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BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of )  
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GTE CORPORATION, )  
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Transferor, )  
)  
and )  
)  
BELL ATLANTIC CORPORATION, )  
)  
Transferee, )  
)  
For Consent to Transfer of Control. )

CC Docket No. 98-184

DECLARATION OF  
ROBERT W. CRANDALL AND J. GREGORY SIDAK

CONTENTS

Robert W. Crandall and J. Gregory Sidak, being duly sworn, depose and say:

1. We have been asked by Bell Atlantic Corporation and GTE Corporation to evaluate the claims, advanced by experts retained by AT&T, MCI WorldCom, and Sprint (companies that we shall collectively call "the IXCs"), that the proposed merger of Bell Atlantic and GTE will reduce competition in downstream markets—principally long-distance and Internet services—due to vertical foreclosure and price squeezes that could assertedly be employed profitably by the combined company.

*Declaration of Robert W. Crandall and J. Gregory Sidak, December 23, 1998*

## QUALIFICATIONS

2. Our professional qualifications for submitting this expert declaration are as follows.

3. My name is Robert W. Crandall. I am a Senior Fellow in Economic Studies at the Brookings Institution in Washington, D.C., a position that I have held since 1978. My areas of economic research are antitrust, telecommunications, the automobile industry, competitiveness, deregulation, environmental policy, industrial organization, industrial policy, mergers, regulation, and the steel industry.

4. I have twice served in the federal government. I was Acting Director, Deputy Director, and Assistant Director of the Council on Wage and Price Stability in the Executive Office of the President. In 1974-75, I was an adviser to Commissioner Glen O. Robinson of the Federal Communications Commission (FCC).

5. I was an Assistant Professor and Associate Professor of Economics at the Massachusetts Institute of Technology between 1966 and 1974. I have also taught at George Washington University.

6. I have written widely on telecommunications policy, the economics of broadcasting, and the economics of cable television. I am the author or co-author of four books on communications policy published by the Brookings Institution since 1989: *Changing the Rules: Technological Change, International Competition, and Regulation in Communications*, with Kenneth Flamm (1989); *After the Breakup: U.S. Telecommunications in a More Competitive Era* (1991); *Talk is Cheap: The Promise of Regulatory Reform in North American Telecommunications*, with Leonard Waverman (1996); and *Cable TV: Regulation or Competition?*, with Harold Furchtgott-Roth

(1996). In addition, I have published four other books on regulation and industrial organization with the Brookings Institution: *The Extra Mile: Rethinking Energy Policy for Automotive Transportation*, with Pietro S. Nivola (1995); *Manufacturing on the Move* (1993); *Up from the Ashes: The U.S. Minimill Steel Industry*, with Donald F. Barnett (1986); and *Regulating the Automobile*, with Howard K. Gruenspecht, Theodore E. Keeler, and Lester B. Lave (1986). My work has been cited on numerous occasions by the federal judiciary and the FCC.

7. I have been a consultant on regulatory and antitrust matters to the Antitrust Division of the U.S. Department of Justice, to the Federal Trade Commission, to the Canadian Competition Bureau, and to more than twenty companies in the telecommunications, cable television, broadcasting, newspaper publishing, automobile, and steel industries. I have also been a consultant to the Environmental Protection Agency and the U.S. Department of the Treasury.

8. I received an A.B. (1962) from the University of Cincinnati and a Ph.D. in economics (1968) from Northwestern University.

9. My name is J. Gregory Sidak. I am the F. K. Weyerhaeuser Fellow in Law and Economics at the American Enterprise Institute for Public Policy Research (AEI) in Washington, D.C., where I direct AEI's Studies in Telecommunications Deregulation. I am also a senior lecturer at the Yale School of Management, where I teach a course on telecommunications regulation and strategy with Professor Paul W. MacAvoy. In addition to holding these two academic positions, I am a Principal in LECG, Inc., an economic consulting services firm that provides economic and financial analysis, expert testimony, litigation support, and strategic management consulting to a broad range of public and private enterprises.

10. I have previously worked in the federal government. From 1987 to 1989, I was

Deputy General Counsel of the FCC. From 1986 to 1987, I was Senior Counsel and Economist to the Council of Economic Advisers in the Executive Office of the President.

11. My academic research concerns regulation and strategy in telecommunications and other network industries, antitrust policy, and constitutional law issues concerning economic regulation. I have written four books concerning pricing, costing, competition, and investment in regulated network industries: *Deregulatory Takings and the Regulatory Contract: The Competitive Transformation of Network Industries in the United States* (Cambridge University Press 1997), co-authored with Daniel F. Spulber; *Toward Competition in Local Telephony* (MIT Press & AEI Press 1994), co-authored with William J. Baumol; *Transmission Pricing and Stranded Costs in the Electric Power Industry* (AEI Press 1995), also co-authored with Professor Baumol; and *Protecting Competition from the Postal Monopoly* (AEI Press 1996), also co-authored with Professor Spulber. I am also the author of a fifth book, *Foreign Investment in American Telecommunications* (University of Chicago Press 1997), and of more than thirty scholarly articles in law reviews and economics journals.

12. I have been a consultant on regulatory and antitrust matters to the Antitrust Division of the U.S. Department of Justice, to the Canadian Competition Bureau, and to more than thirty companies in the telecommunications, electric power, natural gas, mail delivery, broadcasting, newspaper publishing, and computer software industries in North America, Europe, Asia, and Australia.

13. From Stanford University, I earned A.B. (1977) and A.M. (1981) degrees in economics and a J.D. (1981) in law. I was a member of the *Stanford Law Review*.

14. We file this declaration in our individual capacities, and not on behalf of the Brookings Institution, the American Enterprise Institute, or the Yale School of Management.

#### SUMMARY OF CONCLUSIONS

15. The IXCs' economic experts argue that integrated incumbent local exchange companies (ILECs) have the incentive to employ a variety of discriminatory tactics and price squeezes in selling retail services that use their own access services (including unbundled network elements) as inputs. The IXCs' experts simply recite the fact that under certain assumptions ILECs may have the *incentive* to employ these tactics, but those experts do not demonstrate that these assumed conditions are realistic. Nor do they offer evidence that such tactics have been employed by either Bell Atlantic, GTE, or other ILECs. There is a lengthy history of ILEC integration into information services, wireless services, intraLATA long distance services and—in the case of Frontier, Sprint, and GTE—interLATA long distance services, but the IXCs' experts are unable to provide any evidence that discriminatory tactics have been employed by the ILECs in any of those markets. Contrary to their theoretical predictions, competition has flourished in those markets.

16. Even if the IXCs' experts were correct that vertical foreclosure is a feasible and profitable strategy for an ILEC, they do not provide evidence that the combination of two ILECs, such as GTE and Bell Atlantic, has an effect on such a strategy. They rely *in toto* on the allegation that the combination of Bell Atlantic and GTE will allow the merged company to capture "spillovers" from vertical foreclosure that neither company could capture alone. The IXCs' experts fail to show that such spillovers are currently captured by integrated ILECs in proportion

to their size.

17. In addition to arguing vertical foreclosure, the IXCs' experts argue that the merger exacerbates the dangers of a "price squeeze" by the combined company against its less integrated rivals, with anticompetitive results. Under the assumptions of the IXCs' experts, many ILECs currently have the ability and incentive to engage in such a price squeeze, yet the IXCs' experts fail to demonstrate that such squeezes are ever actually employed—and, if they are, that they result in anything other than lower prices for consumers. To our knowledge, no IXC has been driven from the market by any such purported "squeeze."

18. Finally, the IXCs' experts raise the specter of the combined company gaining monopoly control of Internet services through its position in offering intermediate access services and network elements. Were that possibility plausible, the largest ILECs would be moving in that direction today. Instead, the ILECs are paying large sums in reciprocal compensation to competitive local exchange carriers (CLECs) established by Internet service providers (ISPs) as the result of a regulatory distortion in pricing.

#### I. THE ALLEGATIONS OF VERTICAL FORECLOSURE

19. The IXCs advance their arguments of potential vertical foreclosure caused by the merger in declarations or affidavits supplied by Stanley M. Besen, Padmanabhan Srinagesh, and John R. Woodbury,<sup>1</sup> by Kenneth C. Baseman and A. Daniel Kelley,<sup>2</sup> and by David L. Kaserman

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1. Declaration of Stanley M. Besen, Padmanabhan Srinagesh, and John R. Woodbury: An Economic Analysis of the Proposed Bell Atlantic/GTE Merger (filed on behalf of Sprint Communications Company L.P., Nov. 23, 1998).

2. Declaration of Kenneth C. Baseman and A. Daniel Kelley (filed on behalf of MCI WorldCom, Inc., Nov. 23, 1998) [hereinafter *Baseman-Kelley Declaration*].

and John W. Mayo.<sup>3</sup> These commenters either simply assert that Bell Atlantic and GTE possess market power in the local exchange, or they rely on the incorrect analysis in the declaration of John B. Hayes.<sup>4</sup>

20. The Besen-Srinagesh-Woodbury declaration itself relies on a previous declaration submitted by Michael L. Katz and Steven C. Salop in the SBC-Ameritech merger proceeding before the Commission.<sup>5</sup> This latter declaration by Katz and Salop supplies the principal theoretical basis for the IXCs' contention that the current merger could reduce competition through the vertical foreclosure of access services and intermediate network elements supplied by Bell Atlantic and GTE. We therefore respond in this section primarily to the arguments advanced by Katz and Salop.

21. The Katz-Salop declaration argues that the larger "footprint" created by the SBC-Ameritech merger increases the incentive for the combined company to engage in various forms of vertical foreclosure. Because access services are still regulated by federal and state authorities, Katz and Salop are forced to concede that the merger does not enhance the *ability* of the combined company to raise the *price* of access.<sup>6</sup> Rather, they claim that the merger increases the *incentive*

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3. Affidavit of David L. Kaserman and John W. Mayo (filed on behalf of AT&T Corp., Nov. 23, 1998).

4. Declaration of John B. Hayes: Market Power and the Bell Atlantic-GTE Merger (filed on behalf of Sprint Communications Company L.P., Nov. 23, 1998). As shown in Declaration of Professors Robert H. Gertner and John P. Gould (filed on behalf of Bell Atlantic Corp. and GTE Corp., Dec. 23, 1998), the Hayes analysis fails to account for cross-subsidization in the current ILEC rate structure and eschews any effort to conduct the rigorous market definition required for serious antitrust analysis.

5. Declaration of Michael L. Katz and Steven C. Salop: Using a Big Footprint to Step on Competition: Exclusionary Behavior and the SBC-Ameritech Merger, Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations from Ameritech Corporation, Transferor, to SBC Communications Inc., Transferee, CC Dkt. No. 98-141 (filed on behalf of Sprint Communications Company L.P., Oct. 14, 1998) [hereinafter *Katz-Salop Declaration*].

6. Katz and Salop speculate that "SBC may benefit [after its merger with Ameritech] from economies of scope in fighting regulatory battles in multiple state forums." *Katz-Salop Declaration* at 40-41 ¶ 65. Surely, it would be constitutionally

for the combined company to degrade the *quality* of its access services (or intermediate network elements) in a variety of hypothetical ways. If, however, a firm has an incentive, but not the means, to engage in anticompetitive behavior, then it necessarily follows that competitive harm cannot possibly occur.

22. Katz and Salop's hypothesis can be simply stated: If exclusionary behavior is subject to a positive spillover effect between markets, then the merger would increase the incentives of the companies to engage in exclusionary behavior. In short, the Katz-Salop declaration makes a number of arguments based on a purely theoretical and hypothetical analysis of "spillovers" of the benefits of asserted reductions in the quality of access services. Not only is their theoretical approach flawed and incomplete, but Katz and Salop fail to provide any evidence that such foreclosure has actually occurred and has harmed competition in any downstream market. Given that the ILECs have, for many years, been offering access services to firms that compete with them in a variety of downstream services, one must conclude that the Katz-Salop hypotheticals are just that—*hypothetical* cases without grounding in the reality of current market conditions. The Commission should disregard the Katz-Salop hypothesis—and, by extension, the arguments made by all of the IXCs' other experts who rely on the Katz-Salop hypothesis. The Katz-Salop model is incomplete, ignores the reality of the regulatory system, and is refuted by the

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impermissible for a regulator to block a merger in the belief that the combination would enhance one's ability to petition government, a right expressly protected by the First Amendment. Katz and Salop also argue that "regulators will no longer be able to monitor, detect and prove the existence of exclusionary conduct by SBC using Ameritech's conduct as a benchmark, or vice versa." *Id.* This argument is comprehensively analyzed and found wanting in Declaration of Kenneth Arrow (filed on behalf of Bell Atlantic Corp. and GTE Corp., Dec. 23, 1998). Finally, Katz and Salop allege that "by controlling both ends of access, the integrated company may be better able to evade regulatory oversight of the quality of the access it provides by better rationalizing its exclusionary tactics." *Id.* The Commission should dismiss this argument entirely, recognizing that it is nothing more than a speculative attempt to conjure up a new potential "problem" by recombining the "regulatory economies of scope" and "benchmarking" arguments.

facts.

23. The Telecommunications Act of 1996 requires ILECs to provide interconnection services to all carriers requesting them under terms to be negotiated and ultimately approved by regulatory authorities.<sup>7</sup> Both Bell Atlantic and GTE are currently subject to those provisions. Moreover, Bell Atlantic must satisfy a section 271 "competitive checklist" of those requirements to be permitted to provide in-region interLATA services.<sup>8</sup> The merger does not diminish those responsibilities, nor does it lessen regulatory oversight of the companies' interconnection activities.

24. Katz and Salop also make the crucial assumption that the externality in exclusionary behavior between the two ILECs is positive (for example, pre-merger discriminatory behavior by Bell Atlantic supposedly would increase GTE's profits by retarding CLEC entry in GTE's territories). The externality, however, is much more likely to be *negative*, in which case the discriminatory behavior by ILEC *A* in its territory leads the CLEC to concentrate its entry efforts in the territory of ILEC *B*.<sup>9</sup> If the externality is indeed negative, the merger is likely to *reduce* exclusionary behavior, as the negative externality is internalized. Put simply, before the merger the ILECs could be over-discriminating in a "beggar-thy-neighbor" effort to induce CLECs to enter somebody else's market instead. After the merger, such hypothetical discrimination is reduced as the ILEC realizes that exclusionary behavior in one of its markets is self-defeating

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7. 47 U.S.C. §§ 251, 252.

8. *Id.* § 271.

9. See Reply Affidavit of Richard Schmalensee and William Taylor, Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations from Ameritech Corporation, Transferor, to SBC Communications Inc., Transferee, CC Dkt. No. 98-141, at 23 ¶ 47 (filed on behalf of SBC Communications, Inc. and Ameritech Corporation, Nov. 12, 1998).

because it induces increased entry in another one of its markets. Katz and Salop make no empirical showing as to whether their theoretical externality is likely to be positive or negative. Consequently, the Commission should conclude that the Katz-Salop hypothesis cannot predict whether exclusionary behavior would increase or decrease as a result of the merger. It would be economic caprice for the Commission to use a model that cannot produce coherent predictions of exclusionary conduct to inform the agency's public interest determination under the Communications Act.

25. Contrary to the assertions by the IXCs' economic experts, the merger of Bell Atlantic and GTE will not induce the combined company deliberately to reduce the quality of its wholesale access services. Such reductions in quality would redound to the merged companies' *disadvantage* through adverse reputation effects with other customers. An ILEC's deliberate reduction in the quality of inputs supplied to customers that compete with it in downstream markets would thus have severe spillover effects of its own among other customers. Such a strategy would be short-sighted in an increasingly competitive market.

26. Katz and Salop, as well as the IXCs' other declarants cited above, advance what are by now very familiar arguments concerning the ILECs' potential to exercise vertical foreclosure of rivals. It is alleged that ILECs can engage in various exercises of quality degradation that are difficult to detect. Those actions are only broadly hinted at—delaying repair services on leased network elements; making collocation difficult; processing CLEC orders more slowly than their own; and even reducing the quality of the voice/data signal transmitted by their unintegrated rivals through the ILECs' facilities. Those arguments are never accompanied by *any* empirical measure of the extent of such alleged abuses or their effect on final service prices or

quality despite the fact that ILECs have for many years been offering access services to firms that compete with them in downstream markets.

27. The Katz-Salop declaration alleges that the ILECs have the *incentive* to engage in quality-degrading acts of vertical foreclosure because in so doing they protect high-margin retail services from competition while forgoing much less lucrative returns from wholesale services. But that assertion is no more than an obvious deduction: The CLECs will first attack the ILECs' high-margin services. Therefore, the ILECs have every incentive to defend their sales of such services by vigorously competing in any manner permitted by the regulators. That incentive to engage in commercial self-defense does not prove, however, that the ILECs could successfully degrade the quality of access to their rivals even if they desired to do so. The asserted incentive surely does not establish that such degradation would be a successful strategy.

28. For the ILECs to have the incentive to degrade their wholesale services, they must not suffer economic losses from such activities. By reducing the quality of their wholesale access services, the ILECs would induce their customers to search for alternatives (such as the services of competitive access providers) or even to construct their own facilities. If an ILEC in general, and Bell Atlantic-GTE in particular, could reduce competition through degradation of its access services, it would have to be surgically precise in such attempts. The ILEC surely would not wish to reduce the demand for these wholesale services that are purchased by firms serving other markets or even to reduce the quality of the ILEC's own downstream retail services. The Commission has reached a similar conclusion about allegations of ILEC discrimination against IXCs:

[C]ommenters argue that the incumbent LEC will be able to . . . degrade the service of IXC competitors, by blocking calls at its own switch. Based on this record, we conclude that these concerns are not well-founded . . . . [I]ncumbent LECs have compelling incentives to deliver interstate calls to an IXC's POP. As competition develops for local service, it appears doubtful that an incumbent LEC would find it advantageous to block deliberately interstate calls placed by their end user customers. Such practices would encourage entry by new competitors and increase the interest of affected end users in finding a more reliable service provider. We also find it unlikely that either originating or terminating incumbent LECs would intentionally risk the collection of often significant per-minute access charge revenues on a completed long-distance call in order to collect additional, much smaller per-call setup charges. Finally, we know of no significant allegations of degraded service quality attributable to the very similar current regime. We are prepared, however, to investigate claims that an incumbent LEC is blocking calls in an intentional or discriminatory manner.<sup>10</sup>

29. Even if the contentions that the ILECs have the incentive and ability to degrade the quality of their access services were correct, it does not follow that those dangers would be heightened by the merger of Bell Atlantic and GTE. These same theoretical threats of vertical foreclosure would exist with *any* ILEC of *any* size. Katz and Salop are thus forced to make yet another set of heroic assumptions to try to link this merger to *increased* threats of vertical foreclosure. For this purpose they invoke a notion of "spillover" effects: the alleged vertical foreclosure benefits integrated ILECs *at each end* of any communication. To the extent that either GTE or Bell Atlantic has separately engaged in such activity, Katz and Salop theorize, each of the two companies may have created benefits of reduced competition for the other company when it is at the other end of the call. By combining their operations, the merger partners would

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10. Access Charge Reform, Price Cap Performance Review for Local Exchange Carriers, Transport Rate Structure, Pricing End-User Common Line Charges, First Report and Order, CC Dkts. No. 96-262, 94-1, 91-213, 95-72, 12 F.C.C. Rcd. 15,982, 16,043 ¶ 142 (1997).

internalize these externalities, according to Katz and Salop, and the combined companies therefore would supposedly increase the profitability of the alleged vertical foreclosure.

30. Once again, the IXCs' experts submit their allegations of the potential profitability of anticompetitive actions without offering *any* empirical support. Were such degradations of quality possible and effective in preventing competition, one might expect that the largest ILECs would already be the most successful in foreclosing competition in downstream markets. Frontier, Sprint, and GTE are large carriers that have combined local and long-distance services for a number of years. Were vertical foreclosure through access degradation a successful anti-competitive strategy, one would expect those companies to have achieved greater market power than the scores of smaller ILECs that also offer long-distance services. There is, however, no evidence of successful foreclosure by Frontier, Sprint, and GTE that we have seen. Indeed, the available empirical evidence is inconsistent with the Katz-Salop foreclosure hypothesis.<sup>11</sup>

31. In addition, every wireless carrier requires interconnection with an ILEC in its region to operate successfully. In each local area, the ILEC was initially allocated one of the two initial cellular licenses, and most ILECs continue to offer wireless services and wireless-wireline interconnection to their wireless rivals. We know of no evidence that the ILECs have attempted to degrade the wireline interconnection of their local wireless competitors. Nor are we aware that the ILECs have been able to gain a competitive advantage over their unintegrated wireless rivals. In general, the wireline-owned cellular carrier (the "B" carrier) has not gained more market share than the non-wireline cellular carrier. Nor have the ILECs thwarted the competitive thrust of the

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11. See Fred S. McChesney, *Empirical Tests of the Cross-Subsidy and Discriminatory-Access Hypotheses in Vertically Integrated Telephony*, 16 *MANAGERIAL & DECISION ECON.* 493 (1995).

new PCS and ESMR wireless services through vertical foreclosure of wireline access, despite the fact that these new wireless providers have succeeded in attracting customers from them and in severely reducing wireless rates. Surely, the wireless market provides the best possible test of the IXCs' experts' theories of foreclosure—and the theory fails decisively in that market.

32. If a competitive issue were to arise from the joint control of the originating and terminating ends of access, one would expect that such instances of exclusionary behavior would have been identified in the case of intraLATA toll. Bell Atlantic and GTE each historically carried a very large share of intraLATA toll traffic originating in their ILEC territories, until state regulators required 1+ equal access for intraLATA calls. In Bell Atlantic's case in particular, a very large proportion of intraLATA toll would both originate and terminate on its network, while the ratio for GTE would have been somewhat smaller. There has been no evidence of discrimination in the intraLATA market since the advent of 1+ preselection. For example, GTE's share of intraLATA toll traffic originating in its Florida territories dropped from 82 percent in December 1996 to less than 37 percent in December 1998.<sup>12</sup> Similar declines over the same period were recorded by GTE in Ohio (from 79 percent to 39 percent), Illinois (from 89 percent to 45 percent), Pennsylvania (from 78 percent to 38 percent), and Virginia (92 percent to 55 percent), a pattern which repeated itself across many GTE and Bell Atlantic territories.<sup>13</sup> Clearly, such share losses have occurred at a much faster rate than the erosion of AT&T's dominant position in interLATA toll since 1984, which indicates that ILECs have not excluded IXCs from intraLATA toll provision to any measurable extent. Consequently, there is little basis to fear that

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12. Information provided by GTE.

13. Information provided by GTE and Bell Atlantic.

combination of the two companies should raise concerns based on the control of originating and terminating access.

33. We are forced to conclude that the theories of vertical foreclosure advanced by the IXCs' experts are just that—*theories*. The inapplicability of those theories to current market conditions is demonstrated by the conspicuous absence of empirical evidence to support them. Indeed, we believe that the wireless market and the long-distance operations of existing (non-RBOC) ILECs provide sufficient evidence to reject the applicability of those theories to current telecommunications markets.

## II. THE ALLEGATIONS OF PRICE SQUEEZES

34. Baseman and Kelley raise the specter that the merger of Bell Atlantic and GTE would make possible "price squeezes" in long-distance and other downstream services that would use the combined firm's access services. In so doing, Baseman and Kelley reject the safeguards provided by imputation tests as too complicated for regulators to implement.

35. A price squeeze by an integrated seller of communications services would only make sense if the integrated ILEC could not obtain its maximum profits from the upstream market for access services alone and if such a squeeze were to allow it eventually to raise prices in the downstream market sufficiently to compensate it for losses caused by the squeeze. The first requirement—the inability to obtain maximum profits from the upstream access service—is obviously met because access services are regulated by federal and state regulators. The second requirement, however, is surely unlikely to be met.

36. For a price squeeze to be profitable, the ILEC would have to be able to raise prices

above current market levels at some future date. Those price increases would have to be large enough to compensate the ILEC for the profits forgone by holding prices artificially below current market levels to "squeeze" its unintegrated rivals. This strategy, in turn, would require that some current competitors—AT&T, Sprint, MCI WorldCom, Frontier, and others—be driven from the market. Otherwise, the new low-price equilibrium would simply persist to the great benefit of consumers. Even in the improbable event that an ILEC could drive one of the big IXCs into bankruptcy, the fiber-optic transmission capacity of that carrier would remain intact, ready for another firm to buy the capacity at a distress sale and immediately undercut the ILEC's noncompetitive prices. In 1996 the Commission embraced, with respect to newly enacted section 272, the logic of such skepticism toward hypothesized ILEC predation.<sup>14</sup> That skepticism accords with the conclusion of many respected regulatory economists.<sup>15</sup> The IXCs' experts ignore the weight of such analysis and utterly fail to explain how Bell Atlantic or GTE or the merged Bell Atlantic-GTE could successfully employ a squeeze that drives large IXCs from the market. Even if, *arguendo*, the ILECs flouted the imputation test, it is highly unlikely that rates would be driven below the IXCs' incremental costs of no more than 2 cents per minute plus access charges. We too are extremely skeptical that such a "squeeze" is even remotely possible.

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14. Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as Amended; and Regulatory Treatment of LEC Provision of Interexchange Services Originating in the LEC's Local Exchange Area, Notice of Proposed Rulemaking, CC Dkt. No. 96-149, 11 F.C.C. Rcd. 18,877, 18,943 ¶ 137 (1996) (citing Daniel F. Spulber, *Deregulating Telecommunications*, 12 YALE J. ON REG. 25, 60 (1995); other citations omitted).

15. *E.g.*, PAUL W. MACAVOY, *THE FAILURE OF ANTITRUST AND REGULATION TO ESTABLISH COMPETITION IN LONG-DISTANCE TELEPHONE SERVICES 186-90* (MIT Press & AEI Press 1996); Susan Gates, Paul Milgrom & John Roberts, *Deterring Predation in Telecommunications: Are Line-of-Business Restraints Needed?*, 16 MANAGERIAL & DECISION ECON. 427 (1995); Paul S. Brandon & Richard L. Schmalensee, *The Benefits of Releasing the Bell Companies from the Interexchange Restrictions*, 16 MANAGERIAL & DECISION ECON. 349 (1995); Jerry A. Hausman, *Competition in Long-Distance and Telecommunications Markets: Effects of the MFJ*, 16 MANAGERIAL & DECISION ECON. 365 (1995); Kenneth J. Arrow, Dennis W. Carlton & Hal S. Sider, *The Competitive Effects of Line-of-Business Restrictions in Telecommunications*, 16 MANAGERIAL & DECISION ECON. 301 (1995).

37. Baseman and Kelley argue that there is some evidence that New York Telephone and Southern New England Telephone (SNET) have engaged in price squeezes in the distant and recent past. Baseman and Kelley do not contend, however, that those alleged squeezes have been successful in driving any IXCs from New York or Connecticut. Indeed, a review of the experience in Connecticut suggests that competition is vigorous in the interexchange market and that all national competitors continue to operate there—albeit at lower prices than existed before SNET's entry.<sup>16</sup> That outcome demonstrates increased competition and would only be contrary to the public interest if lower long-distance prices reduce consumer welfare. This empirical evidence confirms the well-known theoretical proposition that even inefficient ILEC entry into long-distance markets will produce welfare gains to society that would more than offset the potential welfare losses from that inefficiency.<sup>17</sup> Finally, it is ironic that the IXCs would raise the specter of a price squeeze at a time when empirical analyses conclude that the IXCs have not passed through fully the recent and continuing ILECs' reduction in carrier access charges.<sup>18</sup>

### III. ALLEGATIONS OF EXCLUSIONARY BEHAVIOR WITH RESPECT TO INTERNET SERVICES

38. Baseman and Kelley allege that ILECs in general, and GTE and Bell Atlantic in

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16. See PETER W. HUBER, LOCAL EXCHANGE COMPETITION UNDER THE 1996 TELECOM ACT: RED-LINING THE LOCAL EXCHANGE CUSTOMER (prepared for BellSouth Corp. and SBC Corp., Nov. 4, 1997).

17. See P.J. Hinton, J.D. Zona, R.L. Schmalensee & W.E. Taylor, *An Analysis of the Welfare Effects of Long-Distance Market Entry by an Integrated Access and Long-Distance Provider*, 13 J. REG. ECON. 183 (1998).

18. See MACAVOY, THE FAILURE OF REGULATION AND ANTITRUST, *supra* note 15; P.S. Brandon & W.E. Taylor, *AT&T, MCI and Sprint Failed to Pass Through the 1998 Interstate Access Charge Reductions to Consumers* (filed *ex parte* in CC Docket No. 96-262 on behalf of the United States Telephone Association, Oct. 22, 1998).

particular, control a bottleneck facility in the provision of Internet services.<sup>19</sup> Baseman and Kelley assert that Bell Atlantic and GTE "control the connection to the end-user,"<sup>20</sup> and they further speculate that this asserted "control" may afford opportunities for Bell Atlantic and GTE to discriminate against unaffiliated ISPs and monopolize the market for Internet service provision. The Baseman-Kelley theory, however, is logically flawed and fails on five independent grounds:

1. Bell Atlantic and GTE do not have unique means to discriminate against unaffiliated ISPs.
2. Bell Atlantic and GTE do not control a bottleneck facility in the provision of Internet services.
3. GTE is not a dominant firm in the provision of ISP services, and the transaction would not materially increase GTE's presence in the ISP arena. This distinction is critical, as the targeted-degradation argument of Professors Jacques Crémer, Patrick Rey, and Jean Tirole, which the IXCs' experts inappropriately cite, applies only to dominant firms.
4. Bell Atlantic and GTE have not discriminated against unaffiliated Internet service providers despite the allegation that they have both an incentive and the ability to do so.
5. Allegations that discrimination is more likely when new technologies are being introduced are sheer speculation that is contradicted by the facts, by the Commission's findings, and by the IXCs' experts themselves.

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19. *Baseman-Kelley Declaration* at ¶¶ 87-92 *et seq.*

20. *Id.* at ¶ 91.

We now discuss these five points in turn.

**A. Bell Atlantic and GTE Do Not Have Unique Means to Discriminate Against ISPs**

39. In making their allegations of potential discrimination against ISPs, Baseman and Kelley suggest that Bell Atlantic and GTE somehow have a novel and unique way to discriminate against ISPs. This alleged discrimination supposedly could take the form of either quality degradation or delayed provisioning of circuits. Again, a common sense examination of the relationship between ISPs and ILECs shows this allegation to be specious.

40. First, consider traditional dial-up access. As noted above, ISPs serve dial-up customers through multi-line business services, which the ISPs either purchase from the ILEC *or from a competing CLEC*. By definition, dial-up customers use standard voice circuits, and many customers use those circuits for other ILEC services. Therefore, to discriminate against dial-up ISPs using a strategy of quality degradation, an ILEC would need to degrade service on *all* its voice facilities. Surely such pervasive service degradation would be unprofitable. If an ILEC attempted to discriminate against ISPs in the manner that Baseman and Kelley hypothesize, then ISPs and other local exchange customers would switch to CLECs. The ILEC would suffer additional losses as residential users switched their local telephone service to other providers, and as regulators imposed quality-of-service penalties. Such discrimination clearly would not benefit Bell Atlantic and GTE.

41. Discriminating against ISPs through delayed provisioning would be equally futile. ISPs are large, lucrative business customers, whose premises are located in close proximity to existing central offices in high-density metropolitan areas. ISPs have their pick of competitive

local exchange providers.<sup>21</sup> If the ILEC were to give an ISP discriminatorily slow provision of the necessary inward trunks, the ISP would merely transfer its account to one of many CLECs offering more responsive service. As before, the ILEC would suffer a large reduction in its *own* cash flow as a result of the attempted discrimination.

42. In the case of high-speed Internet access service, ILECs would have even less to gain by discriminating against ISPs.<sup>22</sup> In the case of such service, the ILEC either provides the high-speed transport from the end user to the ISP (over a local DS-1 line or its own xDSL offering, for example) or supplies the unbundled loop to which the ISP adds its own central office and customer premises equipment to supply xDSL and similar offerings. The provisioning process for high-speed circuits and unbundled loops is already in place. Similarly, direct quality measurements are in place that would allow competitors and regulators to detect any delayed provisioning.<sup>23</sup>

43. Furthermore, Baseman and Kelley ignore the fact that Congress and the FCC imposed imputation safeguards. That is not to say that these requirements need to work perfectly. They need only work well enough to blunt the hypothesized incentives for upstream-downstream

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21. See Merrill Lynch, *The Mysterious World of ISP-Related Reciprocal Compensation* (Telecom Services-Local Investment Report, Oct. 27, 1998).

22. The FCC explicitly "reject[ed] the argument that the possibility of a price squeeze warrants the Commission's transfer to the states of its ratemaking authority with respect to interstate DSL services." Investigation of New Access Offerings Filed by Bell Atlantic, BellSouth, GTE System Telephone Companies, and Pacific Bell Establishing Asymmetrical Digital Subscriber Line Service, Memorandum Opinion and Order, CC Dkts. Nos. 98-168, 98-161, 98-167, 98-103, ¶ 1 (released Nov. 30, 1998) (FCC 98-317).

23. The merger applicants have entered into specific time and quality-of-service commitments for the provision of collocation and interconnections services to their competitors. For example, Bell Atlantic commits in its southern region to provide competitors with physical collocation within 120 business days and virtual collocation within 60 business days, subject to the relevant central office not being declared exhausted *before* state regulators. See Bell Atlantic Network Services FCC Tariff #1 § 19, pp. 945-947 (13<sup>th</sup> rev. Dec. 3, 1998). The Bell Atlantic and GTE operating companies also make similar commitments through tariffs filed with state commissions.

coordination. If imputation requirements result in an inability of the ILEC to internalize fully the discriminatory effects being posited by the IXCs' experts, then the Katz-Salop results generally do not obtain.

**B. Bell Atlantic and GTE Do Not Possess Bottleneck Control Over ISPs**

44. The Baseman-Kelley allegation of "bottleneck control" is based on the trivial observation that most residential customers in GTE's and Bell Atlantic's territories currently gain access to the Internet through dial-up connections. Baseman and Kelley ignore, however, that customers seeking dial-up access to an unaffiliated ISP use the same circuits and technology as do customers for voice telephony. In other words, dial-up service is, by definition, simply traditional local service.<sup>24</sup> For example, ISPs unaffiliated with Bell Atlantic or GTE simply purchase multi-line business service, from either Bell Atlantic or GTE *or from a competing CLEC*. If the Baseman-Kelley theory were plausible, it would imply that GTE or Bell Atlantic has bottleneck control over services provided by any multi-line business customer whose business relies significantly on local telephony.

45. Furthermore, Baseman and Kelley completely ignore the fact that large volumes of end-user Internet traffic now move over other facilities, such as competitive access provider lines, cable modems, terrestrial wireless services (for example, Metricom's Ricochet), and satellite links. ILEC provision of high-speed circuits has been deemed a competitive service in many states, including Florida for GTE,<sup>25</sup> and Pennsylvania for Bell Atlantic,<sup>26</sup> as CLECs continue to

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24. See generally J. Gregory Sidak & Daniel F. Spulber, *Cyberjam: The Law and Economics of Internet Congestion of the Telephone Network*, 21 HARV. J.L. & PUB. POL'Y 327 (1998).

25. See FLA. STAT. ch. 364.051 (1998). Large ILECs may elect price regulation under section 364.051, allowing limited

enter and expand their service provisions. Although relatively few end users may use high-speed facilities currently, that proportion is growing rapidly. An increasing number, however, use the services of carriers other than the ILECs. The growth of special access is accelerating. For example, the number of voice-grade equivalent special-access circuits provided by Bell Atlantic and GTE in their territories jumped 40 percent in 1997, almost doubling their historic growth rate.<sup>27</sup> The CLECs are currently extremely competitive with ILECs in the provision of high-speed access, and the CLECs are capturing a substantial and growing share of that segment. In 1996, for example, a leading competitive access provider described its corporate strategy as follows:

The Company's strategy is to become the primary provider of telecommunications services to business and government end users. The Company believes business and government users have distinct telecommunications service requirements, including maximum reliability, consistent high quality, capacity for high-speed data transmission, responsive customer service and continuous attention to service enhancement and new service development. The Company believes it has significant advantages over its competitors as a result of the Company's . . . expertise in developing highly reliable, advanced digital fiber optic networks which offer substantial transmission capacity.<sup>28</sup>

Now, nearly three years later, data-focused CLECs such as MFS/Brooks (owned by MCI WorldCom), TCG (owned by AT&T), WinStar, Teligent, and Internet specialists such as

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upwards flexibility for all services other than basic services (flat-rate voice-grade residential or single-line business local exchange service), voice-grade flat-rate multi-line business local exchange service, and network access services.

26. See Emergency Ratification Order, Petition of Bell Atlantic-Pennsylvania Inc. For a Determination of Whether Digital Data Services and High Capacity Services Are Competitive, Dkt. No. P-00950929, AT&T Communications of Pennsylvania Inc. v. Bell Atlantic-Pennsylvania, Inc., Dkt. No. P-00950929C0001, at 3, ordering clause 3 (Pa. Pub. Util. Comm'n, Oct. 13, 1995) ("Bell's HICAP service is hereby classified as competitive").

27. See FCC, 1997-98 STATISTICS OF COMMON COMMUNICATIONS CARRIERS at table 2.10.

28. MFS COMMUNICATIONS CO., 1995 SEC FORM 10-K at 1 (1996). "Because MFS believes it has certain advantages relative to quality control . . . resulting from its use of the Company's existing fiber optic networks, MFS Intelenet believes that it may enjoy certain advantages with respect to certain of its competitors." *Id.* at 6.

Metricom indeed enjoy phenomenal growth in lines that far exceeds the rate of growth in lines for either Bell Atlantic or GTE.<sup>29</sup> Finally, cable modems are poised to become an important means of residential Internet access, with projected growth rates of over 100 percent per annum—"surging from 350,000 subscribers in mid-1998 to more than 2 million by end of 1999"<sup>30</sup>—and are expected to account for 80 percent of residential Internet access connections by 2002.<sup>31</sup> That projected growth in Internet access over the cable infrastructure is, of course, a principal justification that AT&T has offered for its acquisition of TCI.<sup>32</sup> In short, by focusing only on dial-up access to the Internet, Baseman and Kelley erroneously exclude many actual and potential competitors from consideration.

### C. The Transaction Would Not Enable Bell Atlantic-GTE to Dominate the Internet

46. GTE is not a dominant firm in the provision of ISP services, and the transaction would not materially increase GTE's presence in the ISP arena. Bell Atlantic currently has relatively few ISP customers, and even after the merger the combined firm would rank far behind America Online, the largest ISP in the nation.<sup>33</sup> The combined GTE/Bell Atlantic ISP operation

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29. See FCC, 1997-98 STATISTICS OF COMMON CARRIERS, at table 2.10.; Salomon Smith Barney, *CLECs Surpass Bells In Net Business Line Additions For First Time*, May 6, 1998.

30. See Forrester Research Press Release, *High-Speed Internet Access*, Sept. 1, 1998.

31. See Paul Kagan Associates, Inc., *U.S. High-Speed Access Cable & ADSL Projection Model, 1997-2006*, in CABLE TV TECHNOLOGY (Feb. 28, 1998).

32. See AT&T Press Release, *AT&T, TCI to Merge, Create New AT&T Consumer Services Unit*, June 24, 1998. "Today we are beginning to answer a big part of the question about how we will provide local service to U.S. consumers," said C. Michael Armstrong, chairman and CEO of AT&T. "Through its own systems and in partnership with affiliates, AT&T will bring to people's homes the first fully integrated package of communications, electronic commerce, and video entertainment services."

33. Estimated AOL and AT&T subscriber counts from *AT&T Changes Internet Service, Fees*, L.A. TIMES, Dec. 16, 1998 (quoting AT&T's projected customer base pending the acquisition of IBM Corp.'s network business).

would be less than half the size of the next largest competitor and less than one-fourteenth the size of the largest ISP, AOL.<sup>34</sup>

47. This distinction is critical because the network-dominance strategy that the IXCs' experts hypothesize relies on the existence of a *dominant* firm. Baseman and Kelley, for example, quote the Crémer-Rey-Tirole result.<sup>35</sup> But Baseman and Kelley fail to observe that Professors Crémer, Rey, and Tirole actually stated:

*In the absence of a dominant backbone, the unilateral degradation strategy is much riskier[,] . . . encourag[ing] migration of [part] of its installed base and new customers to other networks. We would expect interconnectivity to continue prevailing in the Internet industry as long as a dominant player does not emerge.*<sup>36</sup>

Thus, Baseman and Kelley quote the Crémer-Rey-Tirole result out of context, as the targeted-degradation argument applies only to dominant firms. Crémer, Rey, and Tirole examined the specific case in which a merger would create a dominant firm with a share of more than 50 percent, at least three times the size of the second largest firm.<sup>37</sup> Such assumed conditions clearly do not accurately describe the merger of Bell Atlantic and GTE.

48. Finally, the combined Bell Atlantic-GTE will still be several times smaller than the ISP and telecommunications providers against which the merged company will compete, such as America Online and MCI WorldCom. Earthlink, one of the largest ISPs, is controlled by Sprint

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34. GTE subscribers from BOARDWATCH, 1998 ISP DIRECTORY. Bell Atlantic subscribers from internal company data.

35. *Baseman-Kelley Declaration* at 54 ¶ 95 (discussing Jacques Crémer, Patrick Rey & Jean Tirole, *The Degradation of Quality and the Domination of the Internet* (Apr. 8, 1998) (prepared for GTE Communications Corporation)).

36. Crémer, Rey & Tirole, *supra* note 35, at ¶ 9 (emphasis added).

37. *Id.*

and may soon be a wholly owned subsidiary.<sup>38</sup> Meanwhile, the largest IXC, AT&T, has already acquired one of the largest CLECs, TCG. AT&T is also acquiring the largest provider of alternative residential broadband access, TCI, by virtue of its ownership of and marketing relationship with @Home. (Previously, AT&T offered to acquire America Online.<sup>39</sup>) And AT&T is acquiring a large data network unit from IBM.<sup>40</sup> Finally, AT&T is entering into a local telephone venture with Time-Warner.<sup>41</sup>

#### **D. Bell Atlantic and GTE Have Not Discriminated Against Unaffiliated ISPs**

49. If GTE and Bell Atlantic actually had both the incentive and the opportunity to discriminate against unaffiliated ISPs, then one would expect to find evidence of such behavior in the ISP market. Because of the enormously inefficient pricing of ILEC provision of dial-up Internet access, ILECs experience substantial cost increases for every dial-up customer that is

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38. See Inside Wall Street, *Sprint: Sauntering After Earthlink?*, BUS. WK., Dec. 7, 1998, at 134. Sprint currently owns 27 percent on a fully diluted basis, received in consideration for the transfer to Earthlink of approximately 130,000 Sprint Internet passport subscribers, \$24 million in cash, and the exclusive right to use certain ports in Sprint's high-speed network. Sprint also agreed to deliver a minimum of 150,000 new subscribers per year for five years to Earthlink, and to give Earthlink the right to be Sprint's exclusive provider of consumer Internet access service and to use Sprint's brand and distribution network for at least ten years. See EARTHLINK NETWORK INC., SEC FORM 10-Q, at 8 (Aug. 14, 1998).

39. See CNNfn, *Ma Bell to Log On To AOL?*, CNNfn, June 17, 1998 (available at <http://cnnfn.com/hotstories/deals/980617/index.htm>).

40. See *AT&T Changes Internet Service, Fees*, L.A. TIMES, Dec. 16, 1998.

41. See Associated Press Online—Dec. 9, 1998. "CNBC reported AT&T and Time Warner had nearly agreed on the terms of a joint venture, of which AT&T would control 75 percent and Time Warner 25 percent. AT&T would pay three-quarters of the cost of upgrading Time Warner's cable systems to handle voice transmissions. AT&T, in turn, would get three-quarters of the revenues from selling the local phone service. A Time Warner Inc. pact would cap a unprecedented deal-making spree by AT&T Corp., including an agreement Tuesday to buy IBM's data-networking business for \$5 billion. This fall, AT&T agreed to buy cable giant Tele-Communications Inc., for \$31.7 billion, but TCI's cable TV lines are able to reach only about one-third of U.S. homes."

added by an ISP served by a CLEC.<sup>42</sup> Moreover, the customer probably orders a second line only for Internet traffic (which therefore does not recover its loop and switching costs assigned to the interstate jurisdiction, as it does not generate interLATA access charges). Consequently, if the opportunity and incentive for discrimination were truly to exist, one would expect them to be relatively stronger concerning dial-up service to ISP-CLEC combinations.

50. The evidence, however, all points in the opposite direction. To our knowledge, no regulatory body or court has found discrimination by Bell Atlantic or GTE against ISP-CLEC combinations. The market for ISPs in the Bell Atlantic and GTE territories is vibrant, with 180 ISPs operating in Maryland's 301 area code alone.<sup>43</sup> If anything, the efforts of some Bell operating companies, including Bell Atlantic, in Internet service provision "seem to be faltering" despite "high-profile marketing campaigns."<sup>44</sup> Industry observers note that "oligopoly is not on the horizon," and that "BOCs should buy up regional ISPs as a means to gain expertise and [market] share."<sup>45</sup> Such evidence indicates an *absence* of discrimination.

#### **E. Allegations of Potential Discrimination Have Never Risen Above Sheer Speculation**

51. It is worth reviewing the long-run evidence surrounding previous allegations that the Bell operating companies would interfere with a new and emerging market. The experience in information services is particularly illustrative because it is the predecessor of today's ISP

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42. See Sidak & Spulber, *supra* note 24, at 379-80.

43. See <http://boardwatch.internet.com/isp/ac/ac301.html> (Dec. 1, 1998).

44. See *Online Services Reach 20.3M Users*, MULTIMEDIA DAILY, Apr. 25, 1997.

45. See Forrester Research, *Consolidation in the Business ISP Marketplace*, Press Release, July 16, 1997 (downloaded Dec. 2, 1998, <http://www.forrester.com/press/pressrel/970716TS.htm>).

service. Eight years ago, Professor Carl Shapiro (a former expert witness for Sprint before the FCC and founder of the Tilden Group, with whom Sprint's experts in this proceeding—Katz, Farrell, and Hayes—are affiliated) predicted dire consequences if the Modification of Final Judgment were amended to allow the BOCs to enter the information services arena.<sup>46</sup> Shapiro alleged at that time many of the arguments now being alleged by the IXCs' experts in this proceeding. He argued that the risk of discrimination was too great to allow the BOCs to participate in information services. In particular, Shapiro alleged that the BOCs would engage in the familiar litany of bad acts, including raising the price, reducing the quality, and restricting the availability of essential inputs to competing information services providers.<sup>47</sup> Shapiro also alleged that the BOCs would have the incentive to bias their systems in their own favor and against their most threatening rivals.<sup>48</sup> "Lifting the information services restriction at this time," he concluded in 1990, "would predictably result in anticompetitive consequences."<sup>49</sup> Eight years later, it is clear that Shapiro's predictions were demonstrably wrong. As has been observed repeatedly, after the BOCs were given limited permission in 1988 to offer consumers voice mail as an information service, the price of such services fell dramatically and the demand for voice mail equipment grew

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46. Affidavit of Carl Shapiro, attached to Joint Opposition to Motions for Removal of the Section II(D)(1) Restriction on the Provision of Information Services in *United States v. Western Elec. Co.*, Civil Action No. 82-0192 (HHG), (D.D.C. Oct. 17, 1990), submitted by Commerce Clearing House, Inc., Dialog Information Services, Inc., Dun & Bradstreet Corporation, Knight-Ridder, Inc., MacMillan, Inc., Times Mirror, the Washington Post Company, and West Publishing Company.

47. *Id.* at ¶¶ 33–41.

48. *Id.* at ¶ 39.

49. *Id.* at ¶ 103.

threefold.<sup>50</sup> And, of course, since 1990 the Bell operating companies have hardly succeeded in monopolizing information services.

52. Now, nearly a decade after Shapiro's faulty prediction about information services, Baseman and Kelley similarly allege that the potential for ILEC discrimination will be enhanced by the introduction of new technologies and non-standard interfaces.<sup>51</sup> They are wrong for at least five reasons, just as Shapiro was wrong.

53. First, to the extent that ISPs and their customers wish to use the ILEC's plant in lieu of the ILEC's dial-up service, they can and will simply unbundle the loop and install their own CPE and collocated equipment. Attempts to degrade such interconnection are easy to detect, remedy, and punish.<sup>52</sup>

54. Second, Baseman and Kelley concede that the problems they identify, "of course, are likely to occur *with or without the merger*."<sup>53</sup> By itself, this admission renders the entire Baseman-Kelley declaration irrelevant to this proceeding.

55. Third, Baseman and Kelley concede that "[t]he problem is ameliorated if other technologies emerge to provide broadband access for ISPs,"<sup>54</sup> such as cable modem access, which

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50. See WILLIAM J. BAUMOL & J. GREGORY SIDAK, TOWARD COMPETITION IN LOCAL TELEPHONY 132 (MIT Press & AEI Press 1994).

51. *Baseman-Kelley Declaration* at ¶ 88.

52. These observations about detection, punishment, and deterrence have been well understood for years. See Affidavit of Michael K. Block, *attached to* Motion of Bell Atlantic Corp., BellSouth Corp., NYNEX Corp., and Southwestern Bell Corp. to Vacate the Consent Decree, *United States v. Western Electric Co.*, Civil Action No. 82-0192 (May 23, 1994; filed D.D.C. July 6, 1994).

53. *Baseman-Kelley Declaration* at ¶ 94 (emphasis added).

54. *Id.* at ¶ 54.

is rapidly being deployed today and is, as noted earlier, the centerpiece of AT&T's high-profile investment strategy encompassing its acquisition of TCI.

56. Fourth, Baseman and Kelley acknowledge "that the Commission is addressing these issues in its Broadband Rulemaking"<sup>55</sup> and has the ability in that separate proceeding to address those concerns fully.

57. Fifth, the notion that the merger of Bell Atlantic and GTE can somehow "tip" the ISP market is truly fanciful. Unlike the case of Internet backbone services, ILEC access is fully subject to FCC oversight and regulation. The ISP market is atomized and fully competitive with thousands of participants.<sup>56</sup> Unlike backbones, ISPs do not generally interconnect directly with each other. Rather, they interconnect through backbones, although direct connections exist in some cases.<sup>57</sup> Each ISP is a paying customer of one or more backbones for Internet transport service. The ISP access marketplace therefore does not operate on the basis of the same delicate system of competitive peering that exists between rival, unregulated backbone networks. Moreover, Bell Atlantic's share of the ISP access market is minuscule.<sup>58</sup>

58. Seen in that light, the Baseman-Kelley allegations of potential discrimination by Bell Atlantic-GTE against unaffiliated ISPs are nothing more than a reprise of the erroneous predictions that Shapiro offered nearly a decade ago. Since then, the facts have compelled any

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55. *Id.* ¶¶ 56-57.

56. See BOARDWATCH, 1998 ISP DIRECTORY, which lists over 5,000 ISPs.

57. See Internet Affidavit of Robert G. Harris on behalf of GTE Corp. in WorldCom Inc. and MCI Communications Corp. Proposed Transfer of Control, CC Dkt. No. 97-211, ¶¶ 17-25 (filed March 13, 1998); Internet Affidavit of Robert G. Harris on behalf of GTE Corp. in WorldCom Inc. and MCI Communications Corp. Proposed Transfer of Control, CC Dkt. No. 97-211, ¶¶ 2-4 (filed June 8, 1998).

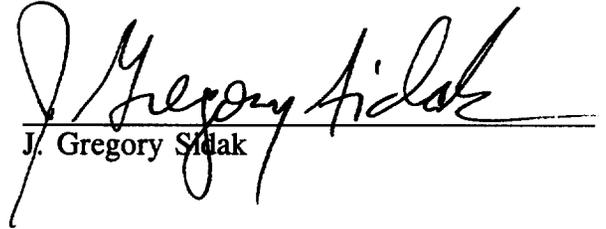
58. See Forrester Research, *Consolidation in the Business ISP Marketplace*, *supra* note 45 .

objective observer to reject as false the prediction by Shapiro and others that the Bell operating companies would monopolize information services. The Commission should reject the use of that same flawed logic here to predict that the merger of Bell Atlantic and GTE would dominate unaffiliated ISPs.

#### CONCLUSION

59. The arguments advanced by the IXC's economic experts are unpersuasive. They allege that integrated ILECs have the incentive and ability to employ a variety of discriminatory tactics and price squeezes to harm IXCs and CLECs, yet the IXC's experts thoroughly fail to demonstrate that the factual assumptions necessary for their theories to hold are indeed realistic. The IXC's experts are no more believable when they predict monopolization of Internet services. Moreover, the IXC's experts fail to provide any credible argument that the merger of Bell Atlantic and GTE would increase the likelihood that these predictions of anticompetitive doom would actually occur. The Commission should evaluate this merger on the basis of logic and fact, not on the basis of far-fetched theoretical predictions that bear no relationship to observed market conditions.

I hereby swear, under penalty of perjury, that the foregoing is true and correct.

  
J. Gregory Sidak

Executed on this 21<sup>st</sup> day of December, 1998.

I hereby swear, under penalty of perjury, that the foregoing is true and correct.

  
Robert W. Crandall

Executed on this 21<sup>st</sup> day of December, 1998.

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O'MELVENY & MYERS, Los Angeles: Associate, 1982–84.

UNITED STATES COURT OF APPEALS FOR THE SEVENTH CIRCUIT, Chicago: Law Clerk to Judge Richard A. Posner, 1981–82.

#### BOOKS

*Competition in International Telecommunications* (J. Gregory Sidak, editor, AEI Press forthcoming 1999).

*Is the Telecommunications Act of 1996 Broken? (If So, How Can We Fix It?)* (J. Gregory Sidak, editor, AEI Press forthcoming 1999).

*Deregulatory Takings and the Regulatory Contract: The Competitive Transformation of Network Industries in the United States* (Cambridge University Press 1997), co-authored with Daniel F. Spulber.

*Foreign Investment in American Telecommunications* (University of Chicago Press 1997).

*Protecting Competition from the Postal Monopoly* (AEI Press 1996), co-authored with Daniel F. Spulber.

*Transmission Pricing and Stranded Costs in the Electric Power Industry* (AEI Press 1995), co-authored with William J. Baumol.

*Toward Competition in Local Telephony* (MIT Press & AEI Press 1994), co-authored with William J. Baumol. Korean translation: Korea Information Society Development Institute 1996.

*Governing the Postal Service* (J. Gregory Sidak, editor, AEI Press 1994).

#### JOURNAL ARTICLES

*Essential Facilities*, 51 STANFORD LAW REVIEW (forthcoming 1999), co-authored with Abbott B. Lipsky, Jr.

*The Petty Larceny of the Police Power*, 86 CALIFORNIA LAW REVIEW 655 (1998) (review essay).

*Deregulation and Managed Competition in Network Industries*, 15 YALE JOURNAL ON REGULATION 117 (1998), co-authored with Daniel F. Spulber.

*Cyberjam: The Law and Economics of Internet Congestion of the Telephone Network*, 21 HARVARD JOURNAL OF LAW & PUBLIC POLICY 337 (1998), co-authored with Daniel F. Spulber.

*Network Access Pricing and Deregulation*, 6 INDUSTRIAL AND CORPORATE CHANGE 757 (1997), co-authored with Daniel F. Spulber.

*Givings, Takings, and the Fallacy of Forward-Looking Costs*, 72 NEW YORK UNIVERSITY LAW REVIEW 1068 (1997), co-authored with Daniel F. Spulber.

*The Tragedy of the Telecommons: Government Pricing of Unbundled Network Elements Under the Telecommunications Act of 1996*, 97 COLUMBIA LAW REVIEW 1081 (1997), co-authored with Daniel F. Spulber.

*Monopoly and the Mandate of Canada Post*, 14 YALE JOURNAL ON REGULATION 1 (1997), co-authored with Daniel F. Spulber.

*Deregulatory Takings and Breach of the Regulatory Contract*, 71 NEW YORK UNIVERSITY LAW REVIEW 851 (1996), co-authored with Daniel F. Spulber.

*Pricing of Services Provided to Competitors by the Regulated Firm*, 3 HUME PAPERS ON PUBLIC POLICY, No. 3, at 15 (1995), co-authored with William J. Baumol.

*Stranded Costs*, 18 HARVARD JOURNAL OF LAW & PUBLIC POLICY 835 (1995), co-authored with William J. Baumol.

*The Line-Item Veto Amendment*, 80 CORNELL LAW REVIEW 1498 (1995).

*Competition and Regulatory Policies for Interactive Broadband Networks*, 68 SOUTHERN CALIFORNIA LAW REVIEW 1203 (1995), co-authored with Robert W. Crandall.

*The Pricing of Inputs Sold to Competitors: Rejoinder and Epilogue*, 12 YALE JOURNAL ON REGULATION 177 (1995), co-authored with William J. Baumol.

*The Pricing of Inputs Sold to Competitors*, 11 YALE JOURNAL ON REGULATION 171 (1994), co-authored with William J. Baumol.

*Telecommunications in Jericho*, 81 CALIFORNIA LAW REVIEW 1209 (1993) (review essay).

*War, Liberty, and Enemy Aliens*, 67 NEW YORK UNIVERSITY LAW REVIEW 1402 (1992).

*Why Did President Bush Repudiate the "Inherent" Line-Item Veto?*, 9 JOURNAL OF LAW & POLITICS 39 (1992), co-authored with Thomas A. Smith.

*The Inverse Coase Theorem and Declarations of War*, 41 DUKE LAW JOURNAL 325 (1991).

*To Declare War*, 41 DUKE LAW JOURNAL 27 (1991).

*Takeover Premiums, Appraisal Rights, and the Price Elasticity of a Firm's Publicly Traded Stock*, 25 GEORGIA LAW REVIEW 783 (1991), co-authored with Susan E. Woodward.

*Corporate Takeovers, the Commerce Clause, and the Efficient Anonymity of Shareholders*, 84 NORTHWESTERN UNIVERSITY LAW REVIEW 1092 (1990), co-authored with Susan E. Woodward.

*Four Faces of the Item Veto: A Reply to Tribe and Kurland*, 84 NORTHWESTERN UNIVERSITY LAW REVIEW 437 (1990), co-authored with Thomas A. Smith.

*The President's Power of the Purse*, 1989 DUKE LAW JOURNAL 1162.

*The Recommendation Clause*, 77 GEORGETOWN LAW JOURNAL 2079 (1989).

*The "New Payola" and the American Record Industry: Transactions Costs and Precautionary Ignorance in Contracts for Illicit Services*, 10 HARVARD JOURNAL OF LAW & PUBLIC POLICY 521 (1987), co-authored with David E. Kronemyer.

*Debunking Predatory Innovation*, 83 COLUMBIA LAW REVIEW 1121 (1983).

*A Framework for Administering the 1916 Antidumping Act: Lessons from Antitrust Economics*, 18 STANFORD JOURNAL OF INTERNATIONAL LAW 377 (1982).

*Antitrust Preliminary Injunctions in Hostile Tender Offers*, 30 KANSAS LAW REVIEW 491 (1982).

*The Deterrent Effect of Antitrust Enforcement*, 89 JOURNAL OF POLITICAL ECONOMY 429 (1981), co-authored with Michael K. Block and Frederick C. Nold.

*Rethinking Antitrust Damages*, 33 STANFORD LAW REVIEW 329 (1981) (student note).

*The Cost of Antitrust Deterrence: Why Not Hang a Price Fixer Now and Then?*, 68 GEORGETOWN LAW JOURNAL 1131 (1980), co-authored with Michael K. Block.

CHAPTERS IN BOOKS

*The Dismal Science of Law*, 1992 PUBLIC INTEREST LAW REVIEW 121 (book review of DANIEL A. FARBER & PHILIP P. FRICKEY, LAW AND PUBLIC CHOICE: A CRITICAL INTRODUCTION (1991)).

*The Economic Perspective on Broadcasting Regulation*, in THE NATIONAL ECONOMISTS CLUB READER 15 (Richard T. Gill ed. 1991).

*Two Factors That Reduce Record Company Profitability*, 1987 ENTERTAINMENT, PUBLISHING AND THE ARTS HANDBOOK 371, co-authored with David E. Kronemyer.

*Risk and Responsibility*, in 1987 ECONOMIC REPORT OF THE PRESIDENT 179, co-authored with Stephen J. DeCanio, Arlene S. Holen, and Susan E. Woodward.

*The Structure and Performance of the U.S. Record Industry*, 1986 ENTERTAINMENT, PUBLISHING AND THE ARTS HANDBOOK 263, co-authored with David E. Kronemyer.

NEWSPAPER AND MAGAZINE ARTICLES

*Should Consumers Pay the "Stranded Costs" of Utility Companies?*, INSIGHT, Nov. 9, 1998, at 24.

*Voters Should Back State's Besieged Law on Retail Competition*, BOSTON SUNDAY HERALD, May 24, 1998, at 25.

*Avoiding America's Regulatory Mistakes in Hong Kong's Telecoms Market*, HONG KONG ECONOMIC JOURNAL, Aug. 29, 1997 (in Cantonese).

*Telecommunications: America's Investment Xenophobia*, JOURNAL OF COMMERCE, Aug. 22 1997, at 8A

*The line-item veto: two views; Next stop: Supreme Court*, JOURNAL OF COMMERCE, Aug. 20, 1997, at 9A.

*Antitrust and the Federal Software Commission*, JOBS & CAPITAL, vol. 6, at 18 (winter 1997).

*Stranded Cost Recovery Benefits Consumers*, REGULATION, 1996 no. 2, at 12 (1996), co-authored with William J. Baumol.

*Let Utilities Recover Stranded Costs*, WALL STREET JOURNAL, June 17, 1996, at A15, co-authored with William J. Baumol.

*Competition and the Postal Service*, THE AMERICAN ENTERPRISE, vol. 7, no. 3, at 74 (May/June 1996).

*When Competition Amounts to Taking*, NATIONAL LAW JOURNAL, Apr. 1, 1996, at A19.

*Post Office Monopoly: Unfair Market Practice*, NATIONAL LAW JOURNAL, Oct. 23, 1995, at A23.

*The Unregulated Infobahn*, JOBS & CAPITAL, vol. 4, at 28 (summer 1995), co-authored with Robert W. Crandall, reprinted in Australia in POLICY, vol. 11, no. 2, at 9 (winter 1995).

*Stranded Cost Recovery: Fair and Reasonable*, PUBLIC UTILITIES FORTNIGHTLY, May 15, 1995, at 20, co-authored with William J. Baumol.

*Telecommunications: Unleashing the Industry*, THE AMERICAN ENTERPRISE, vol. 5, no. 5, at 42 (September/October 1994).

*Don't Stifle Global Merger Mania*, WALL STREET JOURNAL, July 6, 1994, at A18.

*Telecommunications: The Big Picture*, ROLL CALL, June 27, 1994, at 4 (supp.).

*Broadcast News*, THE AMERICAN ENTERPRISE, vol. 3, no. 2, at 70 (March/April 1992).

*The Veto Power: How Free Is the President's Hand?*, THE AMERICAN ENTERPRISE 58, vol. 2, no. 2 (March/April 1991), co-authored with Thomas A. Smith.

*Spending Riders Would Unhorse the Executive*, WALL STREET JOURNAL, November 2, 1989, at A18, col. 3.

*How Congress Erodes the Power of the Presidency: The Appropriations Muzzle*, WALL STREET JOURNAL, February 6, 1989, at A8, col. 3.

*Marketplace Solution to Midair Collisions*, WALL STREET JOURNAL, March 2, 1987, at 20, col. 3.

#### MISCELLANEOUS PUBLICATIONS

*The Economics of Mail Delivery: A Comment*, in GOVERNING THE POSTAL SERVICE 14 (J. Gregory Sidak, ed., AEI Press 1994).

*The Appropriations Power and the Necessary and Proper Clause*, 68 WASHINGTON UNIVERSITY LAW QUARTERLY 651 (1990) (questioner for symposium panel discussion).

#### TESTIMONY, GOVERNMENT REPORTS, AND BRIEFS *AMICUS CURIAE*

Direct Testimony and Cross Examination Testimony of J. Gregory Sidak on behalf of Public Service Company of New Mexico, Application of and Complaint by Residential Electric, Inc. v. Public Service Company of New Mexico, Case No. 2867, Application of Residential Electric, Inc. for a Certificate of Public Convenience and Necessity, Case No. 2868, New Mexico Public Utility Commission (Nov. 17, 1998).

Affidavit of J. Gregory Sidak on behalf of Public Service Company of New Mexico, Application of and Complaint by Residential Electric, Inc. v. Public Service Company of New Mexico, Case No. 2867, Application of Residential Electric, Inc. for a Certificate of Public Convenience and Necessity, Case No. 2868, New Mexico Public Utility Commission (filed Nov. 9, 1998).

Affidavit of Joseph Gregory Sidak on behalf of Hong Kong Telephone Company Limited, *Hong Kong Telephone Company Limited v. Office of the Telecommunications Authority*, High Court of the Hong Kong Special Administrative Region, Court of First Instance (filed Sept. 22, 1998).

Cross Examination Testimony of J. Gregory Sidak on behalf of the Edison Electric Institute in *Public Service Company of New Hampshire v. New Hampshire Electric Cooperative, Inc.*, Federal Energy Regulatory Commission, Dkt. No. EL96-53-002 (Sept. 10, 1998).

Prefiled Direct Testimony of J. Gregory Sidak on behalf of the Edison Electric Institute in *Public Service Company of New Hampshire v. New Hampshire Electric Cooperative, Inc.*, Federal Energy Regulatory Commission, Dkt. No. EL96-53-002 (filed Aug. 27, 1998).

Affidavit of J. Gregory Sidak on behalf of PECO Energy Company, *Omnipoint Corporation v. PECO Energy Company*, Federal Communications Commission, No. PA 97-002 (filed Aug. 5, 1998).

Affidavit of J. Gregory Sidak, appended to comments of the Newspaper Association of America, in 1998 Biennial Regulatory Review—Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996, Notice of Inquiry, Federal Communications Commission, MM Docket No. 98-35 (filed July 21, 1998).

A Report to the Minister for Communications, the Information Economy, and the Arts on the State of Competition in Australian Telecommunications Services One Year after Deregulation (June 30, 1998) (prepared for Telstra Corporation Ltd.)

Affidavit of J. Gregory Sidak, appended to Comments of Telstra Corporation Ltd. in Declaration of Local Telecommunications Services, Australian Competition and Consumer Commission (May 21, 1998).

Opinion of Law Concerning the Commission's Authority to Permit the Acquisition by CanWest Global Communications Corporation of More Than 25 Percent of the Stock of an American Broadcast Licensee, Letter to William E. Kennard, Chairman, Federal Communications Commission (May 11, 1998).

Testimony of J. Gregory Sidak, *Bell Atlantic v. United States*, Case No. 96CV-8657 (E.D. Pa.) (Mar. 18, 1998) (investment tax credit refund litigation).

Deposition of J. Gregory Sidak, *Bell Atlantic v. United States*, Case No. 96CV-8657 (E.D. Pa.) (Mar. 3, 1998) (investment tax credit refund litigation).

Affidavit of J. Gregory Sidak, appended to Comments of the United States Telephone Association in Jurisdictional Separations Reform and Referral to the Federal-State Joint Board, Notice of Proposed Rulemaking, Federal Communications Commission, CC Docket No. 80-286 (filed Dec. 10, 1997), and in Amendment to Uniform System of Accounts for Interconnection, Notice of Proposed Rulemaking, Federal Communications Commission, CC Docket No. 97-212 (filed Dec. 10, 1997).

Cross Examination Testimony of J. Gregory Sidak on behalf of PECO Energy Company, Application of PECO Energy Company for Approval of Its Restructuring Plan Under Section 2806 of the Public Utility Code, Regarding the Enron Choice Plan, Pennsylvania Public Utility Commission, Dkt. Nos. R-00973953, P-00971265 (Nov. 17, 1997).

Prefiled Testimony of J. Gregory Sidak, Application of PECO Energy Company for Approval of Its Restructuring Plan Under Section 2806 of the Public Utility Code, Regarding the Enron Choice Plan, Pennsylvania Public Utility Commission, Dkt. Nos. R-00973953, P-00971265 (filed Nov. 7, 1997).

Prefiled Testimony of J. Gregory Sidak on behalf of El Paso Electric Company, City of Las Cruces, New Mexico, Federal Energy Regulatory Commission, Dkt. No. SC97-2-000 (filed Oct. 3, 1997).

Reply Comments of J. Gregory Sidak, Rules and Policies on Foreign Participation in the U.S. Telecommunications Market, Order and Notice of Proposed Rulemaking, Federal Communications Commission, IB Dkt. No. 97-142 (filed Aug. 11, 1997).

Prefiled Rebuttal Testimony of J. Gregory Sidak, Regarding an Economic Analysis of the Appropriate Standard of Conduct That Should Govern the Relationship Between PECO's Regulated Wire Business and Its Competitive, Unregulated Generation and Other Businesses and An Economic and Constitutional Analysis of the Justness and Reasonableness of PECO's Full Recovery of Its Stranded Costs, Application of PECO Energy Company for Approval of Its Restructuring Plan Under Section 2806 of the Public Utility Code, Dkt. No. R-00973953, Pennsylvania Public Utility Commission (filed July 18, 1997).

Statement of J. Gregory Sidak on behalf of Hong Kong Telephone Company Concerning Interconnect Access Charging Principles, Submission on the Hong Kong Local Interconnect Charging Regime, OFTA Review of Statement No. 7, Carrier-to-Carrier Charging, Office of Telecommunications Authority, Hong Kong (filed May 13, 1997).

*Hearings on H.R. 22, The Postal Reform Act of 1997*, Subcommittee on the Postal Service of the House Committee on Government Reform and Oversight, 105th Congress, 1st Session (Apr. 16, 1997).

Prefiled Testimony of J. Gregory Sidak, Regarding an Economic and Constitutional Analysis of the Justness and Reasonableness of PECO's Full Recovery of Its Stranded Costs, Application of PECO Energy Company for Approval of Its Restructuring Plan Under Section 2806 of the Public Utility Code, Dkt. No. R-00973953, Pennsylvania Public Utility Commission (filed Mar. 26, 1997).

Affidavit of J. Gregory Sidak and Daniel F. Spulber, appended to Comments of the United States Telephone Association *in* Usage of the Public Switched Network by Information Service and Internet Access Providers, Notice of Inquiry, Federal Communications Commission, CC Dkt. No. 96-263 (filed Mar. 24, 1997).

Reply Affidavit of J. Gregory Sidak and Daniel F. Spulber, appended to Reply Comments of the United States Telephone Association *in* Access Charge Reform; Price Cap Performance Review for Local Exchange Carriers; Transport Rate Structure and Pricing; Usage of the Public Switched Network by Information Service and Internet Access Providers, Notice of Proposed Rulemaking, Third Report and Order, and Notice of Inquiry, Federal Communications Commission, CC Dkt. Nos. 96-262, 94-1, 91-213, 96-263 (filed Feb. 14, 1997).

Affidavit of J. Gregory Sidak and Daniel F. Spulber, appended to Comments of the United States Telephone Association *in* Access Charge Reform; Price Cap Performance Review for Local Exchange Carriers; Transport Rate Structure and Pricing; Usage of the Public Switched Network by Information Service and Internet Access Providers, Notice of Proposed Rulemaking, Third Report and Order, and Notice of Inquiry, Federal Communications Commission, CC Dkt. Nos. 96-262, 94-1, 91-213, 96-263 (filed Jan. 29, 1997).

Testimony of J. Gregory Sidak on behalf of GTE South Inc., Petition of AT&T Communications of the South Central States, Inc., for Arbitration of Certain Terms and Conditions of a Proposed Agreement with GTE South Inc. Concerning Interconnection and Resale Under the Telecommunications Act of 1996, Case No. 96-478, Public Service Commission of Kentucky (Jan. 14, 1997).

Cross Examination Testimony of J. Gregory Sidak on behalf of GTE North Inc., *In the Matter of Sprint Communications Company L.P.'s* Petition for Arbitration of Interconnection Rates, Terms, Conditions and Related Arrangements with GTE North Inc., Case No. 96-10210-TP-ARB, Public Utilities Commission of Ohio (Nov. 21, 1996).

Testimony of J. Gregory Sidak on behalf of GTE South Inc., Petition of MCI, Public Service Commission of Kentucky (Nov. 12, 1996).

Direct Testimony of J. Gregory Sidak on behalf of GTE North Inc., Petition of Sprint, Public Utilities Commission of Pennsylvania (Nov. 7, 1996).

Direct Testimony of J. Gregory Sidak on behalf of GTE Midwest Inc., Petition of MCI, Public Utilities Commission of Indiana (Nov. 1, 1996).

Direct Testimony of J. Gregory Sidak on behalf of GTE Midwest Inc., *AT&T Communications of the Midwest Inc. v. GTE Midwest Inc.*, Iowa Utilities Board, Dkt. No. ARB-96-3 (Oct. 15, 1996).

Direct Testimony of J. Gregory Sidak on behalf of GTE North Inc., Petition of AT&T, Public Utilities Commission of Pennsylvania (filed Sept. 9, 1996).

Affidavit of J. Gregory Sidak, appended to Memorandum of Law in Support of Petition of the Energy Association of New York State in *Energy Association of New York State v. Public Service Commission of the State of New York*, Index No. 5830-96 (filed Supreme Ct. N.Y., County of Albany, Sept. 18, 1996).

Rebuttal Testimony of J. Gregory Sidak on behalf of Central Power and Light Company in Application of Central Power and Light Company for Authority to Change Rates, Competitive Issues Phase, Public Utility Commission of Texas, SOAH Dkt. No. 473-95-1563, PUCT Dkt No. 14965 (filed Aug. 1, 1996).

Reply Affidavit of J. Gregory Sidak, appended to Reply Comments of the United States Telephone Association in Allocation of Costs Associated with Local Exchange Carrier Provision of Video Programming Services, Federal Communications Commission, CC Dkt. No. 96-112 (filed June 12, 1996).

Affidavit of J. Gregory Sidak, appended to Comments of the United States Telephone Association in Allocation of Costs Associated with Local Exchange Carrier Provision of Video Programming Services, Federal Communications Commission, CC Dkt. No. 96-112 (filed May 31, 1996).

Affidavit of Michael J. Doane, J. Gregory Sidak, and Daniel F. Spulber, appended to Reply Comments of GTE Service Corporation in Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Federal Communications Commission, CC Dkt. No. 96-98 (filed May 30, 1996).

*An Empirical Analysis of the Efficient Component-Pricing Rule and Sections 251 and 252 of the Telecommunications Act of 1996*, appended to Comments of GTE Service Corporation in Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Federal Communications Commission, CC Dkt. No. 96-98 (filed May 16, 1996), co-authored with Michael J. Doane and Daniel F. Spulber.

*Technological, Environmental and Financial Issues Raised by Increasingly Competitive Electricity Markets, Hearings before the Subcommittee on Energy and Power of the House Committee on Commerce*, 104th Congress, 2d Session (Mar. 28, 1996).

*Monopoly and the Mandate of Canada Post*, in Submission of the Director of Investigation and Research, Competition Bureau, to Canada Post Corporation Mandate Review Committee (Ottawa, Feb. 15, 1996).

Reply Comments of J. Gregory Sidak, Market Entry and Regulation of Foreign-affiliated Entities, Notice of Proposed Rulemaking, Federal Communications Commission, IB Dkt. No. 95-22 (filed May 12, 1995).

Comments of J. Gregory Sidak, Market Entry and Regulation of Foreign-affiliated Entities, Notice of Proposed Rulemaking, Federal Communications Commission, IB Dkt. No. 95-22 (filed Apr. 11, 1995).

*The Line-Item Veto Amendment: Hearings before the Subcommittee on the Constitution of the Senate Judiciary Committee*, 104th Congress, 1st Session (Jan. 24, 1995).

*Competition and Regulatory Policies for Interactive Broadband Networks*, in *Competition Policy, Regulation and the Information Economy: Submission of the Director of Investigation and Research, Bureau of Competition Policy, to the Canadian Radio-television and Telecommunications Commission, Public Notice CRTC 1994-130, Order in Council P.C. 1994-1689* (Ottawa, Jan. 16, 1995), co-authored with Robert W. Crandall.

*Line Item Veto: The President's Constitutional Authority: Hearing before the Subcommittee on the Constitution of the Senate Judiciary Committee*, 103d Congress, 2d Session (June 15, 1994).

Brief of *Amicus Curiae* J. Gregory Sidak, *Association of American Physicians and Surgeons, Inc. v. Hillary Rodham Clinton*, 997 F.2d 898 (D.C. Cir. 1993), filed Apr. 5, 1993.

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Talk is Cheap: The Promise Of Regulatory Reform in North American Telecommunications. (with Leonard Waverman) Washington: The Brookings Institution, 1996.

The Extra Mile: Rethinking Energy Policy for Automotive Transportation. (with Pietro S. Nivola) Washington, DC: The Brookings Institution/Twentieth Century Fund, 1995.

Manufacturing on the Move. Washington, DC: The Brookings Institution, 1993.

After the Breakup: The U.S. Telecommunications Industry in a More Competitive Era. Washington, DC: The Brookings Institution, 1991.

Changing the Rules: Technological Change, International Competition and Regulation in Communications. (Edited with Kenneth Flamm), Washington, DC: The Brookings Institution, 1989.

Up from the Ashes: The U.S. Minimill Steel Industry. (With Donald F. Barnett), Washington, DC: The Brookings Institution, 1986.

Regulating the Automobile. (With Howard K. Gruenspecht, Theodore E. Keeler, and Lester B. Lave), Washington, DC: The Brookings Institution, 1986.

Controlling Industrial Pollution: The Economics and Politics of Clean Air. Washington, DC: The Brookings Institution, 1983.

The Scientific Basis of Health and Safety Regulation. (Ed. with Lester Lave), Washington, DC: The Brookings Institution, 1981.

The U.S. Steel Industry in Recurrent Crisis. Washington, DC: The Brookings Institution, 1981.

**Articles, Reports, and Contributions to Edited Volumes:**

“Telephone Subsidies, Income Redistribution, and Economic Welfare,” in Roger G. Noll and Monroe E. Price, A Communications Cornucopia: Markle Foundation Essays on Information Policy. Washington: The Brookings Institution, 1998.

“Electric Restructuring and Consumer Interests: Lessons from Other Industries,” The Electricity Journal, Volume 11, No. 1, January/February 1998.

“Is it Time to Eliminate Telephone Regulation?” in Donald L. Alexander (ed.), Telecommunications Policy: Have Regulators Dialed the Wrong Number?, Westport, CT: Praeger, 1997, pp. 17-30.

“Competition and Regulation in the U.S. Video Market,” Telecommunications Policy, Vol. 21, No. 7, 1997, pp. 649-660.

“Are We Deregulating Telephone Services? Think Again.” Brookings Policy Brief, Number 13, March 1997

“Are Telecommunications Facilities ‘Infrastructure?’ If They Are, So What? Regional Science and Urban Economics, 27 (1997), pp. 161-79.

“Economic Deregulation and Customer Choice: Lessons for the Electric Utility Industry,” (with Jerry Ellig), Center for Market Processes, George Mason University, 1997.

“From Competitiveness to Competition: The Threat of Minimills to Large National Steel Companies,” Resources Policy, Vol. 22, Nos. 1/2, March/June 1996, pp.107-118.

“Clearing the Air: EPA’s Self-Assessment of Clean-Air Policy,” (with Frederick H. Rueter and Wilbur A. Steger), Regulation, 1996, Number 4, pp. 35-46.

- "Phone Rates in a Deregulated Market," The Brookings Review, Summer 1996.
- "Competition and Regulatory Policies for Interactive Broadband Networks," (with J. Gregory Sidak), Southern California Law Review, July 1995.
- "The Unregulated Infobahn," (with J. Gregory Sidak), Policy (New Zealand), Winter 1995.
- "Managing the Transition to Deregulation in Telecommunications," in Steven Gliberman, W.T. Stanbury, and Thomas A. Wilson (eds.), The Future of Telecommunications Policy in Canada. University of British Columbia and the University of Toronto, 1995.
- "Productivity Growth in the Telephone Industry Since 1984," (with Jonathan Galst) in Patrick Harker (ed.), The Service Productivity and Quality Challenge, Dodrecht: Kluwer Academic Publishers, 1995, Chapter 14.
- "Cable Television: Reinventing Regulation," The Brookings Review, Winter 1994, pp. 12-15.
- "Explaining Regulatory Policy" (with Clifford Winston), Brookings Papers on Economic Activity, Microeconomics, 1994, pp. 1-31.
- "Pricing Issues in Telecommunications," Maine Policy Review, Vol. 3, No. 1, May 1994.
- "Regulation and the "Rights" Revolution: Can (Should) We Rescue the New Deal?" Critical Review, Vol. 7 Nos. 2-3, 1993, pp. 193-204.
- "Comment: Transactions Prices," Price Measurement and Their Uses, (Murray F. Foss, Marilyn E. Manser, and Allan H. Young, eds.), University of Chicago Press, 1993.
- "Pollution Controls" in David R. Henderson (ed.), The Fortune Encyclopedia of Economics, New York: Warner Books, 1993.
- "Relaxing the Regulatory Stranglehold on Communications," Regulation, Summer 1992, pp. 26-35.
- "Regulating Communications: Creating Monopoly While Protecting Us From It," The Brookings Review, Summer 1992, Volume 10, No. 3, pp. 34-39.
- "Policy Watch: Corporate Average Fuel Economy Standards," Journal of Economic Perspectives, Spring 1992, pp. 171-80.
- "Why Is the Cost of Environmental Regulation So High?" Center for the Study of American Business. St. Louis: Washington University, Policy Study No. 110, February 1992.

"Liberalization Without Deregulation: Telecommunications Policy During the 1980s," Contemporary Policy Issues, October 1991.

"Halfway Home: U.S. Telecommunications (De)Regulation in the 1970s and 1980s," in Jack High (ed.), Regulation: Economic Theory and History. Ann Arbor: The University of Michigan Press, 1991.

"Efficiency and Productivity," in Barry G. Cole (ed.), After the Breakup: Assessing the New Post-AT&T Divestiture Era. New York: Columbia University Press, 1991.

"The Politics of Energy: New Fuel Economy Standards?" (with John D. Graham), The American Enterprise, March/April 1991.

"The Clean Air Act at Twenty," Journal of Regulation and Social Costs, September 1990.

"Fragmentation of the Telephone Network" in Paula Newberg (ed.), New Directions in Telecommunications Policy. Durham, NC: Duke University Press, 1989.

"The Effect of Fuel Economy Standards on Automobile Safety," (with John D. Graham), Journal of Law and Economics, April 1989.

"Surprises from Telephone Deregulation and the AT&T Divestiture," American Economic Review, May 1988, pp. 323-327.

"The Regional Shift of U.S. Economic Activity" in Robert E. Litan, et al., American Living Standards, Washington, DC: The Brookings Institution, 1988.

"Deregulation and Divestiture in the U.S. Telecommunications Sector" in Economic Deregulation: Promise and Performance. Proceedings of the 1987 Donald S. MacNaughton Symposium, Syracuse University, 1988.

"Whatever Happened to Deregulation?" in David Boaz (ed.), Assessing the Reagan Years. Washington, DC: The CATO Institute, 1988.

"Regulatory Reform: Are We Ready for the Next Phase?" in The Brookings Review, The Brookings Institution, Winter 1988/89.

"Telecommunications Policy in the Reagan Era," Regulation, Washington, DC: American Enterprise Institute, 1988, Number 3, pp. 18-19.

"A Sectoral Perspective: Steel" in Robert M. Stern, et.al. (eds.), Perspectives on a U.S.-Canadian Free Trade Agreement, Washington, DC: The Brookings Institution, 1987.

"The Effects of U.S. Trade Protection for Autos and Steel," Brookings Papers on Economic Activity, 1987:2, The Brookings Institution.

"Has the AT&T Breakup Raised Telephone Rates?" in The Brookings Review, Winter 1987.

"Public Policy and the Private Auto," (with Theodore E. Keeler) in Gordon, et.al. (eds.), Energy: Markets and Regulation, Essays in Honor of M.A. Adelman. Cambridge, MA: MIT Press, 1986

"Materials Economics, Policy, and Management: An Overview," with Michael B. Bever, in Encyclopedia of Materials Science and Engineering, Pergamon Press, 1986.

"Metals Industries: International Structure," in Encyclopedia of Materials Science and Engineering, Pergamon Press, 1986.

"The Steel Industry in Transition," Materials and Society, Pergamon Journals Ltd., Vol. 10, No. 2, 1986.

"The Public Interest in Metals Policy," in David A. Gulley and Paul Duby (eds.), The Changing World Metals Industries. New York: Gordon and Breach, 1986.

"Economic Rents as a Barrier to Deregulation," The CATO Journal, Spring/Summer 1986.

"The Transformation of U.S. Manufacturing," Industrial Relations, Spring 1986. "Investment and Productivity Growth in the Steel Industry: Some Implications for Industrial Policy," in Walter H. Goldberg, Ailing Steel: The Transoceanic Quarrel, Gower, 1986.

"The EC-US Steel Trade Crisis," in Loukas Tsoukalis (ed.), Europe, America, and the World Economy, Oxford: Basil Blackwell, 1986.

"Why Should We Regulate Fuel Economy at All?" in The Brookings Review, Spring 1985.

"An Acid Test for Congress," Regulation, September/December 1984.

"Import Quotas and the Automobile Industry: The Costs of Protectionism," The Brookings Review, Summer 1984.

"Automobile Safety Regulation and Offsetting Behavior: Some New Empirical Estimates," (with John D. Graham), American Economic Review, Papers and Proceedings, May 1984.

"The Political Economy of Clean Air: Practical Constraints on White House Review," in V. Kerry Smith, Environmental Policy Under Reagan's Executive Order: The Role of Benefit-Cost Analysis, University of North Carolina Press, 1984.

"The Marketplace: Economic Implications of Divestiture," (with Bruce M. Owen), in Harry M. Shooshan III, Discounting Bell: The Impact of the AT&T Divestiture, Pergamon Press, 1984.

"Environmental Policy in the Reagan Administration," (with Paul R. Portney), in Paul R. Portney (ed.), Natural Resources and the Environment: The Reagan Approach, The Urban Institute and Resources for the Future, 1984.

"The Emerging Competition in the U.S. Telecommunications Market" in New Opportunities for Entrepreneurship, The Kiel Institute, 1984.

"Deregulation: The U.S. Experience," Zeitschrift fur die gesamte Staatswissenschaft, October 1983, pp. 419 - 434.

Review of John Zysman and Laura Tyson, American Industry in International Competition, Science, Vol. 222, October 21, 1983.

"Air Pollution, Environmentalists, and Coal Lobby," in Roger G. Noll and Bruce M. Owen (eds.), The Political Economy of Deregulation, American Enterprise Institute, 1983.

"The Use of Environmental Policy to Reduce Economic Growth in the Sun Belt: The Role of Electric-Utility Rates" in Michael A. Crew (ed.), Regulatory Reform and Public Utilities, Lexington Books, 1982.

"The Cost of Automobile Safety and Emissions Regulation to the Consumer: Some Preliminary Results," (with Theodore E. Keeler and Lester B. Lave), American Economic Review, May 1982.

"Environmental Policy," Regulation, March/April 1982.

"Has Reagan Dropped the Ball?" in Regulation, November/December 1981.

"The Use of Cost-Benefit Analysis in Regulatory Decision-Making," Annals New York Academy of Sciences, 1981. "The Deregulation of Cable Television," (with Stanley M. Besen), Law and Contemporary Problems, Duke University School of Law, Vol. 44, No. 1, Winter 1981.

"The Impossibility of Finding a Mechanism to Ration Health Care Resources Efficiently" in A New Approach to the Economics of Health Care, Mancur Olson (ed.), American Enterprise Institute for Public Policy Research, 1981.

"Pollution Controls and Productivity Growth in Basic Industries" in Productivity Measurement in Regulated Industries, Academic Press, 1981.

"Where is the Public Interest in Broadcasting Regulation?" in Regulation and the Future Economic Environment-Air to Ground, Charles F. Phillips, Jr. (ed.), December 1980.

"The Environmental Protection Agency," (On Saving the Kingdom: Advice for the President-Elect), Regulation, November/December 1980.

"Steel Imports: Dumping or Competition?" in Regulation, July/August 1980.

"Regulation and Productivity Growth" in Proceedings: Conference on Productivity, Federal Reserve Bank of Boston, Martha's Vineyard, June 1980.

"The Prospects for Regulatory Reform," Government Regulation: New Perspectives, Andrew Blair, ed., Pittsburgh: University of Pittsburgh, 1980.

"The Economics of the Current Steel Crisis in OECD Member Countries" in Steel in the 80's, Organisation for Economic Co-operation and Development, Paris, 1980.

"Environmental Control Is Out of Control," Chemical and Engineering News, Vol. 57, April 23, 1979.

"Paying for Government Policy Through the Price Level" in Clarence C. Walton (ed.), Inflation and National Survival, 1979.

"Is Government Regulation Crippling Business?" in Saturday Review, January 20, 1979.

"Federal Government Initiatives to Reduce the Price Level," Brookings Papers on Economic Activity, 1978:2.

"Competition and 'Dumping' in the U.S. Steel Market," Challenge, July/August 1978.

"Regulation of Television Broadcasting: How Costly is the 'Public Interest'?" in Regulation, January/February 1978.

"Placing a Value on the Electromagnetic Spectrum: A Suggested Approach for FCC Decision-Making," Proceedings of the Conference on Telecommunications Policy Research, Airlie House, 1977.

"Theoretical Issues in the Regulation of Communications Common Carriage" in Rate of Return Regulation, FCC Future Planning Conference, July 1976.

"The Postwar Performance of the Motion Picture Industry," The Antitrust Bulletin, Spring 1975.

"An Econometric Model of the Low-Skill Labor Market," (with C.D. MacRae and Lorene Y.L. Yap), The Journal of Human Resources, Winter 1975.

"The Economic Case for a Fourth Commercial Television Network," Public Policy, Harvard University Press, Fall 1974.

"The Profitability of Cable Television: An Analysis of Acquisition Prices," The Journal of Business, University of Chicago, October 1974.

"A Reexamination of the Prophecy of Doom for Cable Television," (with Lionel L. Fray), The Bell Journal of Economics and Management Science, Spring 1974.

"Monopoly," The Dictionary of American History, Charles Scribner's & Sons, 1973.

"FCC Regulation, Monopsony, and Network Television Program Costs," The Bell Journal of Economics and Management Science, Autumn 1972.

Study Guide for Basic Economics (with R.S. Eckaus), Little, Brown and Company, 1972.

Contemporary Issues in Economics: Selected Readings (with R.S. Eckaus), Little, Brown and Company, 1972.

"Economic Subsidies in the Urban Ghetto," (with C.D. MacRae), Social Science Quarterly, December 1971.

"The Economic Effect of Television-Network Program 'Ownership'," The Journal of Law and Economics, Vol. XIV, October 1971.

"The Decline of the Franchised Dealer in the Automobile Industry," The Journal of Business, University of Chicago, January 1970.

"Motor Vehicle Repair, Repair-Parts Production, and the Franchised Vehicle Dealer," Hearings: The Automobile Industry, U.S. Senate Antitrust Subcommittee of the Committee on the Judiciary, 1969.

"Vertical Integration and the Market for Repair Parts in the United States Automobile Industry," The Journal of Industrial Economics, Oxford: Basil Blackwell, July 1968.