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Peter F Cowhey

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Abstract

This paper examines the substantial regulatory changes in North American telecommunications markets over the past decade. We argue that a combination of U.S. domestic politics and the logic of international strategic positioning produced substantial and far-reaching reform driven primarily by multilateral actions at the WTO and a set of unilateral U.S. initiatives (primarily benchmarks). Internationally, although NAFTA played an important role as a “building block” for the WTO agreement, we argue the lack of market coverage and more far-reaching WTO agreement ultimately limited NAFTA’s role in driving reform. The logic of U.S. domestic politics also played a central role by putting certain constraints on what the U.S. would accept in a telecommunications trade deal. Specifically, there was broad political support for a deal, but the particular problems facing U.S. carriers in competitive international markets meant any deal had to cover all major telecommunications markets and had to address the very real anti-competitive opportunities open to foreign monopolists. Our argument suggests continued reform is likely to be driven primarily by the framework established at the WTO, although the U.S. will continue to use unilateral initiatives to drive reform acceptable to key U.S. political actors.

Zusammenfassung

Dieses Papier untersucht die erheblichen Regulierungsänderungen auf dem nordamerikanischen Telekommunikationsmarkt während der letzten Dekade. Wir argumentieren, dass die Kombination von amerikanischer Innenpolitik und internationalen strategischen Interessen bedeutende und weit reichende Reformen erzeugte, ausgelöst vor allem von multilateralen Aktivitäten in der WTO und einseitigen Initiativen der USA (insbesondere Benchmarks). Die NAFTA war zwar ein wichtiger „Baustein“ für das WTO-Abkommen, ihr begrenzter Wirkungsbereich und die weiter gehenden WTO-Vereinbarungen beeinträchtigten aber letztlich ihre Rolle als Triebkraft für Reformen. Die amerikanische Innenpolitik spielte einen zentralen Part, da sich hieraus Grenzen bezüglich der Inhalte eines Telekommunikationsabkommens ableiteten, das die USA zu akzeptieren bereit waren. Zwar gab es eine breite politische Unterstützung für ein Abkommen. Angesichts der spezifischen Probleme der amerikanischen Anbieter im internationalen Wettbewerb musste aber jede Vereinbarung alle großen Telekommunikationsmärkte umfassen, und sie musste den sehr konkreten

Möglichkeiten ausländischer Monopolanbieter zur Beschränkung des Wettbewerbs Rechnung tragen. Unsere Überlegungen führen zu dem Ergebnis, dass weitere Reformen im Wesentlichen im Rahmen der WTO vorangetrieben werden dürften. Allerdings werden die USA auch in Zukunft einseitig Initiativen ergreifen, um Reformen durchzusetzen, die für ihre politischen Hauptakteure akzeptabel sind.

JEL Classification: F02, F13, L96

Keywords: International Economic Order, NAFTA, Trade Negotiations, Telecommunications

I Introduction

The regulatory landscape for North American telecommunications markets has witnessed dramatic changes over the past decade. In the mid-1980s, North American telecommunications markets combined local monopolies in services, trade barriers in equipment, and restrictive international arrangements to produce a stable but uncompetitive marketplace. Driven by US domestic regulatory and marketplace changes, advances in digital technology, and broader fiscal and monetary challenges in Mexico, this system faced serious pressure for reform in the late 1980s. Today North America is well advanced toward an integrated competitive market for both telecommunications services and equipment, including privatization and cross-border investments. The biggest problems are serious disputes around the fidelity of implementation of Mexico's World Trade Organization (WTO) commitments on local (as opposed to long distance) services, and Mexican policies designed to restrict the supply of cross-border services to Mexico, the biggest source of economic rents before general competition.

How did we go — in less than fifteen years — from a restrictive regulatory framework and state ownership to a significantly integrated and competitive North American telecommunications market? Domestic forces for change in all three nations led to unilateral decisions to liberalize their domestic markets. Yet opening the markets up to foreign competitors required the added impetus of regional and international trade agreements (i.e., NAFTA and the 1997 WTO agreement). It is notable that NAFTA was a “building block” for the WTO agreement, not a “stumbling block.”¹ Equally important, the equilibrium that emerged from the trade process could have been less liberalizing than the final outcome. The added margin of liberalization was the product of a unilateral US initiative in driving market change (i.e., the FCC Benchmarks) that was explicitly designed to complement the trade arrangements. In the case of telecommunications services at least, unilateral action was a necessary complement to an ambitious multilateral trade reform.

The combination of unilateral, regional, and international agreements in driving marketplace reform, coupled with the central role of the US market, makes understanding the drivers of US policy critical to understanding the history of liberalizing trade and investment of the North American telecommunications market. Two questions are critical. First, how do bilateral, regional and global agreements work

1 *J Frankel et.al., Regional Trading Blocs in the World Economic System* (Washington DC: Institute for International Economics, 1997).

together in integrating North American communications market? Second, what were the US incentives for employing these different tools for driving reform?²

Our answer to these questions has three parts. We begin with a brief discussion of US strategy for trade negotiations in general. This helps to explain the relationship between policy toward NAFTA and the WTO. The US needed NAFTA to be a good enough agreement to allow it to threaten to walk away from a Uruguay Round deal that was not satisfactory. However, general trade policy does not suffice to explain most of the telecommunications story. So, we then turn to the logic of international strategic positioning, particularly the central role of the US and US telecommunications providers in global telecommunications markets, to explain the sequence of what the US sought in the various trade negotiations. This logic explains why value-added services and equipment took early priority at NAFTA and the WTO. Strategic market considerations also illuminate why NAFTA did not become a stumbling block that discouraged the US from pushing for an agreement at the WTO. Only the WTO could produce a viable pact on basic telecom services. Yet this market strategy alone does not suffice to explain the US position. The logic of US domestic politics put certain constraints on what the US would accept in a telecommunications trade deal.³ In the end, the US balanced what was negotiable with what was politically necessary by complementing the trade agreements with unilateral regulatory action. This action addressed a legitimate market competition problem, but it also satisfied a crucial political constraint.

As a starting point for our argument, Section I provides the setting for the NAFTA and WTO negotiations. It reviews general trade policy and outlines the economics of international communications services market, particularly the perverse economic incentives created by the old cartel. This background is necessary for understanding why progress on trade in telecommunications services was so difficult in both NAFTA and the WTO. Section II examines NAFTA and outlines its implications for competition in equipment and services. We conclude that NAFTA may have helped to promote progress in the Uruguay Round but was eventually superseded by the WTO in both the equipment and services markets. In services, for reasons tied to the timing of the

2 Implicit in these two questions is a third. Why did Canada and Mexico agree? This study pays less attention to this question. On the general reasons for agreeing to NAFTA, see *F M Abbott*, 'Nafta and the Legalization of World Politics: A Case Study,' *International Organization* 54 (2000).

3 Our logic follows *Bates*, who shows the advantages of controlling for international market and strategic considerations before considering explanations focused on domestic politics and economics. *R H Bates*, 'The International Coffee Organization: An International Institution,' *Analytic Narratives*, eds *R H Bates* et al. (Princeton, NJ: Princeton University Press, 1998).

negotiations and the economics of the market, NAFTA was both more important for the Uruguay Round and also achieved less than the eventual outcome of the WTO talks. Section III shows how US domestic political economy constrained the outcomes of the WTO negotiations. It also led to an end game in the WTO negotiations where unilateral regulatory actions by the United States, designed as a complement to the WTO agreement, produced more reform of the market in cross-border services than a WTO agreement alone would have done.

II. The Setting: The Sequence of Trade Negotiations and the International Communications Market

A. The negotiating sequence: the logic of the clock

The Uruguay Round (the Round) was launched in 1986 during a period of growing gloom about the fate of the international trade system. There were suspicions that declining US power would weaken the political glue holding the free trade system together. American trade confrontations with Japan struck many observers as exhibiting one part of justifiable indignation against formidable non-tariff barriers and one part of desperation by a stumbling giant. Moreover, as many had observed, the Tokyo Round had removed most of the significant tariffs on the goods that industrial countries most wanted to liberalize. All that remained on the trade agenda seemed to be tariffs on goods where industrial countries were reluctant to liberalize thoroughly (e.g., agriculture and textiles) or non-tariff barriers, a much harder negotiating challenge.⁴

Considerable ingenuity went into creating a new Round. Seen from the US perspective, the Round's new agenda had three features. First, putting agriculture and textiles prominently on the agenda induced developing countries to cooperate. Second, Asian countries got consideration of binding dispute regulation that would temper American

4 For a summary of the Uruguay Round, see *J J Schott, The Uruguay Round: An Assessment* (Washington DC: Institute for International Economics, 1994); *J Whalley and C Hamilton, The Trading System After the Uruguay Round* (Washington DC: Institute for International Economics, 1996); *B Eichengreen and P B Kenen, 'Managing the World Economy under the Bretton Woods System: An Overview,' Managing the World Economy*, ed. *P B Kenen* (Washington DC: Institute for International Economics, 1994). For a history of trade in services, see *W J Drake and K Nicolaidis, 'Ideas, Interests and Interinstitutionalization: Trade in Services and the Uruguay Round,' International Organization* 45 (Winter 1992). On NAFTA, see *Abbott; R E Feinberg, Summitry in the Americas: A Progress Report* (Washington DC: Institute for International Economics, 1997), 42-48.

use of anti-dumping and countervailing subsidies. (For different reasons, the US also wanted binding dispute settlement.) Third, the agenda created a potent new constituency for trade negotiations by putting selected items about intellectual property and investment on the agenda. Above all, it proposed to make the service industries subject to trade disciplines. Telecom services were high on everyone's list as a key service for liberalization.

The agenda for services was striking into unknown territory for trade policy. Many doubted that trade disciplines could apply successfully to services (which often required a significant "right of establishment" in order to achieve market access). In response, the US tried something akin to a "proof of concept" for the Round by incorporating services into various bilateral free trade area negotiations. This happened in the US-Canada FTA (Free Trade Agreement) of 1988 and, logically enough, that became the basis for incorporating services into the NAFTA agenda.

As the Round negotiations nearly failed and dragged on longer than planned, the bilateral FTAs took on a new significance in the American strategy. NAFTA and APEC, in particular, were advertised as alternatives to the conclusion of the Round. Washington indicated to Europe that it could live with a failure at the WTO because it would simply pursue liberalization through FTAs in the Pacific Rim, the fastest growing region in the world. With its far deeper trade and investment ties around the Rim, US policymakers were confident that they would do much better through this route than Europe. This was a crucial implied threat because the biggest obstacle (of several) to the conclusion of the Round was the dispute over agriculture with Europe.

The linkage of NAFTA to the Round's closing negotiations of the Round meant that US needed concessions in NAFTA that were comparable to those at the Round. It succeeded. In this sense, then, NAFTA helped to create bargaining leverage that propelled the Round's conclusion. Yet, once concluded, it was largely redundant for telecom equipment and services. This was especially true because, due to other matters of timing, the next big challenge in telecommunications markets was better suited for action at the Round than NAFTA.

Timing further mattered in these negotiations because trade talks cannot radically outpace domestic market reforms. In the 1980s, only the Anglo-American nations (the US, UK, Australia, and New Zealand) and Japan accepted general competition in basic telecommunications services. Furthermore, even in these nations, there were significant limits to the competition model. For example, the US still sanctioned a monopoly for

local telephone services. Most countries had a duopoly in cellular phone services. Japan's commitment to competition had more exceptions than it had rules.⁵

As a result, when the Uruguay Round talks on telecom services began, basic services were not on the table.⁶ The negotiating attention was strictly dedicated to liberalizing competition in the provision of value-added services. The same was true in the FTA negotiations. The possibility of a trade agreement covering basic telecommunications services did not surface seriously until the early 1990s when the European Union (in 1992) committed itself to the introduction of competition in basic telecom services by January 1998. Negotiators warily but ambitiously agreed to extend the conclusion of the talks on telecom services in the closing months of the Round. (The Round concluded in December 1993.) Using a legal ploy, they locked in the agreement on value-added services while allowing the negotiations to continue past the general conclusion of the Round until 1996.⁷

In theory, the NAFTA negotiators might have moved on basic telecommunications services in the closing months of their talks (when signs of global change were picking up and Mexico contemplated general competition in basic services in the future). Yet this was impractical for two reasons. First, NAFTA was already politically contentious and barely passed the US Senate. Adding basic telecommunications services would have added a controversial complex topic at the last moment. (Moreover, once NAFTA was ratified, no one wanted to reopen the agreement to renegotiation.) Second, as the next section explains, the economics of telecommunications strongly favored dealing with basic services at a global level.

5 R G Noll and M Rosenbluth, 'Telecommunications Policy: Structure, Process and Outcomes,' *Structure and Policy in Japan and the United States*, eds P F Cowhey and M D McCubbins (New York: Cambridge University Press, 1995).

6 Basic telecom services are predominantly switched services, such as phone calls and faxes, and the networks that carry them. In 2001, basic services still account for the overwhelming majority of the world's telecom revenues. Value-added referred to services that technically enhanced a basic communications circuit or switched service, like a fax. Computer networks and store-and-forward fax services typified value added services.

7 The negotiators agreed to allow every country to take a temporary reservation from most favored nation obligations on basic services until 1996. During that time they could continue to negotiate. As it turned out, there was a need to extend the talks until February 1997 when they concluded successfully.

B. The incentives of the global communications market

By the mid-1990s, the global market for communications services was a bit over \$500 billion, with the US accounting for slightly more than 20% of the world market. (The US was also the largest global equipment market, again accounting for over 20% of the total.) Of this, the international (cross-border) services market was approximately \$50 billion, with the US accounting for more than 30% of the market. The cross-border market mostly consisted of basic “switched services” (such as phone and fax) that relied on the use of phone switches to deliver services. The global cross-border market for value-added services, including data networking, was relatively small. Precise numbers were never reliable but it amounted to approximately \$2.5 billion.

Canada and Mexico were two of the top six export markets for US telecom equipment at the time. Moreover, Canada and Mexico were, respectively, the largest and second largest international routes for basic services for US carriers.⁸ On the flip side, the size of Canada and US in the US figures underscores the importance of the US market for the Canadian and Mexican telephony markets. In Mexico, for example, US-Mexico traffic was the largest single market for Telmex, the national monopoly for phone services. This meant the US had strong leverage vis-à-vis its NAFTA partners. At the same time, however, the US could not fine-tune its position around NAFTA; it had a broader range of global market concerns than its trading partners.

The international communications services market traditionally had the perverse characteristic of being a technologically advanced product characterized by luxury good pricing (i.e., pricing premiums so high that it restricted volume while giving suppliers an incentive to limit supply). Government officials in every country approved this scheme on the theory that the rents could subsidize local services and domestic network build-out (even though most of the rents did not go to this end). In short, high prices for limited international traffic supposedly subsidized local services, which were used by a much larger segment of the population and were hence more politically salient.

The introduction of competition in the US in 1984 began to fragment the international market because competitive long distance carriers (e.g., new entrants such as MCI) in the US had incentives to lower international prices and increase supply options for their sophisticated US-based customers. In particular, they had strong incentives to pursue

8 This is still true today. Canada represented 4.4 billion minutes of US outgoing traffic in 1999. Mexico accounted for about 4.1 billion. The third largest route, the UK, was 1.9 billion. In contrast, in the world of the internet, which is measured in millions of bytes of capacity on routing, Canada remains one of the US’ top five routes while Mexico would not be in the top 20. See TeleGeography, *TeleGeography 2001* (Washington DC: TeleGeography, 2001), 105 and 276.

large corporate customers with bundled packages of switched and value-added services for both US and international operations. However, asymmetrical international competition (usually the foreign country allowed limited or no competition) also created huge disadvantages for these new entrants. At the same time it created significant disincentives for US regulators to push for reform. Specifically, unilateral opening of the US market for cross-border services would plausibly shift rents to favor foreign carriers and reinforce their incentives to limit competition in international services.

This requires some explanation: The traditional international regime for telecommunications services had created a set of property rights in international switched telephone services that were fundamentally anti-competitive. For decades, rules backed by the International Telecommunications Union (ITU) sanctioned the “joint supply” of international phone services using accounting rates. An accounting rate is the negotiated transfer price for end-to-end international services jointly supplied by two national carriers. (Carriers conduct these negotiations and conclude a commercial contract to establish this accounting rate.)⁹ Each carrier theoretically contributes half of the international switched (phone or fax) service (for example, taking the international call from a hypothetical mid-point in the ocean for out-bound traffic, and terminating the call to a local household in its country for in-bound traffic). For contributing this service, the national carrier is entitled to a fee usually equivalent to half of the accounting rate. This is the settlement rate. (For the rest of this study we shall refer only to the settlement rate because it is the economically relevant concept.) In effect, the traditional rules had given national carriers a property right to half of the revenues from any international phone call. Given that carriers negotiated the settlement rate on a bilateral basis, it is no surprise that these revenues entailed large economic rents.¹⁰

9 As an inter-carrier transfer price, the accounting rate is not the end price to consumers. Consumer prices traditionally had an additional large mark-up. On the traditional system, see *P Cowhey, ‘The International Telecommunications Regime: The Political Roots of Regimes for High Technology,’ International Organization 44 (1990); M Zacher and B Sutton, Governing Global Networks: International Regimes for Transportation and Communications (Cambridge, MA: Cambridge University Press, 1996).*

10 For example, global networking by AT&T required the use of a complementary asset in a foreign country that was controlled by a local monopolist. That created market power for foreign partners. Carriers controlling infrastructure essential to the provision of services have the incentive and variety of means to exercise market power. During the time of the development of the global network infrastructure, some countries could threaten not to build out their network infrastructure (e.g. phone switches). Even after developing infrastructure, countries could threaten to disrupt service for a variety of reasons (ranging from poor maintenance to claims of protection of national sovereignty). The traditional bilateral arrangements thus served both developed and developing countries by explicitly providing a subsidy to the developing world (through inflated settlement rates that drove up the net settlement payments) while at the same time limiting and in some ways hiding (in the form of higher prices for all network users) the true cost of these subsidies.

Foreign carriers could press US carriers for rents if for no other reason than that networks are more valuable to all users if the network serves additional users.¹¹ The US was at the hub of global multinational business networks and it had a population with strong immigrant roots. So, US carriers had customers who especially prized global connectivity.

Even though the settlement rate is not the end price to consumers, it influences consumer prices because of the net settlement payment. For example, suppose the US sent ten minutes of calls to Mexico at a settlement rate of fifty cents per minute and Mexico sent the US a total of five minutes of calls at this rate. Then, the net settlement payment from the US to Mexico in this period was \$2.50. The US carrier had to recover this payment of \$2.50 from its own customers, a significant cost element in its pricing decision (i.e., it significantly increased the cost for international services).

The high cost floor on international services had an additional perverse effect — US carriers decided that low price, high volume strategies for international services were not economically viable. So, after competition began in 1984, US carriers tended to price international services lower than the rest of the world, but they still charged very hefty premiums. (The same dynamic was true in the United Kingdom and Canada, two other countries introducing competition in the 1980s.) At the same time, even limited price and non-price competition (e.g., the creation of international calling cards) greatly stimulated demand for international services in the US. As a result, the US carriers confronted rising imbalances of traffic (and higher net settlement payments) with foreign carriers. At the same time, foreign carriers from developing countries (especially those with large emigrant populations in the US) came to rely even more on these very high margin revenues.

In 1995, US carriers made \$5.4 billion in net settlement payments to other countries, and this total was about \$6 billion in 1997. Besides driving up rates for US consumers, the FCC calculated that roughly 70% of the total net settlement payments represented a subsidy paid by US consumers to foreign carriers. The average settlement rate paid by US carriers in 1996 was 39 cents per minute; outside the OECD area and Mexico the average cost for US carriers was well over 60 cents per minute in 1996.¹² In contrast,

11 On the value of the network to other users, see *H Varian and C Shapiro, Information Rules: A Strategic Guide to the Network Economy* (Cambridge, MA: Harvard Business School Press, 1998). Noam argues that at some point a coalition of stakeholders in the network driven especially by large corporate users may no longer find the benefits of added network coverage to outweigh the costs of extending the network, but they both accept the basic premise of positive network externalities. *E Noam, Interconnecting the Network of Networks* (Boston, MA: MIT Press, 2001).

12 *J Lande and L Blake, Trends in the U.S. International Telecommunications Industry*, Industry Analysis Division, Common Carrier Bureau, Federal Communications Commission, 1997.

the FCC believed that the efficient cost of termination for a minute of switched service (the function paid for by a settlement rate) was no higher than five to ten cents. In fact, it was probably closer to two to three cents. Moreover, changing patterns of international traffic suggested that the size of US net settlement payments would jump. In sum, the settlement rate system was both transferring rents from US to foreign carriers and encouraging market conduct that hugely inflated prices to consumers.¹³

The rents earned from settlement payments further created a double barrier to liberalizing cross-border trade in international services in the future. On the one hand, developing countries resisted competition that would lower their margins on these services. On the other hand, US carriers feared that trade liberalization would only inflate their net settlement payments because of the risk of “one-way bypass.”

It is easier to understand the American worries through a simple hypothetical scenario. Suppose the Philippines offer at the WTO liberalized its domestic market for telecom services but did not liberalize cross-border services.¹⁴ US carriers were then still required to deliver services to the Philippines at 40 cents per minute (the settlement rate).¹⁵ However, the US, as part of a WTO trade deal, might have liberalized access to its market for cross-border services (as Japan and the European Union demanded), including the right to use international simple resale (a form of cross-border service that dispenses with settlement rates) to supply the services. Then, because of the Most Favored Nation rule, the Philippine telephone company (PLDT) could have received a license to deliver traffic to the US using international simple resale (thus bypassing the

13 To illustrate the problem with market performance from the viewpoint of consumer welfare, in August 1997 (after over a dozen years of competition) the FCC estimated that the average price of an international phone call from the US was 88 cents per minute, compared to 13 cents for domestic long distance. See *P. Cowhey, 'FCC Benchmarks and the Reform of the International Telecommunications Market,' Telecommunications Policy 11 (1998)*. These price differences existed despite negligible differences in the costs of transmission between the two types of calls. US rates for international service were generally the lowest in the world, but they were still grossly inflated. In addition, welfare losses would grow as attempts to protect settlement rates blocked tapping new technological efficiencies, such as preventing the delivery of voice over the internet for virtually nothing.

14 To use WTO language, the Philippines could have “bound” itself to granting market access to all companies from WTO countries for the supply of basic domestic services. Yet it would not have bound itself for accepting market access for the supply of cross-border services. This could have remained the monopoly service of the traditional Philippine incumbent.

15 The US carriers had earlier won permission to cartelize their bargaining over the level of settlement rates by virtue of FCC rules for uniform settlement and proportionate return rule. Under uniform settlements, all US carriers were entitled to the same settlement rate with a foreign carrier. Under proportionate return, each US carrier was entitled to the same share of incoming switched international traffic from a country as it sent to the country. This was a clever solution to the immediate risk. However, it unfortunately also scrambled economic incentives by using regulatory fiat to link the potentially distinct markets of inward and outward bound international traffic. What is more, it did nothing to solve the problem posed by one-way bypass.

settlement rate payments to the US) while US carriers would have continued to pay high settlement rates to PLDT to terminate traffic in the Philippines. This would have greatly expanded the scale of US net settlement payments. This would have further entrenched opposition in the Philippines to the liberalization of cross-border services (because one-way bypass would have expanded the rents from the status quo) and it would have increased the cost floor for services provided by US carriers.¹⁶

To continue this hypothetical, suppose that the US had instead tried to tackle basic services at NAFTA. Net settlement payments to Telmex by US carriers were growing rapidly (by 1997 there were close to \$700 million per year). The size of these settlement payments meant that the three US carriers with their own facilities would strongly resist any form of liberalization that inflated these payments.¹⁷ Therefore, unless they could either get cost-based settlement rates or the right to create effective end-to-end networks between the US and Mexico under their own control that could dispense with settlement rates, they did not want liberalization of basic services in a regional agreement.

For the sake of argument, assume that the US could have induced Mexico to liberalize cross-border services as part of a NAFTA agreement on basic services. The US would then have “open borders” with Mexico operating without settlement rates. The logical strategy for Mexico’s Telmex would have been to make up for lost settlement payments from the US by agreeing to “hub” traffic going from other countries to the US through Mexico. These countries would have paid Mexico a premium for taking their traffic to the US and reclassifying it as Mexican traffic. If, for example, Colombia’s settlement rate with the US was fifty cents per minute it would profit Colombia greatly to pay Mexico thirty cents to accept its traffic and declare it as having a Mexican origin.¹⁸ The net effect of US carriers would be to lose huge amounts of settlement rate revenue from third countries like Colombia.

16 On the related argument about price squeezes, see Cowhey, ‘FCC Benchmarks and the Reform of the International Telecommunications Market,’ 902.

17 These carriers were AT&T, MCI and Sprint. They had the largest and most organized lobbying efforts on international communications policies. They had won the operating agreements necessary to serve Mexico and Canada. Other carriers relied on them in Mexico (Canada licensed other US carriers) to deliver traffic. A small carrier at the time, like LCI, would deliver traffic to Mexico by reselling the service provided by one of the big three. The Big Three were responsible for the net settlement payments, not the resellers, so any changes in the traffic ratios between the US and Mexico had the biggest negative impact on them. The resellers were, therefore, indifferent to the settlement payment problem but they were also less active in trade policy and much smaller constituents in Congress.

18 Mexican traffic was almost entirely to and from the US. So, it did not have to fear that US carriers would take major amounts of traffic from the rest of the world and hub it to Mexico.

The one-way bypass problem meant the US strategically had to tackle the negotiation over basic telecom services at a global level because it needed a trade agreement that would radically change global pricing and supply practices. Yet this would not be easy.

III. NAFTA and North American Telecommunications Markets

The negotiation of NAFTA came at an important time in the evolution of North American telecommunications markets and had the potential to play a significant role in driving reform. This was true for technological, economic, and political reasons. On the technological front, the rapid decrease in the scale required to compete in both equipment and services had led to the growing realization that technology had undermined the “natural monopoly” thesis.¹⁹ Politically, US domestic deregulation and changes in industry structure throughout the 1980s created a strong political force in favor of reform. Economically, liberalization in the US domestic market had clearly demonstrated the massive inefficiencies associated with the existing market structure and the potential gains from liberalization.²⁰ This was particularly salient in Mexico given the significant role of Telmex in the national economy and the poor performance of the existing regulatory structure. The growth of heterogeneous demand in Mexico also generated marketplace conditions that favored entry by focused firms to fill specific demand niches, a situation that provided domestic support for reform in Mexico as well as incentives for US specialized players to back regional liberalization.²¹

Despite the clear incentives for reform — and the potential for NAFTA to act as the institutional vehicle for driving liberalization — NAFTA ultimately played a minor role in both equipment and services markets, for reasons explained immediately below.

19 For a review of cost studies of telecommunications systems, see *R Crandall and L Waverman, Talk Is Cheap: Declining Costs, New Competition, and Regulatory Reform in Telecommunications* (Washington DC: Brookings Institution, 1995).

20 *P Cowhey, ‘Telecommunications,’ Europe 1992: An American Perspective*, ed. *G Hufbauer* (Washington DC: Brookings Institution Press, 1990).

21 For how heterogeneous demand matters in the developing country context, see *R Noll, Telecommunications Reform in Developing Countries*, Center for Research in Economic Policy Paper, Stanford University, 2000. Mexico’s reforms of 1990 had allowed the privatization of Telmex, the dominant carrier, with minority foreign ownership. Mexico limited the length of Telmex’s monopoly on long distance services until 1996, although it could have extended the monopoly if it had chosen.

A. NAFTA and equipment

For equipment markets, the NAFTA negotiations took place in the context of major adjustments in the industry, in particular a soaring trade deficit for the US in the trade of equipment and major adjustments in US labor practices, produced by US domestic liberalization of telecom equipment market.²² Meanwhile, in part driven by more competitive US domestic markets, the US industry was competitive and eager to expand internationally, but faced closed foreign markets. In short, US vendors were strong proponents of liberalization that would enable access to lucrative foreign markets served by less competitive national vendors (often connected with the local phone monopoly). At the same time, Canada was eager to lock in unrestricted access to the US market because its companies (particularly Nortel) were among the largest early beneficiaries of the new Regional Bell Operating Companies' desire to loosen their ties with Lucent, which was still a subsidiary of AT&T.²³

With strong US equipment vendor support, the US-Canada FTA and NAFTA had already dropped the rate to zero on most equipment.²⁴ NAFTA significantly lowered Mexican import tariffs (from an average of 15% to zero) on telecommunications equipment. More specifically, NAFTA cut tariffs to zero on most customer premise/PABX equipment and phased out central office switching tariffs over five years. Equally important, NAFTA assured users of the right to choose the equipment attached to the network without undue interference by phone companies. That is, "no harm to the network" became the criterion for network interconnection, and moves were put in place to enable mutual recognition of equipment certification.²⁵ This freedom to

22 Traditional US producers of telecom equipment came under strong pressure from imports. See *Cowhey*, 'Telecommunications.' Many like GTE and ITT exited from the business. Lucent restructured and downsized its workforce. New entrants eventually blossomed on world markets (e.g., Cisco in routers and Qualcomm in wireless networking) but they did not employ unionized workers. Both old and new suppliers wanted to expand sales overseas.

23 The US introduced competition by divesting AT&T's long distance and other services from the local phone services provided by the Regional Bell Operating Companies (who could not own equipment suppliers except with a few narrow exceptions). Lucent was, until spun off in the 1990s, part of AT&T. The US had already liberalized the competitive supply of customer premises equipment ranging from telephone handsets through sophisticated switches for private corporate networks (PABXs).

24 Even prior to NAFTA, at least in the US, the market in equipment was relatively open. In 1993, for example, the effective tariff rate for telecom equipment was about 4.1% in US (range of zero to 8.5%). See *R A Cass and J Haring, International Trade in Telecommunications* (Washington DC: AEI, 1998), 123.

25 Mutual recognition promised to relieve equipment suppliers from slow and expensive procedures to get technical certification for their products in each individual country. Mexican procedures for "standardization" or "type approval" of telecommunications equipment connected to the public network have drawn continuing criticism from foreign suppliers. Negotiations to allow simple

choose customer equipment was especially vital to business users configuring modern telecommunications and computing systems. In general, these business users were a key political force in the NAFTA telecommunications negotiation (and in the Round's talks on telecom services).

Liberalization in North America did little to reduce political demand for an agreement on equipment at the Round. The biggest markets outside the US were in the European Union and Japan. The fastest growing markets were in the Newly Industrializing Countries, such as South Korea. The US market was already open unilaterally to foreign suppliers. So, the case for global liberalization remained compelling. Just as importantly, Nortel, Lucent, and other equipment companies favored liberalization in global basic services because it would allow new entrants into foreign markets. They hoped that these newcomers would be a major new source of demand for their equipment.

B. NAFTA and services

If NAFTA played a negligible role in equipment liberalization, it played a modest but very useful role in services. The problems inherent in using pacts on value-added services as a stepping stone to the reform of basic telecom services illustrates how these three dynamics rendered anything but global reform in all telephony segments problematic.

Since the 1970s, when data networking emerged as a technical possibility and then grew into a real industry, liberalization in value-added services has been heralded as the path to more complete liberalization of telecom markets. The logic is straightforward: introducing competition into these market segments will demonstrate the gains from competition to all parties and also put in place a framework for basic services liberalization. The problem is that, as long as the network infrastructure is a monopoly, it is hard to get the cost efficiencies and technical flexibility (e.g., provisioning time on new circuits or the features of error control monitoring) needed for value-added services to thrive. In Europe, for example, this problem led European states to reverse their decision in the 1980s to preserve network monopolies while allowing competition in value-added services. Trade pacts for value-added services did not alter the monopoly position of incumbents controlling basic services markets and the public network

procedures for the mutual recognition of these certifications between countries proved difficult to execute with Mexico. Type approval is authorized under both NAFTA and the WTO.

infrastructure. Moreover, the incumbent carrier (like Telmex in Mexico) worried that value-added services might allow large sophisticated customers to “leak” traffic off the public phone network by sending it through their private networks (e.g., IBM would use its private computer network to carry long distance calls from Mexico City to Monterey and then complete them on the public network as a local call in Monterey). Thus, incumbent monopolists constantly tried to restrict the development of independent network facilities by value-added networks. In response, trade negotiators wanted to assure the right of the user to access networks on terms that would negate the monopoly power of the incumbent phone company.

The huge cross-border manufacturing complex linking the US and Canada (e.g., automobiles) had long ago forced considerable ad hoc relaxation of regulations on value-added services between the two countries. In this sense the US-Canada FTA simply formalized and extended existing practices. NAFTA continued the liberalization of the market for value-added services on the format of the US-Canada (and other) pacts by applying the same terms to Mexico. For example, NAFTA gave US and Canadian providers of voice mail or packet-switched services nondiscriminatory access to the Mexican public telephone network and eliminated all investment restrictions for value-added, enhanced, and packet switched services by July 1995. It guaranteed the right to run private corporate networks (e.g., IBM could send voice and data between its offices), and it provided for cost-based access to network for the competitive (or self) provision of enhanced or value-added services.²⁶ As we have noted, in the late 1980s these pacts were considered a formidable set of breakthroughs. In effect, trade agreements were guaranteeing the foreign users of communications networks in a country certain minimum rights (e.g., cost-based circuits).²⁷ They were also creating a de facto right of foreign investment for those providing value-added services. These breakthroughs were possible at NAFTA because Mexico was in NAFTA, for large part, to prove that it was an attractive environment for foreign direct investment and a viable partner in the emerging “North American supply chain”.

26 The key distinction made in NAFTA, and reconfirmed in the WTO 1994 and 1997 agreements, was between services made generally available to the public and those to satisfy specific needs of telecommunications (private networks or value-added networks). See *A Acedo, Opportunities in Mexico*, International Telecom Competition Seminar, Seattle, WA, 24-25 July 1997. The NAFTA offer included the key goal of assuring the provision of private leased circuits on a flat-rate basis, the key to allowing a computer network to get a cheap, fixed rate for transmission capacity and then use advanced engineering to carry much more data than the typical telecom circuit. The 1997 WTO offer included public networks, unlike NAFTA.

27 *J Aronson and P Cowhey, When Countries Talk: Global Telecommunication for the 1990s* (Cambridge, MA: Ballinger, 1988).

The NAFTA terms effectively went no further than those proposed at the Uruguay Round.²⁸ Yet NAFTA demonstrated that the trade liberalization of value-added services was possible to work out with a developing country. This was an important political example for the rest of the developing world from the viewpoint of the United States. At the same time, having NAFTA match the terms of the Round was sufficient to reinforce the US strategy in the Round. The US could tell Europe that it would be no worse off on telecom services in North America if it only had NAFTA (and the Uruguay Round failed); and, once NAFTA was concluded, the US would press vigorously for bilateral agreements with other countries.

The successful conclusion of the Uruguay Round meant that NAFTA lost most of its relevance.²⁹ At minimum, it was redundant because NAFTA afforded no greater protection than the WTO. Moreover, global negotiations were far superior because network externalities strongly favored global coverage, as we have explained previously. The US was very vulnerable to hubbing strategies through Mexico if it agreed to open its market for basic telecom services in NAFTA alone. Thus, success at NAFTA was no substitute for a global trade agreement.

C. NAFTA vs. the Round: overlapping accomplishments

Besides concluding virtually at the same time, NAFTA and the Round had virtually the same achievements on telecom equipment and services. Whatever fine points divided them were not so large as to have great market import. For this reason, this section will

28 In theory, as *Baier* and *Bergstrand* contend, NAFTA's negative listing system was more liberalizing for services. That is, NAFTA commitments assumed that a service was covered unless it was explicitly excluded. The Round used a positive listing system (a service was not covered by market access commitments unless named positively). Based on the experience of telecom negotiators it appears that the positive listings of the Round were sufficiently broad that these differences were negligible. See *S L Baier and J H Bergstrand, 'International Trade in Services, Free Trade Agreements and the TWO,' Services in the International Economy*, ed. *R M Stern* (Ann Arbor: University of Michigan Press, 2001). On scheduling at the Round, see *L B Sherman, "Wildly Enthusiastic" About the First Multilateral Agreement on Trade in Telecommunications Services,' Federal Communications Law Journal* 51 (1998).

29 NAFTA also created a complex dispute settlement mechanism. See *Abbott*. The two parts relevant to telecom services were the panel of arbitrators for inter-governmental disputes over failure to meet NAFTA obligations and the ability for local subsidiaries of multinationals to bring legal actions in national courts over failure to receive investment protections guaranteed by NAFTA. There is substantial discussion in the scholarly and popular press about the NAFTA dispute resolution system. As discussed later, Mexico's performance under its WTO obligations has brought sharp criticism from US companies. Those companies, after extensive review of NAFTA and WTO options, all found the WTO dispute settlement system to be a more compelling option. (Based on interviews by the authors with companies in 2000.)

not discuss value-added services or equipment in the Round. Suffice it to say that the Round superseded NAFTA because it was more inclusive, a highly valuable outcome in a networked industry. In addition, NAFTA could not be easily revised or expanded. As a result, the WTO proved better able to take center place when new opportunities for liberalization opened up.

In particular, the timing of liberalization of basic services on a global basis precluded progress on trade negotiations on basic services prior to 1994 (for reasons reviewed earlier). In addition, the telecommunications equipment agreement in the Round did not cover all forms of new equipment that were critical to the explosion of networking in the 1990s. As a result, the major trading partners in the WTO came to an agreement on simultaneous unilateral liberalization of tariffs on many new forms of network and computing equipment in the Information Technology Agreement of 1996. This agreement of 52 nations reflected the elaborate pattern of intra-industry trade in networking gear, notably the elaborate global production chains tied together specialized suppliers across many countries. These supply centers, in turn, constituted 95% of the world demand for the products. Thus, simultaneous unilateral liberalization served all the countries involved as both producers and consumers.³⁰

IV. Telecom Services at the Round

International strategic considerations suggested that basic telecom services were likely to be addressed only at the Round. Given the scale of domestic liberalization contemplated by 1992, it is possible to argue that the success of the negotiation in February 1997 at the WTO was a foregone conclusion. In fact, the negotiation nearly failed. It did by the first deadline.³¹ It only succeeded because the largest player, the US, crafted unilateral regulatory action to complement the WTO accord. The US action, in turn, has part of its roots in its market position. However, we would suggest that a significant part of the American approach requires an examination of its domestic political economy.

30 United States Trade Representative, 1999 *Annual Report of the U.S. Trade Representative* (Washington DC: March 2000).

31 On the WTO agreement, see *B Petrazzini, Global Telecom Talks: A Trillion Dollar Deal* (Washington DC: Institute for International Economics, 1996); *G C Hufbauer and E Wada, Unfinished Business: Telecommunications After the Uruguay Round* (Washington DC: Institute for International Economics, 1997); *P Cowhey and J E Richards, 'Dialing for Dollars: Institutional Designs for the Globalization of the Market for Basic Telecommunications Services,' Coping with Globalization*, eds *J Hart and A Prakash* (New York: Routledge, 2000).

A. Domestic politics and basic priorities for how to liberalize world markets

The way in which the US liberalized its domestic market for telecom equipment and services strongly shaped its agenda for services globally. At the conclusion of the Uruguay Round and NAFTA, the US market for telecom services still had some striking bottlenecks to expanded competition. One was domestic, and two were international. On the domestic front, the question was when and how Congress would authorize competition in the market for local basic services. The compromise in the 1996 Telecommunications Act was to grant the Regional Bell Operating Companies (RBOCs) entry into the market for long distance services as soon as they passed a “checklist” of interconnection and other obligations for opening their markets to competition in local services.³² This decision had two important international ramifications. On the one hand, it gave the US a much bigger market to offer to other industrial countries at the WTO negotiation on basic services (prior to the Act the US market exempted local services). On the other hand, the checklist of interconnection conditions became the standard by which the US would look at the authenticity of foreign market offers of market access. Foreign markets lacking similar rules were, in the eyes of US leaders, not really open to competition in basic services.

The two international bottlenecks had domestic implications. One was the bar on foreign ownership of US communications carriers possessing radio licenses (and, given the role of microwave in most large networks, virtually all significant carriers had such licenses). The 1932 Communications Act barred outright ownership by foreign governments of US radio licenses. It also set a limit of 20% on the ownership of companies with radio licenses by foreign nationals.³³ Waivers could be granted at the discretion of the FCC. This ownership bar was, of course, a major barrier to foreign

32 Interconnection obligations directly address the ability of incumbents to use control of a physical infrastructure that is indispensable for potential rivals to exercise market power. The RBOCs controlled the local transmission system that was indispensable for the origination and termination of services to most buildings. This local transport network is the biggest single barrier to competition in telecommunications services and it is the reason why it is much easier to liberalize long distance and business services rather than local phone services. Interconnection rules dictated the economically efficient terms on which they had to share the economies of that local transport network (and its associated support facilities, such as billing and maintenance databases).

33 The 1932 Telecommunications Act imposed significant restrictions on foreign ownership of US carriers for basic services. In practice, foreign ownership of a US carrier was possible only if the FCC granted a waiver for the ownership restriction and if the foreign owner held the license through a US subsidiary that was fully subject to US laws. Congress had declined the opportunity to revise foreign ownership rules except in a very minor way during the 1996 debate. Party lines on the issue were not rigid but Republicans were generally more sympathetic to revising the foreign investment rules.

market entry into the US. For example, new US entrants could not be financed easily by large foreign carriers, a real disadvantage for competition. The other bottleneck was the inefficient provision of cross-border services. As noted earlier, the inflated pricing of international services indicated large market inefficiencies.³⁴ Even the FCC regulations designed to eliminate some market power problems had the unfortunate side effect of limiting the ways of organizing and supplying these international services.³⁵

In 1994, the FCC had decided that it wanted to end the reliance on the settlement rate system and liberalize market entry and foreign investment rules so as to permit any carrier to provide end-to-end international services (so long as foreign markets were open).³⁶ In addition to cutting prices for international services, these reforms would open the way to new entrants building global fiber optic backbones linking the major market centers around the world. (Global Crossing and Level Three are examples of carriers that emerged after the 1997 WTO agreement.) It would also permit the organization of new global satellite service networks (including the, now largely failed, provision of phone services by low earth orbit satellites). Yet rationalizing the provision of cross-border services required open markets where new entrants (and incumbents forced to adopt strategies) could build a business by cutting prices dramatically and dramatically improving the network infrastructure for global services by installing their own facilities. This required a mix of abandoning settlement rates in some cases, dramatically cutting them in others, and allowing for competitive international provisioning of network infrastructures that could provide value-added and basic services. This, in turn, implied rights of foreign investment so that new entrants could establish businesses and own the new network infrastructures that would span national borders.

The US had a difficult problem formulating a negotiating position on basic telecom services. One option was to pursue only the liberalization of domestic markets. That is, the US could advocate a trade agreement that opened access for US firms to supply domestic telecommunications services in other countries (and vice versa). Cross-border services could have been excluded from the negotiation. This approach had the failing that American firms were ambivalent about such liberalization. On one side, the RBOCs were not permitted to supply cross-border services between those foreign markets and the US (because of restrictions on their entry into long distance under US law). So, they

34 *F Cairncross, The Death of Distance* (Cambridge, MA: Harvard Business School Press, 1997).

35 Federal Communications Commission, 'In the Matter of Market Entry and Regulation of Foreign-affiliated Entities: Report and Order,' IB Docket No. 95-22, 28 November 1995.

36 Federal Communications Commission, 'Regulation of International Accounting Rates: Phase II: Fourth Report and Order,' 11 FCC Rcd 20063, 1996 (the "Flexibility Order").

were relatively indifferent about liberalizing cross-border services. However, the Bells could invest — and were investing — in foreign telephone carriers, and they liked the advantages of competition in foreign markets being opened to only one or two firms (because smaller numbers of competitors tended to drive up margins). A WTO agreement on basic telecom services might well expand the number of competitors in those markets and reduce their profitability. On the other side, the long distance operators were primarily interested in cross-border basic and value-added services. From their perspective, they primarily wanted to invest in foreign markets in order to organize their cross-border networks more efficiently. So, they did not want a WTO agreement on basic services unless it provided a major advantage on cross-border services.³⁷ Both the Bells and long distance carriers also thought that unless a WTO agreement was extremely well crafted it might be easier to enforce their rights in foreign markets through bilateral reciprocal bargaining. (That is, the US would only open its market to carriers from countries that afforded extensive rights to US carriers.)³⁸

In many respects trade liberalization in basic services faced the classic quandary of many trade reforms. Trade liberalization had some specific beneficiaries, but much of the greatest benefit went to diffuse beneficiaries, such as large users and many potential new entrants. These diffuse beneficiaries were far less organized (or even not yet existing) than the large international carriers who faced risks such as one-way bypass.

Ultimately, it took political entrepreneurs to figure out how specific and diffuse interests blended in a way that had political appeal. (Vice President Gore, US Trade Representative Barshefsky, and FCC Chairman Hundt were the principal figures). Not surprisingly, political entrepreneurship in the US reflects the particular incentives created by US domestic political institutions. That is, the structure of US political institutions (especially the separation of powers between Congress and the president) shaped the strategy of entrepreneurs, with the particular trade outcome reflecting the

37 *Francois and Wooten* formalize this observation. They observe that foreign entrants would prefer to join in the local supply cartel for services (and earn higher margins) unless the costs of trade (cross-border telecom services in this case) are lowered dramatically. See *J F Francois and I Wooten, 'Imperfect Competition and Trade Liberalization under the GATS,' Services in the International Economy*, ed. *R M Stern* (Ann Arbor: University of Michigan Press, 2001).

38 In consultation with the USTR and the White House, the FCC had instituted rules designed for such bilateral reciprocity arrangements in 1995. See FCC, 'In the Matter of Market Entry and Regulation of Foreign-affiliated Entities.' The FCC basically required the right to establish competitive end to end networking without settlement rates if a foreign carrier wished to create a subsidiary to provide international services to the United States. If the foreign carrier wanted to establish a purely domestic basic service in the US, such as cellular phone service, the FCC would require that the foreign carrier's home country allow entry by US firms into the same service. The FCC rule carefully noted that more general, unconditional liberalization could occur if there was a WTO agreement on basic services.

political strategy of entrepreneurs to achieve this blend of interests. In the US, the separation of powers and the logic of Congressional politics were salient in shaping the strategies of entrepreneurs in three critical issues.

First, the separation of powers in the US means that the US must be concerned about the credibility of the negotiating commitments. The US trade strategy at the WTO relied on the FCC using its legal discretion to lift restrictions on foreign investment in US carriers. It did not seek Congressional legislation to implement a WTO agreement, thereby freeing the hand of the executive branch to bind itself to investment liberalization quickly and certainly. However, this tactic left the door open to Congressional skeptics to charge that usurpation of Congressional power was at stake. They could avoid debating the overall sensibility of the liberalization policy and focus the debate on the prerogatives of Congress. Thus, the US executive branch (and the FCC) needed a dramatic trade deal to deal with this potential political vulnerability.³⁹

Second, a politically safe strategy needed three accomplishments. For one, it had to show that the agreement was reasonably comprehensive. Congress did not like deals that opened the US market without adequate coverage of all major markets. A second requirement was to show that the agreement would lower the price of international phone services. This was a key benefit to trumpet to the press that would be hard for anyone to attack politically. Finally, it had to convince long distance carriers that the agreement would not unreasonably expose them to anti-competitive behavior by foreign carriers entering the US market for international services. Congress would view a strong vote of “no confidence” (as opposed to cautious approval) by the long distance carriers as a signal that the WTO deal was suspect. Thus, domestic politics required the US to accomplish what was economically correct — push for a “big deal” providing comprehensive reform of the world market and winning commitments from virtually all major markets.

Third, the competition problems posed by global telephony markets exposed how domestic institutions shaped international regulatory options. In particular, US domestic political institutions mean that safeguards must be built into international agreements given the difficulty for decisive and rapid action by US regulatory authorities. These are the realities of regulation in a country with divided powers: Congress has created limits on regulatory agencies’ use of power, meaning that the FCC must go through a lengthy rulemaking and

39 The situation was especially difficult because Senator Hollings of South Carolina, the ranking Democrat on the Commerce Committee, vehemently opposed liberalizing foreign ownership. Senator Hollings was the FCC’s principal defender in the Senate on matters tied to the domestic long distance market. For further explanation of Congressional incentives see *Cowhey and Richards, ‘Dialing for Dollars’; D Mayhew, Congress: The Electoral Connection* (New Haven, CT: Yale University Press, 1974).

enforcement procedure before intervening in the marketplace.⁴⁰ If the FCC detected “one way bypass” it might take years to stop it because of the possibility of judicial review. The US needed a more pre-emptive measure to control the problem.

The considerations of domestic political institutions help to explain why a regional trade deal covering basic telecommunications services after 1994 was not likely. A regional deal would not have opened all of the major industrial markets to new US entrants simultaneously. It also would not have promised to lower world rates for basic phone services dramatically. Moreover, it would have ignored the key risk to long distance carriers, the shifting of international traffic through Canada and Mexico in ways that would have left American carriers subject to many commercial tactics to shift rents in the international market at their expense.

B. The 1997 WTO telecommunications services agreement

Ultimately, sixty-nine countries signed onto the WTO pact on basic telecommunications services in 1997, including all of the OECD member nations. Commitments on opening markets covered about 85% of the world market for basic domestic and international telecom services. The commitments of the OECD countries (with the exceptions of Korea and Mexico) covered almost all forms of domestic and international telecommunications services, and they included guarantees of foreign investment rights for new entrants.⁴¹

Moreover, the OECD members and many key industrializing countries agreed to a set of “pro-competitive regulatory principles” that created obligations for how national regulators would protect new entrants from anti-competitive behavior by incumbents with market power. (See Box One for a summary of the principles.) This was the equivalent of a multilateral competition code. Politically, it also met the expectation in the US that market access deals would be consistent with the interconnection and competition rules of the 1996 Telecommunications Act.

40 *M McCubbins et al., ‘Administrative Procedures and Instruments of Political Control,’ Journal of Law, Economics and Organization* (Winter 1987); *M McCubbins et al., ‘Structure and Process, Politics and Policy: Administrative Arrangements and the Political Control of Agencies,’ Virginia Law Review* (March 1989).

41 On the logic of the European and Japanese negotiators in the talks, see *Cowhey and Richards, ‘Dialing for Dollars’.*

Box 1: The WTO Basic Reference Paper on Telecom Services⁴²

The Paper sets out rules for governments on regulating “**major suppliers**” of telecommunications services. A major supplier controls “essential facilities for the public network” that cannot reasonably be duplicated either for economic or technical reasons, or both.

- Governments must take measures to ensure that major suppliers do not engage in **anticompetitive practices** such as cross-subsidies, use information obtained from competitors, or withhold needed technical information from competitors.
- Governments will assure **interconnection with a major supplier** for competitors at any technically feasible point in the network. The terms, conditions, and quality must be nondiscriminatory (that is, no less favorable to the competitor than to the major supplier). Interconnection must be timely, and rates must be reasonable and transparent, taking into account economic feasibility. Services must be unbundled so that suppliers are not paying for network components or facilities they do not need. The terms for interconnection must be publicly available and enforceable on a timely basis.
- Governments may maintain policy measures that are designed to achieve **universal service**. However, these measures must be administered in a transparent, nondiscriminatory, and competitively neutral way. They should not be more burdensome than is necessary to achieve universal service.
- The **regulatory body** must be separate from the actual suppliers and employ procedures ensuring impartiality for all market participants.
- It requires governments to use procedures for the allocation and use of **scarce resources** (including frequencies) that are timely, objective, transparent, and nondiscriminatory.

Thus, it was possible for the FCC to argue that easier entry into the US market was now in the public interest because US carriers would have reciprocal rights in all of the major industrial markets. Furthermore, simultaneous opening by the key industrial markets made it much easier to liberalize FCC rules on foreign entry. This was the key to ending the dilemmas created by a path relying solely on piecemeal bilateral liberalization. It also meant that foreign investment in the US market could boom.

The FCC rules adopted in the autumn of 1997 to implement the WTO agreement created a presumption favoring entry for foreign carriers into the US market.⁴³ The FCC also used its discretion under the Communications Act of 1934 to permit 100% indirect

42 For a further discussion, see *Cowhey and Klimenko*.

43 Federal Communications Commission, ‘Rules and Policies on Foreign Participation in the U.S. Telecommunications Market: Report and Order,’ IB Docket Nos. 97-142 and 95-22, 1997.

Box 2: NAFTA Member State Commitments at the WTO in 1997

- a. The commitments of the NAFTA members are generally strong on paper.
- b. US and Mexico decisions on domestic market reorganization influence the negotiations — Mexico opens market for basic services and US opens market for local basic services.
- c. Key omissions on international services in Mexico and, to lesser extent, Canada
 - i. Mexico: disputed limits on international simple resale — Mexico made a commitment that might be interpreted as including this but it claimed its ambiguity constituted an exemption. Without ISR a country can insist on using the settlement rate system—and that meant Mexico could keep up its profitable settlement payments from the US.
 - ii. Canada: phased out the Teleglobe overseas (i.e., non-US) monopoly on services. Canada maintained a requirement for maximum use of Canadian facilities for routing traffic.
- d. Satellite limitations and omissions for video services
 - i. Canada protected the Telsat Canada monopoly on US-Canada until 4/02.
 - ii. Mexico made commitments on satellite services begin in 2002
 - iii. US took a MFN reservation on DTH (direct to home) satellite services for television and radio services.
 - iv. North America continues to rely on bilateral reciprocity for provision of broadcast satellite services.
- e. Foreign investment limits:
 - i. US allows 100% foreign investment buy only by indirect ownership (i.e., need a holding company in US to hold the license).
 - ii. Mexico allows 100 percent foreign ownership for cellular and 49% cap on the rest.
 - iii. Canada allowed 100 percent foreign ownership for resellers and mobile satellite providers; 100% for fixed satellite services as of 3/00; 100 percent for submarine cable licenses as of 10/1/98; 46.7% on all the rest (well below the permitted level in other industrial countries).
- f. All three countries adopt the reference paper on regulatory principles.

Source: National schedules filed at the World Trade Organization and L B Sherman, “‘Wildly Enthusiastic’ About the First Multilateral Agreement on Trade in Telecommunications Services,” *Federal Communications Law Journal* 51 (1998).

foreign ownership of US common carriers employing radio spectrum.⁴⁴ Its subsequent rules on implementing the WTO agreement made clear that the FCC would now strongly favor end-to-end ownership and supply of cross-national networks, or whatever other innovations the market might deem attractive.

The specific commitments of the NAFTA members bear special scrutiny. The US made the “cleanest” offer (the one with the fewest restrictions on trade and investment). Yet Canada and Mexico both undertook commitments, consistent with their existing law, to open their markets to competition in basic services. The biggest restrictions were in regard to international services, satellite services, and foreign investment.

As we have noted repeatedly, international services were a source of large rents. Thus, they would be given up grudgingly, especially because they might lead incumbents to seek increases in local rates to “compensate” them for declining profits on international services. In particular, Mexico opened its market for basic switched services but kept loopholes in its WTO offer on market access so as to slow the decline of rents on cross-border services. This meant that US carriers could not rely on the WTO agreement to resolve their fears about one-way bypass under settlement rates.⁴⁵ A lesser problem was restrictions by Canada and Mexico on competition in the provision of satellites for cross-border services until 2002. This limitation had only minor consequences for the general international market because terrestrial cables were far more important as a delivery mechanism. However, the satellite limits were an example of temporary protectionism to allow incumbents a longer time to adjust to competition.⁴⁶ For its part the US refused to make a WTO commitment in the field of cross-border satellite services for “direct to home” television and radio. This meant that the US, Canada, and Mexico would turn to bilateral agreements for these services. The main target of this US decision was Canada because of Canada’s many restrictions on the export of media products from the US to Canada. Finally, in regard to foreign investment, the US insisted on requiring that a foreign investor create a US corporate subsidiary to hold a

44 Indirect refers to the requirement that the foreign company create a US company to hold the license. Foreign carriers are still subject to competition rules and national security rules.

45 Mexico made a commitment on “international simple resale” (the ability to rent transmission capacity at cost between two countries and deliver voice traffic without settlement rates) whose wording arguably allowed it to delay its implementation. This arcane loophole was very significant because this meant that Mexico could insist on the use of settlement rates in US-Mexico traffic. Canada also mildly limited competition in cross-border traffic by insisting on maximum use of Canadian facilities for routing traffic. Canada feared that carriers would simply use long distance facilities on the US side of the border (which were offered at cheaper rates due to stiffer competition) if it did not have this requirement. Canada has since given up this rule.

46 Canada protected only the monopoly of Telsat Canada, a satellite provider solely authorized to provide the Canadian half of US-Canadian satellite services, until April 2002. Mexico took no obligations on satellite services until 2002.

license for provision of basic telecom services. Except for this restriction, the US allowed unlimited foreign investment. (The offer did not apply to commercial radio or television licenses that were not a part of the negotiation.) Mexico generally limited foreign owners to a 49% equity share except for cellular systems where 100% ownership was possible. Canada had the most restrictive foreign ownership provisions of any industrial country. With certain narrowly defined exceptions, the limit was 46.7% foreign ownership. Box Two describes the WTO commitments of NATA members.

In general, the WTO pact was a remarkable achievement. However, it was not a panacea. The agreement in itself could not solve all the problems in regard to cross-border networks and services. In some respects it could have strengthened perverse incentives to maintain a key underpinning of high prices for international services, inflated settlement rates. Moreover, most countries outside the OECD world never dreamed that a WTO pact could upset traditional pricing arrangements for international services. That is why the deal nearly did not happen. The US kept pointing out that its market for international services could be manipulated in undesirable ways by countries that had not opened their markets to the provision of international services outside the settlement rate system, including Mexico. Other countries sympathized but largely had not opened their own markets for international services enough yet to feel any comparable risk.

The US recognized the WTO deal's many virtues but decided in 1996 that it would have to revert to the path of bilateral liberalization. Yet in 1997 the US ultimately chose to pursue a third path: it decided to accept a WTO deal subject to two conditions. First, Europe had to join the US in making a final major push to improve the market opening commitments of industrializing countries.⁴⁷ Second, the EU and other industrial countries had to accept that the US was going to undertake a unilateral regulatory action

47 If the industrializing countries had not come forward with good WTO offers, there would have been no deal. They steadily improved their offers as the big trading powers turned the negotiation into a high-level political issue. This diplomatic pressure prompted attention by senior political leaders in each country that made it possible to get a speedy resolution of tough domestic debates over telecommunications policy. Yet it took more than pressure from these trading powers. The diplomatic initiative required reinforcement by market pressure. The industrial countries focused the attention of multinational users of advanced communications services, the international financial community and telecommunications investors on the decisions of the industrializing countries. See Petrazinni. In essence, each industrializing country came to realize that its reputation as a good place to invest in communications services and as a host for multinational corporations was becoming identified with its position at the WTO. For more details, see P Cowhey and M Klimenko, 'Implementing Telecommunications Liberalization in the Developing Countries after the WTO Agreement on Basic Telecommunications Services,' *Journal of International Development* 12 (2000).

outside the WTO that would apply to all countries — dubbed “benchmarks” — designed to knock the underpinning out of inflated international settlement rates. The US did not seek to negotiate this regulatory measure at the WTO. It simply declared that the new US policy would meet WTO obligations requiring that its telecom competition regulations honor the principles of MFN and nondiscrimination. The US did not demand that the other countries pledge backing for benchmarks, rather it sought agreement that they would agree to a WTO deal even if the US decided to press ahead unilaterally on benchmarks. The EU agreed on both points, and the result was a significant improvement in the WTO commitments on market opening by key industrializing countries.

The unilateral regulatory initiative of the US in August 1997 caused a sensation because they directly targeted settlement rates.⁴⁸ The benchmarks were price caps (i.e., legal limits on the maximum price) on the level of settlement payments that US carriers may pay to terminate their international traffic in other countries. If benchmarks worked, they would remove the bulk of the economic rents that could fuel anti-competitive behavior in the market. They would also lower the net settlement payments for US carriers, thereby easing the financial sting of whatever imperfections existed in the WTO arrangements.⁴⁹

The benchmarks were of no practical consequence for Canada. Bilateral liberalization between the US and Canada had reduced these rates well below the lowest benchmark price already. The real impact was on Mexico. The prevailing settlement rate was 39 cents/minute in 1997. The benchmark required the rate to go to 19 cents by the end of 1999. Given the huge traffic flow between the US and Mexico, this meant a reduction in Telmex revenues on the order of hundreds of millions of dollars.

One might ask why the US government was sanguine enough about the success of benchmarks to undertake a WTO deal that did not specifically authorize benchmarks. There were several reasons for its confidence. Some dealt with technicalities of the WTO. For a variety of reasons, the US was confident that “benchmarks” would survive

48 Federal Communications Commission, ‘In the Matter of International Settlement Rates: Report and Order,’ IB Docket No. 96-261, 1997.

49 Cowhey and Richards, ‘Dialing for Dollars.’

any WTO challenge and, if it was wrong about that, any challenge would succeed only too late to matter.⁵⁰

As a matter of global strategy, the US negotiators also thought that melding the US commitments at the WTO to the introduction of “benchmarks” would provide both political and economic benefits. First, as a practical matter, the “benchmarks” were a big economic plus for US carriers. In return, the carriers recognized that “benchmarks” were more likely to withstand the predictable attacks by foreign governments if the US had created goodwill through a WTO agreement. Moreover, the US government correctly predicted that, as competition took hold in Japan and Europe after a WTO pact, international carriers in those countries would also become fans of benchmarks. Second, once there were many industrial countries with open international markets, there would be numerous options for carriers to “cheat” on settlement rates. The pressure of these “gray market” routes for traffic would force rationalization of the official settlement rates.⁵¹ Third, once the large rents on settlement rates eroded, even reluctant non-US carriers might choose a strategy based on cutting prices and stimulating demand through market-based networking arrangements for international services. Fourth, in the long term, the growth of internet web traffic that was outside settlement rates would be so explosive that it would force everyone to recalculate their strategies on settlement rates, especially if the US was already forcing a reconsideration of business as usual.

In sum, benchmarks allowed the US to solve a policy and political problem in regard to international phone services. The WTO negotiators had sidestepped the issue, thereby endangering US approval. With benchmarks in the works, the US could accept a WTO deal. It could also be reasonably confident that a combination of benchmarks and the irreversible WTO commitments to opening the US market (thus boosting competition) would make it more likely that cost savings from benchmarks would contribute to lower prices for consumers. The combination of “benchmarks” and increased competition via

50 If there was a WTO challenge, the US believed that benchmarks were fully compatible with most favored nation obligations because they were a least burdensome response to a competition problem. (They also were based on a transparent and nondiscriminatory formula and do not distinguish between US and foreign-owned carriers.) Moreover, a challenge would take time. Indeed, the chairman’s note on Accounting Rates at the conclusion of the WTO negotiations makes it doubtful that any country can bring a WTO challenge before 1 January 2000. See *A Arena*, ‘The WTO Telecommunications Agreement: Some Personal Reflections,’ *TeleGeography* (Washington DC: TeleGeography, 1997). It would be well toward the end of the FCC schedule for implementing benchmarks fully by the time that a WTO case against benchmarks would conclude. By this time, benchmarks would have largely accomplished their economic purpose.

51 For evidence on this, see *Telegeography*, 121-28.

the WTO pact would therefore be a credible basis for claiming that US trade policy would lower the price of international phone services.

V. Four Years After the WTO Agreement

The North American market today is a substantially liberalized but still imperfectly competitive market. NAFTA was a building block toward that outcome, but the results of the WTO, as complemented by unilateral US action, dominated the long-term outcome.

How competitive are the markets? Domestic long distance and data service markets in all three countries range from adequately (Mexico) to vigorously competitive (the US).⁵² The largest single market on the continent, local area telephone services, is still not very competitive. US and Canadian policies have actively tried to foster this competition with imperfect success. Opening the local networks of incumbents has proven very difficult and the collapse of financing for competitive local exchange carriers in 2000 has further delayed progress. Mexican policy, in theory, is as vigorous as the other two countries but much of its execution in specific regulations (e.g., the precise charges for interconnecting networks) and in enforcement of regulations has faltered. Still, in fairness, Mexico has made considerable progress in the seven years since it committed itself to general competition in basic services. The US and Canada have worked on this goal for over twice as long. All three countries can point to significant progress on vigorous competition in wireless network services, the fastest growing category in dollar revenues.

The market for cross-border services (whether value-added or basic) remains much more fragmented. Audio-visual services remain subject to strict bilateral reciprocity. For example, the US and Mexico have an agreement that allows their direct to home satellite broadcasters to cover each other's markets on a reciprocal basis. Yet the US and Canada are still divided on this subject. In contrast, the US and Canadian markets for most value-added data and basic services are highly integrated and efficient. Canada has erased most of its remaining restrictions on the market. However, neither Canada nor the US has achieved an efficient cross-border market with Mexico. To be sure, value-added services are now more efficiently provided in a more competitive environment. Yet the classic problem of value-added services (inefficient provision of

⁵² Restrictions on foreign direct investment have hindered competition in Canada, although considerable competition has emerged.

the underlying network infrastructure) still applies because of slower development of cross-border network infrastructure. This delay is less of a function of any outright restriction than a limit on incentives for development because of measures designed to protect high settlement rates that have the consequence of reducing the growth of traffic streams. Mexico brought down its settlement rates in 1998 to the FCC benchmark but the benchmark rate of nineteen cents per minute of switched calling is still at least fourteen cents too high. Yet even the reduction to date only took place because of vigorous US pressure. Moreover, as of 2001, a mobile phone roaming from San Diego to Tijuana (a distance of few kilometers between the downtown urban cores) still has its pricing jump dramatically for crossing the border even though a common infrastructure is potentially available.

The experience since 1997 has also raised the question of the enforceability of WTO commitments in services. Some of the frustrations about regulatory performance in North America seem to invite the bringing of an action at the WTO. Yet two obstacles arise. First, the regulatory principles are clear general guides to action. However, there are questions about what they mean in precise cases. How high can a fee for interconnection be, for example, without violating the requirement of being “cost-based?” It will matter a great deal how panels in the future interpret the “rules of evidence.” Do they “benchmark” national cost estimates against other countries? Do they simply look in the record of national regulatory proceedings for evidence? In addition, of course, how much deference should be given to judgment calls by national regulators? The US, for example, has been trying to build a consensus among major regulatory authorities around the world about such issues before taking a WTO action.⁵³ Second, larger political calculations can still trump trade policy and competition policy. For example, Telmex is still one of the two most influential companies in Mexico. Bringing a WTO dispute over Telmex is politically sensitive. The US and Canada have a full plate of issues with Mexico in managing the continent’s future. Sometimes, the call of diplomacy is more important than the price of telephone calls. While domestic support for change in Mexico will grow slowly as the economy’s rationalization makes more firms into intensive users of information networking, there is nothing inevitable

53 Mexico has made concessions to dissuade the US from taking a challenge to the WTO. However, US companies complain that the changes are designed to be just large enough to cloud the issue before a WTO panel, not to solve the competition problem. However, the regulatory principles have proven very valuable in promoting more transparent procedures open to all stakeholders. Transparency is one of the key matters for market efficiency. *B Levy and P Spiller (eds), Regulations, Institutions and Commitment: Comparative Studies of Telecommunications* (Cambridge, MA: Cambridge University Press, 1996).

about market reform. Trade agreements expand the tool kit of policy options for market reformers. They curb many of the worst market restrictions of the past. Yet they are no substitute for continued political attention at a senior level to the chore of creating an integrated, efficient network for North America that improves the welfare of all three countries.

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