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## Barriers to Entry in Mexican Telecommunications: Problems and Solutions

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# **SYMPOSIUM**

## **FOURTH ANNUAL LATIN AMERICAN ROUND TABLE ON COMPETITION & TRADE**

### **BARRIERS TO ENTRY IN MEXICAN TELECOMMUNICATIONS: PROBLEMS AND SOLUTIONS**

*D. Daniel Sokol\**

#### **I. INTRODUCTION**

From the competition perspective, Mexico's telecommunications market is one of the most troubled in Latin America. Its incumbent operator, Teléfonos de México S.A. de C.V. ("Telmex") has, since its privatization, exerted its dominant power to limit competitors' ability to provide telecommunications services in Mexico. The result has been a net loss for consumers in Mexico, who have

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been plagued by poor access to basic telephony and a lack of significant investment for advanced services. This tragic consequence is alarming, particularly given the \$12 billion value of the Mexican telecommunications market.<sup>1</sup>

As this Article will show, the current Mexican telecom regulatory structure does not maximize consumer welfare. Rather, it only serves to strengthen Telmex at the expense of greater competition and efficiency. Telmex has a seventy percent market share of the long distance market and a near monopoly of the domestic market.<sup>2</sup> As a result, it has the highest return per line of any of the world's major telecom carriers. Its 1999 registered profits were \$3.9 billion based on revenue of \$10.2 billion.

Telmex's unequal power in preventing reform in Mexican telecommunications derives in part from the nature of its privatization in the 1990's. As Section II of this Article illustrates, the privatization of Telmex by the Mexican government was flawed both conceptually and in its implementation because the privatization was not undertaken in conjunction with competition reform. As a result, the government protected Telmex's monopoly for two years before allowing competition. This government created a path-dependent system that gave Telmex greater power to block competition from rivals. Section III examines recent problems faced by carriers in trying to compete in Mexico's telecommunications market, caused in part by the recalcitrance of Telmex to open its network to other carriers. This Section reviews recent efforts by the United States and Mexico to negotiate a settlement to these problems bilaterally and through the World Trade Organization ("WTO"). Section IV offers solutions for Mexico's regulatory structure to prevent continued market dominance by Telmex and concludes that much still needs to be done to create a more competitive telecom market in Mexico, one that will increase consumer wel-

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1. Press Release, Office of the United States Trade Representative, U.S. to Request WTO Consultations with Mexico Regarding Telecommunications Trade Barriers (July 28, 2000), <http://www.ustr.gov/releases/2000/07/index.shtml> (last visited Oct. 29, 2001) [hereinafter USTR Press Release I].

2. Jonathan Kandell, *Yo Quiero Todo Bell*, WIRED, Jan. 2001, at 126, 134.

fare and help to transform Mexico's telecom system into a leader in Latin America.

## II. PRIVATIZATION

### *A. Justifications for Privatization*

A government may choose to privatize its industries for a number of reasons. These can include: (1) raising revenue; (2) improving efficiency; (3) reducing government interference in the economy; (4) promoting a wider share of ownership; (5) introducing competition; and (6) exposing state-owned enterprises to market competition.<sup>3</sup> The revenue-raising motive is particularly dangerous because governments may choose a short-range motive (revenue maximization) at the expense of a long-range goal (greater efficiency and overall maximization of economic resources). For this reason, some privatizations have been less successful than others. In competitive settings, private ownership has efficiency advantages, as governments privatize their firms because monitoring efficiencies are improved, as are the incentives for greater production efficiencies.

Historically, state-owned enterprises ("SOEs") began to be sold off, both in the developing and the developed world, in the 1980's, and this sell-off continued at a significant pace during the 1990's. The belief behind the privatization of SOEs was that private investors would discipline companies better than public ownership, and thereby create more significant positive economic performance for these companies.<sup>4</sup> Academic work offers empirical evidence that private firms outperform SOEs and that privatization itself increases the efficiency of the privatized firms.<sup>5</sup> One cause for this result is that the market

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3. William L. Megginson et al., *The Financial and Operating Performance of Newly Privatized Firms: An International Empirical Analysis*, 49 J. FIN. 403, 407 (1994) (citing PRICE WATERHOUSE, *PRIVATIZATION: LEARNING THE LESSONS FROM THE U.K. EXPERIENCE* (1989)).

4. *Id.* at 403.

5. *Id.* at 405. As the authors conclude, "[w]e find persuasive evidence that the mean and median profitability, real sales, operating efficiency, and capital investment spending of our sample firms increase significantly

forces a privatized company to operate more efficiently because the company depends on the capital markets rather than the government for financing.

A comprehensive World Bank empirical analysis of the effects of privatization, competition and regulation on telecom performance in thirty African and Latin American countries from 1984 through 1997 notes that competition increased the per capita number of phone lines, number of pay phones, and connection capacity, and decreased the price of a local call.<sup>6</sup> The study also reveals that privatization in conjunction with a separate regulator had significant correlation with increases in connection capacity and labor efficiency.<sup>7</sup>

Historically, privatization seemed necessary because of the inability of monopoly SOEs to provide an effective telecom service. As another World Bank report observes:

[T]hese state telecommunications monopolies . . . generally fell short of meeting needs, as evidenced by persistent large unmet demand for telephone connections, call traffic congestion, poor service quality and reliability, limited territorial coverage, demonstrated willingness of users to pay far higher prices to obtain service, the virtual absence of modern business services, and user pressures to bypass the system by building their own facilities.<sup>8</sup>

These flaws derived from state ownership served as an important impetus for reform and privatization of the telecom sector in many countries.

Another impetus for change was a transformation in the technology in telecommunications equipment that

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(in both statistical and economic terms) after privatization." *Id.* at 406. See also Anthony E. Boardman & Aidan R. Vining, *Ownership and Performance in Competitive Environments: A Comparison of the Performance of Private, Mixed, and State-Owned Enterprises*, 32 J.L. & ECON. 1 (1989).

6. See SCOTT J. WALLSTEN, AN EMPIRICAL ANALYSIS OF COMPETITION, PRIVATIZATION, AND REGULATION IN AFRICA AND LATIN AMERICA 1 (World Bank, Policy Research Working Paper No. 2136, 1999), available at <http://www.worldbank.org/html/dec/Publications/Workpapers/wps2000series/wps2136/wps2136.pdf>.

7. *Id.*

8. WALLSTEN, *supra* note 6, at 2 (citing BJORN WELLENIUS ET AL., TELECOMMUNICATIONS: WORLD BANK EXPERIENCE AND STRATEGY (World Bank, Discussion Paper 192, 1992).

allowed telecom, for the first time, to move beyond a natural monopoly system. Telecommunications services, at least before modern technological developments, exhibited the following features of natural monopoly markets: (1) an economy of scale in which the average cost of service drops with each customer; (2) demand variability; and (3) an economy of scope in which it is cheaper for one party to offer both long distance and local service. Economist Yair Aharoni suggests that factors that created the natural monopoly in telecommunications were the necessity of significant capital investments, economies of scale and sunk costs.<sup>9</sup> What makes the present telecom sector less a natural monopoly than has been the case historically is twofold. First, the scale economies for most telecom components of the network have been significantly reduced. Second, and perhaps more importantly, is that new technologies have reduced the real cost per unit of output of all components of the network. This second factor has reduced the importance of scale economies relative to other factors such as managerial efficiency, technical capabilities and service quality.<sup>10</sup> Because telecoms became less of a natural monopoly, it became easier to privatize them since the possibility existed that competition within a privatized and competitive sector would lower the price of telecom services to consumers.

### *B. The Linkage of Privatization with Increased Competition*

With great understanding for his time, Adam Smith appreciated the efficiency that competition creates noting that, "[m]onopoly, besides, is a great enemy to good management, which can never be universally established but in consequence of that free and universal competition which forces everybody to have recourse to it for the sake

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9. YAIR AHARONI, *THE EVOLUTION AND MANAGEMENT OF STATE-OWNED ENTERPRISES* 264 (1986).

10. ROGER G. NOLL, *TELECOMMUNICATION REFORM IN DEVELOPING COUNTRIES* 24 (AEI-Brookings Joint Center for Regulatory Studies, Working Paper No. 99-10, 1999), available at [http://www.aei.brookings.org/publications/working/working\\_99\\_10.pdf](http://www.aei.brookings.org/publications/working/working_99_10.pdf).

of self-defense.”<sup>11</sup> It is not merely economic theory that supports this belief but empirical studies. As one study notes, “[p]erhaps the most important point to emerge from the evidence is the importance of competitive conditions and regulatory policies, as well as ownership, for incentives and efficiency.”<sup>12</sup>

Privatization alone will not create a more competitive marketplace and any gains in privatization will be limited without the competitive component.<sup>13</sup> Indeed, privatization must occur hand in hand with an effective competition policy scheme and deregulation.<sup>14</sup> In this sense, “a specific regulatory framework has to be put into place that favors market entry and allows effective competition by preventing incumbents from exercising their power.”<sup>15</sup>

Without competition, the incumbent operator does not have an incentive to innovate. Regulators sometimes overlook this presumption though academic economic research first recorded this conclusion as early as the 1960's, when Averch and Johnson suggested that such firms make inefficient investments.<sup>16</sup> U.S. courts have even noted the positive benefits of competition in the telecom industry.<sup>17</sup> As one court wrote, the competition that followed the breakup of AT&T created “an unprecedented flowering of innovation” in the U.S. telecom sector.<sup>18</sup>

### *C. The Danger of Industry Capture by Telmex*

Academic literature describes the nature of deregu-

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11. ADAM SMITH, AN INQUIRY INTO THE WEALTH OF NATIONS 163 (R. H. Skinner & A. S. Skinner eds., 1976).

12. John Vickers & George Yarrow, *Economic Perspective on Privatization*, 5 J. ECON. PERSP. 111, 118 (1991).

13. See WALLSTEN, *supra* note 6, at 4.

14. See *id.* at 3.

15. Viktor Mayer-Schonberger & Mathias Strasser, *A Closer Look at Telecom Deregulation: The European Advantage*, 12 HARV. J.L. & TECH. 561, 566 (1999).

16. See Harvey Averch & Leland L. Johnson, *Behavior of the Firm Under Regulatory Constraint*, 52 AM. ECON. REV. 1052, 1059 (1962).

17. See *United States v. Western Elec. Co.*, 809 F. Supp. 1 (D.D.C. 1995).

18. *Id.* at 9.

lation and privatization under a private interest theory framework as one of competing interest groups that attempt to use state power to capture rents for the successful groups at the expense of less organized groups and the interest groups that do not prevail.<sup>19</sup> Under this framework, it would follow that those interests that supported Telmex prevailed and that Telmex has captured rents in excess of what is economically efficient and creates the best outcome for Mexico to improve its economic fortunes. Telmex was thus able to "capture" its regulators and stymie real competition in telecommunication services for years.

Current Mexican Finance Minister, Francisco Gil Díaz, has noted the inability of the Mexican government to adequately deal with the excesses of Telmex and its market dominance in the Mexican telecom sector during the period 1997-2000 when he worked in the private sector.<sup>20</sup> As Gil Díaz stated, "In Stigler's terms, the government was captured by the industry, and the industry was a monopoly."<sup>21</sup>

#### *D. The Telmex Privatization*

The first step of the Mexican privatization of Telmex occurred in 1990, when the Mexican government offered 20.4 percent of the company for sale.<sup>22</sup> Because of the capital structure of the firm, this 20.4 percent of the company had fifty-one percent of the voting rights.<sup>23</sup> These shares were purchased for \$1.757 billion by a conglomerate of Grupo Carso (the Mexican majority shareholder), SBC Telecommunication, Inc. ("SBC") and France Telecom as minority shareholders. An additional 4.4 percent of the company was sold to employees for \$325 million fi-

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19. See George Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. & MGMT. SCI. 3 (1971). See also Sam Peltzman, *Toward a More General Theory of Regulation*, 19 J.L. & ECON. 109 (1976); Gary S. Becker, *A Theory of Competition Among Pressure Groups for Political Influence*, 98 Q.J. ECON. 371 (1983).

20. Sharla A. Stewart, *The Iron Taxman Cometh*, U. CHI. MAG., Aug. 2001, at 25.

21. *Id.*

22. Pankaj Tandon, *Welfare Effects of Privatization: Some Evidence From Mexico*, 13 B.U. INT'L L.J. 329, 344 (1995).

23. *Id.*



nanced through loans.<sup>24</sup> In May 1991, the Mexican government placed an additional 15.7 percent of the stock in the New York Stock Exchange, which yielded \$2.17 billion.<sup>25</sup> That same year, SBC purchased an additional 5.1 percent for \$467 million.<sup>26</sup> In 1992, 4.7 percent was sold in an international and domestic offering for \$1.5 billion, while in 1993, 3.3 percent was sold for \$1 billion.<sup>27</sup> The remaining 1.5 percent was sold for \$550 million in 1994.<sup>28</sup>

Like many privatizations, this Telmex privatization was not a complete one-step privatization, because for a certain period of time the Mexican government retained control of a significant number of shares. Additionally, the government guaranteed a monopoly on service for Telmex for a period of six years. This guarantee officially ended on August 10, 1996, but in reality lasted longer.<sup>29</sup> In 1995, Mexico's congress passed the Telecommunications Law to open up the Mexican telecom market in 1996.<sup>30</sup> The goal of the law was to introduce competition in the local and long distance Mexican telecom markets and to revise Mexican law to comply with North American Free Trade Agreement ("NAFTA") requirements.<sup>31</sup> Unfortunately, the Telecommunications Law and its enforcement fell short of this goal, as Section III will show.

Mexico was not bound to the path that it took in its privatization of Telmex. It would have been technologically feasible for Mexico to break up Telmex into two companies, as for many years there had been two separate companies that were not interconnected.<sup>32</sup> Thus, the

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24. See *infra* Section III.

25. See Tandon, *supra* note 22, at 344.

26. *Id.*

27. *Id.*

28. *Id.*

29. *Id.*

30. "Acuerdo por el que se establece el procedimiento para obtener concesión para la instalación, operación o explotación de redes públicas de telecomunicaciones interestatales, al amparo de la Ley Federal de Telecomunicaciones," D.O., 4 de septiembre de 1995 [hereinafter Federal Communications Law].

31. See Stephen I. Glover & JoEllen Lotvedt, *The Mexican Telecommunications Market: The Interplay of Internal Reform and NAFTA*, 3 NAFTA: L. & BUS. REV. AM. 23, 26-27 (1997).

32. AHMED GALAL ET AL., WELFARE CONSEQUENCES OF SELLING PUBLIC ENTERPRISES: AN EMPIRICAL ANALYSIS 557 (1994).

privatization of Telmex as a single entity was based on revenue creation for the government and this took priority over an optimal economic outcome that would have benefited consumer welfare.<sup>33</sup> As economist Panjak Tandon suggests, "Mexico had a very clear goal for privatization: to raise revenue and ease some of the fiscal problems of the government. Liberalization, deregulation, and efficiency enhancement were subsidiary goals . . . revenue was the primary motive."<sup>34</sup>

Mexico lacked the competition aspect that encourages privatization to create positive results that correlate with a privatized company. Without competitors who focus attention more on the needs of customers, incumbents lack an incentive to improve service. In order to promote greater competition, a strong independent regulator is needed. Otherwise, the potential consumer gains of privatization will be minimal. As an International Finance Corporation paper notes: "Simply moving a monopoly from the private to public sphere will not result in competitive behavior."<sup>35</sup>

In the case of Mexico, the long-term consequences of choosing revenue maximization over pro-competitive policies regarding the Mexican telecom sector has hurt consumers by limiting entry into the market by Telmex competitors.

### III. ISSUES

#### A. Overview

Teledensity is perhaps the most common indicator of telecom performance. Mexico has only eleven telephone lines per 100 people, the lowest teledensity rate among the larger Latin American countries.<sup>36</sup> In contrast, Chile

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33. *Id.*

34. Tandon, *supra* note 22, at 344.

35. WALLSTEN, *supra* note 6, at 4 (quoting WILLIAM AMBROSE ET AL., PRIVATIZING TELECOMMUNICATIONS SYSTEMS: BUSINESS OPPORTUNITIES IN DEVELOPING COUNTRIES (International Finance Corporation, Discussion Paper No. 10, 1990)).

36. *Doubling Phone Lines*, BUS. MEX., Jan. 1, 2001, available at 2001 WL 7670820.

and Argentina both have teledensities double that of Mexico.<sup>37</sup> President Vicente Fox of Mexico has stated that the country hopes to double the number of phone lines within the next five years, thereby making telephone service a basic service such as electricity.<sup>38</sup> In order for such a bold plan to succeed, a significant revision of the regulatory environment in Mexico must occur. Without such a change, investors may be wary to spend the estimated \$13 billion required to meet this goal.<sup>39</sup>

Currently, Telmex controls ninety percent of the local loop in Mexico.<sup>40</sup> Rates are negotiated among the parties and then ratified by the Comisión Federal de Telecomunicaciones ("Cofetel"), the Mexican telecom regulator. Consequently, all entrants must negotiate with Telmex, which can use its dominant power in these negotiations to extract unfavorable rates from its competitors.

### *B. Interconnection*

By their nature, telecom services have network characteristics.<sup>41</sup> The more significant the network characteristic is, the more consumers will be attracted to the firm with the largest market share. For this reason, interconnection is crucial. In the absence of interconnection to the network system, consumers will receive a large network benefit only from choosing the goods or service that has the largest number of other users.

One consequence is that consumers can become "locked in" to a particular network.<sup>42</sup> Switching from the

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37. *Halfway There*, US/MEX. BUS., June 1, 1998, available at 1998 WL 24250767.

38. *See Doubling Phone Lines*, *supra* note 36.

39. *Id.*

40. *Alestra: Authorities to Spend 2001 Negotiating Unbundling*, BUS. NEWS AM., Mar. 20, 2001.

41. For a general overview of the various pricing rules on interconnection, see HENRY ERGAS, ACCESS AND INTERCONNECTION IN NETWORK INDUSTRIES (1998).

42. The early history of the United States shows how this lock-in worked. AT&T prevented rivals from interconnecting to AT&T's telecom system, which allowed AT&T to create a telecom monopoly in the United States until AT&T's breakup during the 1980's. *See* Howard A. Shelanski & J. Greg-

market leader to a rival without interconnection entails a loss in network benefit for consumers, particularly in the short term. Thus, entry or expansion by rivals is made difficult due to their inability to create a critical mass of customers for a rival network. In turn, this creates a barrier for entry for competitors to the incumbent, who already has a strong network. Points of interconnection are bottleneck facilities in telecom since new entrants cannot compete without access to them.

Therefore, to prevent possible monopolization by the operator with the largest network operation, interconnection agreements serve to link the system of entrants to that of the incumbent to allow for service to the entire telecom system by an entrant's consumers. Without such agreements, competitors would be severely disadvantaged.

The pricing of interconnection is also important. On interconnection, the European Commission's recommendation on pricing may serve as a useful precedent. Their cost model excludes local loop costs from the cost estimates for interconnection costs. The European Commission's analysis taken from the annex to Directive 97/33/EC of interconnection charges for call termination is as follows:

1. Pricing the Local Loop for Interconnection Purposes.

The local loop refers to the final link between the customer and the local exchange. In a fixed network using wired or wireless local loops, the cost of an un-switched local loop is largely a one-off cost, with periodic maintenance costs. Where call termination is being purchased, the 'lowest' place in the network where this can occur is on the main network side of the local switch. Interconnection at this point may impose additional switch capacity costs, but there is no additional capacity cost or investment requirement relating to those components of the local loop which are dedicated to a particular customer (i.e. the pair of copper wires in a traditional network).

It follows from the principle of cost orientation that since the provision of interconnection does not lead to any increase of costs in the dedicated components of the local loop of the terminating network, the calculation of

interconnection charges should not include any component relating to the direct cost of the subscriber-dedicated components of the local loop. The cost of those components in the unswitched local loop that are dedicated to a particular customer should therefore be recovered from that customer through a subscriber line charge, or as a combination of this and revenues from other services, to the extent that competition permits.<sup>43</sup>

Ideally, market forces would create incentives for firms to enter a telecommunications market. However, based on certain political and regulatory realities, including the vast power that Telmex wields, market forces alone will not open up the Mexican telecom market to greater competition. Instead, entry needs to be encouraged and fostered if it is to occur at a significant level in Mexico.

A problem in pricing of services for interconnection comes from the informational asymmetry between regulators and the telecom companies that are regulated. Because regulators do not have the same information as the firms they regulate, the firms have an incentive to use this informational asymmetry strategically, which makes decisions on the proper level of pricing difficult.<sup>44</sup> Adding to this problem in Mexico has been Telmex's unwillingness to provide crucial accounting information. Cofetel recently requested that the Transport and Communications Secretariat ("SCT") sanction Telmex for its failure to supply financial information required by Cofetel.<sup>45</sup> Although Telmex argues that this information is commercially sensitive, without it regulators cannot properly calculate costs for service.<sup>46</sup>

The interconnection problem is one of the most difficult issues for telecom regulators and is not unique to Mexico. In the United Kingdom, solving interconnection problems has proven more difficult than policy-makers

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43. Commission Recommendation 98/195/EC, Annex 1, 1998 O.J. (L 73) 42.

44. JEAN JAQUE LAFFONT & JEAN TIROLE, A THEORY OF INCENTIVES IN PROCUREMENT AND REGULATION 1-2 (1993).

45. See *Cofetel Asks SCT To Sanction Telmex*, BUS. NEWS AM., Apr. 24, 2001, available at 2001 WL 18764589.

46. *Id.*

originally anticipated.<sup>47</sup> In Germany, competitive carriers must mirror the incumbent's ("Deutsche Telekom") inefficient network structure.<sup>48</sup> Competitors struggle with tremendous provisioning backlogs, the lack of access to information vital for interconnection, and the unwillingness (or inability of the national regulator) to impose stiff penalties on Deutsche Telekom for late delivery.<sup>49</sup> A comparative analysis of interconnection issues in many countries suggests that the proper way to resolve interconnection issues is for regulators to remain steadfast in their determination to open up incumbent networks to entrants to further competition and increase consumer welfare.

### C. Cross-Subsidization

A single firm providing both regulated local service and unregulated long distance service has the incentive to engage in cross-subsidization.<sup>50</sup> What Telmex has sought to do is to cross subsidize its long distance service with its local service, where it is the dominant firm.<sup>51</sup> Telmex may claim that high priced long distance service is necessary for a public purpose of funding an increase in telephone line penetration in Mexico. However, such an argument seems far-fetched. After regulators opened up Mexico's long distance market in 1997, Telmex responded by doubling its local service rates.<sup>52</sup> This would make greater access and penetration of telecom services more, not less difficult.

Cross-subsidies are not the optimal way to increase consumer welfare. "Cross-subsidies can not possibly beat

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47. See MARK ARMSTRONG ET AL., *REGULATORY REFORM: ECONOMIC ANALYSIS AND BRITISH EXPERIENCE* 195-243 (1994).

48. See Raimund Schütz, *UG Stoppt EBC-Anordnung Endgültig*, 6/2001 MULTIMEDIA UND RECHT XI. On May 3, 2001, the German Superior Administrative Court (Münster) issued a preliminary injunction in favor of Deutsche Telekom that forbids the implementation of element-based interconnection charges, as the other EU countries have in place. *Id.*

49. Axel Spies, *U.S.A.: Bereitstellungsfristen für Carrier Leistungen und Deren Durchsetzung*, 8/2001 MULTIMEDIA UND RECHT 502.

50. See, e.g., JEAN-JACQUES LAFFONT & JEAN TIROLE, *COMPETITION IN COMMUNICATIONS* 97-178 (2000).

51. *Country: Mexico: Fight Club*, CI-ONLINE (Jan. 1, 2001), at <http://www.totaltete.com/view.asp?ArticleID=35426&pub=newci>.

52. See *Halfway There*, *supra* note 37.

the alternative of opening all markets to competition, imposing a tax on all telecommunications services, and using the revenues to finance direct subsidies for users that require them.<sup>53</sup> In the U.S. experience, empirical research shows that raising the basic access price for local service did not lead to decreased local penetration when long distance prices decreased.<sup>54</sup> Specifically, during the period immediately following the AT&T breakup, 1984-1990, U.S. telephone penetration rose from 91.4 percent to 93.3 percent.<sup>55</sup> This meant that ten million additional households subscribed to telephone services while the number of households without telephone services decreased by 1.1 million persons.<sup>56</sup> Additionally, in terms of long distance, AT&T's share fell from ninety percent in 1984 to forty-four percent in 1997.<sup>57</sup>

An overview of the U.S. telecom market prior to the breakup of AT&T is instructive as a way of illustrating the problems with cross-subsidization.<sup>58</sup> In the U.S. under the Bell system, basic local telephone services received a large cross-subsidy from the price of long distance services, which were significantly in excess of their incremental costs.<sup>59</sup> One of the key elements in the Bell system was that all of the cross-subsidies were Bell sponsored such as equipment, rural service, and residential service. Because Bell was involved in every facet of the telecom sector, regulators did not have to worry about the pricing issue. Rather, under the Bell system, regulators merely had to look at aggregate numbers and make sure Bell was

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53. NOLL, *supra* note 10.

54. Jerry Hausman et al., *The Effects of the Breakup of AT&T on Telephone Penetration in the United States*, 83 AM. ECON. REV. 178, 182 (1993).

55. *Id.*

56. *Id.*

57. See FCC LONG DISTANCE MARKET SHARES (March 1999), at [http://www.fcc.gov/Bureaus/Common\\_Carrier/Reports/FCC-State\\_Link/ixc.html](http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/ixc.html).

58. For a brief overview, see LAFFONT & TIROLE, *supra* note 50, at 1-35. For a more in depth description, see Gerald W. Brock, *The Regulatory Change in Telecommunications: The Dissolution of AT&T*, in REGULATORY REFORM: WHAT ACTUALLY HAPPENED 210 (Leonard W. Weiss & Michael W. Klass eds., 1986) and PETER TEMIN, *THE FALL OF THE BELL SYSTEM: A STUDY IN PRICES AND POLITICS* (1987).

59. Hausman, *supra* note 54, at 178.

not extracting huge monopoly rents. As the Bell system fell apart, such a pricing system was no longer feasible.

The feasibility of this system became impossible because of competition. The competition that emerged, beginning with MCI, was a threat to cross-subsidization because competition affected areas where the cross-subsidization resulted in high costs. If only one sector was unregulated (long distance) and one regulated (local), the incumbent operator would try to shift costs to the regulated service. One would attempt to inflate the costs of local service because the rate of return would be the same in a regulated world and then to maximize profits in the long distance service. Because many of these costs are shared, the Bell Company would become more competitive in a market in which it may face competition due to a lack of regulation.

In the U.S. government's case against AT&T, which resulted in the breakup of the company, the government had three theories: (1) AT&T was cross-subsidizing its services in order to engage in predatory pricing (particularly, these were not equity-enhancing cross-subsidies, but predatory ones being done for their own business interests); (2) AT&T prevented access to certain markets; and (3) AT&T had no incentive to collect the needed cost information. Stated differently, a telecom operator that is regulated but faces competition simply cannot cross-subsidize because it cannot artificially raise its price in the regulated business since doing so would result in the loss of business to its competitors. Moreover, it becomes harder to deceive regulators when a company "gold-plates" the cost of services because regulators have relevant information from competitors. There are two arguments to this. First, that there were hidden costs being disguised by AT&T and moved from the competitive market to the regulated one in order to engage in this cross-subsidization. The second argument is that these services were all related,<sup>60</sup> making hiding these costs easy. Under the Modification of Final Judgment ("MFJ"), the local Bell Operating Companies were enjoined from entering the long distance market so that they would not have incen-

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60. This is a good thing in economies of scope.



tive to leverage their continuing monopoly power into that market.<sup>61</sup>

#### *D. Use of Courts to Slow Regulatory Reform*

Incumbents often attempt to slow change by challenging attempts at regulatory reform through lengthy litigation induced delays. In the U.S., the Federal Communications Commission ("FCC") has significant power to regulate the telecom sector. Former FCC chairman William Kennard noted that "Too many of the [incumbent] stakeholders . . . would rather litigate than compete."<sup>62</sup> The situation in Mexico with regard to incumbent induced litigation is worse. In sharp contrast to the FCC, Cofetel has very limited powers. Telmex has been repeatedly intransigent in its dealing with Mexican regulators. As noted earlier, because Cofetel lacks the authority to apply sanctions against Telmex, it recently requested that the SCT sanction Telmex for its failure to supply financial information required by Cofetel rather than be able to sanction Telmex itself.<sup>63</sup>

Recently, the Chairman of the Mexican Federal Competition Commission ("CFC"), Fernando Sánchez Ugarte, stated that the Mexican telecom sector lacks effective competition.<sup>64</sup> He added that Telmex's continued dominance in the telecom sector market impedes the growth of entrants into the Mexican telecom market.<sup>65</sup> As he observed, "Regulation has not been able to diminish the dominance of Telmex, and is not being applied concretely. There are a lot of points that are still not applied."<sup>66</sup>

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61. United States v. AT&T, 552 F. Supp. 131, 224 (D.D.C. 1982).

62. Jube Shriver, Jr., *William Kennard: On Regulating the Marketplace of the Telecommunications Boom*, L.A. TIMES, Jan. 18, 1998, at M3.

63. See *Cofetel Asks SCT To Sanction Telmex*, *supra* note 45.

64. *Cofetel, CFC Shift Telecom Blame*, BUS. NEWS AM., July 20, 2001, available at 2001 WL 24789233.

65. *Id.*

66. *Id.*

*E. Pricing*

Telmex's pricing scheme continues to be regulated by the 1990 Telmex Concession, which uses a price cap methodology.<sup>67</sup> As one noted economist writes, "price cap regulation represents the maximum disconnection of prices and costs."<sup>68</sup> Under a price cap system, regulators set a price structure for a certain period using current prices and outputs.<sup>69</sup> The regulator sets a maximum price and the telecom company then sets its rates at or below that ceiling. Seen in its best light, because the price caps are not lowered if costs go down, a carrier has a greater incentive to act efficiently and closely monitor costs.

However, price cap regulation is a bad policy choice as a pricing mechanism. If the telecom operator spends too little money then the price cap is adjusted downward. Under such circumstances, telecom companies have an incentive to "gold-plate" services based on the arbitrage between costs as estimated by regulators and the actual costs incurred by telecom operators. That is, the incentive is to spend more money than needed on certain parts of the infrastructure in order to capture the same price cap rate rather than a lower rate because of the divergence from actual and estimated productivity by the regulators. Moreover, price cap regulation may still allow a dominant carrier to retain its dominant position by cross subsidizing. Unless the monopoly services are grouped separately from competitive services, the monopoly services still provide an opportunity to cross-subsidize. Telecom operators can circumvent the price cap regulation by incurring additional expenses for the benefit of an unregulated subsidiary and then petitioning for a revision to the price cap formula.

A second factor that makes price cap regulation a poor choice is that it is unresponsive to technological changes. New technology can cause the bundle of telecom products to change via introduction of new products or those that upgrade the quality of existing products.<sup>70</sup> Price

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67. "Reglamento de Telecomunicaciones," D.O., 29 de octubre de 1990.

68. See NOLL, *supra* note 10, at 36.

69. *Id.*

70. *Id.*

cap regulation cannot adjust its pricing structure to take account of these technological changes since it only periodically adjusts the price cap amount, which only leads to further arbitrage opportunities by telecom operators.

#### *F. WTO Action*

The United States Trade Representatives ("USTR") took the Telmex dispute before the WTO in the summer of 2000.<sup>71</sup> The U.S. moved to act on behalf of the Mexican subsidiaries owned by MCI ("Alestra") and AT&T ("Avantel"). This was in response to complaints received from the two U.S. carriers pursuant to Section 1377 of the Omnibus Trade and Competitiveness Act of 1988.<sup>72</sup>

Under the agreement that was in place until January 2001, Alestra and Avantel paid Telmex a termination fee of nineteen cents per minute for calls from the United States to Mexico.<sup>73</sup> Of that amount, 4.6 cents per minute was charged to interconnect the long distance call into the local network.<sup>74</sup> This amount for termination fees was in sharp contrast to amounts paid for interconnection in other countries.<sup>75</sup> Local delivery rates in the United States, Canada and Chile were a mere one half cent, while according to the USTR, comparative termination fees elsewhere in the world were six cents a minute.<sup>76</sup> Rates in Argentina and Peru are approximately one cent a minute.<sup>77</sup>

Along with the initial interconnection rate Cofetel set, it also established a fifty-eight percent surcharge for Telmex to complete competing carriers' international

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71. See generally Request for Consultations by the United States, Mexico – Measures Affecting Telecommunications Services, WT/DS204/1, (Aug. 29, 2000), available at 2000 WL 1225266 [hereinafter Request for Consultations].

72. See USTR Press Release I, *supra* note 1.

73. Theresa Foley, *WTO Faces First Telecoms Judgment*, CWI Online (Sept. 11, 2000), at <http://www.totaltele.com/view.asp?articleID=31590&Pub=CWI&categoryid=705&kw=theresa+foley>.

74. *Id.*

75. *Id.*

76. *Id.*

77. See USTR Press Release I, *supra* note 1.

calls, which was in force until 1999.<sup>78</sup> Even after the elimination of the surcharge, Telmex still charges competitors fifteen cents above cost to complete their international calls.<sup>79</sup> Telmex also tried to pass on more than just interconnection costs to its competitors. It also attempted to pass on costs associated with meeting carrier pre-selection, a new numbering plan, SS7 signaling and U.S.-style billing.<sup>80</sup> Though Telmex estimated such costs to be \$1.5 billion, Telecordia Technologies, a Bell subsidiary, arrived at a figure of \$423 million for cost recovery while Telmex competitors estimated the cost of recovery to be as low as \$250 million.<sup>81</sup>

Under Mexican telecom practices, competitive carriers are also unable to obtain interconnection to provide local service and face anti-competitive rates for the transport of calls to regions where they have not yet built out their networks.<sup>82</sup> As noted economist William Baumol writes, "[I]f the owner of the facilities is permitted to charge any price, it can protect itself from entry by setting the price at such an exorbitant level that no entrant can afford to pay it."<sup>83</sup> One can certainly argue that Telmex, in charging such a high price for interconnection to its network, hoped to prevent entrants from entering the Mexican telecom market. In addition to its excessive interconnection fees, Telmex has refused to allow quality connections.<sup>84</sup> Because of this unequal treatment, perhaps not unsurprisingly, since the long distance market was opened to competition, Telmex actually *increased* its market share of long distance customers from seventy-four to eighty-one percent, and it has thwarted competitive carriers' attempts to build out alternate local networks.<sup>85</sup>

The U.S. request for consultation before the WTO regarding Mexico's telecommunications services was filed

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78. See *Fight Club*, *supra* note 51.

79. *Id.*

80. *Id.*

81. *Id.*

82. *Id.*

83. William J. Baumol, *Having Your Cake: How to Preserve Universal Cross-Subsidies While Facilitating Competitive Entry*, 16 YALE J. ON REG. 1, 4 (1999).

84. See *Fight Club*, *supra* note 51.

85. See USTR Press Release I, *supra* note 1.

on August 29, 2000.<sup>86</sup> In it, the U.S. focused on five major areas in which the Government of Mexico had maintained anti-competitive and discriminatory measures including barriers to entry in the telecom sector vis-à-vis U.S. carriers. These areas were:

1. Mexico enacted and maintained a regulatory system that denied and/or limited market access, national treatment, and additional commitments for telecom companies that sought to provide basic and value-added telecommunications services into and within Mexico;

2. Mexico failed to enact measures to ensure implementation of Mexico's market access, national treatment, and additional commitments for entrants seeking to provide basic and value-added telecommunications services into and within Mexico;

3. Mexico failed to enforce regulations to ensure compliance with Mexico's market access, national treatment, and additional commitments for entrants who sought to provide basic and value-added telecommunications services into and within Mexico;

4. Mexico failed to regulate Telmex from limiting market access for other telecom companies to Mexico's basic and value-added telecommunications services into and within Mexico; and

5. Mexico failed to administer measures of general application governing basic and value-added telecommunications services in a reasonable, objective, and impartial manner to ensure that decisions and procedures used by Cofetel were impartial with respect to all market participants, and ensure access to and use of public telecommunications transport networks and services on reasonable and non-discriminatory terms and conditions for the supply of basic and value-added telecommunications services.<sup>87</sup>

Indeed, it was as a result of the barriers to entry in the Mexican telecom sector that the two main competitors to Telmex, Alestra and Avantel, looked for U.S. help in opening the Mexican telecom sector to greater competition. After initially filing a complaint before the WTO, a deal was reached among the three telecom companies in

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86. See Request for Consultations, *supra* note 71.

87. *Id.*

January 2001, brokered by the U.S. and Mexican governments.<sup>88</sup> Under the agreement, the parties agreed to keep the interconnection fees at \$.0125 per minute, which was the rate set by Cofetel a few months earlier that Telmex had appealed.<sup>89</sup> Given the vociferous consternation by Telmex that an interconnection rate of \$.0326 per minute was necessary to build out its network, it is interesting to note that interconnection rates only affected five percent of company revenues.<sup>90</sup> In sharp contrast, Avantel would pay seventy-two percent of its revenues directly to Telmex for interconnection.<sup>91</sup> This suggests that Telmex's motive for a high interconnection service may not have been consumer oriented but rather an attempt to limit competition.

WorldCom and AT&T argued four major points in their grievance letters to the Office of the USTR, claiming that Mexico: (1) allowed the perpetuation of Telmex's monopoly on international accounting rates; (2) placed anti-competitive restraints on cross-border communication services; (3) failed to regulate Telmex as a dominant carrier; and (4) lacked transparency.<sup>92</sup> WorldCom believed that since Telmex had the authority to negotiate interconnection rates with entrants, Telmex could use its leverage as the owner of the network to set prices that were not market-based rates.<sup>93</sup> Because of the lack of implementation of a cost-oriented rate, Telmex could perpetuate its control of the Mexican long distance market. Further, even though Cofetel had issued its dominant carrier regulations of September 12, 2000,<sup>94</sup> these regulations

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88. *Telmex Reaches Agreement with Two Principle Competitors*, SOURCEMEX ECON. NEWS, Jan. 10, 2001, available at 2001 WL 10229481.

89. *Id.*

90. *Id.*

91. *See Halfway There*, *supra* note 37.

92. *See* Letter from Michael H. Salisbury, Executive Vice-President, General Counsel, WorldCom Inc., to Gloria Blue, Executive Secretary, Trade Policy Staff Committee, Office of the United States Trade Representative (Jan. 26, 2001), <http://www.ustr.gov/enforcement/worldcom.pdf> (last visited Oct. 29, 2001) [hereinafter WorldCom Letter]; Letter from Joanna McIntosh, Vice President of International Affairs, AT&T, to Gloria Blue, Executive Secretary, Trade Policy Staff Committee, Office of the United States Trade Representative (Jan. 26, 2001), <http://www.ustr.gov/enforcement/att.pdf> (last visited Oct. 29, 2001) [hereinafter AT&T Letter].

93. *See* WorldCom Letter, *supra* note 92.

94. "Resolución Mediante la cual Establece Obligaciones Específicas

were not enforced and sanctions were not applied to Telmex for its lack of compliance with the new regulations.<sup>95</sup> Finally, WorldCom claimed that the regulatory process lacked transparency and that entrants did not have adequate input in the regulatory process.<sup>96</sup>

In addition to setting new interconnection rates, the agreement called for the payment to Telmex by Ales-tra and Avantel of \$450 million that had been frozen because of the disputes among the companies.<sup>97</sup> Of the \$450 million, \$175 million was to be paid immediately with the remainder to be staggered over the next three years.<sup>98</sup> The agreement also included a provision that the parties would cancel all pending legal actions against each other.<sup>99</sup>

A number of issues still remain unresolved. Mexico has failed to ensure timely interconnection with Telmex at the local level and has not yet addressed outstanding U.S. concerns regarding above-cost rates for phone calls between the U.S. and Mexico.<sup>100</sup> Additional issues that the USTR has focused on include: "Mexico's failure to maintain appropriate measures to prevent Telmex from engaging in anti-competitive practices; to ensure timely, cost-oriented interconnection at any technically feasible point in the network for local, long-distance, and international traffic; and to permit the cross border supply of basic telecom services over leased lines."<sup>101</sup> Terminations of calls rates were nineteen cents per minute, which at the time was fifteen cents per minute above costs.<sup>102</sup>

Because of the settlement, the U.S. decided that

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a Telmex en su Carácter de Operador Dominante en Cinco Mercados Relevantes de Servicios de telecomunicaciones," D.O., 12 de septiembre de 2000.

95. See WorldCom Letter, *supra* note 92.

96. See WorldCom Letter & AT&T Letter, *supra* note 92.

97. See *Telmex Reaches Agreement with Two Principle Competitors*, *supra* note 88.

98. *Id.*

99. *Id.*

100. Press Release, Office of the United States Trade Representative, United States to Request WTO Panel on Mexico Telecommunication Trade Barriers (Nov. 8, 2000), <http://www.ustr.gov/releases/2000/11/index.shtml> (last visited Oct. 29, 2001) [hereinafter USTR Press Release II].

101. *Id.*

102. *Id.*

there was a reasonable prospect of resolving some of the telecommunications issues with Mexico in a context outside of the WTO. As a consequence, the U.S. decided not to proceed with its case against Mexico before the WTO, though it did not withdraw it.<sup>103</sup> Instead, the USTR set June 1, 2001 as a deadline for the Mexican government to show that it had taken measures to ensure greater competition in the telecom sector.<sup>104</sup> The U.S. also threatened that if these anti-competitive issues were not addressed by June 1, 2001, it might resume its motion before a WTO panel, to which the Mexican government could no longer veto. Nevertheless, this U.S. threat was not carried out.<sup>105</sup> Though the June 1 deadline passed without USTR action, the Mexican government has still not yet taken the necessary action to reign in Telmex's anti-competitive practices.

Presently, the Mexican government is drafting modifications to the 1995 Telecommunications Law, with Fall 2001 as the expected time for its presentation to the Mexican Congress. The modifications are supposed to strengthen Cofetel's autonomy, create a universal service fund and streamline and simplify administrative procedures.<sup>106</sup> One goal of the legislation would be to allow Cofetel to take action on its own, without resorting to a drawn out adjudication in the court system that Telmex has used to its advantage to stymie change and reform in the past.<sup>107</sup> As Jorge Nicolin, the president of Cofetel has noted, "we must strengthen Cofetel in terms of spectrum monitoring capabilities and the sanction [available to it] to act more quickly without depending on other laws."<sup>108</sup>

### *G. Other Developments*

Telmex has twice been ruled a dominant carrier by

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103. Rosella Brevetti, *U.S. Sees Possible Resolution of Telecom Issues with Mexico*, 18 Int'l Trade Rep. (BNA), No. 23, at 901 (June 7, 2001).

104. *Id.*

105. *USTR Sets June 1 Deadline for Pro - Competition Action*, BUS. NEWS AM., Apr. 3, 2001.

106. *Government to Draft Telecoms Law Modifications by September*, BUS. NEWS AM., Mar. 19, 2001.

107. *Id.*

108. *Id.*



the CFC.<sup>109</sup> In spite of these declarations, Cofetel has not taken the necessary steps to prevent continued market dominance by Telmex. Cofetel issued new regulations against Telmex on September 12, 2000.<sup>110</sup> Cofetel argues that the rules impose new, specific obligations related to Telmex's rates, quality of service, and accounting information. Yet, the enforcement of the new rules against Telmex is still an open question. In response to the new measures, Telmex quickly resorted to an "amparo," a legal injunction that protects Telmex from legal action.<sup>111</sup> The CFC designated Cofetel to be responsible for applying measures to regulate Telmex in its rulings in which it found Telmex to be dominant.<sup>112</sup>

On March 27, 2000, Cofetel had issued an administrative procedure related to standards on rates, quality of service, and accounting information.<sup>113</sup> The new rules put those administrative changes into law. According to these new changes, Telmex can only recuperate the costs of providing for essential services such as portals, operator service, billing, emergency services, local traffic, installation and lease of long distance links.<sup>114</sup> Additionally, under the new changes, Telmex must charge a fixed local service rate that applies to the entire country until January 1, 2003, with a different price allowed only for volume, distance and times.<sup>115</sup> Beginning on January 1, 2003, Telmex

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109. See Shanker A. Singham, *Market Access and Market Contestability: Is the Difference Purely Semantics? A Business Perspective*, 25 BROOK. J. INT'L L. 337, 358 (1999).

110. "Resolución Administrativa por la que la Secretaría de Comunicaciones y Transportes por conducto de la Comisión Federal de Telecomunicaciones, establece a Teléfonos de México, S.A. de C.V., obligaciones específicas relacionadas con tarifas, calidad de servicio e información, en su carácter de concesionario de una red pública de telecomunicaciones con poder sustancial en cinco mercados relevantes, de acuerdo con el artículo 63 de la Ley Federal de Telecomunicaciones," D.O., 12 de septiembre de 2000.

111. See John Nagel, *Deregulated Industries: Mexico's Telmex Settles Row With Rivals; Pact Could Obviate Need for WTO Process*, Antitrust & Trade Reg. Daily (BNA) (Dec. 28, 2000), available at WL 12/28/2000 ATD d2.

112. See John Nagel, *Mexico Announces New Rules for Telmex; Legal Maneuvering, Challenges Likely*, 17 Int'l Trade Rep. (BNA), No. 36, at 1392-93 (Sept. 14, 2000).

113. *Id.*

114. *Id.*

115. *Id.*

will be able to apply different rates for local calls based on geographical criteria.<sup>116</sup> In order to qualify for the new rate scheme, Telmex must estimate costs essential to providing services in different regions and include them in a cost study to be presented to Cofetel in 2002. Thus, the regulator can review these costs to determine future price ceilings.<sup>117</sup>

One area in which competitors have made some progress is in bringing "off-net termination" into the cost-oriented interconnection regime.<sup>118</sup> As with so many other potential pro-competition gains, Telmex has taken this measure to the courts to try to enjoin this action.<sup>119</sup> Telmex was also fined \$823,000 by the CFC for charging call center users for code 800 long distance calls.<sup>120</sup>

In the wake of the agreement with Avantel and Alestra to annul all pending litigation, Telmex signed a similar agreement with Marcatel, a Mexican long distance operator.<sup>121</sup> The Marcatel agreement upholds two rulings against Telmex that Marcatel had pursued.<sup>122</sup> In one ruling, the CFC found that Telmex had double-charged Marcatel by charging a call termination fee in addition to the basic interconnection fee.<sup>123</sup> Telmex owes Marcatel several million dollars as a result of the two rulings.<sup>124</sup>

The allegations by Avantel, Alestra and Marcatel seemed well founded. Telmex has also been slow to allow for interconnections. It was only on December 27, 2000, that Telmex agreed to permit Avantel and Alestra to interconnect to Telmex's local network for competitive local services, after nearly a year of refusing to do so.<sup>125</sup> Recently, the CFC fined Telmex \$3.56 million for monopolistic practices relating to its obligation to provide competi-

116. *Id.*

117. *Id.*

118. See *Fight Club*, *supra* note 51. Off net termination is the rate that Telmex charges to complete a competitor's traffic to remote regions where competitors lack their own network facilities. *Id.*

119. *Id.*

120. See *Cofetel Asks SCT To Sanction Telmex*, *supra* note 45.

121. See *Marcatel, Telmex to Annul Litigation*, BUS. NEWS AM., Aug. 1, 2001, available at 2001 WL 24789885.

122. *Id.*

123. *Id.*

124. *Id.*

125. See AT&T Letter, *supra* note 92.

tive carriers Avantel, Alestra and Marcatel with access to Telmex's infrastructure.<sup>126</sup> Telmex would charge a call termination fee in addition to the basic interconnection fee.<sup>127</sup>

Also, Telmex recently came to an agreement with WorldCom over the cost of completing WorldCom international calls to Mexico.<sup>128</sup> The current settlement rate of nineteen cents per minute will be cut retroactively from January 1, 2001 to 15.5 cents per minute and will then fall to 13.5 cents per minute in 2002 and ten cents per minute in 2003.<sup>129</sup>

#### IV. CONCLUSION

The driving force of Mexican telecom policy should be to correct market failures and to protect consumers from harm, thereby increasing consumer welfare.<sup>130</sup> A strong telecommunication regime in Mexico will have general positive spillovers into other areas of the Mexican economy. A number of different avenues may be possible to achieve this goal, though some are better than others.

##### A. WTO Panel Arbitration

If the U.S. ultimately takes the case before the WTO, it would serve as a precedent in the trade organization. Thus far, the WTO has not adjudicated on the regulatory cost structure of a country as promoting consumer

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126. *CFC Fines Telmex US \$3.56MN*, BUS. NEWS AM., May 15, 2001.

127. *Id.*

128. *Mexico: WorldCom and Telmex Reach Agreement on Settlement Rates*, LATIN AM. TELECOMM. NEWSL. (Office of Telecomm. Tech., Int'l Trade Admin. U.S. Dep't of Com., Washington, D.C.), June 6, 2001, available at <http://infoserv2.ita.doc.gov/ot/newsarch.nsf/C013b66566a581be8525667c006f745b/de9089812ab4a28e85256a84006d8b44!OpenDocument> (last visited Oct. 30, 2001).

129. *Id.*

130. This is the public interest theory of regulation. For a more in depth explanation, see Paul Joskow & Roger Knoll, *Regulation in Theory and Practice: An Overview*, in STUDIES IN PUBLIC REGULATION (Gary Fromm ed., 1981).

welfare. If it did so here, the decision would bind future WTO panel adjudications.

The WTO's Basic Telecommunications Agreement commits its signatories to open their telecom markets to greater liberalization and competition.<sup>131</sup> This WTO agreement is not a stand-alone agreement. Rather, it is incorporated into the WTO's General Agreement on Trade in Services ("GATS").<sup>132</sup> Mexico signed onto the Basic Telecommunications Agreement and did not have any exceptions to the national treatment provisions.<sup>133</sup> Article II (Most Favored Nation) and Article XVII (National Treatment) of the GATS demand WTO members treat like services and service suppliers from other WTO members no less favorably than they treat their own services and service suppliers.<sup>134</sup> Under Article VI (Domestic Regulation) signatories pledge that measures be administered in a "reasonable objective and impartial manner,"<sup>135</sup> and this article requires transparency.<sup>136</sup> Article VIII (Monopolies) and Article XVI (Market Access) of the GATS curtail abuses of monopolies.<sup>137</sup>

Additionally, as a signatory to the Reference Paper associated with the Basic Telecommunications Agreement, Mexico has agreed to limit anti-competitive practices.<sup>138</sup> These include anti-competitive interconnection and information asymmetry practices. Specifically, Mexico violates numerous significant sections of the Reference Paper. Section 2 of the Reference Paper requires interconnection under non-discriminatory terms and at cost-oriented, transparent and unbundled.<sup>139</sup> It also requires an independent domestic body to resolve interconnection dis-

131. Decision on Commitments in Basic Telecommunications, GATT Doc. S/L/20, 36 I.L.M. 354, 365 (Apr. 30, 1996) [hereinafter Decision].

132. General Agreement on Trade in Services, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1B, LEGAL INSTRUMENTS-RESULTS OF THE URUGUAY ROUND vol. 31, 33 I.L.M. 1168 (1994) [hereinafter GATS].

133. Decision, *supra* note 131, at 366.

134. GATS, *supra* note 132, arts. II, XVII.

135. *Id.* art. VI.

136. *Id.*

137. *Id.* arts. VIII, XVI.

138. Fourth Protocol to the General Agreement on Trade in Services, Apr. 30, 1996, 36 I.L.M. 366 [hereinafter Reference Paper].

139. *Id.* § 2.

putes within a reasonable period.<sup>140</sup> Section 3 of the Reference Paper requires that universal service obligations be administered in a transparent, non-discriminatory and neutral manner that is not overly burdensome.<sup>141</sup> Under Section 5 of the Reference Paper, Mexico has the obligation to ensure that the regulator's decisions and procedures are impartial with respect to all market participants.<sup>142</sup>

### *B. NAFTA Possibilities*

An end to the anti-competitive practices under the NAFTA may be possible. Chapter 13 of NAFTA presents one avenue to push for greater reform in Mexico's telecom sector.<sup>143</sup> Transparent, reciprocal, non-discriminatory interconnection rights are fundamental propositions of Chapter 13, no doubt influenced by the breakup of AT&T.<sup>144</sup> Chapter 13 also calls for certain pricing obligations based on cost.<sup>145</sup> Telmex's policy may violate NAFTA under Article 1301(3), which requires that pricing, reflect "economic costs directly related to providing these [network] services."<sup>146</sup> Access to public networks must be available to all end users.<sup>147</sup> Arguably, the costs directly related to provisions in NAFTA go further than the cost-oriented provisions of the WTO Basic Telecommunications Agreement and the Reference Paper discussed thereto.

### *C. Antitrust Remedy*

The use of competition policy may serve as a method to create compliance for Telmex to ensure a fair competitive system. However, competition policy is some-

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140. *Id.*

141. *Id.* § 3.

142. *Id.* § 5.

143. North American Free Trade Agreement, Dec. 8, 1992, U.S.-Can.-Mex., 32 I.L.M. 605, 653.

144. *Id.* ch. 13.

145. *Id.*

146. *Id.* art. 1301 (3).

147. *Id.* art. 1302 (1).

what slow in its enforcement and primarily combats past violations. As a mode to limit future abuses, it is of more limited effect.<sup>148</sup> Contrary to what Telmex might argue, antitrust policy will not harm its ability to provide telecom services in Mexico. Rather, it will serve to eliminate Telmex profits only in those areas that reduce consumer welfare by preventing Telmex from extracting monopoly rents. As two important telecom scholars note:

Antitrust litigation that seeks to lower the firm's price and targets monopoly rents for eradication will not threaten dynamic efficiency, as firms will continue to face efficient incentives to invest. Only the inefficient monopoly rent, not the risk-adjusted competitive return on investment, will be reduced.<sup>149</sup>

One antitrust remedy is the application of a Mexican version of what has been recognized in the U.S. as the "essential facilities doctrine." The essential facilities doctrine has been articulated in the common law as a doctrine in which a competitor seeking access would be put in a position where the duplication of the facility would be economically unfeasible,<sup>150</sup> or if the facility enables a monopolist to control a downstream market or a different level of production.<sup>151</sup> The most important telecom essential facilities case has been *MCI Communications Corp. v. American Telephone & Telegraph Co.*, in which the Seventh Circuit created a four part test that requires a showing of: "(1) control of the essential facility by a monopolist; (2) a competitor's inability practically or reasonably to duplicate the essential facility; (3) the denial of the use of the facility to a competitor; and (4) the feasibility of providing the facility."<sup>152</sup> In that decision, the court ruled in favor of MCI's attempt to win access to local facilities, though it rejected MCI's claim that AT&T's long distance network was an essential facility.<sup>153</sup> Solving these bottleneck problems would only lower prices because it would

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148. By punishing past violations, an antitrust remedy can have a chilling effect on future actions of antitrust violations.

149. See Shelanski & Sidak, *supra* note 42, at 30.

150. See *Twin Labs, Inc. v. Weider Health & Fitness*, 900 F.2d 566, 568 (2d Cir. 1990).

151. See *MCI Comm. Corp. v. AT&T Co.*, 708 F.2d 1081, 1132-33 (7th Cir. 1983).

152. *Id.*

153. *Id.* at 1174.

reduce vertical monopolistic restraints on price. Under such a test, Telmex would need to open up its services to competitors.

One way to view the issue of competition in the Mexican telecom sector is via the Bell Doctrine,<sup>154</sup> which was embodied by the MFJ against AT&T.<sup>155</sup> The doctrine is best summarized as one where:

[R]egulated monopolies have the incentive and opportunity to monopolize related markets in which their monopolized service is an input, and that the most effective solution to this problem is to 'quarantine' the regulated monopoly segment of the industry by separating its ownership and control from the ownership and control of firms that operate in potentially competitive segments of the industry.<sup>156</sup>

Under such an approach, as applied to the MFJ, it was thought that the benefits derived from enhancing competition by divestiture were greater than the loss of economies of vertical and horizontal integration following a vertical and horizontal divestiture. The theoretical underpinning of the MFJ was that the local service companies would use their monopoly control over their local networks to dominate the competitive long distance market.<sup>157</sup>

### 1. Division of Telmex

One antitrust solution would be to separate Telmex's long distance and local service into two separate companies or to make the long distance portion of Telmex a subsidiary of the local service company in which it cannot share employees or information with the other com-

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154. So named by William Baxter. See William F. Baxter, *Conditions Creating Antitrust Concerns with Verticle Integration by Regulated Industries - For Whom the Bell Doctrine Tolls*, 52 ANTITRUST L.J. 243, 243-47 (1983).

155. *United States v. Western Elec. Co.*, 569 F. Supp. 990 (D.D.C. 1983).

156. Paul L. Joskow & Roger G. Noll, *The Bell Doctrine: Applications in Telecommunications, Electricity, and Other Network Industries*, 51 STAN. L. REV. 1249, 1249-50 (1999).

157. On how this applies generally, see FREDERIC M. SCHERER & DAVID ROSS, *INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE* 522 (3d ed. 1990).

pany. The advantage of this approach would be that it would prevent cross-subsidization of one Telmex unit by the other. It might also lead to competition in each of the local and long distance sectors by the other newly-formed company. This outcome, however, is not very likely given certain political economy factors that would fight against an attempt to split Telmex. Significantly, Telmex comprises a large percentage of the Mexican stock market<sup>158</sup> so that a number of interest groups in Mexico would be wary to split up such a large component of the stock market.

## 2. Cost Separation

Another possible alternative is accounting cost separation, in which financial records are kept in such a manner that auditors can make determinations of the costs of each segment of the telecom business activity within the same company and thereby check to see if the company is cross-subsidizing its competitive activities from its regulated activities. In the telecom context, account cost separation is a difficult process because of the large costs involved in accurately accounting such voluminous accounts. Further, it is difficult to measure how to differentiate the joint costs and determining profitability. This method also fails in helping regulators to determine whether or not the incumbent is dealing with its competitors fairly on access to its own network.<sup>159</sup>

### *D. Incremental Cost Pricing*

Yet another alternative would be in forward-looking pricing for the interconnection of different parts of the telecom network, which does not exist in Mexico but does in the U.S., embodied under Total Element Long Run Incremental Cost ("TELRIC") pricing. As a result of the 1996 Telecommunications Act,<sup>160</sup> the FCC adopted TELRIC pricing for incumbents to charge entrants for the

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158. See Kandell, *supra* note 2.

159. See Joskow & Noll, *supra* note 156, at 1267.

160. Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified as amended at 47 U.S.C. § 609 (1998)).



use of the incumbents' networks.<sup>161</sup> Particularly, each element of the network is thought of as a separate unbundled network element ("UNE"). Entrants are allowed to lease any UNE for any period of time under TELRIC. The cost of pricing for a UNE under TELRIC is based on the forward-looking costs of a hypothetical carrier that uses the most efficient technology and network configuration possible and assumes that the facilities are held for their full useful economic lives.<sup>162</sup>

TELRIC is not without its flaws,<sup>163</sup> and TELRIC pricing has been continuously litigated.<sup>164</sup> Part of this is a function of the problematic nature of the 1996 Telecommunications Act.<sup>165</sup> The Act was intended to jump start competition, as monopoly structures in the telecom sector were deemed inefficient though the implementation has been contentious and difficult. Indeed, as Justice Scalia has observed, the Act is "many important respects a model of ambiguity or indeed even self-contradiction."<sup>166</sup>

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161. This system was promulgated under the Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, 61 Fed. Reg. 45, 476 (Aug. 29, 1996). Prior to TELRIC, the Federal Communications Commission approached pricing through Total Element Long Run Incremental Cost Service ("TELRICS") pricing. TELRIC's advantage over TELRICS is that it is easier to calculate costs according to network elements, as opposed to services.

162. *Id.*

163. ROBERT C. CRANDALL & THOMAS W. HAZLETT, TELECOMMUNICATIONS POLICY AND REFORM IN THE UNITED STATES AND CANADA, (AEI-Brookings Joint Center for Regulatory Studies, Working Paper No. 00-9, 2000), available at [http://www.aei.brookings.org/publications/working/working\\_00\\_09.pdf](http://www.aei.brookings.org/publications/working/working_00_09.pdf) (last visited Oct. 29, 2001). See also Alfred E. Kahn et al., The Telecommunications Act at Three Years: An Economic Evaluation of its Implementation by the Federal Communications Commission, 11 INFO. ECON. & POL. 319 (1999). There are many issues that arise from the particularities of pricing schemes. A significant discussion of the econometrics of pricing is beyond the scope of this paper, but see generally Frank P. Ramsey, A Contribution to the Theory of Taxation, 37 ECON. J. 47 (1927). See also William J. Baumol & David F. Bradford, Optimal Departures from Marginal Cost Pricing, 60 AM. ECON. REV. 265 (1970).

164. See *Iowa Utils. Bd. v. FCC*, 120 F.3d 753 (8th Cir. 1997), *aff'd in part, rev'd in part*, *AT&T v. Iowa Utils. Bd.*, 525 U.S. 366 (1999).

165. See *Id.*

166. *Iowa Utils. Bd.*, 525 U.S. at 397.

*E. Strengthen the Regulatory System*

A proper pricing system in Mexico is necessary to achieve maximum consumer welfare. If incentives for efficient competition are lacking and/or incentives for inefficient competition are present, the result will be to diminish consumer welfare. Competition is good because efficient competitors will be able to lower costs below the amount charged by Telmex. These competitors will then be able to pass these cost savings onto consumers. As a result of the competition, Telmex will have incentive to increase the quality of its performance.

Mexico should accept this challenge to become a model in Latin America for greater market practices and greater competition. Mexico must push for a regulatory regime that is transparent and must give as much information to the regulatory agency as is possible. Regulatory agency needs the authority to enforce its decisions to prevent anti-competitive practices. The interconnection problem must be solved, and access to every point of the network at price-based rates must be achieved. A more efficient regulatory system in which the telecom agency has powers to act as a proper watchdog can only help to benefit Mexico's consumers and its economies.

