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**MARKET PERFORMANCE IN THE  
LONG DISTANCE TELECOMMUNICATIONS INDUSTRY:  
THE AT&T NON-DOMINANCE PETITION**

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**I. Introduction**

Even after the inception of competition in the interstate long distance telecommunications industry, the Federal Communications Commission has subjected AT&T to price regulation. AT&T's rivals, however, have been subject to a lower level of regulation since 1983. This asymmetric treatment of AT&T was based on its "dominant" position in the interstate toll market.<sup>1</sup> In October, 1995, the Commission granted a petition by AT&T to reclassify the firm as non-dominant in its provision of domestic interstate toll service. In effect, this action removed domestic interstate toll service from price cap regulation and decreased the advance notice period for tariff filings for domestic-only services.

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\* The three authors are economists at the Federal Communications Commission, Competition Division. The analysis and conclusions of this paper represent those of the author and do not necessarily reflect the views of the Federal Communications Commission. Comments on the paper can be directed to Doron Fertig, Competition Division, Federal Communications Commission, 1919 M Street NW, Suite 650, Washington, D.C., 20554, call at 202-418-1874, or email at [dfertig@fcc.gov](mailto:dfertig@fcc.gov). The authors would like to thank Larry Spiwak, Jim Olson, and Marty Stern for helpful comments and suggestions on earlier drafts of this paper. All remaining errors are the responsibility of the authors.

<sup>1</sup> See *In re Motion of AT&T Corp. to be Reclassified as a Non-Dominant Carrier*, Docket No. 95-427 (Released October 23, 1995).

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Before reaching this decision, there was vigorous internal debate at the staff level. To help inform this debate, the Competition Division of the General Counsel's office developed the domestic portion of the market analysis which is presented below. The memorandum we presented recommended that the petition for non-dominance be granted on the grounds that AT&T cannot exercise *individual* market power to restrict output in order to raise prices for a sustained period of time. This recommendation was consistent with the views of the decision-makers within the Commission. The Commission also recognized that it continues to face a broader policy question: even if AT&T lacks individual market power, should the Commission nonetheless impose some form of price regulation on the oligopoly of which AT&T is a part. We believe that the analysis that follows will also be useful for informing that debate.

The discussion that follows is broken into three parts. Part I briefly examines the general public policy reasons for imposing economic regulation on a market. Part II summarizes some key elements of the structure and performance of the interexchange market. Finally, Part III looks at the costs of price regulation. We conclude that while the domestic interexchange market is certainly far from perfectly competitive (indeed, perfect competition is rare), the performance of this market is consistent with the vast range of unregulated American industries and, therefore, the prices charged by interexchange carriers should not be controlled by this Commission. We, however, take a somewhat more agnostic view to the similar question for international interexchange service.

## **II. Discussion**

### **A. Public Policy and Economic Regulation**

Historically, economic regulation attempts to improve market performance -- and thus consumer welfare -- in areas of market failure, such as where there are natural monopoly characteristics of production (*e.g.*, through price regulation) or the presence of bottleneck facilities. (*e.g.*, by requiring interconnection or equal access). Following the *Execunet* decision in 1978, the Commission decided that the supply of interstate long-distance communications was not a natural monopoly and that an open entry policy

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that fostered competition with AT&T should improve market performance relative to a closed-entry policy complemented by economic regulation. The decision reflected the Commission's judgment that competitive forces could replace economic regulation once actual competitors were both established and ubiquitous, thereby offering consumers an effective alternative to AT&T's interstate MTS. The question now before this Commission is when that regulation of the interexchange market should end.

The evidence is clear that AT&T is no longer dominant in the overall, domestic interstate, interexchange market, and thus must be reclassified as non-dominant under Commission rules. However, it is argued that the interexchange market is now a tight, three-firm oligopoly with AT&T as the price leader, and therefore AT&T, post-reclassification, would be able to achieve the practical benefits of a monopoly *without any regulatory constraints* through "tacit collusion."<sup>2</sup> Therefore, this reasoning goes, the Commission should either: (1) continue to price regulate AT&T as the oligopoly's leader; or (2) directly price regulate the entire oligopoly. The evidence, however, does *not* support either assertion. Some of the salient aspects of the interexchange market that support this conclusion are discussed below.

***B. Structural and Behavioral Aspects of the Long Distance Market***

In order to determine whether a market is performing well, it is necessary to examine both the structure of the market and the conduct of firms within

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<sup>2</sup> Many different types of outcomes are possible where a product is supplied by few firms, i.e., oligopolistic competition. For example, Bertrand-type competition in the short term results in perfect-competition-like pricing with only two firms supplying the market. It is not, however, stable in the long run where any economies of scale exist. In collusive outcomes, or joint-profit maximization, firms either overtly or tacitly agree to restrict output and increase prices to monopolistic levels. Cournot pricing falls in between the Bertrand and joint-profit maximizing outcomes, and price and profit decline with the number of firms. Given the market conditions in the long distance telecommunications industry, simple Bertrand-type pricing is unlikely. In markets where products are somewhat differentiated or entry requires a substantial capacity decision before entry, competitive behavior is more like that of Cournot. Indeed, game-theoretic analyses of competition in the long distance telecommunications industry are consistent with Cournot competition.

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that market.<sup>3</sup> By viewing the interplay between the two, it is possible to assess whether there is sufficient rivalry to make it unlikely that industry participants will engage in collusive oligopolistic strategies that have the effect of raising prices and reducing output.<sup>4</sup>

1. *Structural Characteristics*

The organization of the long-distance telecommunications industry today is complex. While AT&T, MCI, and Sprint are an oligopoly of nationwide, facilities-based interexchange carriers (although there are at least nine other facilities-based interexchange carriers, one of whom, Worldcom<sup>5</sup>, has revenue approximating \$4 billion annually and more than one-half the fiber-optic plant of MCI and Sprint), literally hundreds of regional and resale carriers compete for certain groups of customers also served by these major carriers. Certain structural attributes of the long-distance telecommunications industry directly affect the pricing of long-distance services by the facilities-based interexchange carriers in general and AT&T in particular. More specifically, four aspects of industry structure effectively constrain AT&T's or any other carrier's possible exercise of market power, namely: (1) lack of control of bottleneck facilities by AT&T; (2) only modest impediments to market entry by competitors in certain industry segments; (3) excess network capacity; and (4) the trend in AT&T's market share.

*Bottlenecks:* The Commission's regulation of bottleneck facilities has been directed primarily at local exchange facilities that control access to residential and business customers. AT&T as a long distance telecommunications carrier

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<sup>3</sup> See Report and Order, *In re Petition of State of California to Retain Regulatory Authority Over Intrastate Cellular Service Rates*, 10 FCC Rcd 7486, ¶ 28 (1995), reconsideration denied, 1995 WL 48206 (Aug. 8, 1995) ("*California Petition R&O*") (Commission applied Structure-Conduct-Performance ("SCP") analysis-- described as "standard paradigm of modern industrial organization" -- to question of whether California may continue to regulate cellular rates; notes that analysis "permits an evaluation of the degree of rivalry within a particular industry structure and allows us to determine whether and how consumer interests are being served by such rivalry").

<sup>4</sup> See generally, *Id.* at ¶¶96-99.

<sup>5</sup> Worldcom is the combination of Wiltel and LDDS.

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does not operate bottleneck facilities that restrict access to end users and has not since the 1984 divestiture that split-off local exchange “bottleneck” facilities

<b>TABLE 1. Fiber System Route Miles - Interexchange Carriers</b>				
<i>Calendar Year</i>	<i>1985</i>	<i>1988</i>	<i>1991</i>	<i>1994</i>
AT&T	5,677	23,324	36,871	41,664
Consolidated	310	332	332	519
CTGI	382	803	914	1,257
Frontier (RCI)	580	413	417	414
LCI	881	1,210	1,406	1,408
LDDS	800	1,127	1,163	1,163
MCI	3,025	12,467	16,700	21,460
MRC	-	670	844	855
Sprint	5,300	21,938	22,725	22,996
TCG	-	84	84	84
Valley Net	-	-	581	-
Williams/Witel	3,084	9,135	9,930	9,941
Total Reported:	20,039	71,503	91,967	101,861

*Excess Capacity:* For the 12 facilities-based interexchange carriers that voluntarily report fiber optic capacity to the Commission, AT&T, MCI, Sprint, and Worldcom have over 95% of the fiber miles in the long-distance industry (see Table 1). AT&T's individual share is just over 40%. The remaining 5% of facilities is operated by a number of smaller carriers. The record indicates that capacity is not a binding constraint in this market. Indeed, AT&T states, and no one disputes, that within only 90 days, its largest competitors could take nearly one-third of AT&T's switched traffic, using their existing equipment, and without any need to upgrade the electronics on their existing lit fiber facilities. Similarly, the record indicates that within twelve months, AT&T's largest competitors could absorb another 31% of AT&T's total switched traffic (making a total of almost two-thirds), by using currently lit fiber and adding switched ports at a cost of about \$660 million.

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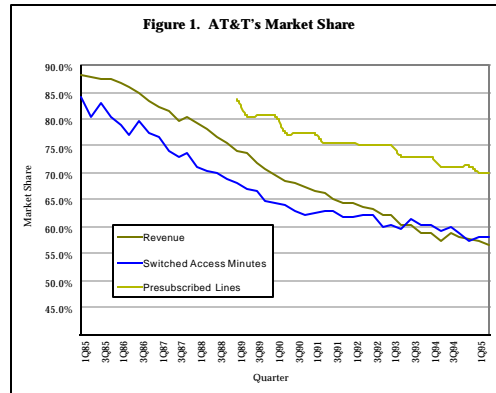
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*Market Share:* At the time of the *First Report and Order*,<sup>6</sup> AT&T had approximately 90% of the overall long-distance industry revenues. During the 1980's, this market share fell approximately three percentage points per year. Since 1990, when AT&T's market share was 65%, its market share has steadily fallen at about half that pace. Currently, AT&T's market share is 56.6% by revenue and 58% by minutes, with MCI and Sprint at about 17% and 10% by revenues, respectively. See Figure 1. Although AT&T's market share is large, it is steadily declining, reflecting increased rivalry in the industry.



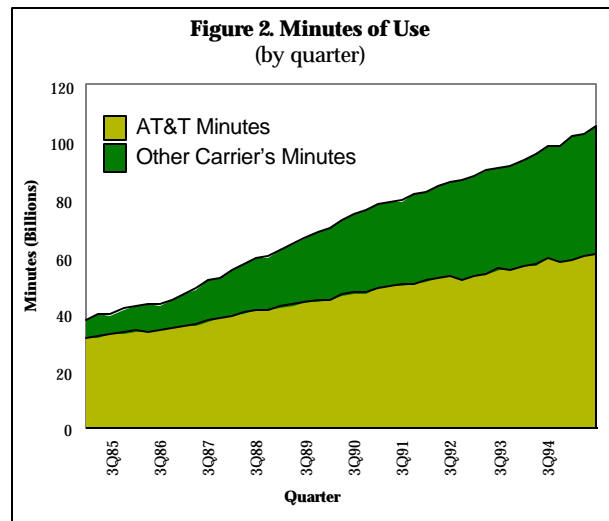
*Impediments to Entry:* The most significant barrier to entry is the MFJ's prohibition on RBOC entry into the interLATA long-distance market, apparently soon to be eliminated via Congressional action. All other potential barriers to entry in this market can be overcome. The main problem identified in the record is the cost of building a network. A ubiquitous nationwide fiber network requires an estimated \$3 billion in capital investment. That cost, however, is declining as the cost of fiber optic cable falls. In addition, an entrant can develop its business as using resale even before it builds its own network. More to the point, there are a number of firms, such as Cable and Wireless and Worldcom, that maintain large facilities-based networks, but are not focusing on the residential segment of the long-distance market. For those firms, the decision to enter the residential segment of the market is determined

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<sup>6</sup> See *Policy & Rules Concerning Rates for Competitive Common Carrier Services and Facilities Authorizations Therefor*, CC Docket No. 79-252, First Report and Order, 85 FCC 2d 1 (1980).

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by the question of whether the price and available volume in the residential market would be sufficient to support profitably the cost of marketing to households. Thus, AT&T's advertising budget of 2.7% of revenues and its "brand name" may represent impediments to entry. On the other hand, for some segments of the industry, entry is relatively easy. At present, there are just over 450 resale providers in the domestic interexchange market, with a total revenue of \$4.4 billion. By year-end 1995, revenue in the resale industry is expected to reach \$5.6 billion.



*2. Behavioral Characteristics*

*Volume (Minutes of Use):* The introduction of competition and the implementation of equal access helped promote the rapid expansion of interstate switched access minutes. As shown in Figure 2, industry total minutes continue to grow, with total minutes expanding 8.2% in 1994. Over the past decade, long distance traffic (measured in minutes of use) has more than doubled.<sup>7</sup> Since the last quarter of 1990, long distance traffic has increased by 30%, with an average annual growth rate of 7.2%.

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<sup>7</sup> From the end of 1984 to the end of 1994, interexchange minutes of use increased from 39.6 billion to 105.2 billion.

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*Churn:* Evidence indicates that in 1994, the churn rate was 27 million (*i.e.*, consumers changed carriers 27 million times). Of the 27 million changes in 1994, over 19 million were by customers who made only one change during the year. Thus, about 1 in 5 residential customers changed carriers at least once last year. For 1995, consumer churn is running at an annual rate of 30 million.

Table 2. Average Best Prices							
Minutes	Jan. 1, 1991	Jan. 1, 1992	Jan. 1, 1993	Jan. 1, 1994	Jan. 1, 1995	July 6, 1995	Percent Change
50	\$8.59	\$8.60	\$8.74	\$9.04	\$9.28	\$8.82	<b>2.7</b>
125	\$21.25	\$21.19	\$21.10	\$21.20	\$19.47	\$18.12	<b>-14.7</b>
250	\$42.23	\$42.12	\$40.49	\$40.49	\$37.53	\$33.75	<b>-20.1</b>
500	\$83.34	\$83.10	\$76.66	\$78.98	\$67.61	\$59.83	<b>-28.2</b>
1000	\$166.12	\$165.65	\$148.95	\$154.02	\$135.22	\$119.66	<b>-28.0</b>

*Decreasing Prices:* The pattern of price movements for long distance telecommunications services is mixed, although trending downward, with differences depending primarily on the volume of use. On average, however, *prices have fallen*. Basic residential MTS rates, generally paid by the lowest volume users, have risen over the past four years while volume discounts by AT&T have become deeper. Specifically, the prices available to AT&T's residential customers with bills over \$10 per month are down substantially. As shown in Table 2, prices for the highest volume users (500 to 1,000 minutes) are down by about 28% since 1991.<sup>8</sup> Even residential customers with monthly long distance bills of about \$20 have seen prices fall by nearly 15%.

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<sup>8</sup> In order to obtain best price we reviewed the tariffs for basic MTS, Reach-Out -America, AnyHour Savings, True Rewards, True USA, and True Savings. We calculated the best available price for each of the 60 customer profiles contained in the Bells June 9, 1995 Comments, Attachment B, Reply Affidavit of Paul W. MacAvoy, Appendix, 68, 10-12. Those profiles consisted of distributions of mileage and time of day for different calling volumes. For each profile we calculated the best price from the above tariffed pricing plans. Finally, we calculated the simple average for each volume level (number of minutes per month).

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Setting aside differences in volume and prices among residential customers of long distance services, Table 3 shows that AT&T's domestic *average* interstate revenue per minute fell 10% between 1991 and 1994, declining from 17.8¢ to 16.2¢ per minute. Thus, declining prices for higher volume users, those spending over \$10 per month on long distance services, have more than offset the increase in basic rates.

Table 3. AT&T's Flow-Through of Access Charges				
	1991	1992	1993	1994
International conversation minutes	10,266	10,956	10,945	11,677
Domestic conversation minutes	106,809	112,858	117,828	125,122
Access charge per minute	\$.04103	\$.04053	\$.03795	\$.03634
Domestic revenue per minute	\$.17760	\$.17190	\$.16451	\$.16156
International revenue per minute	\$.40006	\$.42296	\$.45317	\$.43813
All minutes are in millions except for per-minute values. International revenues are net of settlements.				

Table 3 also illustrates that while access costs have fallen only 0.5¢ from 1991 to 1994, the domestic *average* interstate revenue per minute fell by almost 1.6¢. This evidence shows that reductions in prices have outpaced reductions in access costs.<sup>9</sup> Table 4 confirms this assessment, showing that AT&T's best prices, for all but the lowest volume residential customers, have fallen faster than access cost.<sup>10</sup> Indeed, best prices for the highest volume users (500 and 1,000 minutes) have fallen in excess of 30% more than reductions in access

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<sup>9</sup> Haring, Rohlfs, and Shooshan do a price index analysis of access charges, domestic switched revenues, and international switched revenues over the time period 1991 through 1994. They find that AT&T benefited \$958 million from reduced access charges, consumers benefited by \$1,713 million from reduced domestic prices and consumers had a negative benefit of \$391 million from increased international long distance prices. Thus, consumers saw a *net* benefit of \$364 million more than the decline in access charges. See AT&T's Reply Comments, John Haring, Jeffrey H. Rohlfs, and Harry M. Shooshan III, June 30, 1994.

<sup>10</sup> For the highest volume user, best prices net of tariffed access charges and tariffed universal service funds have fallen from \$93.79 to \$62.14, i.e., a 33.7% reduction. If best prices had exactly tracked access charges, then the margin would have stayed constant. If access charge reductions had not been passed through, this margin would have gone up.

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costs. Therefore, the assertion that rivalry in the long distance market has been insufficient to force prices down faster than access charge reductions is incorrect.

<b>Table 4. Price minus (Access Charges plus Universal Service Funds)</b>							
Minutes	Jan. 1, 1991	Jan. 1, 1992	Jan. 1, 1993	Jan. 1, 1994	Jan. 1, 1995	July 6, 1995	Percent Change
50	\$4.66	\$4.64	\$4.80	\$5.15	\$5.61	\$5.45	<b>17.0</b>
125	\$11.92	\$11.98	\$12.06	\$12.29	\$11.08	\$10.48	<b>-12.1</b>
250	\$23.90	\$24.16	\$22.95	\$23.33	\$21.27	\$18.99	<b>-20.6</b>
500	\$47.01	\$47.64	\$42.12	\$44.95	\$35.59	\$30.81	<b>-34.5</b>
1000	\$93.79	\$95.19	\$80.41	\$86.48	\$71.71	\$62.14	<b>-33.7*</b>

While not all customers have seen prices fall as dramatically as others, as discount plans become increasingly price competitive and as basic prices inch upwards, more customers are switching to the cheaper discount plans. A recent survey shows that between May, 1994, and May, 1995, the percentage of AT&T customers on discount plans increased from 35 to 42% (see Table 5).<sup>11</sup> The survey also shows that in 1995, 62% of AT&T's domestic residential interstate revenues were received from customers on discount plans (see Appendix). Since revenue per minute is less for customers on discount plans, it follows directly that the percentage of minutes on discount plans far exceeds the minutes for which the basic rate is paid.<sup>12</sup> Finally, the survey reveals that the average long distance bill over the past year fell 10% (see Appendix).

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<sup>11</sup> Bill Harvesting Database maintained by PNR and Associates, Inc., is an annual survey of household expenditures on communications and video entertainment services. The 1995 survey consists of data from over 10,000 households.

<sup>12</sup> Calculations based on Panel A in the Appendix:  $[(30.15 \times 2,825) / (30.15 \times 2,825 + 13.68 \times 3,875) = 0.618]$ . Given that prices on discount plans are lower per minute, the average monthly bill of \$30.15 for discount plan customers represents more than twice the number of minutes for a monthly bill of \$13.68 on a non-discount plan.

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<b>Table 5. Calling Plan Participation (by Carrier)</b>		
	1994	1995
AT&T	35.9%	42.4%
MCI	40.2%	60.7%
Sprint	20.9%	36.5%
Total	31.6%	41.6%
Source: Bill Harvesting Database (see Appendix).		

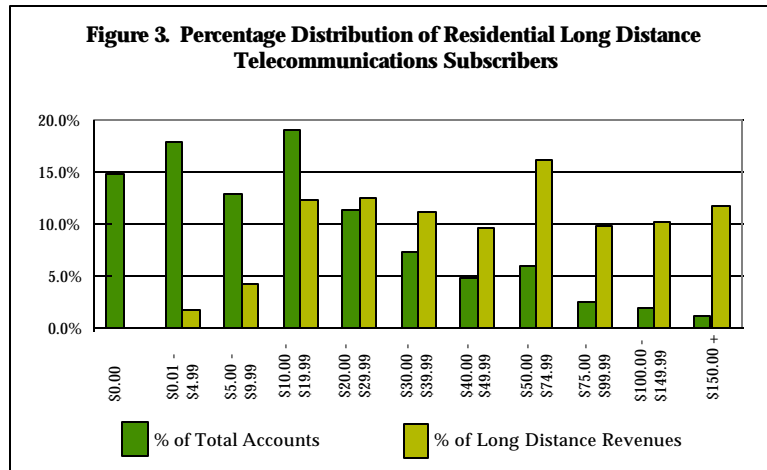
*Robust Resale Market:* As noted above, there are now approximately 450 providers in this market, with a total revenue value of \$4.4 billion. By year-end 1995, this value is expected to reach \$5.6 billion. A considerable number of conduct-related complaints have been filed by resellers against AT&T. However, just over 25% of resale capacity was provided by AT&T in 1994 and, by year-end 1995, AT&T will no longer be the largest supplier of resale capacity in this market. Rather, Worldcom will be the largest with 23.2%, followed by AT&T (20.3%), MCI (13.8%), and Sprint (13.2%).

3. *Nature of Market Performance*

Although observed market performance does not resemble that predicted by the model of perfect competition, the conduct of interexchange carriers suggests that the quality of market performance, while mixed, is satisfactory and consistent with rivalrous competition among few firms. The evidence on prices for long distance telecommunications services demonstrates that the major carriers are not pursuing a joint profit maximization strategy.<sup>13</sup> Specifically, a primary characteristic of an oligopoly where the firms attempt to collude and maximize joint profits is the stifling or lack of price competition. Under such conditions, prices should go up and volume should go down. The performance here is the reverse. As shown in Table 2, the prices available to

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<sup>13</sup> For a review of economic models of collusion, see Louis Phlips, *The Economics of Imperfect Information*, Cambridge: Cambridge University Press, 1988, Ch. 6.



AT&T's customers with bills over \$10 per month are down substantially. Figure 3 shows that these customers (those paying over \$10 per month for long distance services) represent 93% of all residential minutes. Thus, an overwhelming majority of residential long distance services sold by AT&T are being offered at prices substantially below their 1991 levels.

The overall picture is *inconsistent* with tacit collusion, joint profit maximization, or the lack of price competition. The evidence is also consistent with the conclusions of the Commission's January, 1995 price cap order for AT&T.<sup>14</sup> In that order, the Commission removed AT&T's commercial services from price cap regulation,<sup>15</sup> because it found that there are enough competitive alternatives to AT&T's commercial long-distance service to constrain AT&T's exercise of monopoly power for these services.<sup>16</sup> To support this decision, the Commission held, *inter alia*, that several factors would prevent the largest interexchange carriers from engaging in oligopolistic coordination resulting in prices above competitive levels. For example, the Commission held that

<sup>14</sup> *In re Revisions to Price Cap Rules for AT&T Corp.*, Report & Order, FCC Docket No. 95-18 (Released January 12, 1995).

<sup>15</sup> However, the Commission did not remove either analog private line or 800 directory assistance from price cap regulation in this order.

<sup>16</sup> January 12 Order at ¶ 26.

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because the networks of the interexchange carriers have significant excess capacity, the cost of serving additional traffic is very low and, conversely, the cost savings associated with a traffic reduction are also "quite low." Thus, concluded the Commission, these carriers have a great incentive to protect their substantial investment in these facilities by keeping their prices low to attract and keep customers. Moreover, the Commission also found that the possibility of oligopolistic coordination to raise prices is limited by the demonstrated willingness and ability of commercial long distance customers to move among various commercial long distance services offered by the numerous interexchange carriers.<sup>17</sup>

Similarly, in the *Mobile Services Order*,<sup>18</sup> the Commission found that there was sufficient competition for cellular services to forebear from the tariffing requirements of the Communications Act in markets with only *two* suppliers.<sup>19</sup> Specifically, the Commission recognized that while duopolists may be able to sustain a shared monopoly -- with the attendant higher prices -- by either tacitly agreeing not to price aggressively or restricting the amount of investment in new capacity, there could be reasons why it may be difficult or unprofitable for cellular providers to coordinate their actions in this manner. First, the Commission recognized that collusion could be limited by competing services, *i.e.*, the cross-price elasticity of supply.<sup>20</sup> Second, the Commission concluded that in addition to present, actual competition, the threat of potential competition in the future could affect current pricing and investment. That is to say, a cellular provider may choose to invest in additional capacity today in anticipation of gaining future market advantage rather than to restrict

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<sup>17</sup> *Id.* at ¶ 26.

<sup>18</sup> *In re Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services*, Second Report & Order, FCC Docket No. 94-31 (Released March 7, 1994)(*Mobile Services Order*).

<sup>19</sup> Under section 332(c)(1) of the Communications Act, 47 U.S.C. 332(c)(1), the Commission may forbear from regulating commercial mobile radio services as common carriers under specific provisions of Title II of the Act, provided that certain statutory conditions are met.

<sup>20</sup> *Mobile Services Order* at ¶ 147.

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output through tacit or explicit collusion with a fellow duopolist.<sup>21</sup> Finally, the Commission recognized that other factors, such as rapid changes in the nature of the product, or even quality and price competition, may also diminish the likelihood of collusion. Indeed, the Commission specifically found that "[c]omplex pricing structures, such as are used in the cellular industry, make it difficult for a carrier to sustain collusive pricing."<sup>22</sup>

Finally, in the *California Petition R&O*, the Commission, applying an structure-conduct-performance analysis, rejected the contention that market performance of cellular duopolies in California warranted continued rate regulation of intrastate rates. The Commission held that to justify such continued regulation, the State was required to show that the conduct and performance of cellular providers ill-served consumer interests by producing rates that were not just and reasonable or that were unreasonably discriminatory.<sup>23</sup> After analyzing the structure, conduct and performance of two-firm cellular markets, the Commission concluded that the evidence did not justify continued rate regulation. The Commission found that: (1) cellular rates were declining; (2) entry by PCS would result in direct and fundamental changes in the cellular market; (3) there was no evidence of "systematically collusive or other anticompetitive practices"; (4) there was no evidence of widespread consumer dissatisfaction with cellular providers; and (5) there was no evidence that firms were withholding investment as a means of restricting output and thus boosting prices. In general, in rejecting California's bid to continue its regulation of the cellular market, the Commission emphatically rejected California's contention that "any evidence of market imperfection [is] proof of the need for continued rate regulation."<sup>24</sup> The parallel to the interexchange market is obvious.

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<sup>21</sup> *Id.* at ¶ 148.

<sup>22</sup> *Id.* at ¶ 149.

<sup>23</sup> *California Petition R&O*, at ¶ 15.

<sup>24</sup> *Id.*, at ¶¶ 96-98.

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***C. Inefficiencies of Continuing Price-Cap Regulation and Degraded Market Performance***

The brief discussion above demonstrates that the interexchange market, while an oligopoly, has sufficient rivalry to preclude joint profit maximization or tacit collusion. The question therefore becomes: should the Commission price regulate an oligopoly that nevertheless produces satisfactory market performance? Even if the performance does not equate to perfect competition, the answer is clearly no.

Price-cap regulation of AT&T's services involves both *direct* and *indirect* costs. Direct costs include: (1) expenses incurred by AT&T in complying with the Commission's price-cap rules; and (2) the portion of the Commission's budget that is reasonably allocable to handling price-cap regulation of AT&T, including reviewing its tariffs and enforcing price-cap rules. Indirect costs of price-cap regulation of AT&T's services include consumer benefits that are foregone as a consequence of price-cap regulation. Although the direct costs of price-cap regulation of AT&T's services are not trivial, the indirect costs are likely to exceed the direct costs over the long term.

By capping AT&T's basic residential MTS rates, price-cap regulation may prevent AT&T from introducing more economically-efficient rate structures for its long distance service. This distortion introduced by price-cap regulation of AT&T's services may seem counter-intuitive, although entirely plausible once it is recognized that a movement toward economically-efficient rate structures may require some rates to *increase* while other *decrease*.<sup>25</sup> Both the intensity of demand and the extent of price sensitivity will differ between and among different residential subscribers. As a result, an economically-efficient rate structure that recognizes such differences in demand between different consumer groups should reflect different markups for different user groups, if setting price equal to service-specific marginal cost is infeasible. Moreover, given the inertia effects of many long distance customers in responding to

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<sup>25</sup> The Commission found that imposing a subscriber line charge on local exchange subscribers that increased the price of local telephone service improved the economic efficiency of telephone pricing by *reducing* the price of long distance telecommunications.

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changes in price or in selecting an improved price plan, price increases may provide just the required stimulus for long distance subscribers to consider other pricing plans that may actually *reduce* their total spending for their customary levels of long distance calling. Thus, by constraining AT&T's ability to redesign its rate structure, consumers lose the net economic benefit that more efficient rate structures can provide.

Further losses in net economic benefit to consumers may be attributable to the service and price plan innovations that notice periods discourage AT&T from offering to long distance telecommunications customers. Innovation that improves consumer welfare is rewarded by transitory profits that an innovating firm can earn before the innovation is copied or imitated by competitors. The existing notice period required before AT&T can introduce modifications to its residential MTS pricing plans provides sufficient time for non-dominant carriers competing with AT&T to emulate AT&T's proposed innovation. Thus, the notice requirement discourages innovation by AT&T and results in some loss in dynamic economic efficiency that harms consumers.

Finally, the existence of price-cap regulation or other variants of government price controls represents a disincentive for unregulated firms outside the telecommunications industry to enter industry sectors subject to direct government intervention. While the removal of price-cap regulation does not affect the Commission's ability to investigate consumer complaints or remove the requirement to file tariffs, it signals nevertheless a willingness to reduce the extent of government intrusiveness in the long distance telecommunications industry. This policy stance should be viewed favorably by both potential entrants into the long distance industry and the investors that must commit the funds to make market entry possible.

In sum, these static and dynamic economic efficiencies, or indirect costs, attributable to price-cap regulation of AT&T's residential MTS can be completely avoided if such regulation is eliminated. As shown in Section B, there exists today sufficient competitive rivalry to constrain AT&T from exercising market power to an extent that would adversely affect residential customers of MTS. As a result, eliminating price-cap regulation of AT&T's residential MTS may be expected to improve market performance immediately by avoiding both the direct and indirect costs of price-cap regulation.

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**III. Conclusion**

In sum, while the performance of the interexchange market is less than perfect, the interexchange market is still sufficiently competitive not to require price. The structure, conduct, and performance of the *domestic* interexchange industry is comparable with many other American industries, yet these industries are not subject to price regulation.<sup>26</sup> Where sufficient rivalry exists, perfect competition is not a prerequisite to the abolition of price regulation. As the Commission held last month, “[a]lmost all markets are imperfectly competitive, and such conditions can produce good results for consumers.”<sup>27</sup> The termination of existing price regulation of AT&T does not suggest a diminished desire for additional competitive entry into the interexchange market or an increase in the extent or intensity of price competition. Indeed, the Commission should continue its policy of removing all regulatory barriers to entry and identifying other impediments that deter efficient entry. Such pro-competitive scrutiny and competition advocacy by the Commission should greatly enhance consumer welfare over the longer term relative to a reactive focus on regulating prices in a fast-paced market where the efficiency of such regulatory intervention may be doubtful.

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<sup>26</sup> For example, there are no federal regulatory commissions with jurisdictions over industries such as camera film (Kodak sells 70% of the film sold in the US), pasta (four firms comprise 77% of market), automobiles (six firms control 88% of the market), commercial airplane manufacturing (three firms control 97% of the market), soft drinks (two firms control 71% of market) or toothpaste (four firms control 90% of market). See Michael L. Katz & Harvey S. Rosen, *MICROECONOMICS* (2d Ed.) (1994).and John E. Kwoka Jr. "Regularity and Diversity of Firm Size Distribution in U.S. Industries," *JOURNAL OF ECONOMICS AND BUSINESS* at 391-395 (1982).

<sup>27</sup> *California Petition* at ¶27.

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**Appendix: Summary Tables of the Bill Harvesting Survey**

<b>Average Monthly Bills for Telecommunications Services</b>		
<b>1994-1995</b>		
	1994	1995
<b>Local Telephone Company</b>		
Number of Households	8,731	10,479
Total Bill	\$32.43	\$29.78
Toll Bill (all customers)	-	5.35
Toll Bill (toll bill > 0)	-	8.68
<b>Long Distance</b>		
Toll Bill (all customers)	\$22.51	\$20.13
Toll Bill (toll bill > 0)	\$26.45	\$23.81
<b>Long Distance Calling Plan Participation</b>		
AT&T	35.9%	42.4%
MCI	40.2%	60.7%
SPRINT	20.9%	36.5%
Total	31.6%	41.6%

Source: Bill Harvesting Database, PNR and Associates, Inc., 1995.

<b>Panel A. AT&amp;T</b>				
	No Call Plan		Call Plan	
Average Bill	\$ 13.68		\$ 30.15	
Total # of Bills	3,847	57.7%	2,825	42.3%
\$ 0 to 10	2,244	58.3%	616	21.8%
\$ 10 to 20	801	20.8%	716	25.3%
\$ 20 to 30	380	9.9%	545	19.3%
\$ 30 to 40	171	4.4%	312	11.0%
\$ 40 to 50	82	2.1%	177	6.3%
\$ 50 or more	169	4.4%	459	16.2%

Source: Bill Harvesting Database, PNR and Associates, Inc., 1995.

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Panel B. MCI				
	No Call Plan		Call Plan	
Average Bill	§ 13.24		§ 30.25	
Total # of Bills	456	39.3%	703	60.7%
§ 0 to 10	271	59.4%	201	28.6%
§ 10 to 20	83	18.2%	149	21.2%
§ 20 to 30	43	9.4%	114	16.2%
§ 30 to 40	22	4.8%	89	12.7%
§ 40 to 50	18	3.9%	42	6.0%
§ 50 or more	19	4.2%	108	15.4%

Source: Bill Harvesting Database, PNR and Associates, Inc., 1995.

Panel C. Sprint				
	No Call Plan		Call Plan	
Average Bill	§ 20.79		§ 38.00	
Total # of Bills	238	63.8%	135	36.2%
§ 0 to 10	108	45.4%	34	25.2%
§ 10 to 20	43	18.1%	28	20.7%
§ 20 to 30	31	13.0%	17	12.6%
§ 30 to 40	18	7.6%	13	9.6%
§ 40 to 50	11	4.6%	8	5.9%
§ 50 or more	27	11.3%	35	25.9%

Source: Bill Harvesting Database, PNR and Associates, Inc., 1995.

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Panel D. Other Long Distance Carriers				
	No Call Plan		Call Plan	
Average Bill	§ 17.11		§ 22.16	
Total # of Bills	674	92.8%	52	7.2%
§ 0 to 10	365	54.3%	22	42.3%
§ 10 to 20	138	20.5%	8	15.4%
§ 20 to 30	65	9.6%	8	15.4%
§ 30 to 40	36	5.3%	3	5.8%
§ 40 to 50	22	3.3%	5	9.6%
§ 50 or more	48	7.1%	6	11.5%
Source: Bill Harvesting Database, PNR and Associates, Inc., 1995.				

Panel E. Total				
	No Call Plan		Call Plan	
Average Bill	§ 14.41		§ 30.34	
Total # of Bills	5,215	58.4%	3,715	41.6%
§ 0 to 10	2,988	57.3%	873	23.5%
§ 10 to 20	1,065	20.4%	901	24.3%
§ 20 to 30	519	10.0%	684	18.4%
§ 30 to 40	247	4.7%	417	11.2%
§ 40 to 50	133	2.6%	232	6.2%
§ 50 or more	263	5.0%	608	16.4%
Source: Bill Harvesting Database, PNR and Associates, Inc., 1995.				