

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

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**In the Matter of** )  
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**1998 Biennial Regulatory Review --** ) **CC Docket No. 98-137**  
**Review of Depreciation Requirements** )  
**for Incumbent Local Exchange Carriers** )

**MOTION TO ACCEPT LATE-FILED PLEADING**

Pursuant to Section 1.41 of the Commission's rules,<sup>1</sup> the United States Telephone Association (USTA) hereby requests that the Commission accept its comments on the Notice of Proposed Rulemaking in the above-captioned proceeding one day late. USTA is the principal trade association of the incumbent local exchange carrier (ILEC) industry and its position and analysis of the important issues raised in the Commission's Notice will benefit the Commission's decision-making process.

Good cause exists for a grant of this motion. The Notice provides that comments can be filed through the Commission's Electronic Comment Filing System (ECFS). This is how USTA planned to file its comments. However, when attempts were made to file the comments electronically, we were unable to do so because the above-captioned docket was not listed in the ECFS as a recognized proceeding for electronic filing. Since it was beyond the deadline for filing paper copies, this request is being filed accompanied by the comments. In addition, no

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<sup>1</sup>47 C.F.R. §1.41.

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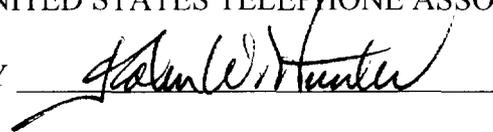
harm should be caused to the Commission or any of the parties to this proceeding, since USTA's comments will be available today.

USTA requests that the Commission grant its request and accept its comments in the above-captioned proceeding.

Respectfully submitted,

UNITED STATES TELEPHONE ASSOCIATION

BY



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November 24, 1998

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
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**In the Matter of** )  
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**1998 Biennial Regulatory Review --** ) **CC Docket No. 98-137**  
**Review of Depreciation Requirements** )  
**for Incumbent Local Exchange Carriers** )

**COMMENTS  
OF THE  
UNITED STATES TELEPHONE ASSOCIATION**

The United States Telephone Association (USTA) hereby files its comments on the Notice of Proposed Rulemaking in the above-captioned proceeding.<sup>1</sup> USTA is the principal trade association of the incumbent local exchange carrier (ILEC) industry. Its member telephone companies provide over 95 percent of the incumbent LEC-provided access lines in the United States.

As part of the Commission's biennial regulatory review mandated by Section 11 of the Communications Act of 1934, as amended,<sup>2</sup> the Commission is reviewing certain aspects of its depreciation prescription process. In the Notice, the Commission tentatively concludes that the elimination of depreciation regulation is not justified. However, the Commission identifies a number of elements of depreciation regulation that it tentatively concludes should be eliminated and that comprise the totality of unnecessary requirements. Specifically, the Commission seeks

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<sup>1</sup>FCC 98-170, released October 14, 1998 (Notice).

<sup>2</sup>47 U.S.C. § 161.

comment on the conditions under which carriers could set their own depreciation rates without “compromising” its oversight. The specific elements of current depreciation requirements that the Commission proposes to eliminate as unnecessary involve: the reduction of the amount of supporting documentation and elimination of the prescription of depreciation rates for ILECs if the carrier uses depreciation factors that are within the ranges adopted by the Commission; the expansion of the prescribed range for the digital switching plant account; and the elimination of salvage from the depreciation process.

**I. Comprehensive Reform of Depreciation Regulations is Essential.**

USTA is vitally interested in reform of depreciation regulation. In fact, USTA filed a petition for forbearance from regulating the depreciation and amortization practices of local exchange carriers subject to price cap regulation on September 21, 1998 in WT Docket No. 96-198 (USTA Forbearance Petition). Specifically, USTA asked for forbearance from the depreciation accounting and reporting provisions of Sections 32.2000(g) and (h) and 43.43 of the Commission’s Rules<sup>3</sup> and from conducting depreciation prescription proceedings pursuant to Section 220(b) of the Act.<sup>4</sup> In its Forbearance Petition, USTA demonstrated how reform of depreciation regulation is in the public interest by promoting competition, improving the efficiency of the price cap carriers, and eliminating unnecessary regulation. The petition also showed that continued depreciation regulation is not needed to protect consumers, but rather harms consumers by imposing unnecessary administrative burdens and costs on the subject

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<sup>3</sup>47 C.F.R. §§ 32.2000(g) and (h), 43.43.

<sup>4</sup>47 U.S.C. § 220(b).

carriers. In addition, USTA demonstrated that depreciation regulation is not necessary to ensure that price cap carriers' charges, practices, classifications, regulations or other activities are just and reasonable or not unjustly or unreasonably discriminatory.

USTA sought similar relief in other proceedings that remain pending before the Commission. In its comments in the 1998 Biennial Review--Review of Accounting and Cost Allocatin Requirements proceeding filed July 17, 1998,<sup>5</sup> USTA urged the Commission to eliminate the current accounting rules in Part 32 of the rules<sup>6</sup> and permit carriers to rely on Generally Accepted Accounting Principles (GAAP). USTA also proposed a transition method and specified that grant of its request would relieve ILECs from onerous regulations that only they must adhere to and that would place them on more equitable grounds in a competitive marketplace. USTA sought similar relief in its Petition for Rulemaking in the 1998 Biennial Regulatory Review filed on September 30, 1998, in which it also urged the Commission to engage in a comprehensive review of all its regulations pursuant to Section 11 of the Act.

In its petitions and comments, USTA has demonstrated that a critical need exists for the Commission to enact serious depreciation reform. The justification for this position is further substantiated in the Affidavit of William A. Taylor, Ph.D., Senior Vice President of National Economic Research Associates, Inc. and Aniruddha Banerjee, Ph.D., Senior Consultant to NERA, included as Attachment A hereto (Taylor Affidavit). The tentative conclusions in the

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<sup>5</sup>1998 Biennial Regulatory Review--Review of Accounting and Cost Allocatin Requirements, CC Docket No. 98-81, and United States Telephone Association Petition for Rulemaking, ASD File No. 98-64, FCC 98-108.

<sup>6</sup>47 C.F.R. Part 32.

Notice to not eliminate depreciation regulation but to focus only on selected depreciation prescription requirements and retain all others are woefully inadequate and unjustified.

Significant depreciation reform is essential now in order for the Commission's regulations to comport with the obligations set forth in Section 11 of the Act to develop efficient competition by opening all telecommunications markets through a procompetitive, deregulatory national policy framework and to remove regulations that are no longer necessary.

Depreciation reform is necessary because the requirements of complying with the current regulations far exceed any benefits to the public. Depreciation regulation has largely been based on historical, backward-looking analysis that is no longer relevant to the competitive investment decisions being made today by the ILECs. Furthermore, while many of the proposals in the Notice would lessen the administrative burdens on the Commission, they would not appreciably reduce the burdens for ILECs. In fact, ILECs would be required to retain most of the voluminous records, calculations, and work papers to support their Commission filings. The initiatives undertaken by the Commission in the Notice are inadequate to enact meaningful depreciation reform.

## **II. Depreciation Regulation Should be Eliminated for Price Cap Carriers.**

For the reasons stated above and in the cited pleadings, USTA has fully demonstrated that depreciation regulation is unnecessary and inappropriate for ILECs subject to price cap

regulation. Furthermore, BellSouth Corporation<sup>7</sup> and SBC Communications<sup>8</sup> have made similar proposals for depreciation reform that contain substantiation for such relief. Forbearance from depreciation regulation, as proposed by USTA, is consistent with removal of such regulations as part of the biennial review process.

Beyond this overall substantiation for forbearance from depreciation regulation, the areas of concern raised in the Notice regarding price caps, universal service and interconnection as specific reasons for continued adherence to outmoded depreciation rules<sup>9</sup> are readily dismissed. As shown by the Taylor Affidavit, forbearance from depreciation has no detrimental effect in any of these areas of concern. Dr. Taylor concludes that the adverse impacts of forbearance expected by the Commission would either not materialize or be *de minimis*.

The Commission's concern over the effect of changes in depreciation that may be caused by forbearance is unfounded. The affidavit of Frank Gollop, Ph.D., Professor at Boston College, included as Attachment B hereto (Gollop Affidavit), concludes that the calculation of the productivity factor using the FCC's productivity factor model is not affected by changes in depreciation rates. The Gollop Affidavit shows the results of Dr. Gollop's sensitivity analysis of the productivity factor to depreciation rate changes. As stated in the Gollop Affidavit, changes in depreciation rates have no effect on the productivity factor.

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<sup>7</sup>Presentation from Kathleen B. Levitz, BellSouth to Ruth Milkman, FCC (April 8, 1998). See also Notice ¶8.

<sup>8</sup>Petition for Section 11 Biennial Review, filed May 8, 1998. See also Notice ¶2, n.4, ¶¶10 and 19.

<sup>9</sup>Notice ¶6.

One final concern raised by the Commission is that depreciation may play a role in a takings claim under the Fifth Amendment of the U.S. Constitution.<sup>10</sup> Elimination of depreciation regulation would transfer to the ILECs' control over and responsibility for their capital recovery programs going forward from implementation, thereby removing one aspect of federal government involvement in ratemaking. This would narrow the analysis of the takings issue, since it would limit the potential for Commission action to take private property without just compensation.

### **III. Conclusion**

The Commission has before it in numerous pending proceedings full and persuasive justification for elimination of the depreciation regulations found in Part 32 of the rules. Those arguments are now before the Commission again in this proceeding and speak forcibly for forbearance from the antiquated depreciation rules, rather than the timid and inadequate proposal advanced in the Notice. The Commission should recognize that depreciation regulation is a relic of the days before competition in the telecommunications industry that must be removed so that price cap ILECs can compete on a fair and economically efficient basis. Furthermore, the Commission should not wait to grant forbearance relief for some artificial threshold for competition to be achieved. Such a delay only reduces an ILEC's incentives to continue to invest in efficient assets, which will ultimately have an adverse impact on consumers. Finally, forbearance will have little or no impact on the price parameters or the pricing of interconnection and unbundled network elements raised by the Commission.

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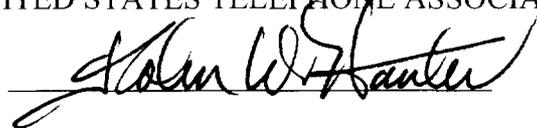
<sup>10</sup>*Id.*

The Commission should institute forbearance from depreciation regulation of price cap local exchange carriers immediately, rather than institute the measures proposed in the Notice that will do little to remove the extraordinary burdens on ILECs that are imposed by depreciation rules.

Respectfully submitted,

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November 23, 1998

# **ATTACHMENT A**

**BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION**

**IN THE MATTER OF**

**1998 BIENNIAL REGULATORY REVIEW —  
REVIEW OF DEPRECIATION REQUIREMENTS  
FOR INCUMBENT LOCAL EXCHANGE CARRIERS**

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**CC DOCKET NO. 98-137**

**AFFIDAVIT OF**

**WILLIAM E. TAYLOR, Ph.D., AND ANIRUDDHA BANERJEE, Ph.D.**

**ON BEHALF OF**

**UNITED STATES TELEPHONE ASSOCIATION**

**NOVEMBER 23, 1998**

**AFFIDAVIT OF  
WILLIAM E. TAYLOR, Ph.D., AND ANIRUDDHA BANERJEE, Ph.D.**

**CC DOCKET NO. 98-137**

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**AFFIDAVIT OF WILLIAM E. TAYLOR, PH.D., AND ANIRUDDHA BANERJEE, PH.D.**  
**CC DOCKET NO. 98-137**  
**NOVEMBER 23, 1998**

**I. INTRODUCTION**

**William E. Taylor**

I am Senior Vice President of National Economic Research Associates, Inc. (NERA), head of its telecommunications economics practice and head of its Cambridge office. I received a B.A. degree in economics, *magna cum laude*, from Harvard College in 1968, a master's degree in statistics from the University of California at Berkeley in 1970, and a Ph.D. in Economics from Berkeley in 1974, specializing in industrial organization and econometrics. I have taught and published research in the areas of microeconomics, theoretical and applied econometrics, and telecommunications policy at academic institutions (including the economics departments of Cornell University, the Catholic University of Louvain in Belgium, and the Massachusetts Institute of Technology) and at research organizations in the telecommunications industry (including Bell Laboratories and Bell Communications Research, Inc.). I have participated in telecommunications regulatory, legislative and judicial proceedings before state public service commissions, the Federal Communications Commission ("FCC"), the Canadian Radio-Television and Telecommunications Commission, federal and state congressional committees and state and federal courts concerning access charges, competition, incentive regulation, productivity growth, telecommunications mergers and pricing for economic efficiency. I have appeared as a telecommunications commentator on The News Hour with Jim Lehrer. My research has appeared in numerous telecommunications industry publications as well as *Econometrica*, the *American Economic Review*, the *International Economic Review*, the *Journal of Econometrics*, *Econometric Reviews*, the *Antitrust Law Journal*, *The Journal of Regulatory Economics*, *The Review of Industrial Organization*, and *The Encyclopedia of Statistical Sciences*. I have served as a referee for these journals (and

others) and the National Science Foundation and as an Associate Editor of the *Journal of Econometrics*.

**Aniruddha Banerjee**

I am a Senior Consultant in the Cambridge office of National Economic Research Associates, Inc. I received my B.A. and M.A. degrees in Economics from the University of Delhi, India, and a Ph.D. in Agricultural Economics from the Pennsylvania State University in 1985. I have taught undergraduate and graduate courses in economic theory, industrial organization, public finance, statistics and econometrics at the Pennsylvania State University and done research in applied economics. Prior to my present position, I was, in succession, an economist in AT&T's Market Analysis and Forecasting group, a Member of Technical Staff at Bell Communications Research, and a Research Economist at BellSouth Telecommunications. I have considerable experience with telecommunications industry issues such as local and long distance competition, demand, cost models, price cap regulation, interconnection and unbundling, universal service, local exchange service pricing, and other issues spawned by the Telecommunications Act of 1996. I have testified before State commissions on some of these issues and made frequent presentations on telecommunications topics at various forums.

We have been asked by the United States Telephone Association ("USTA") to comment on the economic issues raised in the Federal Communication Commission's ("Commission's") *Notice of Proposed Rulemaking* ("NPRM"), released on October 14, 1998, which seeks input on the Commission's proposal to modify the manner in which interstate depreciation parameters are currently set for incumbent local exchange carriers ("ILECs").<sup>1</sup> In particular, the Commission proposes to:

... reduce or streamline further our depreciation prescription process by permitting summary filings and eliminating the prescription of depreciation rates for incumbent LECs, provided that the carrier uses depreciation factors that are within the ranges adopted by the Commission, expanding the prescribed range

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<sup>1</sup> FCC, *In the Matter of 1998 Biennial Regulatory Review—Review of Depreciation Requirements for Incumbent Local Exchange Carriers*, CC Docket No. 98-137.

for the digital plant account, and eliminating salvage from the depreciation process. We also seek comment on whether we should permit carriers to set their own depreciation rates if they are willing to waive the automatic low-end adjustment. These proposed modifications are designed to minimize the reporting burden on carriers and to provide incumbent LECs with a greater flexibility to adjust their depreciation rates while allowing the Commission to maintain adequate oversight.<sup>2</sup>

In light of this objective, our affidavit discusses whether the circumstances are now right for the Commission to not merely “reduce or streamline” the depreciation prescription process for ILECs but, more appropriately from a public policy standpoint, to *forbear* from the regulation of depreciation parameters altogether. The USTA has already formally petitioned the Commission to grant forbearance with effect from January 1, 1999,<sup>3</sup> and our first purpose is to explain why that petition is based on sound reasoning. In addition, we address several of the Commission’s concerns regarding the likely consequences of eliminating the regulation of price cap ILECs’ depreciation parameters and, in particular, its tentative conclusion that such elimination “... at this time would have an adverse impact in several critical areas, including the calculation of universal service high cost loop support, takings claims, and the low-end adjustment.”<sup>4</sup> Our affidavit concludes that the “adverse impacts” of forbearance that the Commission is most concerned about would either not materialize or would be *de minimis*. On the other hand, the benefits from forbearance of depreciation regulation could be substantial.

## II. PRESCRIPTIVE REGULATION OF DEPRECIATION: FORBEARANCE OR REFORM?

### A. Background and the Commission’s Proposed Reform

Depreciation—the loss in service value (in physical and/or economic terms) of a replaceable asset of finite useful life—is, as the Commission has recognized, “the largest single

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<sup>2</sup> NPRM, ¶ 4. (Footnote omitted)

<sup>3</sup> USTA, Petition for Forbearance of the United States Telephone Association, *In the Matter of Forbearance From Depreciation Regulation of Price Cap Local Exchange Carriers*, September 21, 1998. (“USTA Petition”)

<sup>4</sup> NPRM, ¶ 6 and ¶ 19.

operating expense that [I]LECs incur, amounting to nearly \$20 billion annually.”<sup>5</sup> At present, the Commission allows every dominant (generally, price cap) ILEC to depreciate its assets in accordance with a formula that involves the following parameters: accumulated depreciation balance (i.e., the amount of its assets already depreciated) and forecasted values of future net salvage and average remaining life. Those depreciation parameters must fall within a range prescribed by the Commission for each asset class (e.g., copper cables, digital switches, etc.). Depreciation *rates* that result from those prescribed parameter ranges are, in effect, regulated.

While the Commission acknowledges that the prescription of depreciation parameters may be unnecessary in competitive local exchange markets, it believes that full forbearance from such prescription is not yet warranted by the current state of local exchange competition.<sup>6</sup> However, the Commission recognizes the need to take preparatory steps *toward* forbearance by relaxing or eliminating some of its prescription requirements. In particular, it proposes to take the following steps:<sup>7</sup>

1. Reduce the supporting documentation required of carriers selecting depreciation parameters from within Commission-prescribed ranges.
2. Eliminate depreciation prescription for carriers that select depreciation parameters in those ranges.
3. Expand the range of lives for digital switching equipment.
4. Eliminate net salvage from the depreciation prescription process.

The Commission accords special attention to the issue of the “low-end adjustment,” i.e., the process by which a price cap carrier earning less than the lower formula adjustment mark (“LFAM”)—currently set at 10.25 percent—may seek an automatic upward adjustment to its regulated rates so as to raise its earnings to the level of the LFAM. As part of its reform agenda, the Commission also seeks input on the possibility of granting carriers their wish for forbearance if those carriers were simply willing to waive their right to a low-end adjustment.

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<sup>5</sup> *NPRM*, ¶ 5.

<sup>6</sup> *NPRM*, ¶ 7.

<sup>7</sup> *NPRM*, ¶ 9.

## **B. The Proposed Reform Does Not Amount to Forbearance**

In the *NPRM*, the Commission asserts that its present proposal would streamline the depreciation process. In reality, the proposal is a mixture of reduced filing requirements, greater latitude in depreciating a specific class of assets, and a tweaking of the depreciation formula that would permit higher depreciation rates for assets that have positive expected net salvage values. Reduced filing requirements only give the appearance of a streamlined process: there appears to be no mitigation of the *real* burden on ILECs, namely, the need to continually defend their choices of depreciation parameters with necessary studies and materials.<sup>8</sup> Therefore, while the Commission would “eliminate” the regulation of depreciation for carriers that select depreciation parameters from within Commission-prescribed ranges, that elimination would *not* amount to regulatory forbearance. Under true forbearance, the carrier would have (i) the freedom to select depreciation parameters that are consistent with market realities (regardless of whether they fall within or outside the ranges currently prescribed by the Commission), and (ii) relief from elaborate studies in defense of their choices.

In contrast, the Commission’s apparent willingness to consider granting flexibility in depreciation to carriers that waive their right to the automatic low-end adjustment appears to be a more definitive move toward forbearance. However, given the Commission’s current concern with how forbearance would affect not just the low-end adjustment but several other aspects of the performance of price cap carriers, it does not appear likely that any grant of forbearance would depend on a single concession from those carriers. Therefore, in its present form, the Commission’s proposed reform stops substantially short of forbearance.

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<sup>8</sup> In the *NPRM* (§ 10 and fn. 37), the Commission states:

In this Notice, we propose to reduce filings to four summary exhibits and the electronic data files used to generate them, provided carriers select depreciation factors from within the ranges *and certify that their selections are consistent with their operations*. ... [fn 37]: The four summary exhibits are a comparison of existing and proposed depreciation rates; a comparison of existing and proposed depreciation expenses; *a book and theoretical reserve summary*; and the depreciation factors. (Emphasis added)

The certification and the reserve summary sought by the Commission cannot be furnished by the ILECs without conducting the same detailed studies that they are obliged to do under current rules. Having to provide a mere *summary* does not relieve the ILEC from first having to conduct those studies.

## **C. Current Circumstances Warrant Forbearance from Depreciation Prescription, Not Just Reform**

### **1. Prescription of depreciation is a throwback to the pre-competitive era.**

As the Commission itself recognizes, the current policy of prescribing depreciation standards for ILECs originated years ago when those carriers operated under cost-of-service or rate-of-return regulation and were required to set prices on the basis of costs including depreciation expenses. In effect, those prices reflected not merely material and other operating costs but also the regulatory assumptions and choices that determined the level of depreciation expenses that ILECs could include in costs. To the extent that their assets depreciated at slower-than-economic rates and led to the accumulation of depreciation reserve deficiencies, the ILECs were assured of the opportunity to recover those deficiencies in subsequent years. Such slow depreciation served a very important public policy objective—that of keeping rates for local exchange service “low” and within a range considered acceptable from a public policy (though not necessarily from an economic) standpoint. As long as the ILECs faced no competitive pressures, regulation-determined depreciation rates remained sustainable and supportive of public policy goals for pricing local exchange service.

In the aftermath of the Telecommunications Act of 1996 (“the Act”), the structural conditions of the telecommunications industry have changed significantly. The Act’s own provisions and subsequent regulatory reform and liberalization activity at both the federal and state levels now make market competition the predominant operating credo of this industry. In this new environment, the ILECs no longer have the assurance of the opportunity to recover their past depreciation reserve deficiencies. Regulatory and public policy actions to encourage greater competition are unleashing several new technologies and services while, at the same time, providing consumers more variety in service and service provider choices. Firms that were not traditionally associated with telecommunications services (indeed were precluded by law from competing in local exchange markets), e.g., cable companies and other public utilities, now have the freedom to enter the telecommunications industry. At the same time, the so-called “last mile” monopoly of wireline service architectures is being challenged by fixed wireless loop architectures and end-to-end wireless services like Personal Communications

Service (“PCS”). The Commission has, in fact, recognized that PCS represents an alternative form of facilities-based supply of telephone exchange service.<sup>9</sup> Finally, over 2,400 interconnection agreements have already been signed throughout the U.S. among ILECs and new entrants or *competing* local exchange carriers (“CLECs”).

Other significant developments in this industry accompanying the advent of competition are reform of (i) access charges and (ii) the current system of universal service. The Commission has properly relied on emerging competitive market forces to shape price cap ILEC’s interstate access charges and has, so far, desisted from returning to the prescription of those charges.<sup>10</sup> At the same time, the Commission has recognized that the present method of requiring implicit subsidies from ILECs’ access, toll, and other services to support universal service cannot be sustainable in the long run as competition develops. Accordingly, the Commission has set in motion reform that would eventually convert implicit (price-based) subsidies into explicit support for universal service. Upon completion of such reform, universal service will be administered from a separate fund supported by competitively neutral contributions from all telecommunications carriers.<sup>11</sup>

These twin developments signal a clear acknowledgement that competition has now replaced the monopoly-oriented paradigm of regulation that once applied to ILECs, and that *all* carriers—and, in particular, the ILECs—must now align their service prices to realistic estimates of their *economic* service costs or face significant competitive handicaps. As a result, even depreciation practices must now respond to the forces of competition. Not only would old regulation-determined depreciation parameters (and the depreciation rates they lead to) no longer prove tenable, the proliferation of new technologies and services could force plant and equipment to become *economically* obsolete well before they reach the point of *physical*

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<sup>9</sup> FCC, *In the Matter of Application of BellSouth Corporation, BellSouth Telecommunications, Inc., and BellSouth Long Distance, Inc., for Provision of In-Region, InterLATA Services in Louisiana*, Memorandum Opinion and Order, CC Docket No. 98-121, released October 13, 1998. See, in particular, ¶¶ 28-30.

<sup>10</sup> FCC, *In the Matter of Access Charge Reform, Price Cap Performance Review for Local Exchange Carriers, Transport Rate Structure and Pricing and End User Common Line Charges*, First Report and Order, CC Docket Nos. 96-262, 94-1, 91-213, and 95-72, released May 16, 1997. See ¶¶ 267-269. (“*Price Cap Order*”)

<sup>11</sup> FCC, *In the Matter of Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, FCC 97-157, released May 8, 1997. (“*Universal Service Order*”) This Order seeks to implement various provisions of the Act, specifically, those in Section 254.

obsolescence.<sup>12</sup> In these circumstances, depreciation rates must reflect the *economic* lives of assets used to provide services, not arbitrarily determined rates that once supported public policy objectives of keeping certain local exchange service rates artificially low.

**2. Depreciation is driven by forward-looking practices in markets with growing competition.**

Depreciation rates must reflect what lies ahead for the ILEC. Greater competition entails greater market risks for incumbents and entrants alike. Competition encourages greater innovation in both service design and service delivery methods. However, not all services succeed with consumers and not all production technologies deliver on their promise. As a result, the failure rate of competing firms may increase proportionally with the degree of competition. In this environment, economic obsolescence of a firm's productive assets can occur more unpredictably and sooner than in the absence of competition. As the life cycles of competitive end-user services are shortened by competition and constant innovation, then so are the life cycles of plant and equipment that are dedicated to the production of those services.

The state of almost constant flux that characterizes markets open to competitive forces requires the adoption of flexible depreciation practices. As ILECs break from the ways they have traditionally operated—whether to diversify into new or non-traditional lines of business or to specialize in niche service areas—they will need to be increasingly nimble about their technology choices and adjustments to their capital stock. Depreciation, or the recovery of capital, must occur flexibly, frequently at rates that vary significantly from those used in the past. Only forbearance from the regulation of depreciation can assure an ILEC sufficient flexibility for competing effectively in an increasingly competitive environment. Stated another way, ILECs that compete on a forward-looking basis with new entrants must enjoy the

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<sup>12</sup> Physical obsolescence occurs when wear and tear reduces an asset to a physically useless state. This form of obsolescence is connected to the physical life cycle of plant and equipment. Economic obsolescence refers to the loss of useful economic value of an asset, regardless of its physical condition. This form of obsolescence occurs when existing plant and equipment must be replaced by later-generation plant and equipment even before their useful physical life is over. Such replacement is often driven by market forces and the rapid availability of less expensive or more efficient technologies that can produce services at lower cost.

same flexibility in their depreciation practices that their unregulated rivals do.<sup>13</sup> Failure to lift regulatory restrictions on depreciation can only distort efficient technology choices by ILECs and, in turn, inflict efficiency losses (e.g., fewer or less advanced services, higher prices, etc.) on the economy at large. ILECs may find themselves unable to provide service at the lowest possible cost and, in the process, inadvertently encouraging inefficient entry by higher-cost competitors.

### **3. Price cap regulation will continue to protect customers even as competition develops**

In the *NPRM*, the Commission appears ambivalent about forbearing fully from the regulation of ILEC depreciation at this stage. On the one hand, the Commission signals its intent to continue the trend of reducing such regulation (particularly, in light of the Act's pro-competitive provisions) but, on the other, it finds itself unable to fully commit to forbearance before "*robust* competition exists in the local exchange markets."<sup>14</sup> While ambivalence is natural for an agency entrusted with the task of balancing competing interests, the degree of competition in local exchange markets is not pivotal for the decision at issue here.

The pricing discipline that "robustly" competitive markets may be relied upon to impose on ILECs is already being exerted by price cap regulation. This form of regulation severs the link between the costs and prices of a price cap ILEC, and ensures that inefficient operation by the ILEC is not transmitted forward to consumers in the form of higher service prices. Also, now that the sharing mechanism—a safeguard built into interstate price cap plans in the past—has been eliminated, the connection between depreciation, the level of the ILEC's earnings, the sharing mechanism, and service prices has also been severed.

The inability to transmit changes in cost (whether or not triggered by changes in depreciation rates) into prices of services subject to price cap regulation offers the best possible

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<sup>13</sup> Flexibility implies not merely that the Commission forbear from substituting its judgment (about depreciation standards) for that of ILECs actually competing for business and putting their viability on the line. It also means that economic depreciation parameters and rates may vary across firms and over time. The present regulatory approach that prescribes "one-size-fits-all" ranges of depreciation parameters for *all* price cap ILECs can, in effect, be a straightjacket in a competitive environment.

<sup>14</sup> *NPRM*, ¶ 7. (Emphasis provided)

protection for consumers. While prices of those services are capped formulaically by the rate of inflation and a productivity offset factor, prices of the ILEC's *competitive* services are subject to the checks and balances that exist in a competitive market. Therefore, the *degree* of competition itself for services subject to price cap regulation matters only for determining when services currently under price caps should be transitioned to the category of competitive services (i.e., out of price caps). The degree of competition does *not* determine whether forbearance from depreciation prescription affects the prices of price-capped services one way or the other.

Waiting to grant forbearance until competition for price-capped services has reached the robust stage may have two important adverse consequences. First, there is no definition yet of "robust competition." Second, gradualism in depreciation reform may only restrain price cap ILECs from competing aggressively. We explain the implications of these below.

**a. The threshold of robust competition is undefined and potentially contentious**

"Robust competition" is *not* a term of art in economics and there are no universally accepted principles by which that term could be defined. We are particularly concerned that setting a litmus test for forbearance without making precise the standards and measures for such a test can only lead to years of contentious regulatory proceedings and lost opportunities. Should a market share loss test be used to determine when the time is right for forbearance? In our view, absolutely not. By implication, a market share loss test draws a direct link between a firm's current share of total market revenue or output and its ability to exert market power, i.e., influence the price. But, if the real concern is with market power (as it should be), then market share is not a reliable diagnostic tool for several reasons.

1. Market share does not directly measure the extent to which a firm can control the price. In fact, in "contestable" markets, even a firm with near 100 percent market share *cannot* raise prices arbitrarily without risking hit-and-run entry by small, efficient competitors that skim away any temporary revenue boost that the incumbent firm raising prices may be trying to give itself.<sup>15</sup>

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<sup>15</sup> In a contestable market, the absence of significant sunk costs makes hit-and-run entry by even small firms possible and profitable. See William Baumol, John Panzar, and Robert Willig, *Contestable Markets and the*

2. Market share cannot reliably measure the market power of price cap ILECs because the prices they can charge for the regulated services are tightly controlled by a formula in which only the rate of inflation, exogenous costs, and a productivity offset factor play a role. There is no room for monopolistic price manipulation.
3. A market share test for robust competition is also meaningless in certain market structures. For example, in the local exchange market—arguably, the sector of telecommunications with the greatest sunk costs—the minimum efficient scale of operations may be so high that the market could at most support only a small handful of competing firms. Therefore, “large” market shares of firms in such a market may signify nothing about the degree of competition that may actually be occurring.

In the past, the Commission has relied—in part—on market share tests to qualify firms as being non-dominant or otherwise competitive.<sup>16</sup> Our fear is that such tests, inapposite as they are for the local exchange market, would set up an unreachable goal for ILECs and, by linking forbearance from depreciation regulation to it, put off indefinitely any prospect for true depreciation reform.

**b. Gradual reform will only dampen ILEC incentives to compete efficiently**

Depreciation reform in a staggered fashion can be almost as damaging to ILEC incentives and efficient competition as no reform at all. As we mentioned earlier, the proliferation of new technologies and services in the last few years—and, particularly, since passage of the Act—is unprecedented in the telecommunications industry. From all the recent evidence about ILEC retooling (restructuring, downsizing, etc.), it is quite clear that ILECs regard the new market environment quite differently than that of even a few years ago. The most noteworthy development is the rapid acceleration in technological progress and the availability of broadband, wireless, and bypass technologies that clearly augur a fundamental change in the way consumers receive telecommunications service. All this involves the creation of new kinds of capital and the retirement of older generations of assets. Yet

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*Theory of Industry Structure*, New York: Harcourt Brace Jovanovich, 1988. Resale and the availability of unbundled network elements at cost-based rates are both ways for small CLECs to significantly lower, if not eliminate, their sunk costs of entry. See Alfred E. Kahn, *Letting Go: Deregulating the Process of Deregulation*, East Lansing, MI: Michigan State University Public Utilities Papers, 1998, Section II.D.

<sup>16</sup> FCC, *In Re: Motion of AT&T Corp to be Reclassified as a Non-Dominant Carrier*, Order, 11 FCC Red at 3303-05, 1996.

depreciation policy for one important group of firms caught up in so much *market* change, namely, the price cap ILECs, has not changed to match the new investment reality.

When technological progress outruns the depreciation expenses that ILECs are allowed, their existing plant and equipment reach economic obsolescence *before* those assets have been completely written off the ILECs' books. As a result, a regulated ILEC can only feel justified in investing in more efficient and newer plant if, in its service prices to end-users, it is able to recover the unamortized portion of its previous investments. Under price cap regulation, there is *no* mechanism for effecting that recovery. There is simply no way for endogenous changes in costs to be transmitted into price changes. Therefore, lacking that ability to adjust prices, it is easy to understand why the ILEC's incentive to make future investments in more efficient capital would be dampened, if not aborted. At the very least, a price cap ILEC would need to follow *economic* depreciation principles in order to retain—and act on—that incentive.<sup>17</sup>

Only forbearance and the elimination of regulatory uncertainty about depreciation—not the piecemeal reform proposed by the Commission—would encourage ILECs to focus on making efficient technology and service planning decisions. In the meantime, price cap regulation will continue to simulate the protections of full-blown price competition and ensure that prices of capped services are never unjust or unreasonable.

### **III. FORBEARANCE WILL NOT ADVERSELY AFFECT PRICE CAP PARAMETERS OR UNIVERSAL SERVICE**

#### **A. The Commission's View of Likely Impacts of Forbearance on Price Cap Parameters and Universal Service**

As the *NPRM* makes clear, the Commission's hesitation in granting full forbearance—rather than only gradual relief—stems from its belief that a certain threshold of competition must be reached before forbearance is justified. In addition, the Commission is clearly concerned about how forbearance now would affect (i) several key parameters of the price cap

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<sup>17</sup> See, e.g., Alfred E. Kahn, *The Economics of Regulation: Principles and Institutions*, Cambridge, MA: The MIT Press, 1988, at 117-122.

plan by which ILECs are presently regulated and (ii) the proposed reform of universal service. Specifically, the Commission declares that depreciation

... remains significant, even under current price cap rules, in the following situations: (1) a calculation of a low-end adjustment; (2) a recalculation of the productivity factor; (3) an exogenous cost determination; (4) a calculation of the Base Factor Portion that is used to determine how much a carrier can recover through End User Common Line charges; or (5) the cost support a carrier would have to provide if it proposed an Actual Price Index ... higher than its Price Cap Index. ... In addition to these price cap changes, changes in depreciation expense may also affect prices or federal support payments through new mechanisms created to implement [the Act].<sup>18</sup>

### **B. The Commission's Concerns are Misplaced: Expected Impacts Will be Non-Existent or Minimal**

After serious consideration of these concerns, we are led to conclude that the adverse impacts of forbearance expected by the Commission would either not materialize or would be *de minimis*. We explain the reasons for our conclusion below.

#### **1. Calculation of the low-end adjustment**

Presently, price cap ILECs that experience a drop in their earnings below the LFAM (10.25 percent) are entitled to an upward adjustment in their price-capped rates that is targeted to raise their earnings to the level of the LFAM.<sup>19</sup> The Commission's concern is that changes in depreciation rates can affect rate of return calculations (through the rate base) and, thereby, determine whether a price cap ILEC qualifies for a low-end adjustment. For this reason, the Commission appears to be willing to grant more flexibility in depreciation in exchange for price cap ILECs agreeing to a waiver of the low-end adjustment. It is not immediately clear from this offer whether more flexibility would translate into full forbearance. But, more to the point, the price cap ILECs have already indicated their readiness to give up the low-end adjustment as part of a regulatory adaptation to increased competition.<sup>20</sup> Moreover, those

<sup>18</sup> NPRM, ¶ 6. (Footnotes omitted)

<sup>19</sup> Code of Federal Regulations, § 61.45(d)(1)(vii).

<sup>20</sup> Comments of the United States Telephone Association, *In the Matter of Access Charge Reform*, CC Docket No. 96-262, *Price Cap Performance Review for Local Exchange Carriers*, CC Docket No. 94-1, MCI

ILECs are also willing to be required to justify their depreciation practices and earnings calculations to the Commission in the very rare event that they seek a low-end adjustment.<sup>21</sup> Therefore, the low-end adjustment cannot—and should not—be a factor restraining the Commission from forbearing the regulation of depreciation.

## 2. Recalculation of the productivity factor

The Commission is concerned that changes in depreciation rates beyond those presently contemplated in the *NPRM* could induce significant change in the productivity offset or X-factor used under current price cap rules to determine basket-specific price caps. We note two points in this connection. First, the Commission itself has announced plans to adjust the X-factor on the basis of industry-wide performance factors rather than factors that determine ILEC-specific interstate earnings levels.<sup>22</sup> Second, a recent study that simulated the effects of changing various economic variables on the X-factor concluded that changes in depreciation rates have virtually no effect on that factor.<sup>23</sup> Therefore, the Commission need have no concern about how forbearance from depreciation regulation might affect the productivity factor.

## 3. Exogenous cost determination

The Commission has defined exogenous costs thus:

Exogenous costs are in general those costs that are triggered by administrative, legislative or judicial action beyond the control of the carriers. ... These costs are created by such events as separations changes; USOA amendments; changes in transitional and long term support; *the expiration of amortizations*; and the reallocation of regulated and nonregulated costs.<sup>24</sup>

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*Telecommunications Corporation Emergency Petition for Prescription of Access Charges*, CC Docket No. 97-250, *Consumer Federation of America Petition for Rulemaking*, RM 9210, filed in response to the FCC's Public Notice, released October 5, 1998, FCC 98-256, Attachment E.

<sup>21</sup> *USTA Petition*, at 12.

<sup>22</sup> *Price Cap Order*, ¶ 167.

<sup>23</sup> Affidavit of Professor Frank M. Gollop, USTA Attachment B in this proceeding.

<sup>24</sup> FCC, *In the Matter of Policy and Rules Concerning Rates for Dominant Carriers*, Second Report and Order, CC Docket No. 87-313, released October 4, 1990, ¶ 166. (Emphasis added)

The Commission carefully distinguished the process of amortizing undepreciated assets (an exogenous cost event) from changes in depreciation rates themselves (which it labeled an *endogenous* cost event). The Commission reasoned that even though depreciation parameters were prescribed, the price cap carrier still had control over the decision to deploy or retire plant and equipment.<sup>25</sup> Therefore, by the Commission's own reasoning, any forbearance from depreciation regulation that results in ILEC-selected depreciation rates (unrelated to amortizations of past undepreciated capital) cannot create an exogenous cost event. The ILECs have already accepted that recovery of any future depreciation reserve deficiencies that arise *after* forbearance takes effect should be conditional on the Commission first receiving a satisfactory explanation for those deficiencies.<sup>26</sup>

More importantly, under existing regulations, exogenous cost events are only applied in the price cap formula with the Commission's prior approval, i.e., any application of exogenous cost changes is *not* automatic.<sup>27</sup> Therefore, *even if* forbearance, followed by ILEC adoption of their own depreciation standards, were to generate an exogenous cost event, the Commission would retain the authority to allow or deny its application to the price cap formula.

#### **4. Calculation of the Base Factor Portion that determines revenues through the End User Common Line charge**

Rates in the common line basket—such as for the End User Common Line charge (“EUCL”), the Presubscribed Interexchange Carrier charge (“PICC”), and the Carrier Common Line charge (“CCL”)—are presently set in accordance with specific regulations for price cap ILECs.<sup>28</sup> The revenue requirement for the common line basket is sought to be recovered through a combination of these three charges. While the regulations provide specific rules for calculating the EUCL and the PICC on a *revenue* basis, the gap between the basket's revenue

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<sup>25</sup> *Id.*, at ¶¶ 182-184. It is noteworthy that in this Order the Commission specifically and categorically *rejected* the adoption of an “economic life” basis for prescribing depreciation rates. The depreciation rates in effect today still reflect this decision and, therefore, are squarely at odds with the new environment in which regulated ILECs have to compete with new entrants who are free to select their own depreciation standards.

<sup>26</sup> *USTA Petition*, fn. 5.

<sup>27</sup> *Code of Federal Regulations*, § 61.45(d)(1)(i-ii).

<sup>28</sup> *Code of Federal Regulations*, § 69.152 - § 69.154.

requirement and the combined revenues from the EUCL and the PICC is recovered by the CCL which is adjusted periodically (and, subject to circumstances, may be assessed on both originating and terminating interstate access minutes). The EUCL and PICC are fixed, line-related charges while the CCL—a residually-determined charge—is assessed on minutes of use. The Commission’s clear concern is that any increase in depreciation rates (that may follow forbearance of depreciation regulation) will likely raise the common line basket’s revenue requirement. The unstated concern may be that such an increase may force upward adjustments to any or all of the three charges in the common line basket.

This concern of the Commission may be allayed by reference to a fundamental change in the offering for the manner in which the common line basket will be treated. After January 1, 1999, price cap ILECs will be able to adjust their EUCL rates and price ceilings for multi-line business customers and non-primary lines purchased by residential customers upward to account for inflation.<sup>29</sup> A similar adjustment will apply to the ceiling for the PICC for all customers on and after July 1, 1999.<sup>30</sup> These developments are significant because they would mark the transition from treatment of the common line basket on a *revenue requirements* basis to treatment on a pure *revenue* basis (i.e., subject only to adjustments for inflation). This would happen as rising EUCL and PICC charges raised enough revenue to make it unnecessary for the CCL to serve as a filler of the gap. Once that transition is completed, effects of changing depreciation rates will no longer be transmitted into the setting of rates (specifically, for surviving elements EUCL and PICC) in the common line basket.<sup>31</sup>

### 5. Cost support for above-cap filings

Current regulations require that price cap ILECs which file rates that cause the Actual Price Index (“API”) of a price cap basket to exceed its cap or Price Cap Index (“PCI”) must provide detailed explanations about how cost has been assigned both within and outside the

<sup>29</sup> *Code of Federal Regulations*, § 69.152(e) and § 69.152(k).

<sup>30</sup> FCC, *In the Matter of Access Charge Reform*, Third Order on Reconsideration, CC Docket No. 96-262, released October 5, 1998, ¶ 1.

<sup>31</sup> See the USTA’s proposed rule changes for the common line basket (Part XX) in *In the Matter of United States Telephone Association Petition for Rulemaking — 1998 Biennial Regulatory Review*.

affected basket.<sup>32</sup> The Commission believes that any change in depreciation rates is likely to affect this cost support showing.

It is not clear in what respects this issue represents a constraint on the Commission's moving immediately to forbearance from depreciation regulation. As long as a price cap ILEC files rates that cause the API to exceed the PCI, it would remain obligated to provide the necessary cost justification—with or without forbearance from depreciation regulation. The Commission will retain final authority on whether to allow above-cap filings of rates to go forward, even after such forbearance.

#### **6. Prices of interconnection and unbundled network elements and federal support payments for universal service**

The Commission's belief that changes in depreciation will affect prices and universal service payments is stated as follows:

... changes in depreciation expense may also affect prices or federal support payments through new mechanisms created to implement the Telecommunications Act of 1996. For example, the Commission required incumbent LECs to use depreciation factors within the FCC authorized ranges when calculating forward-looking economic costs for universal service high cost loop support purposes. Also, state commissions have required incumbent LECs to use interstate depreciation rates or life and salvage factors developed during the Commission's depreciation prescription process when calculating rates for interconnection or unbundled network elements.<sup>33</sup>

Depreciation expenses arise as ILECs retire and replace their plant and equipment already in place. Depreciation expenses also arise for plant and equipment placed in network configurations used to calculate forward-looking costs for the two purposes of determining (i) cost-based prices for interconnection and unbundled network elements and (ii) the present subsidy to universal service and, therefore, the amount of high cost loop support needed on a going forward basis. While calculation of forward-looking costs is the province of state regulatory agencies, the Commission is concerned that depreciation-related decisions made at

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<sup>32</sup> *Code of Federal Regulations*, § 61.49.

<sup>33</sup> *NPRM*, ¶ 6. (Footnotes omitted)

the federal level would automatically affect the states that choose to mirror the Commission-prescribed depreciation parameters in their own intrastate depreciation regimes.

No matter where—and in what circumstances—depreciation expenses are actually realized, our primary concern here is with the overarching principle: that *economic* depreciation parameters (lives and rates) alone should be applied from this point forward. That does *not* mean that those parameters would be the same for all ILECs, or even be identical for existing assets and new assets alike. While the depreciation rates may vary in this manner, it is vitally important that they represent market imperatives—rates of economic obsolescence, in particular—not regulation-determined depreciation parameters.

While recognizing that forward-looking costs should be based on economic asset lives and depreciation rates, the Commission has also appeared ambivalent about how truly economic those lives and depreciation rates could be. For example, in spelling out the criteria for calculating forward-looking costs for determining universal support payments, the Commission stated:

Economic lives and future net salvage percentages used in calculating depreciation expense *must be within the FCC-authorized range*. ... To the extent that competition in the local exchange market changes the economic lives of the plant required to provide universal service, we will re-evaluate our *authorized* depreciation schedules.<sup>34</sup>

While duly recognizing the value of economic lives, this criterion does *not* appear to grant ILECs the freedom to operate with such lives. First, even in the new environment, ILECs must adhere to the Commission-authorized range for lives; they would not be free to adopt market-responsive depreciation schedules. As we explained earlier, in recent years, the rate of economic obsolescence has become quicker and more unpredictable, making market-responsive depreciation imperative. Second, present-day Commission-authorized depreciation parameters are just fine-tuned heirs of depreciation parameters that the Commission has prescribed in the past when under-depreciation of ILEC assets was routine and customary. There is no evidence that currently prescribed ranges for ILEC plant and equipment are

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<sup>34</sup> *Universal Service Order*, ¶ 250(5). (Emphasis added)

significantly different from those that existed before the competitive era was ushered in by the Act. Any delay in allowing ILECs to use truly economic depreciation standards (until some nebulous threshold of competition is crossed) would only violate the overarching principle of depreciation we stated earlier. Unfortunately, it would also raise the same specter of accumulated reserve deficiencies under competition that the ILECs faced in the pre-competitive era.

#### **IV. SUMMARY AND CONCLUSIONS**

Upon detailed examination of the concerns raised by the Commission regarding any move to forbearance from the regulation of depreciation parameters used by price cap ILECs, we conclude the following:

1. The depreciation reform proposed by the Commission in its *NPRM* does not amount to full forbearance from regulation of depreciation. Forbearance should indeed be the new public policy for depreciation.
2. The regulation of depreciation is a throwback to the pre-competitive era in the telecommunications industry and has become an anachronism in the present competitive environment in which economic obsolescence is becoming quicker and increasingly unpredictable.
3. Prescribed depreciation parameters (and the depreciation rates they imply) cannot produce forward-looking costs or allow price cap ILECs to face market risks and competition from new entrants on a fair and economically efficient basis.
4. The Commission should not wait for a vague and contentious threshold for competition to be achieved before granting forbearance from depreciation regulation. A prolonged delay in granting such forbearance will dampen ILEC incentives to invest in more economically efficient assets and practices and inflict economic welfare losses on society at large.
5. Granting forbearance from depreciation regulation will have either non-existent or minimal impacts on a number of price parameters (the low-end adjustment, the productivity factor, exogenous cost events, rates in the common line basket, cost support for above-cap filings) or on the pricing of interconnection and unbundled network elements or payment of universal service support. Price cap regulation will continue to protect consumers even if depreciation changes affect costs.

We hereby swear and affirm that the statements contained in the attached affidavit are true and correct to the best of our belief and knowledge.

William E. Taylor  
William E. Taylor, Senior Vice President

11/23/98  
Date

Aniruddha Banerjee  
Aniruddha Banerjee, Senior Consultant

11/23/98  
Date

# **ATTACHMENT B**

**Evaluation of the Effect of a  
Change in Depreciation Rates on the FCC's X-Factor**

**Affidavit of Professor Frank M. Gollop**

**Boston College**

**November 20, 1998**

This brief report evaluates the effect of a hypothetical change in the prescribed rate of depreciation for capital assets on the X-Factor derived in the FCC model.<sup>1</sup> The structure and assumptions of the Commission's model necessarily infer that changes in allowed depreciation rates affect the measured RBOC TFP and input price differentials but in exactly offsetting amounts, leaving the resulting X-Factors unaffected. The model's economic logic leading to this result is described below and is verified by a simulation run on a replicated and updated form of the FCC model.<sup>2</sup>

A change in the depreciation rate affects measured capital input and its rental price in the FCC model but influences none of the other data accounts. The rate change has no effect on output quantities or revenues or any of the price, quantity, or expense accounts relating to either labor or material inputs. Moreover, there is no effect on total property compensation defined in the FCC model as total revenues less operating expense plus depreciation, a sum unaffected by changes in depreciation expense. However, changes in depreciation rates do impact both measured capital input and its rental price. First, given the Commission's adoption of the perpetual inventory method of capital accumulation, the hypothetical increase in depreciation rates accelerates the depreciation of capital

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<sup>1</sup> A full description of the FCC model appears in the Commission's Fourth Report and Order in CC Docket No. 94-1 and Second Report and Order in CC Docket No. 96-262, FCC 97-159, Appendix D, (released May 21, 1997).

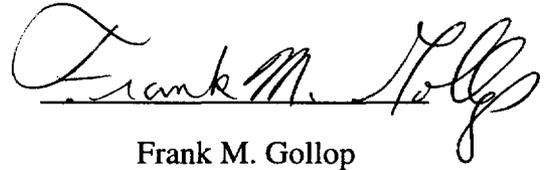
<sup>2</sup> For a complete description of this updated model, see Attachment D to the Comments of the United States Telephone Association, *In the Matter of Access Charge Reform*, CC Docket No. 96-262, *Price Cap Performance Review for Local Exchange Carriers*, CC Docket No. 94-1, *MCI Telecommunications Corporation Emergency Petition for Prescription of Access Charges*, CC Docket No. 97-250, *Consumer Federation of America Petition for Rulemaking*, RM 9210, filed in response to the FCC's Public Notice, released October 5, 1998, FCC 98-256. The attachment is titled "Technical Report: Replication and Update of the X-Factor Constructed Under FCC Rules(.)" prepared by Frank Gollop dated October 22, 1998.

stock, thereby reducing measured capital input and increasing measured RBOC TFP growth. Second, given that capital's rental price is defined as the ratio of unchanged property compensation to capital input, the resulting percentage change in capital input is mirrored exactly by an offsetting percentage change in its rental price. The resulting increase in the TFP differential is offset exactly by a decrease in the IPD because the percentage changes in capital input and its rental price are identical but opposite in sign and are weighted by the same cost-share weights in their respective TFP and input price terms for the RBOCs. As a result, the X-Factor is left unchanged.

The above reasoning is validated through simulation. At present, the FCC model is calibrated using an authorized depreciation rate for plant and equipment that averages 7.336%. (See Chart D7 in Appendix D of the Commission's May 1997 order.) To examine the effect of a change in this rate, a sensitivity test was run based on an assumed one percentage point increase in this allowed depreciation rate for years 1991 through 1997. The 7.336% rate in the Commission's perpetual inventory calculation for capital stock was replaced for these years with an 8.336% rate. The incremental depreciation dollars based on this one percentage point rate increase in each year 1991-97 were added to depreciation expense in Charts D7 and D8 and to operating expense in Chart D8. As expected, capital input growth in Chart D9 decreased leading to an increase in RBOC TFP growth in Chart D1. Concurrently, increased depreciation expense raised the growth rate of the RBOCs' capital rental price (Chart D9) and therefore reduced the IPD in Chart D1 by an exactly offsetting amount leaving the X-Factor unaffected.

A discussion of the merits of forbearance from depreciation regulation can proceed without regard to the effect of any change in depreciation policy on the X-Factor as measured by the Commission. The structure of the Commission's model ensures that the X-Factor will be unaffected by changes in depreciation expense.

I hereby swear and affirm that the statements contained in the attached affidavit are true and correct to the best of my knowledge and belief.

A handwritten signature in cursive script, reading "Frank M. Gollop", written over a horizontal line.

Frank M. Gollop

November 20, 1998