existing services."[42] In contrast to the new services procedures, restructured services require no cost showing. LECs are obliged "to show only that the rates for the restructured service fall within their existing PCI, and the actual price indexes ("APIs") and SBIs must be recalculated. Further, restructured services are incorporated into the applicable price cap basket immediately upon effectiveness of the tariff."[43]

The Commission characterizes the filing and support requirements associated with restructured services as "minimal."[44] It proposes no changes in the existing procedures. NCTA supports this approach as the absolute minimum requirement. Should any parties filing comments that call for reduction of even this minimal showing, NCTA will respond in the reply round.

C. Alternative Pricing Plans

The Commission also seeks comment on whether to permit LECs to offer alternative pricing plans ("APPs") and to subject them to relaxed review. NCTA believes that the Commission should not consider APP's for LEC services at this time. In contrast to AT&T, which has just been declared non-dominant, the LECs retain effective control of critical bottlenecks and face no significant competition.

The proposal is apparently modeled after the pricing flexibility arrangements provided to AT&T in the form of optional discount plans that "enable it to offer discounts to some residential service ratepayers, while increasing its basic schedule rates for residential service,

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[42] Id. at para. 40.

[43] Id. at para. 43 (citation omitted).

[44] Id. at para. 50.

without any loss of revenues."[45] The Commission observes that allowing LECs to offer APPs "may encourage a greater variety of offering to consumers, result in at least certain ratepayers and consumers paying lower rates and allow the LECs the opportunity to better respond to competition."[46] The agency acknowledges the need, in this context, to protect against anticompetitive practices.[47]

The breaking down of the barriers that uphold the LECs' monopolies will be a difficult and dynamic process. If long distance is any indication, it will take some time. And as noted above, it will involve coordinated policy approaches to deal with the various attributes of the LECs' bottlenecks. According pricing relief through the adoption of APPs prior to the significant reduction of their monopoly control will help LECs to "nip competition in the bud."

Moreover, there is no justification for APPs to grant rate favoritism to similarly situated telephone customers. The pricing flexibility provided to AT&T was undertaken in a context where consumers were already given a significant number of choices from a variety of providers. In contrast, the offering of APPs by LECs would enable dominant carriers to target the customers considered most susceptible to competition, and thereby delay the competitive results that the Commission seeks.

D. Individual Case Basis Tariffs

The Commission further proposes to establish new guidelines for Individual Case Basis ("ICB") tariffs. ICB tariffs have been permitted in the past for special constructions, as well as

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[45] Id.(citation omitted).

[46] Id. at para. 60.

[47] Id.

"for services that the carrier has no experience in providing and that are unlike any existing service, so that the carrier has no basis on which to develop generally available rates."[48] ICB tariffs were accepted only as an interim measure for services that were unlike any other services that had been previously offered.

The Commission now proposes to expand upon and formalize the ICB tariff classification. Under the plan, a carrier proposing an ICB service that is not a special construction must make the showing described above; i.e., "the service is so unlike any existing service that the LEC would have no reasonable basis to develop generally available rates." The Commission further proposes to require the carrier to develop averaged rates when an ICB service is offered to two or more customers, or it has been available for six months. ICB tariff filings will require cost support applicable to non-price cap carriers. The agency finds that these procedures will prevent ICB tariffs from being anticompetitive or unreasonably discriminatory.

The proposal appears to be reasonable. Application of the "so unlike .. existing service" test will enable the Commission to exclude from ICB treatment service offerings that strongly resemble existing services, and thereby deter unreasonable discrimination in the offering of "like services." On similar grounds, the Commission should also impose the "no reasonable basis to apply generally applicable rates" test. If an ICB tariff passes these tests, it will stay in place only for so long as it is not offered to a second customer, at which point the service offering will no longer be a genuine ICB service. Even then, the ICB tariff will terminate in six months, which is a sufficient period for a LEC to develop averaged rates.

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[48] Id. at para. 62.

E. Part 69 Waiver Process

The Commission proposes also to eliminate the requirement that price cap LECs seek a waiver of Part 69 of the rules prior to establishing new rate elements for a new switched access service. The Second Further Notice further proposes to permit the introduction of a new service based on a public interest finding. If the Commission finds that the establishment of new rate elements for a service proposed by one company is in the public interest, the agency will handle requests by other companies to offer service consistent with the initial ruling on an expedited basis. The Commission further proposes other actions that would significantly modify the procedures for price cap LECs proposing rate changes.

NCTA believes that the Commission should not use this proceeding to alter the requirement that LECs obtain a Part 69 waiver prior to establishing new rate elements. The agency is expected shortly to consider Access Charge Reform on a comprehensive basis. Modifying the waiver requirement in this separate proceeding is unwise, because it can interfere with the comprehensive evaluation of Part 69. The Commission should make any adjustments to the waiver requirement as part of the Access Charge Reform proceeding.

F. Revision of Baskets and Consolidation of Service Categories

The LEC Price Cap Plan established separate baskets for the LECs' interstate services "to prevent LECs from raising prices for non-competitive services to recoup lost revenues due to price decreases for competitive services."[49] The LEC Price Cap Plan identifies four separate service baskets--common line, traffic sensitive, trunking and interexchange--and segregates services according to these categories. Recently, the Commission established a

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[49] Id. at para. 89.

separate video dialtone price cap basket to assist in the detection of cross-subsidy with respect to these services.[50] The LEC Price Cap Plan also provides for subcategorization of services to facilitate the policing of cross-subsidy. To the extent that services within a basket arer not sufficiently cross-elastic, LECs have an opportunity to permanently lower prices of services subject to competition while raising the prices of other services.

The Commission seeks comment on whether the prospective development of competition in local telecommunications warrants changes in the basket structure. Specifically, parties are asked their views on whether market circumstances might be identified now that, should they arise, would trigger changes in this structure. The Commission also seeks comment on whether changes should be made on an industry-wide or individual LEC basis, and what circumstances might warrant the elimination of multiple baskets.

NCTA believes that consideration of revisions to LEC price cap baskets is premature. Revisions are contemplated in anticipation of competition. But competition is in a nascent state, and the form and extent it will take in the near future is most uncertain. The Commission (and the states) should proceed to lift the barriers to competition by implementing mutual compensation, unbundling, dialing parity and other necessary procedures. But until such time as competition develops to the point that consumers enjoy the benefits of competitive forces, the existing basket arrangements should be maintained.

For similar reasons, it is also premature to consider the consolidation of specific service categories. While the development of strong cross-elasticities between particular services would

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[50] Price Cap Performance Review for Local Exchange Carriers; Treatment of Video Dialtone Services Under Price Cap Regulation (Second Report and Order and Third Further Notice of Proposed Rulemaking), 78 R.R. 2d 1573 (1995).

require recognition in the regulatory process, that process should await further developments in the marketplace. "Triggers" for future revisions should not be adopted until the Commission has a better perception of the targets. It remains to be seen whether competition develops at the same pace for all LEC services.

IV. THE COMMISSION SHOULD DEFER CONSIDERATION OF STREAMLINED TREATMENT AND NONDOMINANT STATUS UNTIL THE LECS FACE GENUINE COMPETITION

The Commission granted streamlined treatment to AT&T services when it concluded that particular services were "substantially competitive."[51] The agency declared AT&T "non-dominant" following more than two decades of competition and extensive proceedings after which it found that "AT&T neither possesses nor can exercise individual market power within the interstate, domestic, interexchange market as a whole."[52]

The dominant position of the LECs makes streamlined and non-dominant treatment inadvisable for the foreseeable future. The Commission should defer consideration of streamlining and nondominant treatment until the nature and scope of competition becomes more apparent.

A. Streamlined Regulation

The Commission proposes to model streamlining of LEC services on the streamlining procedures that were applied to AT&T. AT&T, the Commission asserts, was granted streamlined treatment based upon considerations of demand responsiveness, supply

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[51] Competition in the Interstate Interexchange Marketplace, 6 FCC Rcd. 5880 (1990).

[52] Motion of AT&T Corp. to be Reclassified as a Non-Dominant Carrier, FCC 95-427, rel. Oct. 23, 1995, at para. 39.

responsiveness, market share and pricing behavior. These factors are all legitimate indicia of dominant status and should be considered as part of the Commission's determination, at the proper time, of whether to grant streamlined status in particular cases.

But these considerations are not the most critical. In contrast to AT&T, the LECs have at their disposal the additional tool of their local bottlenecks through which competitors' services must pass, which they are able to employ to dominate the local telephone business. If competitors are prevented from passing through the bottlenecks, competition is foreclosed, or diminished as a result of the increased costs generated by the requirement to circumvent the bottlenecks. If competitors are delayed in offering service by LEC procedures that interfere with the efficient offering of service, LECs will be able to maintain a competitive advantage. If competitors are required to pay a LEC-implemented "toll" that exceeds a just, reasonable and nondiscriminatory level, competition will be impeded. It is even possible that LECs will be able to virtually control the level of competition if the compensation level is not subject to proper regulatory supervision. The same tollgate feature is not available to AT&T.

As a result, it is not enough to examine supply and demand responsiveness, market share and pricing behavior to evaluate whether streamlining is appropriate in particular circumstances. The Commission must also find either that LECs no longer control essential bottlenecks, or that in spite of that control, effective regulatory procedures have been put in place that prevent the incumbent carriers from taking competitive advantage. Until that happens, no streamlined treatment should be considered.

B. Nondominant Carrier Status

The Second Further Notice seeks comment on whether the standard established in the Competitive Carrier proceeding should be used to decide whether a LEC should be treated as nondominant. The Competitive Carrier proceeding will certainly inform the debate. The ability of the dominant incumbents to exercise market power by controlling price and foreclosing market entry are reliable indicia of the competitiveness of local telephone markets. But it is too soon to reach a conclusion regarding the meaning of these criteria in this context or whether they will be sufficient for local services.

The Competitive Carrier docket was primarily concerned with the appropriate types and levels of regulation as competition was felt in interexchange markets. Different factors may apply to local exchange markets. Following the AT&T divestiture, for example, that company lost its ability to restrict long distance competition by disrupting competitors' access to the local exchange. Unlike the long distance situation, local exchange carriers control essential bottlenecks. Competitors must be able to obtain the essential elements of interconnection, including the elements of a competitive checklist, before competition is possible. Only after the checklist has been satisfied, and markets have changed to the point that competition is effectively constraining the LECs' market power, can the Commission give serious condition to classifying LECs as nondominant.

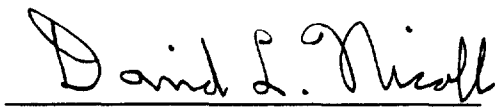
In contrast to the ongoing philosophical controversy over whether the egg or the chicken came first, there is no doubt that competition must precede nondominant status. To the extent the Second Further Notice emphasizes pricing flexibility, streamlining and the conditions for nondominant status over the facilitation of the necessary conditions precedent to effective

competition, it places the cart before the horse. The Commission should redirect its energies toward facilitating competition that, if it develops, can later justify consideration of pricing flexibility, streamlining and nondominant status.

CONCLUSION

For the foregoing reasons, the Commission should adopt policies consistent with these Comments.

Respectfully submitted,



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December 11, 1995

DECLARATION OF

LELAND L. JOHNSON, Ph.D.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Price Cap Performance Review for Local Exchange Carriers	)	CC Docket No. 94-1
	)	
Treatment of Operator Services Under Price Cap Regulation	)	CC Docket No. 93-124
	)	
Revisions to Price Cap Rules for AT&T	)	CC Docket No. 93-197

DECLARATION OF LELAND L. JOHNSON, Ph.D.

I, Leland L. Johnson, declare the following:

I am a consultant in telecommunications economics residing in Woodland Hills, California. I retired in March 1993 from the RAND Corporation, Santa Monica, California, where I had been employed, with two interruptions for government service, since 1957. I received my Ph.D. in Economics from Yale University in 1957. During 1978-1979, I was Associate Administrator for Policy Analysis and Development in the National Telecommunications and Information Administration in Washington D.C. During 1967-1968, I was Research Director of the President's Task Force on Communications Policy in Washington. In these capacities, I have written widely on issues of monopoly and competition, government regulation, and appropriate public policy. In recent years, I have focused on telephone company entry into video, including effects of advances in fiber optics and other technologies, and the economic implications of providing telephone and video

services over integrated transmission facilities. I have presented numerous seminars and briefings, and have testified before Congressional subcommittees and government administrative agencies. I am author of the book *Toward Competition in Cable Television* (MIT Press and AEI Press), published in 1994. An attached resume describes my background in further detail.

Summary

The National Cable Television Association has asked me to evaluate the proposition that price cap regulation, as a substitute for rate-of-return regulation, provides an adequate safeguard against subsidization of competitive ventures by an LEC out of its less competitive telephone revenues. As I explain below, any price cap scheme that a regulatory agency could reasonably be expected to adopt will fail to protect against the threat of cross-subsidization.

All price cap regimes of which I am aware are similar to rate-of-return regulation with a formal time lag between cost changes and price changes. Consequently, the dangers of cross-subsidization inherent in rate-of-return regulation, while mitigated, are not eliminated with price caps.

To fully protect against cross-subsidization would require a complete severing of the tie between prices and costs. This result could be achieved only if both federal and state price cap regimes involve a productivity adjustment factor -- the "X" Factor -- that is free of obligations by the LEC to share earnings and is maintained entirely outside the LEC's control. Thus, either a given X-Factor would have to be retained, or any adjustments would have to be made independently of individual LEC's actions, until effective competition in today's monopoly or near monopoly markets is achieved.

It is difficult, indeed, to imagine a regulatory agency credibly committing itself to a price cap regime with an X-Factor that is fixed into the sufficiently distant future regardless

of the intervening experience of the individual LEC. At bottom, regulators cannot ignore the company's profits and losses. If profits are persistently high, regulators would be under strong public pressure to revise the price cap formula. Conversely, low profit levels or losses would bring pressure to adjust the formula in the other direction.

In its interim price cap plan, the Commission has established three X-Factors from which the LECs may choose, including a relatively high one of 5.3 percent with which the electing LEC is free of the obligation to share earnings. Nevertheless, the Commission's interim plan clearly fails to sever the tie between prices and costs. To be sure, the three X-Factors from which the LECs may choose are set by the Commission outside the control of individual LECs. However, under the interim plan the LECs are free to move from one X-Factor to another each year, with the degree of longer term flexibility being dependent on the Commission's forthcoming decisions about the characteristics of a permanent plan. Thus, no LEC is committed in the long-run to any particular X-Factor over which it has no control.

In general, price cap schemes, especially those free of sharing obligations, represent an improvement over traditional rate-of-return regulation. But price caps by themselves are insufficient to ensure against anticompetitive cross-subsidization, because they cannot mimic faithfully the outcomes of competitive markets. Even with price caps in place, the Commission must continue its oversight of cost assignments between more competitive and less competitive markets, until both have become effectively competitive.

In support of these basic points, this declaration is divided into three parts, followed by a brief concluding section.

- the behavior expected of an unregulated firm holding a monopoly or near monopoly, to show how government regulation of prices triggers the threat of anticompetitive cross-subsidization.
- the characteristics of the Commission's price cap regime that render it incapable of fully protecting against cross-subsidization.
- the relevance of state regulatory policies to issues of cross-subsidization involving interstate services.

Cross-Subsidy in the Absence of Regulation

One of the reasons for concern about the threat of cross-subsidy by LECs arises from their monopoly of local exchange services. Any increase in rates would have only a very small effect on subscribership.[1] Although competition is emerging for some business services, the LECs retain their monopoly hold over residential and small business users, with new transmission suppliers confronted by bottlenecks to network access held by the incumbents.[2]

However, the presence of monopoly by itself is not enough to trigger a serious threat of cross-subsidy. If the firm is able to increase profits by raising prices in the monopoly market, it would do so even in the absence of another market to be subsidized. In the absence of regulation, the firm presumably would seek to set prices in its monopoly market

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[1] In the absence of regulatory constraint, LECs could substantially raise their basic service prices with little effect on telephone subscribership. In other words, the price elasticity of demand is low. Empirical studies of price-sales relationships disclose low price elasticity for basic telephone service, in the neighborhood of -0.10. For a 1 percent increase in the basic monthly rate, the number of residential subscribers would fall by only one-tenth of a percent, resulting in a total revenue increase by nearly the same percentage as the price rise. Lester D. Taylor, *Telecommunications Demand in Theory and Practice*, Klewer Academic Publishers, 1994 at 280.

[2] For detailed analysis of the bottleneck that exists in local exchange access as a consequence of the lack of good alternatives, see Economics and Technology, Inc. and Hatfield Associates, Inc. *The Enduring Local Bottleneck*, 1994.

to maximize profits, with any higher (or lower) prices resulting in a reduction in profit. If, in this circumstance, the firm finds an opportunity to enter a competitive market, any payments for subsidies to that market would represent an up-front financial loss. In other words, the firm would be unable to further raise prices in its monopoly market as a way to obtain additional revenues for subsidies elsewhere, for it would already have fully exploited whatever monopoly power it has.

To be sure, firms may choose to sell products temporarily at a loss. Indeed, any new activity--in telecommunications or elsewhere--must be expected to operate at a loss during its early life. That loss must be compensated from one source or another--such as contributions by shareholders, bank loans, or support from a corporate parent. The issue is not whether a new venture must receive financial help early in its life to cover start-up costs, but whether a threat of predatory pricing exists: the threat that the enterprise will persistently price its services at below cost to drive out or seriously disadvantage its competitors.

Predatory pricing is commonly thought to occur only rarely. A successful predatory strategy would require the firm to underprice the service in question to such a degree and over such a long period that it drives out or severely handicaps competitors. With the firm at that point having a monopoly or near-monopoly, it would then have to raise prices to cover not only current costs, but also the up-front losses (plus risk-adjusted cost of capital to cover the years in which the losses were suffered). Such a scenario strains the imagination. In the words of three legal analysts "[t]he evolving consensus among both economists and judges is that aggressive (but entirely legitimate) competition is too often confused with

'predation.'"[3] In the words of the Supreme Court, predation is "rarely tried, and even more rarely successful."[4]

This is not to say that the unregulated firm is essentially immune from behaving anticompetitively. The vast literature in antitrust law and economics demonstrates the wide range of such strategies pursued in the past, and their potential for the future.[5] The point here is that cross-subsidization, as one tool of strategic behavior, is not notably attractive relative to other anticompetitive strategies, because attendant upfront financial losses may be difficult or impossible to recover.

The Inability of Price Caps to Protect Against Cross-Subsidization

In contrast, anticompetitive cross-subsidization is a notably attractive possibility for the monopoly firm whose prices are regulated so that it is unable simply to maximize profits. The threat of such behavior arises if the nature of regulation enables the firm to shift costs (undetected) from the competitive market to the monopoly market. Two aspects are key: the ability to shift costs and the nature of the regulatory regime.

The ability to shift costs depends on the nature of the relationship between the two markets. My concern here is with competitive -- or potentially competitive -- services that share investment or recurring expenses with basic local exchange services. Examples are planned video dialtone systems that would share fiber broadband networks with local exchange services, and the variety of increasingly competitive private line and other common

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[3] Michael K. Kellogg, John Thorne, and Peter W. Huber, *Federal Telecommunications Law* (Little, Brown and Co., 1992), pp. 143-144. For a comprehensive treatment of why the prospects for successful predatory pricing are dim, see Frank H. Esterbrook, "Predatory Strategies and Counter-Strategies," *University of Chicago Law Review* (1981), pp. 263-337.

[4] *Matsushita Electric Industrial Co. v. Zenith Radio Corp.*, 106 S.CT. 1348, 1357-1358 (1986).

[5] For a comprehensive treatment, see J.A. Ordover and G. Saloner "Predation, Monopolization and Antitrust," in R. Schmalensee and R. Willig, [eds.] Handbook of Industrial Organization (North Holland, 1989).

carrier business transmission services that share networks with monopoly residential service. As illustrated in the Section 214 applications by the LECs for video dialtone in recent years, it is all too easy for the companies to underestimate the cost to be assigned to the more competitive services, with the shortfall shifted to less competitive ones, and the Commission and state regulatory agencies left to sort out conflicting claims by the affected parties.

The other type of competitive activity operates separately from the LECs networks -- for example, the operation in a foreign country of a cable or telephone system in competition with an incumbent, or a myriad of other activities into which some LECs have sought to diversify. In such cases, it is relatively easy to keep separate the costs of such ventures from the LEC's core business. While such outside activities may lose money, it would be difficult to pass these losses undetected back to monopoly telephone ratepayers. Consequently, such activities are not of concern in this declaration. My use of the term "competitive service" or "more competitive service" is meant throughout to encompass only the first type above -- offerings that share investment and expense outlays with local exchange service.

With respect to the nature of the regulatory regime, rate-of-return regulation traditionally used by regulatory agencies has been widely criticized precisely on grounds that its "cost plus" approach to regulation encourages improper cost shifting and generally inefficient behavior. The objective of this regulatory approach is to give the firm the opportunity to earn a "fair" rate of return on its investment--a return adequate to cover its cost of capital required to pursue its business activities. After all expenses, including depreciation, are subtracted from revenues, the net figure is divided by the "rate base," or the value of undepreciated investment, to derive the rate of return. If this figure is deemed to be too low, the firm is permitted to raise prices; conversely in situations of excessive rates

of return. The greater are the firm's costs, the smaller is the computed rate of return and the greater is the pressure for regulators to permit a price increase. In short, the firm may have weak incentives to operate efficiently if it can easily pass costs on in the form of higher prices.

If the firm can shift costs from more competitive to less competitive markets, it can subsidize its competitive activities through price hikes in the latter. In contrast to the unregulated firm, the up-front costs of predatory pricing would come at the expense of ratepayers rather than of stockholders--a situation that makes predatory pricing a more plausible strategy than depicted above for the unregulated firm. It is this possible chain of events that has prompted concerns about cross-subsidization by the LECs.

Widespread dissatisfaction with rate-of-return regulation has led to the adoption of price caps at both the state and federal levels. This alternative regulatory regime focuses on prices rather than profits. In theory, by capping prices, regardless of the firm's costs, incentives for efficient behavior will be strengthened, making it difficult or impossible for the firm to raise prices in its less competitive markets for subsidies elsewhere.

For this reason, it is widely held that the imposition of price cap regimes on the LECs helps to alleviate the most worrisome aspects of traditional rate of return regulation. By forestalling the pass-through to consumers of whatever costs are incurred by the regulated firm, price caps may strengthen incentives to behave efficiently. By reducing costs through improved efficiency, the firm is rewarded with extra profits. By failing to reduce costs, due to continuing inefficiencies, the firm is penalized by the squeeze on profits imposed by the price cap constraint on price hikes.

In the words of Professor Alfred Kahn:

> In its pure form direct price regulation eliminates any entitlement of regulated companies to recover from monopoly customers any reductions in rate of return resulting from price cuts in competitive markets. It correspondingly eliminates any incentive of the regulated companies to shift costs from unregulated or competitive to less competitive services. Under price caps--or any form of incentive regulation that breaks the link between observed costs and prices--the LEC is no more able to cross-subsidize than an unregulated firm: if it invests money in the destruction of its rivals, it will have to absorb that investment as a reduction in its earnings and hope to recoup its losses later under more favorable circumstances.[6]

However, "pure" price caps, under which rates are totally divorced from costs, as described by Professor Kahn, do not exist, nor can they reasonably be expected to exist. Regulators cannot ignore the company's profits and losses. If profits are persistently high, regulators would be under strong public pressure to revise the price cap formula. Conversely, low profit levels or losses would bring pressure to adjust the formula in the other direction.

Price cap regulation can best be regarded as resembling rate-of-return regulation with a formal time lag. Price cap regimes typically specify a set of prices with upward adjustments for inflation and downward adjustments to reflect productivity growth. Abstracting from changes to reflect other exogenous factors, consumers can expect real prices to fall depending on the size of the productivity growth factor -- commonly called the "X-Factor." The price cap regime is subject to formal review generally at specified intervals (typically three or four years) whereupon past performance is evaluated (including the historic rate of return) and adjustments made in the productivity factor and other elements of the formula to bring the projected rate of return in line with what regulators would regard as

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[6] *Statement of Alfred E. Kahn*, FCC CC Docket 94-1, June 28, 1994, p. 13, in Bell Atlantic *ex parte* submission to FCC, September 23, 1994.

just and reasonable. In no sense can the company's prices be regarded in the long-run as frozen irrespective of costs, as would be required in a pure price cap regime.

Most notably, Professor Kahn agrees that pure price cap regimes do not exist.

> To be sure, we have to my knowledge yet to see a scheme of pure price regulation. All of the schemes of which I am aware contemplate review within a few years of how they are working. Since the indexation formulas are inevitably based on estimates--in particular, estimates of how the costs of the regulated companies may be expected to behave relative to the basis for indexation (such as the Consumer or GNP price index)--it is difficult to imagine a scheme under which the government would surrender for all time the option of testing the accuracy of those estimates against actual experience. Such reexaminations have typically involved some correction of the formula if profits prove to be too high or too low--in which event price regulation turns out to resemble rate of return regulation.[7]

The fact that pure price caps do not exist is well illustrated by the Commission's price cap regime for the LECs, which has recently been modified in accordance with the Commission's interim price cap plan adopted in March 1995.[8] Under the plan, each LEC has a choice among three X-Factors. The smallest X-Factor -- 4 percent -- carries with it the obligation of 50-50 sharing of earnings between a 12.25 percent and a 13.25 percent rate of return, and 100 percent sharing above 13.25 percent. The next largest X-Factor -- 4.7 percent -- includes 50-50 sharing for rates of return between 12.25 and 16.25 percent, and 100 percent sharing with rates above 16.25 percent. Both of these X-Factors include a "low end" adjustment mechanism whereby the LEC may obtain an above-cap price adjustment if its rate of return falls below 10.25 percent. The third and largest X-Factor of 5.3 percent involves no sharing, nor a low end adjustment.

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[7] Alfred E. Kahn, *Review of Regulatory Framework*, Canadian Radio-television and Telecommunications Commission, Telecom Public Notice CRTC 92-12. Filed on behalf of AGT, April 13, 1993 p. 21. Emphasis in original.

[8] First Report and Order, Price Cap Performance Review for Local Exchange Carriers, CC Docket No. 94-1, FCC 95-132 (released April 7, 1995).

The low end adjustment is a striking example of how the Commission has failed to decouple costs and prices. If, under the first two options, the carriers' rate of return falls below 10.25 percent, perhaps because of aggressive battles with competitors with the LEC engaging in below-cost pricing, it is "entitled to adjust its rates upward to target earnings to an amount not to exceed the lower mark [10.25 percent]."[9] The Commission defends this "limited upward adjustment" on grounds that it "should ensure that the LEC will remain healthy and able to provide needed services, while retaining substantial incentives to take the action necessary to improve its performance and thereby raise its earnings above this minimal level."[10] Perhaps so, but this adjustment illustrates stunningly the fact that because regulators cannot ignore the firm's financial condition, they cannot adopt a price cap regime that truly decouples prices and costs.

As a second illustration, suppose that an LEC selects the second option of 4.7 percent and has a rate of return of 13 percent which, since it is above 12.25 percent, requires 50-50 sharing. If the LEC then engages in cross-subsidization, its rate of return will fall, let us say, to below 12.25 percent. At the same time, the up-front loss caused by cross-subsidization is partially compensated by the elimination of sharing (and the corresponding additional decrease in prices that would have been required in the absence of cross-subsidization). The LEC may conclude that the long term strategic advantage of cross-subsidization more than offsets the near-term reduction in its rate of return, when part of this reduction is offset by the elimination of sharing.

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[9] LEC Price Cap Order, Policy and Rules Concerning Rates for Dominant Carriers, CC Docket No. 94-1, 5 FCC Rcd at 6802 (para 127).

[10] Id.

Consider another possibility where the LEC selects the 5.3 percent X-Factor with no sharing, in order to protect its higher rate of return, let us say, of 16 percent. Because it has the option of later moving to another X-Factor, it may be encouraged to take risks, including risky ventures involving cross-subsidization. With the up-front costs of cross-subsidization, its rate of return falls to, say, 12.25 percent. In response, it shifts to the 4 percent X-Factor option which not only involves no sharing at that rate of return, but also a much smaller subsequent annual reduction in real prices (4 percent instead of 5.3 percent). Thus, its cross-subsidized venture results in a burden being placed on telephone ratepayers, reflected in smaller price decreases than otherwise would have existed.

This outcome would have been prevented if the LEC had been forced to retain the 5.3 X-Factor until the time that effective competition emerges. In contrast, however, the Commission currently permits carriers to select a new X-Factor annually. It is aware that "permitting a carrier to change its choice of X-Factor annually could create opportunities for abuse," and it is inquiring into the issue of how much flexibility the LECs should have to change their selections.[11] Judged by its interim plan, however, the Commission is a long way from establishing a single X-Factor, with no sharing or low end adjustment, while retaining that X-Factor (or with modifications entirely outside the control of individual LECs) until the LEC faces effective competition in its existing monopoly or near monopoly markets. In other words, it is a long way from adopting a pure price cap regime that "breaks the link" (to use Professor Kahn's phrase) between costs and prices.

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[11] *Fourth Further Notice of Proposed Rulemaking*, CC Docket No. 94-1, Released September 27, 1995, ¶¶ 119, 120.

The Relevance of State Regulatory Regimes

Moreover, even if the Commission were able to adopt a pure price cap scheme, a threat of cross-subsidy would remain as a consequence of potential cost misallocations between the intrastate and interstate jurisdictions. For example, a competitive interstate service (such as video dialtone) might be subsidized by shifting some of its costs to residential telephone subscribers forced to pay higher local exchange rates than otherwise. Only if the states also have pure price cap regimes in place would this threat be forestalled.

The states, however, are far from achieving this goal. While some retain rate of return regulation, others have adopted various incentive schemes with sharing of profits and consequent opportunities for gaming by the LECs.[12]

By late 1994, several states had adopted price cap plans with sharing provisions, including California, New Jersey, and Rhode Island.[13] By no stretch of the imagination can these price cap regimes be regarded as decoupling prices and costs. The New Jersey plan, for example, permits an increase (or requires a decrease) in the individual rates for Bell Atlantic's affected services by the percentage change in the prior year's Gross National Product Price Index minus a two percent X-Factor.[14] Accordingly, rates are to fall by two percent per year in real terms (subject to possible adjustments to reflect other exogenous factors).

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[12]For a comprehensive survey of state programs, see David E. M. Sappington and Dennis L. Weissman, *Designing Incentive Regulation for the Telecommunications Industry*, (draft), American Enterprise Institute, Washington D.C. March 1995

[13]Id. Ch. 3 at 13.

[14]Plan for Alternative Form of Regulation for New Jersey Bell Telephone Company, New Jersey Board of Regulatory Commissioners, Docket No. T092030358.

Three aspects of the New Jersey plan show how far it is from a pure price cap regime. First, the plan stipulates that the company will not be required to reduce real rates during any year in which the average intrastate rate of return on equity for its rate regulated services for the applicable twelve-month period falls below 11.7 percent. Consequently, if shifting interstate service costs onto local telephony reduces the return to below 11.7 percent, the company can pass these costs onto local subscribers by denying a rate decrease to which they otherwise would have been entitled.

Second, if the company's intrastate return on equity exceeds 13.7 percent, the excess earnings are to be shared equally between the company and its customers. Consequently, by shifting interstate service costs onto local telephony, the company may avoid triggering this sharing provision, again denying customers benefits to which they otherwise would be entitled.

Third, the price cap plan expires at the end of 1999. Consequently, excessive interstate costs shifted to local telephony in the next few years will provide the basis for a subsequent lower X-Factor. In this event, telephone customers will face smaller real rate decreases after 1999 than otherwise.

The key difficulty illustrated throughout arises from the control by the LEC over the X-Factor to which its prices are subject. With that control, it is able to game the system with the consequence that it is able -- again with time lag -- to pass additional costs to its monopoly subscribers.

Conclusions

The Commission is a long way from adopting a pure price cap plan, defined as one in which prices are fully divorced from costs. Even a plan that involves no sharing is susceptible to gaming. Moreover, even if the Commission were able to implement a pure

price cap, cross-subsidization would still be a threat -- with improper cost shifting between interstate and intrastate jurisdictions -- so long as the states do not also have pure price cap regimes simultaneously in place.

The fundamental barrier to the adoption of pure price caps lies in the fact that regulators cannot ignore the company's profits and losses. If profits are persistently high, regulators would be under strong pressure to raise the X-Factor as a way to lower earnings. Conversely, low profit levels or losses would bring pressure to adjust the formula to enable higher earnings. Consequently, both federal and state regulators face irresistible pressure to include in their price cap regimes "safety valves" of one sort or another -- sharing obligations, low-end adjustments, provisions for modifying X-Factors -- the same safety valves that open the door to gaming and the threat of anticompetitive cross-subsidization.

Although the Commission's price cap regime represents a constructive step forward from traditional rate-of-return regulation, price caps by themselves are insufficient to ensure against anticompetitive cross-subsidization because they cannot mimic faithfully the outcomes of competitive markets. Even with price caps in place, the Commission must continue its oversight of cost assignments between less competitive and more competitive markets, until effective competition has been achieved in both.