products have been subject to successful foreign competition since Motorola's initial sales of cellular equipment in 1986-87.¹⁴ However, some taxes and import duties have effectively required foreign firms to establish operations in China rather than simply to sell foreign manufactured products. Tariffs of between 6 and 30% now cover these products, and China has been pressured to conform to the WTO Information Technology Agreement, which provides for the elimination of such tariffs by the year 2000.¹⁵

3. The Regulatory and institutional framework for future reform

At the recent 15th People's Congress, a major ministerial reorganization was effected, creating the Ministry of Information Industry (MII) by merging the Ministries of Post and Telecommunications (MPT) with the Ministry of Electronics Industry (MEI) and functions for information and network management of the Ministry of Radio, Film and Television, China Aerospace Industry Corp and China Aviation Industry Corp. This reorganization may have positive or negative consequences for the future liberalization of telecommunications in China. From an optimistic standpoint, it paves the way for the complete separation of the regulatory function from the service provider function. Previously, the MPT had championed its carrier, China Telecom, whereas the MEI had championed the carrier in which it was the lead shareholder, China Unicom. If the new MII ultimately operates at arm's length from both of the carriers, this bodes well for China ultimately being able to meet the principles of the Reference Paper. However, the reappearance of former MPT Minister Wu Jichuen as Minister of Information Industry also raises the prospect that the former MPT will simply consolidate its hold on the industry and continue to play a managerial role. China Unicom's already precarious role as second carrier may become all the more so as it falls under the authority of China Telecom's masters.

¹³ International Technology Consultants, "Internet in Greater China", *Telecom Market Report: China, India and Pacific Rim*, October 31, 1997.

¹⁴ Andrew Chetham, "Motorola looks to regain edge", *South China Morning Post*, June 11, 1998.

¹⁵ Bill Pietruchka. Newsbytes. October 29, 1997.

¹⁶ See Nick Ingelbrecht "'Super ministry' harms foreign hopes in China", *Communications Week International*, 20 April 1998.

One practitioner based in Beijing has described the current regulatory structure as "odd mix of detailed regulations in certain areas, such as the Internet and paging, and the lack of a comprehensive and national telecoms law and governing regulations which address industry concerns." The current absence of a telecommunications law – the MII is now considering a ninth draft bill¹8 – has left telecommunications policy directly in the hands of officials and has given rise to a complex patchwork approaches to services, standards and prices at the level of the PTAs, which in principle come under the authority of the Ministry in Beijing but in practice have acted with considerable independence.¹9

If one puts the best face on it, the creation of the MII will prompt the adoption of a new legislative and regulatory framework and therefore provides an opportunity to test China's willingness to adopt and implement GATS principles. Minister Wu Jichuen was quoted in 1997 as saying that the appropriate conditions for opening China's telecommunications market would only arise in about 2010.²⁰ However, the current pace of development in China suggests the practicability of a range of future liberalization measures over the shorter and longer term. These are listed in order of China's preparedness, given current market conditions and institutional arrangements, together with questions about realistic negotiation outcomes:

(1) Adoption of the WTO Information Technology Agreement leading to the elimination of information technology tariffs by 2000²¹

¹⁷ Jacqueline P.L. Teoh, "Sector seeks level pathway between the legal potholes" *South China Morning Post*, June 11, 1998. She surmises that any new legislation is likely to "include a restatement of the ban on direct foreign investment in ownership, operations and management of networks, and regulation of the standard of telecoms equipment and design" and "unlikely to contain any specific reference to the contents of interconnection agreements – including interconnection obligations between the incumbent operator, China Telecom and other operators - or to address tariff structures."

¹⁸ See Ingelbrecht, *supra* note 16.

¹⁹ See Ingelbrecht, *supra* note 7.

²⁰ Interview with Wu Jichuen, South China Morning Post, August 28, 1997. Some openness to a faster timetable has surfaced recently only to be denied by MPT officials. In September, 1997, Singapore Prime Minister Goh Chok Tong announced to the US-ASEAN Business Council that China would allow foreign companies to provide some telecoms services first in selected cities and then throughout the country by the year 2000. The next day, an MPT spokesman in Beijing was reported saying: "I haven't heard the news. Foreign operators are not allowed to participate in telecoms services in China." See Ingelbrecht, ibid..

This feature of WTO accession is not discussed further in this paper. It is worth noting, however, that it has figured among specific criteria for WTO accession formulated in the United States: see Information Technology Industry Council, *China WTO Accession*, June 3, 1997. The Information Technology Agreement was signed by the United States, the 15-Member European Union, and Australia, Canada, Hong Kong, Iceland, Indonesia, Japan, South Korea, Norway, Singapore, Switzerland, Turkey, Costa Rica, Czech Republic, Estonia, Israel, India, Macau, Malaysia, New Zealand, Panama, Poland, Romania, Slovak Republic, Thailand and the Chinese Taipei custom territory, which includes Taiwan, Penghu, Kinmen and Matsu.

- (2) Market access for telecommunications equipment sales, rental, maintenance, connection, repair and consulting services, videoconferencing, and value-added services (which regions? what timetable? investment limits?)
- (3) Market access for data transmission and private leased circuit services (what regions? what timetable? investment limits?)
- (4) Market access for paging services (which regions? what timetable? investment limits?)
- (5) Structural separation of MII regulatory functions from network operation so as to be consistent with Clause 5 of the Reference Paper (partial, complete or future adoption of Reference Paper?)
- (6) Direct foreign investment (to what limits?), with managerial authority, in cellular joint ventures with China Unicom, PLA, and China Telecom (Hong Kong) (what regions? what timetable? investment limits?)
- (7) Full opening of market access and national treatment in local and long distance voice telephony (in advance of 2010?)

A set of potential Chinese commitments around the last six points can usefully be compared with scheduled commitments under the Basic Telecommunications Fourth Protocol so as to provide a reasonable benchmark for China.

II. Comparisons with fourth protocol schedules

1. A Brief Account of the Fourth Protocol on Basic Telecommunications

It is unnecessary here to review the features of the Fourth Protocol, which are now well understood.²² It suffices to note that the Fourth Protocol itself is a skeletal document and that the essence of the Agreement on Basic Telecommunications is to be found in the range of Schedules of commitments, which include market access and national treatment commitments for a large set of services and commitments to the Reference Paper on regulatory principles. The outcomes of the negotiation are summarized in Appendix. 1. Appendix 2 contains a summary of the timetable for implementation of commitments and Appendix 3 presents in graphic form the range of timetables across service groups.

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²² For an excellent summary, see Pierre Larouche and Marco Bronckers, "Telecommunications Services and the WTO" (1997) 10 *J. World Trade L.*

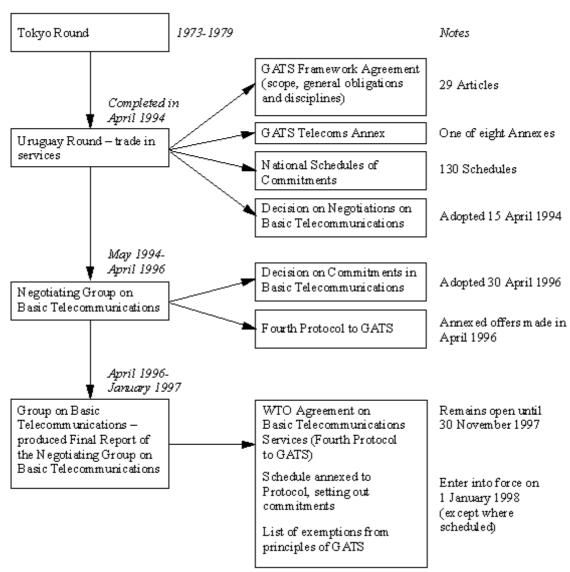


Figure 2: Negotiating History of Agreement on Basic Telecommunications Services²³

²³ Source: Analysys Consultancy, "WTO Agreement on Basic Telecommunications" (1997).

Table 2: Classification of Fourth Protocol Schedules²⁴

Range of

Services Opened

Foreign ownership restrictions?

	Yes	No
	• Canada	Argentina Iceland
	• Colombia	Australia Ireland
	• France	Austria Italy
	 Japan 	Belgium Luxembourg
All	• Korea	• Chile • Netherlands
All	 Mexico 	Denmark Norway
	New Zealand	• Finland • Spain
	 Portugal 	• Germany • Sweden
	• USA	• Greece • Switzerland
		Hong Kong UK
	• Belize	Bolivia Guatemala
	• Brazil	Bulgaria Jamaica
	 Hungary 	• Czech Rep • Peru
	• Indonesia	Dominica Romania
Limited	 Philippines 	• Dominican Re- • Trinidad & To-
	 Poland 	public bago
	 Singapore 	• Ecuador • Turkey
	• Slovak Rep.	• El Salvador • Venezuela
	• South Africa	Grenada

²⁴ Source: Analysys Consultancy, "WTO Agreement on Basic Telecommunications" (1997).

Very • restricted •		Bangladesh
	buda	• Brunei
	• Ghana	Cote d'Ivoire
	• India	 Mauritius
	• Israel	 Pakistan
	 Malaysia 	Papua New Guinea
	• Morocco	 Senegal
	• Tunisia	Sri Lanka
		• Thailand

While it is certainly a difficult exercise to classify with precision the diverse characteristics of various schedules, Table 2 represents a reasonable attempt to compare all schedules. It is based on a general appreciation of the quality of the commitments made. Some of these judgments are difficult. For example, Ecuador is not listed as a "very restricted" presumably because it has opened its cellular market to foreign entry and competition. However, it made no other commitments of any kind, including the Reference Paper. India, the case this paper will focus upon, arguably has a more liberal Schedule than that of Ecuador. A somewhat more precise way to "measure" liberalization is to look at the numbers of commitments made across service categories and at timetables for voice telephony liberalization. Such an analysis yields the following results.²⁵

Table 3: Members Making Fewest Commitments (by category)



²⁵ The difficulty with both of these measures is that they do not capture adequately degree or scope of liberalization, something that Table 2 attempts to do.

Table 4: Members Making Few Commitments (by Category)

India (7)

Sri Lanka (8)

Colombia (9)

Antigua & Barbuda (10)

Argentina (10)

Chile (10)

Guatemala (10)

Hungary (10)

Morocco (10)

Turkey (10)

Table 5: Slowest Liberalization of Voice Telephony

Belize (none)

Colombia (none) LONG DIST., INT'L

Cyprus (none)

Dominica (none)

Ecuador (none)

Jamaica (2013)

Antigua & Barbuda (2012) INT'L

Barbados (2012)

Brunei Darussalam (2010)

Trinidad & Tobago (2010)

Cote d'Ivoire (2008)

Grenada (2006)

Senegal (2006)

Thailand (2006)

Tunisia (2006)

Turkey (2006)

Table 6: Less Slow Liberalization of Voice Telephony

Bulgaria (2005)

Indonesia (2005)

Hungary (2004)

India (2004) INT'L

Mauritius (2004)

Pakistan (2004)

Ghana (2003)

Greece (2003)

Poland (2003)

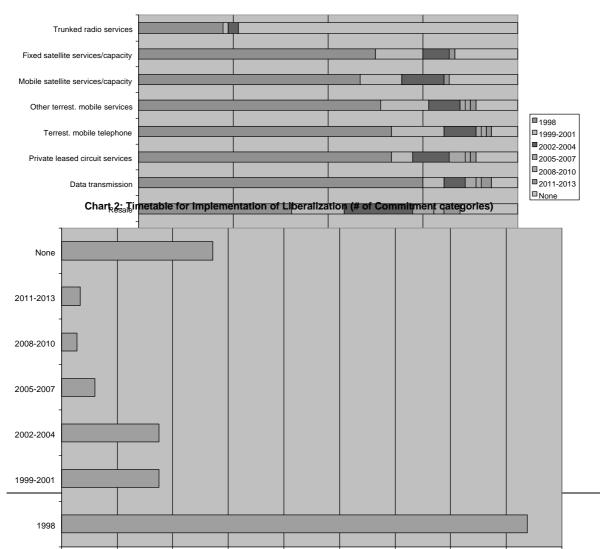
Romania (2003)

Slovak Republic (2003)

South Africa (2003)

Suriname (2003)

Chart 1: Timetable for Implementation of Liberalization (# of Schedules)



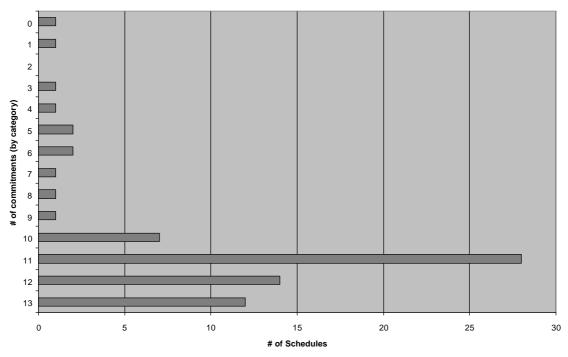


Chart 3: Numbers of Commitments (by category)

More detailed case studies of Brazil, Colombia, Korea, and India are attached to this paper. The Indian case will be given most attention because India fits into the "moderate" category for developing countries both as concerns numbers of commitments and as concerns pace of voice telephony liberalization. It seems to provide the most useful single benchmark for China. In the discussion that follows, other schedules will be compared as relevant.

One can glean some general principles governing the methodology of schedules that should be borne in mind as one attempts to benchmark a Chinese offer. In essence, Members commit to what they are doing and set timetables for realizable future improvements. The actual timetable for change may be faster than the scheduled timetable, as India itself demonstrates. The GATS is not in place to be the driver of change; technology and economics are doing that job. Rather, the GATS is a guarantor that liberalization is locked in and becoming progressive at a pace that Members can meet.

2. The Example of India

Among the countries that committed to moderately restricted schedules, the example of India offers a number of useful parallels to the case of China.²⁶ Although China has made more rapid progress than India in expanding its telecommunications infrastructure, both countries can be classified as developing countries on the strength of existing teledensity and numbers of main telephone lines per 100 inhabitants. Both countries have been making a slow shift from Ministry

²⁶ For more detailed discussion, see Srinivas Kaushik, "India's Commitments Relating to Telecommunications", annexed to this paper. See also, Rekha Jain, "Issues in Operationalizing a Regulatory Framework in India" Centre for Telecommunications Policy Studies, Indian Institute of Management at Ahmedabad, 1997 (paper on file with author).

regulated and operated telecommunications services to structural separation of regulation and operation. The newly formed Telecommunications Regulatory Authority of India (TRAI) was in the midst of being created as India negotiated its Fourth Protocol commitments. The emergence of MII at the same time as China negotiates its Fourth Protocol commitments is a similar phenomenon. Both countries have taken their first steps toward liberalization by implementing a duopoly policy both in fixed line and in cellular telephony. Both countries have pursued regional, provincial policies, in India's case by licensing duopolies in each of 20 service area "circles" that essentially correspond to provincial boundaries. In China, the PTAs have given rise to similar results.

The main structural differences between the regulatory and policy environments of the two countries are as follows. Unlike China, India has allowed a multiplicity of Indian private sector carriers to be created. Cellular licences were awarded before there had been entry by the Department of Telecommunications (DoT) or by Mahanagar Telephone Nigam Ltd. (MTNL), a local and domestic long distance operator wholly owned by DoT. The cellular duopolies in each circle were granted on the basis of private sector bids. The second basic telephone service operator in each circle has been licensed to compete against DoT or MTNL. Each of the 17 new private sector carriers has obtained one or more circle cellular licenses or "second" basic telephone circle licenses. Furthermore, India has allowed direct foreign investment in partnerships formed with the new private sector carriers. Indeed, Guandong PTT is a partner of Shyam Telcom, operating in Rajasthan. Foreign partners are limited to a total of 49% of equity. India has also proceeded farther than China in dividing and corporatizing the state-run telecommunications operations. Both MTNL and VSNL, the exclusive international long distance operator, have access to foreign capital markets and have managerial independence from DoT. On the other hand, by creating China Unicom as an entity that can operate throughout China and across service segments, including long distance, China's duopoly is more evenhanded than India's. In India, the second circle basic telephone service operator must use DoT or MSNL for inter-circle traffic. India's fledgling private sector operators are thus far having less success in gaining markets and market share than four year-old China Unicom. China has also moved more rapidly than India in allowing competition in the paging sector. India pursues a circle duopoly approach in paging and in fact has made no commitments regarding paging in its Fourth Protocol Schedule. Finally, it should be noted that India's strong tradition of judicial independence has served to anchor the reform of regulatory institutions.

With these comparisons in mind, the Schedule of Indian commitments provides useful background for China and one reasonable benchmark for a Chinese offer.²⁷ In what follows, the relevant elements of India's Schedule are treated in turn.

 $^{^{\}rm 27}$ GATS/SC/42/Suppl. 3 (India), reproduced as an appendix to this paper.

Voice telephone service

India's strategy on voice telephony was to codify the existing situation, to provide some guideposts for future policy liberalization, and to build in some flexibility for accelerating change if regulatory policy so dictates. China could well follow this approach.

Thus, India committed to licensing a second service provider in each circle for a period of ten years, at which time the policy position would be reviewed. Nevertheless, the "Designated Authority" – unnamed because of the uncertainties surrounding the creation and jurisdiction of TRAI at the time – can, on the basis of need, issue new licenses. Foreign direct investment was capped at 25% of equity. In practice, India's foreign investment policy is already much more liberal than that to which it has committed. It currently allows up to 49% foreign equity participation, which, when combined with a holding company structure, can yield effective control.

It should be noted that India excluded resale of public voice and international long distance from its voice telephone market access and national treatment commitments. Like a number of other countries, including Indonesia, Malaysia and Singapore, India's policy is to exclude resale. As regards international long distance service, however, India did make an additional commitment to review, in the year 2004, the opening up of international service to competition. This parallels the additional commitment to review in the year 1999 the opening up of national long distance service beyond each circle to competition. The notion that India will review its policy rather than commit to future liberalization means that India has reserved to itself some flexibility in implementation that is arguably justified at a time when India, like China, is just launching its liberalization process. Nor is India alone among WTO Members to have recourse to future policy "reviews" in its Fourth Protocol Schedule.³⁰

If China were to follow the Indian pattern it could commit to its existing regime – two voice telephone operators – for a fixed period at which time it would review its position. It

For a similar "needs test" commitment for public facilities-based long distance and international voice telephony, see GATS/SC/20/Suppl.2 (Columbia) and discussion in Mercedes Aldana, "WTO Commitments on Basic Telecommunications Services and Corresponding National Regulatory Frameworks: The Case of Colombia", reproduced as an appendix to this paper. See also Argentina's commitment on cellular services, GATS/SC/4/Suppl.1 (Argentina), Ghana's commitment allowing for the licensing of additional suppliers in "underserved" areas, GATS/SC/35/Suppl.1 (Ghana), and the general public convenience and necessity test incorporated into the Philippines commitments, GATS/SC/70/Suppl.2 (Philippines).

²⁹ See S.K. Manikutty, "WTO and India: the Present Situation and the Future Implications" Centre for Telecommunications Policy Studies, Indian Institute of Management at Ahmedabad, 1997 (paper on file with author).

See GATS/SC/95/Suppl.1 (Brunei Darussalam), GATS/SC/25/Suppl.1, (Cyprus), GATS/SC/35/Suppl.1 (Ghana), GATS/SC/44/Suppl.1 (Israel), GATS/SC/118/Suppl.1 (Papua New Guinea), GATS/SC/75/Suppl.1 (Senegal), GATS/SC/79/Suppl.1 (Sri Lanka), GATS/SC/78/Suppl.2 (South Africa), GATS/SC/80/Suppl.1 (Suriname). Ghana's additional commitment to review duopoly licensing in particularly relevant for China: "The duopoly operators are granted exclusivity for a period of five years. At the expiration of this period, the Government will conduct a review of its policy to determine whether to license additional suppliers of such services."

could also commit to further licenses from a "designated authority," as yet unspecified, on the basis of need. It could specify foreign investment limits in joint ventures. In additional commitments, it could indicate a timetable for reviewing both the duopoly market structure and foreign investment only via F-C-C joint venture. Since China, unlike India, does not already have private telecommunications operators or foreign direct investment in telecommunications operators, its timetable for review would have to be shorter than India's 10 year duopoly review. India can review national long-distance competition relatively quickly, 1999, because this essentially means extending the ability of existing competitors to provide service. Similarly, China could commit to a relatively short timetable for the review of restrictions on joint ventures, because the substitution of an F-C structure for an F-C-C structure would simply provide more financing flexibility to an existing investor market. India's longer 2004 timetable for reviewing the opening up of international service to competition is justified because it involves a larger institutional shift from the current VSNL monopoly to competition. Such a timetable might be an appropriate benchmark for a review by China of duopoly competition by state-owned entities, and would also be consistent with timetables for countries such as Bulgaria, Hungary, Pakistan and Indonesia. It would give sufficient lead time for the China Telecom reorganization and CTHK corporatization process to run its course, for new financing via direct investment to take hold, and for MII to assume the role of independent regulatory agency.

Cellular mobile telephone

The approach India followed with respect to cellular mobile telephony was parallel to that followed for wire based voice telephony. Once again, it committed to a duopoly that would be maintained for 10 years and then reviewed. It also allowed for the possibility of new licenses on the basis of need. Three additional nuances should be mentioned. First, India specifically reserved the right of DoT and MTNL to enter the cellular market – something that remains a matter of controversy in India today. Second, India specified that only digital GSM terrestrial based technology would be permitted – something China would not imitate since it has allowed for the introduction of a variety of standards, including GSM and CDMA. Finally, there are no additional commitments that parallel the review of the introduction of competition specified in the voice telephony commitments. This is explained by the fact that the current cellular market structure in India is based on private sector duopoly competition.

Because India is ahead of China in the introduction of private sector competition in cellular telephony, China would have to make include a liberalization timetable if it were to produce equivalent commitments to those of India. Thus, China's commitments for mobile telephony ought to include a review of duopoly competition by state-owned entities, perhaps on the same timetable as the same review for voice telephony.

Other services

India's approach to other telecommunications services was to taking existing market participants in voice and cellular and allow them some additional flexibility. Thus, India included commitments allowing licensed voice telephone operators to provide circuit switched data transmission services, facsimile services and private leased circuit services in their circles. These

commitments were subject to the proviso that data transmission and fax services use the public switched voice telephone network operated by DoT/MTNL or a licensed operator. Fax services can be provided by franchisees of licensed service operators. India's general prohibition against resale extends to private leased circuit services. No commitments were made as regards paging.

If China were to make parallel commitments to those of India, it could start with what India has left out – paging. This is the area in which existing levels of competition are high in China. One strategy could be to extend to paging operators the opportunity to offer additional services such as facsimile or data transmission. Another approach would consist in making firm commitments only with respect to paging and to undertake review of competition in other service sectors on an established timetable. It should be noted, however, that virtually all schedules contain immediate formal commitments to market access and national treatment for data transmission, private leased circuit services and non-telephone terrestrial mobile services. These are sectors in which China could demonstrate flexibility. In the case of private leased circuit services, the general obligations under the Annex on Telecommunications contemplate, in Section 6(b), that:

Each Member shall ensure that service suppliers of any other Member have access to and use of any public telecommunications transport network or service offered within or across the border of that Member, including private leased circuits, and to this end shall ensure, subject to paragraphs (e) and (f), that such suppliers are permitted:

- (i) to purchase or lease and attach terminal or other equipment which interfaces with the network and which is necessary to supply a supplier's services;
- (ii) to interconnect private leased or owned circuits with public telecommunications transport networks and services or with circuits leased or owned by another service supplier; and
- (iii) to use operating protocols of the service supplier's choice in the supply of any service, other than as necessary to ensure the availability of telecommunications transport networks and services to the public generally.

These provisions entail that foreign suppliers of non-telecommunications services otherwise covered by GATS commitments have the right to interconnect private leased circuits with the pubic telecommunications network.³¹

A number of developing countries, such as Pakistan and Jamaica, have included value-added services in the list of immediately liberalized services, and China has already contemplated commitments in this respect, which would in any event flow from accession to the GATS. 32

³¹ It should be noted that under paragraph (g), "a developing country Member may, consistent with its level of development, place reasonable conditions on access to and use of public telecommunications transport networks and services necessary to strengthen its domestic telecommunications infrastructure and service capacity and to increase its participation in international trade in telecommunications services. Such conditions shall be specified in the Member<s Schedule."</p>

³² The WTO has described "value-added" services as follows: "Value-added services, or telecommunications for

Reference Paper

Of the 72 Members that have filed Schedules with the WTO, 56 have committed to the Reference Paper on regulatory principles formulated by the Negotiating Group on Basic Telecommunications. An additional four Members committed to future adherence to the Regulatory Paper. Only four, Brunei Darussalam, Cyprus, Ecuador and Tunisia made not commitments to the Reference paper. The remaining seven, Bolivia, India, Malaysia, Morocco, Philippines, Turkey and Venezuela, adopted variations and limitations upon the Reference Paper.

It should be noted, first, that the Reference Paper elaborates upon principles already contained in the GATS, notably transparency (Article III), independent domestic regulatory processes (Article VI), and elimination of anti-competitive practices (Article IX). The Reference Paper elaborates upon these principles as they pertain to basic telecommunications services.

India's commitments with respect to the Reference Paper may once again provide a relevant comparison for China. Of the six sections in the Reference Paper, India adopted two in their entirety (Public availability of the procedures for interconnection negotiations and transparency of interconnection arrangements). The remaining sections were modified as follows: (1) to allow India to continue cross-subsidization policies; (2) to remove references to "non-discriminatory" terms of interconnection and allocation of scarce resources, thereby allowing India greater differential licensing discretion; (3) to loosen requirements of proportionality in the allocation of costs and unbundling of services; (4) to reinforce India's right to define universal service obligations; and (5) to loosen the requirements of regulatory independence, at the same time as accepting the principle of impartiality.

3. Regional implementation of liberalization

An important additional issue is that of the geographic scope of any Chinese commitments. The strong role of PTAs together with the longstanding policy preference for testing liberalization strategies in individual provinces before applying them to the country as a whole tend to nudge China toward preferring commitments on a provincial rather than national basis.

It should be noted, however, that liberalization commitments that are restricted to a narrow set of sub-units are unprecedented and problematic from the standpoint of the WTO progressive liberalization objective. The idea that a Member could adopt liberalization commitments on a regional basis is in some tension with the effort in the GATS to bind both Members and their regional subdivisions, as is specified in Article I that:

3. For the purposes of this Agreement:

which suppliers "add value" to the customer's information by enhancing its form or content or by providing for its storage and retrieval were not formally part of the extended negotiations. Nevertheless, a few participants chose to include them in their offers. Examples include on-line data processing, on-line data base storage and retrieval, electronic data interchange, e-mail or voice mail. More commonly liberalized than basic services, value added services were already included in the commitments of 50 governments as a result of the Uruguay Round of Multilateral Trade Negotiations and the accession of new WTO Members since that Round ended in 1994."

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- (a) "measures by Member" means measures taken by:
- (i) central, regional or local governments and authorities; and
- (ii) non-governmental bodies in the exercise of powers delegated by central, regional or local governments or authorities;

In fulfilling its obligations and commitments under the Agreement, each Member shall take such reasonable measures as may be available to it to ensure their observance by regional and local governments and authorities and non-governmental bodies within its territory;

It should also be noted that the progressive liberalization agenda set out in Article XIX, while providing explicitly for flexibility in implementation in the case of developing countries, does not list restricted regional implementation as one of the techniques open to developing countries.

On the other hand, whereas the Article XVI "black list" excludes limitations to market access adopted "on the basis of a regional subdivision", Members can specify such limitations in their Schedules. This entails that liberalization is the extend to the entire territory of a Member subject the scheduled exceptions. Of course, to implement liberalization only in a narrow set of regional subdivisions would make the exception swallow up the rule. Canada's Schedule of Fourth Protocol commitments offers an example of how Article XVI is meant to operate.³³ Canada has specified two provincial limits to its market access commitments (two provincial requirements that specific carriers be widely held) and a narrow set of limits to competition in localities served by "independent telephone companies".

Nationally implemented liberalization can be consistent with regional policy differences and experimentation. For example, in India, the terms of license have varied from circle to circle, and indeed the initial tendering process was based upon a classification of circles into three different categories, dependent upon levels of infrastructure development and degree of commercial opportunity. As already noted, India has reserved the right to grant different numbers of circle licenses according to a needs test.³⁴ Ghana was even more explicit in providing for the possibility of additional licenses in underserved regions.³⁵

If these alternative provincial strategies remain unsatisfactory from the Chinese standpoint, one way of squaring the circle would be for China to make initial commitments to implement a liberalization within specified provinces coupled with a timetable for extension of liberalization to the entire country.

³³ GATS/SC/16/Suppl.3 (Canada).

³⁴ See *supra* note 27.

³⁵ See *supra* note 28.

4. Commitments to future legislation

Brazil, Thailand and Turkey provide interesting examples for China as regards the problem of not yet having in place framework legislation governing telecommunications. China is still in the midst of considering draft legislation. India did not have to structure its commitments around future legislation, since its new legislative framework creating the TRAI had already been adopted. By contrast, when Brazil made its offer respecting the Fourth Protocol, it had not yet adopted legislation paving the way for the privatization of the Telebrás system.³⁶ It thus made its Schedule of commitments subject to the stipulation that: ³⁷

Within one year after the enactment by the President of the Republic, of the present draft General Telecommunications Law, Brazil will introduce into its Schedule commitments related to the supply of public telecommunications services binding the relevant parts in terms of Market Access of the new Law.

Similar stipulations were made as regards national treatment and the adoption of the principles in the Reference Paper. Of course, unlike in the case of China, Brazil did have draft legislation pending. That legislation was indeed enacted on July 16, 1997, in advance of the entry into force of the Fourth Protocol. Like China, however, Brazil had not yet begun the privatization process when it engaged in the WTO talks. Its timetable for privatization and liberalization remains in flux, since Telebrás is to be broken up into 13 separate entities before privatization is undertaken.

Thailand's position was more closely analogous to that of China, since it did not even have pending draft legislation when it made its scheduled commitments. These contain the following stipulation: ³⁸

Conditional upon passage and coming into force of all necessary new communication acts, commencing from the year of 2006, Thailand will introduce the market access elements as contained in those acts into the relevant parts of its Schedule of Specific Commitments relating to the supply of public telecommunication services.

However, it is important to note that in the wake of the Asian economic crisis, Thailand, has moved far more quickly than it expected towards opening its market, announcing this year that it would allow majority foreign control over its debt-strapped operators.³⁹ For similar rea-

³⁶ For more detailed discussion, see Julio Montero, "Brazilian Telecommunications Policy and the Fourth Protocol", annexed to this paper.

³⁷ GATS/SC/13/Suppl.2 (Brazil).

³⁸ GATS/SC/85/Suppl.2 (Thailand). See also Rommuk Piachan "Red Tape Threat To Thai Phone Development" Newsbytes September 8, 1997.

Nick Ingelbrecht, "Asian about-face clears way for foreign buyers", Communications Week International 18 May 1998. It is worth noting that like China, Thailand's concerns about national security partly explained its previous reluctance to open the market to foreign investment: "What has fueled foreign-ownership restrictions in the past in this region are degrees of concern about national security, privacy and common decency,' said Steve Liddell, president of WorldCom Asia Pacific Ltd., headquartered in Hong Kong. 'Those are all very

sons, Korea and Malaysia have also accelerated their foreign investment liberalization considerably in advance of Fourth Protocol commitments. Turkey made a set of commitments similar to but in a sense more emphatic than those of Thailand, specifying that markets would be opened by 2006, subject to the approval of necessary legislation:

Türk Telekomünikasyon A._. is the exclusive operator. Exclusive right will end by 31.12.2005, subject to adoption of the relevant legislation by the parliament.

However, this type of commitment is in fact open to considerable discretion as to the type succeeding market framework Turkey will implement: *e.g.* duopoly or open market. China already has a duopoly structure and therefore would not formulate a commitment along these lines. It could, however, formulate a commitment in some ways similar to the one made by Ghana,⁴⁰ in which it would end the exclusivity granted to the duopoly operators by a particular date, subject to the adoption by the National People's Congress of the relevant legislation.

III. National Security

1. National Security and Telecommunications

A linkage between national security and telecommunications has frequently been invoked in Asia as one reason for restricting foreign ownership of operators.⁴¹ During the period of military government in Brazil, similar concerns were raised to justify the cancellation of licenses for foreign-owned firms.⁴² Nor is the concern unfamiliar to the United States. In 1987, the *Report of the Defense Science Board Task Force on Defense Semiconductor Dependency* recommended that the United States establish a \$1 billion Department of Defense fund to counter foreign ownership of the semiconductor industry, in part because of the significance of microprocessors to telecommunications.⁴³ More recently, in its Open Entry Order of November, 1997, the FCC has made clear that national security concerns will be taken into account in the grant of licenses to foreign carriers:⁴⁴

valid concerns in many of the Asian locations. However, what I think is emerging is a new competitive paradigm, where it is in many countries' interests to attract inward investment, more foreign capital and technology, in order to fuel the growth of the information-based industry, notably the Internet,' Liddell said."

⁴⁰ See *supra* note 30.

⁴¹ See *supra* note 39.

⁴² See *supra* note 36.

⁴³ Office of the Under Secretary of Defense for Acquisition, Report of the Defense Science Task Force on Defense Semiconductor Dependency (Washington, D.C.: Department of Defense, February, 1987). The Task Force was chaired by Norman Augustine, president of Martin Marietta Corporation. See also Ashton Carter, "Telecommunications and National Security".

⁴⁴ Federal Communications Commission, Report and Order and Order on Reconsideration, Rules and Policies on Foreign Participation in the U.S. Telecommunications Market IB Docket No. 97-142 and Market Entry and

We conclude we should continue to find national security, law enforcement, foreign policy and trade policy concerns relevant to our decision to grant or deny Section 214 and 310(b)(4) applications from applicants from WTO Members.

Two broad issues arise in this connection. The first can be characterized as the dependency issue: will foreign control over essential infrastructure produce a dependency on service provision that could threaten national security when service is withdrawn, interrupted or otherwise impaired? The second can be characterized as the control issue: will state military and police authorities have insufficient control over foreign-owned infrastructure to protect national security. In China, like in many other countries, the dependency issues are in large measure addressed by the fact that the army has its own sophisticated and elaborate telecommunications network. The control issues are addressed in law in two ways. First, China has in place national security legislation and criminal law that allow it to assert control over telecommunications facilities for purposes of defending national security. Second, in acceding to the GATS, China would benefit from liberally interpreted provisions that allow it to take steps necessary to protect its essential security interests and steps necessary to protect public morals or to maintain public order. These two legal safeguards are addressed in turn.

2. The 1993 National Security Law and related legislation

In its 1993 *National Security Law*, China has defined with some legal precision how China interprets the term "national security".⁴⁵ The legislation, adopted by the Standing Committee of the National People's Congress, makes clear that national security is only endangered where there is external interference. Thus, Article 4 provides that "an act endangers China's national security when organizations or individuals outside China commit, request or support others in committing, or collude with organizations and individuals within China to commit acts that endanger national security."⁴⁶ The same provision identifies fives classes of act that endanger national security:

- plotting to subvert the government, dismember the state, or overthrow the socialist system;
- 2) participating in foreign intelligence organizations or accepting missions from such organizations or their agents;

Regulation of Foreign-Affiliated Entities IB Docket No. 95-22, Released: November 26, 1997.

⁴⁵ For an analysis of this legislation, see H.L. Fu and Richard Cullen, "National Security Law in China" (1996) 34 *Colum. J. Transnat'l L.* 449.

⁴⁶ See *ibid.* at 452-53. According to the terms of Article 4, "support" includes providing money, accommodation or materials to organizations or individuals outside China to carry out activities endangering the national security of China. "Collusion" includes the following acts: (1) plotting or carrying out activities endangering national security jointly with organizations or individuals outside China; (2) accepting support or missions from organizations or individuals outside China to carry out activities endangering national security; and (3) contacting organizations or individuals outside China and receiving their support, and aiding those or-

- 3) stealing, probing, purchasing or unlawfully providing state secrets;
- 4) instigating, bribing, or luring state personnel to defect; and
- 5) any other sabotage endangering state security.⁴⁷

Violations of the *National Security Law* are subject to criminal prosecution and thus trigger the search and seizure powers of the public security bureau.⁴⁸ These powers are broadly defined, and include the ability of investigators to require the cooperation of post and telecommunications offices. In short, China has given itself ample domestic authority to assert control over telecommunications facilities where national security is threatened.

3. Relevant GATS exceptions

Because China's national security concerns are shared by many WTO Members, both the GATT and the GATS include provisions that safeguard national security interests. Article XIV bis of the GATS provides, in relevant part:⁴⁹

Nothing in this Agreement shall be construed:

- (b) to prevent any Member from taking any action which it considers necessary for the protection of its essential security interests:
 - (i) relating to the supply of services as carried out directly or indirectly for the purpose of provisioning a military establishment;
 - (ii) relating to fissionable and fusionable materials or the materials from which they are derived;
 - (iii) taken in time of war or other emergency in international relations;

ganizations or individuals to commit activities endangering national security.

⁴⁷ This provision should be read together with Articles 91-97 of the *Criminal Law* of 1979, which provides a similar list of "counterreolutionary offences". National security offences committed in violation of the *National Security Law* are subject to penalities provided under the *Criminal Law*. Article 8 of the Rules promulgated by the Ministry of National Security define a range of "other activities" which constitute "sabotage". These include: 1) organizing, planning or carrying out terrorist activities endangering national security; 2) falsifying or distorting facts, publishing or spreading statements, either in writing or orally, or making or broadcasting audio or video products, endangering national security; 3) using established social, economic or administrative organizations to carry out activities endangering state security; 4) using religion to carry out activities endangering state security; 5) creating ethnic disputes, inciting ethnic separation, endangering state security; and 6) individuals from outside China meeting persons from inside China who are a threat to, or are suspected of being a threat to, state security. Fu and Cullen suggest that this regulatory interpretation of Article 4(5) of the *National Security Law* is extremely open-ended and possibly *ultra vires*.

⁴⁸ See *Lexis* Chinalaw No. 40 Articles 78-86.

⁴⁹ The parallel provision of the GATT is Article XXI, which has virtually identical wording.

While it is clear that this provision was originally meant to address threats to national security in time of war or other similar emergency, the term "emergency in international relations" has come to be interpreted by many countries, not least the United States, as lying fully within the discretion of Member interpretation.⁵⁰ This is the position the United States has adopted in defending the *Cuban Liberty and Democratic Solidarity Act* (Helms-Burton Act) as well as the *Iran-Libya Sanctions Act*, both passed in 1996.⁵¹ Whatever the ultimate outcome of EU challenges to this legislation before the WTO, it seems clear that China's *National Security Act* and its enforcement directly contemplate situations giving rise to an "emergency in international relations".

In addition to Article XIV bis, Article XIV contains a provision relevant to China's concerns:

Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where like conditions prevail, or a disguised restriction on trade in services, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any Member of measures:

(a) necessary to protect public morals or to maintain public order

This provision is subject to the understanding of WTO Members that the public order exception may be invoked only where a genuine and sufficiently serious threat is posed to one of the fundamental interests of society. Nevertheless, much of what the *National Security Law* contplates

− *e.g.* sabotage and espionage − would fall within this category.

4. Summary

China has the necessary tools to protect national security both under its domestic legislative regime and under Articles XIV and XIV bis of the GATS. A Chinese WTO commitment to a timetable for liberalization of the telecommunications industry would not preclude the maintenance of foreign ownership limits or requirements that operators use the public-switched voice telephone network and not bypass the network. As it embarks on further liberalization, one can confidently predict that China, like Malaysia, Thailand and Korea, will come to accept that increased levels of foreign investment need not compromise security.

David Shapiro, "Be Careful What You Wish for: U.S. Politics and the Future of the National Security Exception to the GATT" (1997) 31 Geo. Wash. J. Int'l L. & Econ. 97. See also Michael Hahn, "Vital Interests and the Law of GATT: An Analysis of GATT's Security Exception " (1991) 12 Mich. J. of Int'l L. 558.

⁵¹ Helms-Burton Act, Pub. L. No. 104-114, and Iran-Libya Sanctions Act Pub. L. No. 104-172. See John Yoo, "Federal Courts as Weapons of National Policy: the Case of the Helms-Burton Act" (1997) 20 Hastings Int'l & Comp. L. Rev. 747 and Rene Browne, "Revisiting 'National Security' in an Interdependent World: the GATT Article XXI Defense after Helms-Burton" (1997) 86 Geo. L.J. 405.

II. Conclusion

A close analysis of the current state of Chinese telecommunications liberalization reveals that China should be in a position to make commitments under the Fourth Protocol similar in principle to those made by India and including a timetable for further commitments in the future. This paper has canvassed some of the strategies and techniques that might be used to achieve this result and has examined appropriate benchmarks for a Chinese offer. It ought not to be the case that telecommunications becomes a deal-breaker. There are indeed ways of accommodating China's legitimate needs and concerns, which have to do with the current realities of the telecommunications sector, practical prospects for future reform, and national security. China is a developing country, but it is also the second largest telecommunications market in the world. A Chinese Schedule of commitments under the Fourth Protocol should strike a balance between those two realities.