

Cap-Sized: How the Promise of the Price Cap Voyage to Competition Was Lost in a Sea of Good Intentions

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I. INTRODUCTION	351
II. HISTORY OF LOCAL EXCHANGE CARRIER REGULATION.....	354
A. <i>The Agency's Early Efforts to Regulate the Telephone Industry Focused on the Rate-of-Return Model</i>	355
1. The Commission Attempted to Regulate Effectively AT&T's Monopoly in Long-Distance and Local Telephone Services	355
2. Rate-of-Return Regulation Is Inherently Inefficient in Mature Competitive Markets.....	358
3. The Agency Abolished the Rate-of-Return System.....	362
B. <i>The FCC Rejected the Social Compact Model</i>	362
C. <i>The Commission Believed Price Cap Regulation Best Balanced the New Regulatory Demands</i>	364

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1.	The FCC Saw Price Caps as Easier and Less Costly to Oversee than Rate-of-Return Based Systems	364
2.	The Commission Planned to Promote Efficiency and Technological Development by Allowing LECs to Reap the Benefits of Change	365
3.	The FCC Viewed Price Caps as a Transitional Regulatory Mechanism Between Monopoly and Competition....	366
4.	The Commission Believed that Consumers Would Benefit from the Reductions in Access Rates Caused by the Productivity Factor	368
III.	THE FCC'S INITIAL VOYAGE WITH A PRICE CAP REGIME.....	368
A.	<i>The Initial Productivity Factor Was Set at a Level that Reflected the LEC Industry's Historical Productivity</i>	369
B.	<i>The FCC Implemented a Consumer Productivity Dividend to Increase the Downward Pressure on Prices</i>	371
C.	<i>Sharing Was Initially Instituted in the Event that the FCC Chose the Wrong X-Factor and to Ensure that Ratepayers Shared in Profits from Efficiency Gains</i>	372
D.	<i>The Low-End Adjustment Was Established to Ensure that Rates Did Not Become Confiscatory</i>	373
E.	<i>The Formula Incorporated Increases and Decreases for "Exogenous Costs" Outside the Carrier's Control to Ensure that Incentives Were Not Undermined and that the Carrier Did Not Receive an Unfair Windfall</i>	374
F.	<i>A System of Baskets and Bands Restricted Price Caps to Prevent Cross-Subsidization</i>	375
IV.	SUBSEQUENT MODIFICATIONS TO THE ORIGINAL PRICE CAP SCHEME.....	377
A.	<i>The FCC Repeatedly Increased the Productivity Factor and Retroactively Adjusted Earlier Period Indexes to Account for the Higher Productivity Factors</i>	377
B.	<i>The FCC Eliminated the Multiple Productivity Factor Choices</i>	379
C.	<i>The FCC Refused to Eliminate the Consumer Productivity Dividend</i>	379
D.	<i>The FCC Reduced Eligible Exogenous Costs</i>	381
E.	<i>The FCC Eliminated Sharing but Not the Low-End Adjustment</i>	382
F.	<i>The FCC Modified New Services Pricing and Procedural Rules</i>	383
G.	<i>The FCC Began to View Price Caps Not as a Permanent Replacement for Rate-of-Return Regulation, but Rather as a Transition to Local Exchange Competition</i>	384

Number 2]	<i>THE PRICE CAP VOYAGE</i>	351
V.	EXPERIENCE WITH IMPLEMENTATION OF PRICE CAPS AT THE STATE LEVEL.....	384
A.	<i>Some States Have Implemented Different Price Caps for Different Service Baskets.....</i>	385
B.	<i>States Typically Set Much Lower Productivity Offsets than Those Used by the FCC.....</i>	387
C.	<i>The Use of a Consumer Productivity Dividend, in Addition to the X-Factor, Is Uncommon at the State Level.....</i>	388
VI.	EVALUATION OF THE PRICE CAP VOYAGE	390
A.	<i>The FCC's Price Cap Regulations Generated Substantial Benefits.....</i>	391
1.	The Elimination of Sharing Bolstered the Efficiency-Producing Impact of Price Cap Regulation	391
2.	Price Caps Have Led to Substantial Rate Decreases that Have Benefited Long-Distance Carriers.....	393
3.	Price Cap Regulation Has Simplified the Documentation that Must Be Filed with, and Has Streamlined the Evaluation of, Price Changes.....	394
B.	<i>The FCC's Implementation of Price Caps Suffered from Significant Shortcomings</i>	395
1.	Politicizing Price Caps Has Undermined the Consumer Benefits that Can Be Achieved	395
2.	Price Caps Should Be Structured to Increase the Role of the Marketplace When Competition Is in Place	397
3.	The Lack of a Pass-Through Requirement Imposed upon IXC's Has Undermined End-User Benefits	399
C.	<i>The Commission Should Reform Price Caps Consistent with Its Initial Goals and the Ultimate Destination of Full Competition</i>	400
VII.	CONCLUSION.....	401

I. INTRODUCTION

The "telecommunications revolution" has moved from cliché to reality. It is now transforming how people live and work. Telephone service is now available through a computer terminal over the Internet, through wireless handsets, and through good old-fashioned wireline telephones. Service is now available from more providers than ever; competitive carriers now challenge the long-distance, local, and even Internet incumbents with aggressive pricing and innovative products. Thousands of new competitive players have entered the communications arena, an industry that is now worth more

than \$298 billion annually in the United States alone.¹ This revolution is worldwide, promising to bring the world closer together through communications that are faster, cheaper, and more reliable.

As this revolution, fueled by amazingly rapid technological advances, transforms individuals' lives, regulators must navigate a difficult course. They must ensure that government rules do not fall behind the swiftly changing currents of technology and the marketplace, lest regulation frustrate these advances that give consumers needed services at reasonable prices.

Against this backdrop of revolutionary change and regulatory challenge, the Federal Communications Commission (Commission or FCC) has struggled with the regulation of rates, termed "access charges,"² assessed by local telephone companies to long-distance carriers needing to interconnect to local networks. All too often, the task has involved an anachronistic regulatory regime that is being rapidly outdated by marketplace developments.

Eight years ago, the FCC began to discard its largely discredited rate regulation scheme by adopting market-based reforms. It abandoned older style, cost-plus rate-of-return regulation in favor of "price cap" regulation, which focused on prices and created incentives for telephone companies to innovate and become more efficient. Price caps are a system in which regulators set a maximum cap on prices for a certain service, and the cap is reduced each year by a set amount based on estimated improvements in efficiency. Local exchange carriers (LECs) support price cap regulation because it allows them to charge the cap price even if the actual cost of providing the service is substantially lower, thus potentially leading to higher profits. Regulators like the price cap regime because it consistently reduces access charges. Despite eight years of tinkering, the FCC continues to try to get these new price cap regulations "right," while controversy rages among local telephone companies, long-distance carriers, customers, and regulators concerning the scope and necessity of the FCC's regulatory regime.

This Article analyzes the last eight years of experience under price cap regulation and evaluates what has gone right and wrong. Although price cap regulation has produced reduced rates to long-distance carriers (though not necessarily to long-distance customers) and more efficient pricing than under

1. The \$298 billion figure is for 1996. *NEW YORK TIMES* 1998 ALMANAC 787 (John W. Wright ed., 1997).

2. "Access charges" are the fees that long-distance carriers pay to local telephone companies for use of their networks to complete long-distance calls and comprise some 40% of long-distance carrier costs.

rate-of-return regulation, it has ultimately fallen victim to incessant tampering and lagged far behind marketplace changes.

Perhaps the most troubling aspect of the Commission's price cap regulatory regime is that the FCC has not allowed price caps to function free of tampering. The entire premise of the price cap regime is that by placing a cap on prices, local carriers will have an incentive to improve efficiency beyond the levels mandated by the caps themselves because, unlike under rate-of-return regulation, carriers can keep the profits. Although motivated by public interest considerations, the FCC has undermined these very advantages by reinserting vestiges of rate-of-return regulation into the new system and permitting external political factors to impact its price cap decisions. First, the Commission has repeatedly imposed retroactive adjustments to the price cap indices in order to correct underestimates. Second, the Commission has repeatedly revised the productivity factor upwards and maintained a nonefficiency based add-on. Third, the calculation formula for the X-Factor itself has been quite arbitrary, each time generating charges that the changes were politically motivated or result driven. Using high earnings to justify a higher X-Factor is, in effect, back door rate-of-return regulation, a result the FCC said it was trying to avoid. Finally, the FCC has never adopted a "pass through" requirement that would mandate that long-distance carriers pass along price reductions generated by price caps to consumers. Absent such a requirement, the Commission has struggled to broker side deals with long-distance carriers that insure consumers benefit from these reductions.

Each of these four departures from price cap principles has undermined the fundamental premise of the regulatory program—namely, to permit price cap carriers to keep higher-than-expected productivity gains as profit as an incentive to improve efficiency, while at the same time reducing consumer prices. Instead, the Commission, as if it were still functioning under a rate-of-return regime, has looked to the company's ultimate rate of return, determined that the rate was too high, and then adjusted the price caps to eliminate some of these gains, while struggling to find ways to prompt consumer rate reductions. Although these changes have all been well-intentioned, they have ultimately helped to sink the very ship they were designed to save. If the ship is to be righted and the voyage to full competition resumed, the Commission should return to its original price cap principles by adopting a series of course corrections that will enable all parties to thrive.

Until the voyage to competition is complete, the Commission should adopt the following reforms to ensure that the public realizes the full benefits of price caps: (1) simplify and maintain X-Factor principles over the long haul to create firm incentives for LECs to become more efficient; (2) refrain from political tinkering with X-Factor or retroactive adjustments in the cap

that deny LECs the benefit of their bargain by using a moving historical average to compute X-Factor charges; (3) eliminate the consumer product dividend so that the cap reflects actual achievable efficiency gains; (4) adopt an explicit pass-through requirement that will require long-distance carriers to pass through price cap reductions to consumers; (5) provide pricing flexibility to allow the caps to function more like free markets; and (6) permit new services to be offered outside the caps to encourage innovation and recognize the markets that now exist for these services.

Only when a consistent and predictable price cap system is in place will the goals of creating market-based incentives for improved efficiency be achieved and the process depoliticized. As set forth below, such a price cap course is consistent with the initial stated goals of price cap regulation and best positions the Commission for the eventual transition to a free competitive market for these services.

This Article lays out the case for these reforms based on the initial price cap theory and the evolving state of the telecommunications marketplace. Part II presents different models of regulating local exchange carriers, describing the difficulties with the old rate-of-return system and the theoretical advantages of a price cap regime. Part III explains how the FCC's creation of a price cap plan in 1990 contained modifications to address the perceived shortcomings of a pure price cap system. Part IV describes the many subsequent modifications the FCC made to its original 1990 plan. Part V details the experiences of various states with price cap systems, including the progressive reforms by states like California that have been responsive to market and regulatory developments. Finally, Part VI evaluates the current price cap system, discussing both its advantages and shortcomings and sets forth recommendations designed to allow price caps to achieve their full regulatory potential.

II. HISTORY OF LOCAL EXCHANGE CARRIER REGULATION

To furnish long-distance telephone service, providers such as AT&T need to connect to local networks that are owned and operated by LECs, such as US West.³ Before the advent of the modern telecommunications revolution, it was widely believed that telephone service was a natural monopoly, especially local telephone service, which required a connection to each individual customer's residence or business.

Initially, because AT&T had a monopoly in the provision of both local and long-distance services, the FCC relied upon informal negotiated rate

3. The Author sometimes refers to long-distance carriers by their more technical name "interexchange carriers" or "IXCs," reflecting that such carriers must transfer a call over both local and long-distance networks in order to connect a long-distance call.

making it termed “continued surveillance.” In the 1960s, with the advent of some competition in the local market, the FCC turned to rate-of-return regulation, a widely used means of regulating industries with limited competition, in order to control the amount that could be charged by LECs for allowing a long-distance call to go over the long-distance network. More recently, as the idea that telephony is a natural monopoly has been discarded in the face of technological advances, regulators have considered alternative means of regulating rates charged by LECs to IXCs for interconnecting long-distance calls with the local networks. Two of the more prominent and more promising means of regulation are Social Compacts and Price Caps. This section describes the FCC’s historical approach to access charges.

A. *The Agency’s Early Efforts to Regulate the Telephone Industry Focused on the Rate-of-Return Model*

1. The Commission Attempted to Regulate Effectively AT&T’s Monopoly in Long-Distance and Local Telephone Services

Before the mid-1960s, regulation of the telephone industry was relatively straightforward. AT&T was the sole provider of interexchange services, and thus the only company that the FCC had to regulate. It was widely believed that the provision of telephone services constituted a natural monopoly,⁴ “an industry . . . where the entire market demand can be met at [the] least cost by a single firm,”⁵ because, among other things, the cost of entering the market and of laying new telephone lines was considered prohibitively expensive. Congress itself readily accepted the belief that substantial technological barriers to entry in the telephone industry rendered the Bell System a natural monopoly.⁶

Given this widely held view that the telephone industry was a natural monopoly, the FCC’s regulatory policy in this era aimed at increasing efficiency, limiting consumer costs, and ensuring universal access to telephone

4. There have been disputes between economists as to whether the structure of the telecommunications industry was indeed a natural monopoly. See, e.g., MORTON I. HAMBURG & STUART N. BROTMAN, COMMUNICATIONS LAW AND PRACTICE § 1.04[5], at 1-25 (Law Journals Seminars-Press 1995); Howard Griboff, Comment, *New Freedom for AT&T in the Competitive Long Distance Market*, 44 FED. COMM. L.J. 435, 438-39 n.9 (1992) (“In the case of the phone system, regulatory, economic, and technological barriers to competitive entry helped AT&T maintain its market dominance and ‘monopoly’ status.”).

5. WALTER G. BOLTER ET AL., TELECOMMUNICATIONS POLICY FOR THE 1980s: THE TRANSITION TO COMPETITION 31 (Prentice Hall, Inc. 1984).

6. See Dean Burch, *Common Carrier Communications by Wire and Radio: A Retrospective*, 37 FED. COMM. L.J. 85, 88 (1985).

services. The FCC did not give any thought to increasing competition. As one commentator observed of the FCC's approach:

Where such conditions prevail, competitive entry, at least in theory, will prove short-lived, thereby wasting scarce resources. However, to prevent an unreasonable rise in prices and reduction in quality of service, as is customary with unregulated monopolies, the FCC maintained "continued surveillance" of the rates charged and the services provided through a tariffing mechanism.⁷

In developing a telecommunications regulatory model, the FCC looked to other agencies responsible for regulating industries that were deemed natural monopolies, such as the electric utilities.⁸ Accordingly, the Commission used rate-of-return-rate base regulation, the same tool historically used to regulate other public utilities.⁹

Initially, the rate-setting process between the FCC and AT&T was relatively informal. From 1934 to 1965, under a program labeled "continued surveillance," the FCC and AT&T essentially engaged in an informal process of rate making.¹⁰ As one scholar described the situation:

In effect, continuing surveillance consisted of private negotiations between AT&T and the FCC concerning the level of interstate rates and aggregate revenue[s] During the early 1960s, the FCC, through the continuing surveillance process, set an informal limit for the return on AT&T's investment at approximately 8%. When AT&T's rate of return approached this percentage, the FCC and AT&T would initiate negotiations that were often followed by reductions in interstate rates.¹¹

By the mid-1960s, however, the telecommunications industry began to change. Emerging technologies such as computers, microchips, and microwave transmission began to create for the first time a real possibility for the formation of a truly competitive telecommunications market. The traditional belief that the telephone sector was a natural monopoly began to seem doubtful in light of technological advances such as microwave technology. Given this new potential, regulators began to wonder if a monopolistic inter-exchange system was the best means of providing uniform and universal service.¹² Moreover, the FCC realized that negotiated informal rate making

7. Sutapa Ghosh, *The Future of FCC Dominant Carrier Rate Regulation: The Price Caps Scheme*, 41 FED. COMM. L.J. 401, 403 (1989) (citations omitted).

8. Like the telephone company, the electric companies provided service through a wire connection to each customer.

9. BOLTER, *supra* note 5, at 31.

10. *Id.* at 27.

11. *Id.* (citation omitted).

12. Ghosh, *supra* note 7, at 404.

was no longer the best means of regulating a market that could, in some aspects, be competitive.

Despite the promise of new technology, the FCC feared that AT&T's vast resources and dominance would preclude the entry of competitors.¹³ Indeed, only small parts of AT&T's monopoly were believed to be in areas where competition was viewed as possible in the near future. The main such area was the long-distance market. Consequently, in 1967, the agency instituted a series of new regulations designed to prevent AT&T from cross-subsidizing competitive services with monopoly revenue to gain an unfair competitive advantage.¹⁴ These new regulations served as the agency's formal implementation of the rate-of-return regulatory strategy.¹⁵

Rate-base regulation, commonly referred to as rate-of-return regulation (ROR), was a ratemaking instrument of public utility commissions. Its purpose was to protect the consumer from excessive costs, while ensuring that investors received a fair return on their investments. As one commentator described the system:

Regulators replace the market as the enforcer of economic efficiency by establishing the cost structure considered most representative of costs in a competitive market. Establishing prices involves negotiation between the regulated company and the regulators, with the final figure usually being a compromise between a competitive market and monopoly pricing.

Once the cost structure has been established, the regulators must ensure the economic viability of the essential service provider by adding a pre-set rate of return on invested capital.¹⁶

Accordingly, public utility commissions and carriers were expected to work together to determine the rates that regulated companies would charge to American consumers. To pass constitutional muster, the determined rates had to be (1) "just and reasonable" and (2) balance the interests of the investor and the consumer,¹⁷ but these broad standards allowed the regulatory commissions considerable flexibility to work with businesses to reach a desired rate of return.¹⁸

13. *Id.* at 402.

14. *Id.* (the main objective being "to deter AT&T from shifting revenue from services on which it held market dominance to emerging services on which it faced competition").

15. Patricia Margiotta, *The Local Exchange Carrier Price Cap Order*, 63 GEO. WASH. L. REV. 723, 724 (1995).

16. Robert B. Friedrich, Note, *Regulatory and Antitrust Implications of Emerging Competition in Local Access Telecommunications: How Congress and the FCC Can Encourage Competition and Technological Progress in Telecommunications*, 80 CORNELL L. REV. 646, 689-90 (1995) (citation omitted).

17. *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591, 603 (1944).

18. As one commentator noted, the process of setting a "fair" rate of return is a difficult one. If set too low, in-

Designed to foster competition in some market segments and to sustain sufficient monopoly revenues in others, rate-of-return regulation involved a complex series of calculations that carefully examined a telecommunications carrier's revenue and expense structure to determine an "optimal" rate of return. Each LEC was required to provide a detailed cost-of-service analysis covering the previous twelve months.¹⁹ These analyses attempted to determine the total cost of the expenditures necessary to provide phone service. This information would help inform the FCC of the actual cost of providing telephone service. After ascertaining this amount, the agency limited the service provider in question to a specified percentage return on its investment. To increase rates above the authorized level, carriers had to file additional documentation justifying the need for increased rates. Such documentation included "a projection-of-costs study, complete explanations for the studies and data, and any other relevant cost or marketing data."²⁰

Under this framework, the "correct" rate of return promised to provide consumers with expanded telephone services at reasonable rates. Additionally, the rate would also satisfy the service providers by allowing them to cover their costs and achieve a reasonable return on their investment.

2. Rate-of-Return Regulation Is Inherently Inefficient in Mature Competitive Markets

In the beginning of telecommunications regulation, the benefits of a rate-of-return policy outweighed any apparent disadvantages. Aided by declining costs, telephone service increased exponentially, and carriers received a healthy return on their investments.

Nevertheless, problems developed. The cost-plus strategy implicit in rate-of-return regulation, combined with difficulties of administration, eventually undermined the system's benefits. Carriers had little incentive to invest in a way that increased efficiency, and regulators feared that carriers were padding their books with the assurance of full recovery plus profit. Moreover, the birth of the competitive marketplace ushered in the demise of a rate-of-return approach.

vestors could be deterred and the regulation could constitute an unconstitutional confiscation of earned revenue. On the other hand, if set too high, consumers would pay inflated prices that would not reflect the quality of the services provided.

Ghosh, *supra* note 7, at 406 (citations omitted).

19. HAMBURG & BROTMAN, *supra* note 4, § 4.04[1], at 4-39. *See also* 47 C.F.R. § 61.38(b) (1998).

20. HAMBURG & BROTMAN, *supra* note 4, § 4.04[1], at 4-39 (citations omitted).

a. *Rate of Return—Essentially a “Cost-Plus” Contract*

A rate-of-return regulatory strategy is analogous to a cost-plus contract, with all its attendant shortcomings.²¹ “A cost-plus contract usually begins with an estimate of actual production costs, but the estimate is not binding. Rather, the buyer agrees to reimburse all costs actually incurred by the seller, and to add an appropriate profit margin.”²² The FCC itself observed these parallels between rate of return and cost-plus contracts, stating that “rate-of-return regulation is analogous to a cost-plus contract, since all costs that can reasonably be represented as necessary to production generally become part of the firm’s revenue requirement and are collected from ratepayers.”²³ Thus, unlike in a normal market, little incentive exists to reduce production costs.

As public utilities under the rate-of-return system, the amount of money that LECs spent delivering services was divided into two categories: costs and investment.²⁴ Traditionally, public utilities were allowed to set rates up to an amount that recovered costs on a dollar-for-dollar basis, plus a reasonable rate of return on the amount invested. The simplified basic formula is thus $Rate = C + I(R)$, where C is costs, I is investment, and R is the rate of return.²⁵

Assigning numbers to this formula shows why, under a rate-of-return system, the utility may have a disincentive to become more efficient. Imagine that company *A* supplies telecommunications services and has invested \$100 in infrastructure overall to do so. In addition to its investment, the company spends \$100 a year on costs, such as salaries for its employees. Here, if the set rate of return was 10 percent, the utility would be able to charge up to \$110 when it first offers its service: \$100 to recover actual costs (salaries) and \$10 as a 10 percent return on its \$100 investment.²⁶

If company *A* became more efficient by reducing salaries, it would not benefit at all. The savings would be passed directly on to the consumers, as the company is only allowed to charge for actual expenses. So in this example, if company *A*’s costs dropped from \$100 to \$80, the maximum allowable rate would drop to \$90. An increase in costs would also be passed di-

21. Policy and Rules Concerning Rates for Dominant Carriers (Part One of Two), *Further Notice of Proposed Rulemaking*, 3 F.C.C.R. 3195, para. 43 (1988) [hereinafter *Dominant Carriers FNPRM*].

22. *Id.* para. 42.

23. *Id.* para. 43.

24. See *Federal Power Comm’n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

25. *Id.*

26. Since investment is net of depreciation, these figures change during subsequent years. The annual depreciation expense is added to costs. For simplicity, these effects are ignored in this example.

rectly through to consumers, so if company A's staffing costs grew to \$150, the company could charge \$160. This meant that the utility faced neither positive pressure to decrease costs nor negative pressure against cost increases.

The utility may also seek to become more efficient by decreasing the level of investment necessary to provide the same amount of service. Digital switches, for example, are much less maintenance intensive than electro-mechanical units, and their installation may thus reduce the overall amount that company A has to spend on infrastructure. Under rate of return, the gains of that efficiency increase would have to be passed on to consumers as well.²⁷ In this example, a 10 percent reduction in the amount spent on infrastructure would reduce the company's overall investment to \$90, but because the company is allowed to make at most a 10 percent return on investment, the utility would have to lower its prices to \$109, or \$100 in costs plus a 10 percent rate of return of \$9. Thus, the utility's total profit can actually decrease the more efficient the company becomes.²⁸

That the utility can earn more overall profits by increasing its investment also may lead to what some have called "gold plating." This is the alleged practice of using higher quality or capacity infrastructure than is necessary to provide the required service to increase the utility's amount of investment and thus its total profits.²⁹ A telecommunications firm, for example, might use expensive, large capacity switches in an area where lower capacity, lower cost switches or remote nodes would perform just as well. While the rate of return that the company can earn does not change, the company will be earning that rate on a larger amount of invested dollars and thus have higher total profits. Regardless of the prevalence of gold plating, the risk of such behavior pointed out the perverse incentives created by a rate-of-return system. In addition, oversight to prevent such potentialities was complex and expensive, imposing a large burden on both the companies and the government, and the system still failed to provide positive incentives for utilities to reduce costs.³⁰

27. See Ghosh, *supra* note 7, at 411.

28. Of course, a utility's incentive to reduce investment costs will be heavily dependent on the return it could earn in alternative investments. Thus, if the return set under ROR were too high, the incentive to "gold plate," or to install higher quality or capacity infrastructure than needed, would increase. At the same time, if the return set under ROR were too low, there would be little incentive to gold plate because the utility could earn a greater return on alternative investments.

29. See *supra* note 28.

30. Policy and Rules Concerning Rates for Dominant Carriers, *Second Report and Order*, 5 F.C.C.R. 6786, para. 25, 68 Rad. Reg. 2d (P & F) 226 (1990) [hereinafter *Dominant Carriers Second Report and Order*].

b. High Levels of Administrative Involvement and Oversight

In addition to distorting natural economic incentives, rate-of-return regulation also created administrative difficulties. The actual process of calculating the appropriate rate of return detracted from the successful implementation of the policy. The divestiture of AT&T, combined with the rise of close to 1300 access providers, made the rate-of-return regulatory scheme cumbersome and difficult to administer. As the agency explained,

When rate of return was applied by the Commission to interstate telephone operations in the 1960s, the regulatory environment in which it was introduced was vastly different from today. In 1965, rate of return needed to be applied only to one telephone services provider—AT&T. . . . Today, we operate in a much more complex environment. . . . For the first time, the Commission had to apply its rate of return mechanisms directly to 1400 providers of access.³¹

In this complex environment, effective cost-of-service analysis—to say nothing of extensive monitoring for gold-plating and cost-padding—was a difficult and time-consuming task. The Commission soon realized that the administrative maintenance of such a system exacted high costs and potentially harmed the market for telephone services. Although the agency performed such tasks, the costs both to the agency and to the public were high. The FCC ultimately concluded that its experience revealed that, while “rate of return oversight is a responsible, functional method of correcting for these [unsavory] tendencies . . . , a regulatory system that simply corrects for a tendency to pad investments or expenses is not a system that can also drive LECs to become more efficient and productive.”³²

The mounting concerns about rate-of-return regulation were becoming more acute with the rapid changes occurring throughout the national and international telecommunications markets. The Commission stated that it was “concerned that, particularly for the largest LECs, the system of regulation [it] currently employ[s] does not serve to sharpen the competitiveness of this important segment of the industry at a time when markets for telecommunications goods and services are becoming increasingly competitive, both nationally and internationally.”³³ Facing significant technological advances and potential international competition, the FCC was forced to reexamine the effectiveness and necessity of rate-of-return regulation in light of new competitive marketplace pressures.

31. *Id.* paras. 26-27 (citation omitted).

32. *Id.* paras. 29-30 (citation omitted).

33. *Id.* para. 28.

3. The Agency Abolished the Rate-of-Return System

The growing concern that rate-of-return regulation was ill suited to the new telecommunications marketplace eventually led the FCC to eliminate its rate-of-return system for the largest carriers.³⁴ Under examination, the persistent failure of rate-of-return to replicate the competitive market became apparent. Although some had suggested improvements to the rate-of-return system to increase market competitiveness, the FCC ultimately concluded that "rate of return does not provide sufficient incentives for broad innovations in the way firms do business."³⁵ Many feared these adverse incentives would hinder the arrival of a competitive market.

Consequently, in the late 1980s, the Commission began to search for an alternative regulatory strategy that could incorporate and mimic the incentives found in a competitive market. As the agency commented, "[i]ncentive regulation, by creating incentives for carriers to become more productive, generates powerful motives to innovate, and is a better way of regulating."³⁶

B. *The FCC Rejected the Social Compact Model*

One possible alternative, used by several states, was the so-called "social compact" system. A social compact is an agreement between a carrier and a regulatory agency about efficiency gains and carrier profits. As two commentators explained:

The social contract postulates a quid pro quo by which ratepayers are assured that efficiency will be imputed in their rates and telephone companies are assured that the rates for monopoly services will increase at the rate of inflation, less a factor representing that efficiency gain. This approach could lead to deregulation which would

take place through an agreement between state authorities and individual telephone companies. The companies would be required to limit local rate increases according to some external index, such as the Consumer Price Index, and to make specified capital investments during the contract period to maintain and upgrade their networks. In return, the companies would be freed from the burdens of rate-of-return regulation for all services and would be subject to minimal regulation, at most, of particular services.³⁷

34. Other carriers, predominantly smaller rural providers, continue to be regulated under a rate-of-return system.

35. *Dominant Carriers Second Report and Order*, *supra* note 30, para. 32.

36. *Id.*

37. Gail Garfield Schwartz & Jeffrey H. Hoagg, *Virtual Divestiture: Structural Reform of an RHC*, 44 *FED. COMM. L.J.* 285, 317 n.79 (1991) (citation omitted).

Given the initial success that several states appeared to have with the social compact approach,³⁸ the FCC considered it as a replacement for rate-of-return regulation for the entire nation. Under a national social compact, the Commission would freeze telephone rates for interstate services. “Increases thereafter would be limited by a certain formula (such as increases in the consumer price index). In return, all other telephone company services would be deregulated or detariffed.”³⁹

Ultimately, however, the FCC decided against the social compact system. Although consumers initially would benefit from a price freeze, the agency had doubts about the policy’s long-term effectiveness.⁴⁰ The FCC was especially dubious of the program’s ability to improve innovation and efficiency incentives throughout the industry.⁴¹ As the Commission concluded, “[a]lthough freezing rates would stabilize rates, over time such action would cause rates to depart from underlying costs in an unpredictable manner. This would promote neither consumers’ nor carriers’ interests.”⁴²

Social compacts also came under heavy criticism from commentators and other industry observers. One fear was that the telephone companies might possibly evade pricing limits by degrading service quality while holding prices flat.⁴³ Another concern was that if the cost of providing service dramatically declined, telephone companies might reap excessive profits.⁴⁴ Furthermore, the deficiencies of rate of return could resurface because freezing prices for only one customer class might stimulate cross-subsidization with its resulting inefficiencies.⁴⁵ Based on these different policy concerns, the FCC rejected social compacts as a replacement for rate-of-return regulation.

38. See, e.g., *Dominant Carriers Second Report and Order*, *supra* note 30. “The Vermont commission and New England Telephone (NET) have agreed upon a Negotiated Social Contract, effective 1988-92. Under this contract, NET’s local service rates are frozen; its toll, WATS, and Centrex rates are capped.” *Id.* para. 43.

39. National Telecommunications and Information Administration, *Comprehensive Review of Rate of Return Regulation of the U.S. Telecommunications Industry, Notice; Request for Comments*, 51 Fed. Reg. 36,837, at 36,839 (1986) [hereinafter *Rate-of-Return Regulation Notice*].

40. *Dominant Carriers FNPRM*, *supra* note 21, paras. 70-81.

41. *Id.*

42. *Id.* para. 15.

43. *Rate-of-Return Regulation Notice*, *supra* note 39, at 36,840.

44. *Id.*

45. *Id.*

C. *The Commission Believed Price Cap Regulation Best Balanced the New Regulatory Demands*

With the social compact alternative discredited, the FCC next examined the potential for a price cap approach to rate regulation. A number of states, as well as foreign countries such as Great Britain, had experimented with price caps with considerable success.⁴⁶ Unlike a rate-of-return scheme that regulates the amount of profit a company can earn, a pure price cap scheme focuses directly on regulating the end price that the utility charges its customers. This shift in emphasis from profit to price provides a number of theoretical advantages: (1) it is easier and less costly to administer; (2) it is much better at promoting efficiency on the part of the utility; (3) it allows for a smoother and less disruptive transition between monopoly and competitive service provision; and (4) it reduces access charges, which in theory should reduce consumers' long-distance costs.

1. *The FCC Saw Price Caps as Easier and Less Costly to Oversee than Rate-of-Return Based Systems*

A rate-of-return system focuses on the maximum allowable percentage return that providers can make on their total level of investment.⁴⁷ As a result, the regulatory agency must establish elaborate proceedings to verify the total amount that the utility has invested in providing service, whether this investment is reasonable, and the amount that the company is actually earning expressed as a percentage of that investment. The process is expensive and time consuming, both for the utility and the regulatory agency.

In contrast, price cap regimes have the potential to be much easier to implement. In the most basic price cap system, the governing body simply sets the maximum price that the provider can charge for its services. Since the focus is on the end price charged to the consumer rather than the amount that the provider invests in delivering its service, whether the utility is complying is readily apparent. The agency need only look at the price that the provider is charging, thus reducing or eliminating the need for unwieldy cost-of-service hearings.⁴⁸

Of course, the price cap system implemented by the FCC in 1990 for the largest LECs was much more complicated than a simple "X price and no higher" regime.⁴⁹ Many of the details of the FCC plan required close monitoring. But even with the added nuances required by the complex nature of

46. See Policy and Rules Concerning Rates for Dominant Carriers, *Notice of Proposed Rulemaking*, 2 F.C.C.R. 5208, paras. 25-32 (1987).

47. See *supra* Part II.A.2.a.

48. See Ghosh, *supra* note 7, at 421.

49. The specific details of the plan adopted by the FCC are discussed in Part III *infra*.

the telecommunications industry, the focus on price, which itself is generally easily observable, made price cap systems easier to administer than a rate-of-return regime.⁵⁰

2. The Commission Planned to Promote Efficiency and Technological Development by Allowing LECs to Reap the Benefits of Change

In another contrast to a rate-of-return regime, a pure price cap system allows the company to keep the extra profit generated by efficiency increases in either infrastructure or expenses.⁵¹ Under a price cap system, the regulatory body focuses on setting the maximum price that the utility can charge for its services, rather than specifying the amount of money that the utility's shareholders can earn on their investment. This means that the regulatory agency commits not to intercede and force the utility to return profits that it earns in excess of the prescribed rate of return, which in turn gives the company the incentive to maximize efficiency.⁵²

For example, assume that company *B*'s total cost outlay to provide telecommunications services is \$110. Under a rate-of-return regime, the agency would have to determine which costs were investment and which were expenses, and it would only allow the company to recover the specified rate on the amount of investment.⁵³ A reduction in expenses would lead to no gain in profits, as these costs are recovered on a 1:1 basis, while a reduction in investment might actually lead to lower overall profits.

If company *B* is operating under a pure price cap regime, however, the situation is much different. If the price per unit is set at \$115 under price caps and the overall cost per unit to company *B* is \$110, then the company starts by making a \$5 per unit profit. If the company can become more efficient and reduce costs by 10 percent (dropping the cost per unit to \$99), its profit increases by more than 200 percent, to \$16 per unit. Under a pure

50. *Dominant Carriers Second Report and Order*, *supra* note 30, paras. 34-37.

51. *Compare supra* Part II.A.2.

52. In a "pure" price cap system, the utility would be allowed to retain the entire amount it gained through increases in efficiency. The FCC's ultimate system was far from pure, as discussed *infra*. As discussed below, the FCC initially adopted a hybrid price cap scheme that required the LECs to pass some of their revenue from efficiency gains on to the consumer. This "sharing doctrine" has since been eliminated by the Commission. *See infra* Parts III and IV; *Dominant Carriers Second Report and Order*, *supra* note 30; Price Cap Performance Review for Local Exchange Carriers, *Fourth Report and Order in CC Docket No. 94-1 and Second Report and Order in CC Docket No. 96-262*, 12 F.C.C.R. 16,642, 8 Comm. Reg. (P & F) 119 (1997) [hereinafter *Price Cap Fourth Report and Order*]; *see also* James M. Fink, *The Battle over the Rewrite of Illinois' Telecommunications Law: Is More Reform Needed?*, 11 N. ILL. U. L. REV. 189, 210 (1991).

53. *See supra* Part II.A.2.a.

price cap system, the regulatory body does not lower the maximum rates that utilities can charge when there is a drop in production costs.⁵⁴ As this simplified example shows, even a modest gain in overall production efficiency can lead to a tremendous increase in profitability, which provides a powerful stimulus for LECs to find cheaper, more effective ways to provide service. Moreover, since the price cap model does not distinguish between expenses and investment, the LEC can explore reductions in either of these areas to produce efficiency gains.

Price caps thus address the alleged problems of gold-plating or cost-padding of the traditional rate-of-return regime. By specifying the maximum amount that the provider can charge for a service, the price cap system removes the incentive to install costly and unnecessary infrastructure. If company *B* can only charge \$115 per unit for its services, it is unlikely to build a system that increases its costs to \$114, when a system that costs \$110 would do just as well. In fact, the price cap system puts just the opposite pressure on a telecommunications provider, producing positive incentives to reduce costs.

The price cap system is so effective in eliminating the urge for unnecessary investment that some worried that it would go too far and lead to a reduction in service quality.⁵⁵ To the extent that competition exists in the marketplace, this criticism is less important. Competition from other firms, which are looking for a competitive advantage, will provide a countervailing pressure on the utility to provide the highest quality service for which its consumers will pay. However, in markets where competition has yet to develop, the potential problems of service degradation can be addressed using regulatory quality-of-service reviews.⁵⁶

3. The FCC Viewed Price Caps as a Transitional Regulatory Mechanism Between Monopoly and Competition

Price caps more closely mimic a competitive market than the old rate-of-return scheme. Under rate-of-return regulation, the FCC established prices based on the LEC's costs plus a reasonable return on investment. Consequently, the FCC could only indirectly modify the prices that consumers pay by (1) changing the percentage rate-of-return on investment that the utilities may recover or (2) challenging the LEC's costs. With price caps, however, the agency has more flexibility to set the price of service directly,

54. Ghosh, *supra* note 7, at 408-09. This example refers to a pure price cap model that does not contain anything like the FCC's sharing formula or the X-Factor discussed *infra*.

55. See, e.g., Margiotta, *supra* note 15, at 727-28 n.47.

56. See, e.g., *Dominant Carriers Second Report and Order*, *supra* note 30, paras. 332-38.

and thus it has a better opportunity to set prices at a level that mirrors what they would be in a competitive environment. Furthermore, the efficiency improvements that the utilities will create under price caps means that the overall price of services can be lowered without imposing confiscatory regulations.⁵⁷

Since price caps more closely simulate the conditions of a competitive market, they allow for a transition from a regulated to a deregulated industry. A transitional step between the old regime and a competitive marketplace allows the consumer to receive the benefits of a competitive marketplace, such as increased efficiency and greater technological innovation, without having to wait for real competition to develop.⁵⁸

Moreover, the use of an incentive-based regulatory system like price caps increases the flexibility that a company has to respond to changing market conditions.⁵⁹ Under a rate-of-return regime, a utility must file a tariff with the regulatory body to alter prices; the subsequent tariff investigation requires the company to prove that the rate increase is justified. These investigations can be time consuming and expensive and often require the production of extremely detailed cost support data. As nonregulated competitors that do not have the same obligations enter the market, this complex and exhaustive process will put the regulated company at a significant disadvantage, since it will be unable to respond quickly to its competitors' actions.⁶⁰

In a price cap regime, however, the utilities have a measure of pricing flexibility. This allows them to adjust their prices within a specified range in response to shifts in market conditions, such as the entry of a new competitor.⁶¹ For example, if an unregulated competitor entered the market and tried to "cherry pick" (i.e., take the best and most lucrative customers), a utility that operated under traditional rate-of-return regulation could do little to prevent the practice. On the other hand, a utility with pricing flexibility might be able to react quickly enough in changing its own prices to stave off such an attack.⁶² Eventually, once competition becomes established in the marketplace, government regulation in general can be reduced or eliminated; the free market will produce efficient prices and high quality service.⁶³

57. *Id.* paras. 100-02.

58. *See infra* Part VI.

59. *See infra* Part VI.

60. *See infra* Part VI.

61. *See infra* Part VI.

62. Of course, the proper degree of pricing flexibility that the LECs require in order to meet competitive challenges is a subject of debate. For further discussion of this point, see *infra* Part III.

63. *See* J. Gregory Sidak & Daniel F. Spulber, Essay, *Deregulation and Managed Competition in Network Industries*, 15 YALE J. ON REG. 117 (1998).

4. The Commission Believed that Consumers Would Benefit from the Reductions in Access Rates Caused by the Productivity Factor

The final motivation behind adopting price caps came from the long-distance market. As the price cap is reduced because of productivity and other gains, the maximum access charge that LECs may assess for interconnecting long-distance calls will also be reduced commensurately.⁶⁴ In a non-competitive market, the long-distance carrier that pays this access charge to the LEC might not pass along its savings to its customers, leading to a yearly windfall for that company equal to the size of the productivity factor. A truly competitive long-distance market should mitigate this concern. In theory, with any input cost in a competitive market, a lower access fee would likely be passed on to the long-distance consumer as different providers maneuver for pricing advantages. In practice, the long-distance market may not act as competitively as the Commission would like. Therefore, in order to ensure consumers benefit from price cap reductions, the price cap scheme should have contained a cost savings pass-through that requires long-distance providers to lower rates commensurate with any reduction in access charges.⁶⁵ As a result, the long-distance consumer would stand to gain immediately from all access rate drops.

III. THE FCC'S INITIAL VOYAGE WITH A PRICE CAP REGIME

After much debate and a number of proceedings, the FCC adopted a price cap system to regulate the eight largest LECs in 1990.⁶⁶ This was not, however, a pure price cap system. Although the Commission wished to achieve the policy goals previously described, it also feared the potential instability of a system previously untested on such a broad scale. As a result, the agency imposed significant restrictions on LECs, which the FCC admitted might not fully produce the efficiency incentive of a pure price cap regime.

64. James E. Norris, *Price Caps: An Alternative Regulatory Framework for Telecommunications Carriers*, PUB. UTIL. FORT., Jan. 18, 1990, at 44.

65. As noted below, one of the criticisms of price caps has been that long-distance providers such as AT&T have failed to pass on the savings from price caps to consumers. See, e.g., COMM. DAILY, June 26, 1995, at 5 ("AT&T raised eye brows with [its] letter to [the] FCC . . . that said savings as [a] result of lower LEC access charges aren't enough to trigger [a] reduction in AT&T's basic rates to [the] public.").

66. A price cap system was not imposed on the smaller LECs, though they could opt to enter a price cap system if they wished. The FCC limited the plan to the larger LECs because its collected data for the productivity offset applied to the larger carriers, and it feared that the mid-sized carriers could not generate productivity gains of the same magnitude. See *Dominant Carriers Second Report and Order*, supra note 30, paras. 1-4.

The Commission adopted a formula to be applied annually for calculating price caps. The basic formula is *New Price Cap = Last Year's Price Cap + Inflation +/- Exogenous Costs – Productivity Adjustment*.⁶⁷ Inflation is measured by the Gross National Product Price Index,⁶⁸ and this section discusses each of the other components of the formula in detail. In addition to the basic formula, the FCC also instituted policies that would retrospectively keep the LEC returns within certain limits, in effect imposing both a profit ceiling and a profit floor. These policies are also discussed in detail below.

A. *The Initial Productivity Factor Was Set at a Level that Reflected the LEC Industry's Historical Productivity*

A key component of the price cap formula was a “productivity factor,” also known as an “X-Factor” or a “productivity adjustment.” The factor is meant to reflect that the telecommunications industry as a whole was becoming more efficient faster than the rest of the economy.⁶⁹ The productivity factor attempted to quantify this difference in efficiency improvements for the price cap formula and pass the benefits on to ratepayers.⁷⁰

The productivity factor had to be chosen carefully, however, to ensure it accurately reflected gains in efficiency that the LECs were likely to achieve. On the one hand, a productivity factor set too low would not pass efficiency gains through to consumers.⁷¹ The LECs would essentially receive a windfall due to efficiency gains that outpaced the caps. If the productivity factor were set too high, LECs would be denied a reasonable return.

The FCC sought to find a balance between these poles. The inclusion of a properly calibrated productivity factor required LECs to improve efficiency to retain their profit levels, but permitted a LEC to retain the benefits of efficiency gains above and beyond the industry norm. As the Commission later said, “LECs must become more efficient, and offer innovative, high quality services, in order to succeed under a price cap regime. If a LEC fails

67. Theodore D. Frank & Mitchell Lazarus, *Developments in the Local Exchange Marketplace-1995*, in 13TH ANNUAL INSTITUTE ON TELECOMMUNICATIONS: POLICY AND REGULATION 7, 30 (Pract. L. Inst. 1995). For an example of the full technical formula, see Price Cap Performance Review for Local Exchange Carriers, *First Report and Order*, 10 F.C.C.R. 8961, app. B, 77 Rad. Reg. 2d (P & F) 783 (1995) [hereinafter *Price Cap First Report and Order*].

68. *Dominant Carriers Second Report and Order*, *supra* note 30, para. 50.

69. *Id.* para. 75.

70. *Id.* paras. 75-76. The FCC set the X-Factor based only on the efficiency gains that exceeded those of the economy as a whole since the efficiency gains of the economy as a whole were already reflected in the inflation factor separately accounted for in the price cap formula. *Id.* para. 75.

71. *Id.* paras. 224-26.

to keep pace with the productivity requirement embedded in the cap, it risks seeing its earnings erode.”⁷²

On the other hand, an overly optimistic productivity factor, which planned for efficiency gains that the LECs in fact could not achieve, would put tremendous pressure on the LECs to engage in the false economy of reducing costs by downgrading investment.⁷³ One benefit of rate-of-return regulation was that its “cost plus” nature made it easy and risk free for LECs to provide high-quality, broad-based service. Imposing an unreasonably high productivity factor could mean that the LECs could sacrifice service quality to preserve profits.

Thus, for the price cap system to work, the Commission needed to set a productivity factor that would realistically reflect how much a LEC could improve efficiency within the next year. This would necessarily be a prediction and a somewhat uncertain one at that. However, the accuracy of the productivity factor was the key ingredient in price cap regulation and dictated the economic signals that would be sent to carriers for the coming year.

The agency knew that LECs tended to increase their productivity faster than the economy as a whole,⁷⁴ but the exact amount of the increase would vary from year to year. To overcome this difficulty, the FCC in its initial price cap scheme tried to estimate the historical degree to which LEC productivity had surpassed that of the general economy.⁷⁵

Originally, the FCC conducted two studies and concluded that LEC productivity growth on average had exceeded that of the economy as a whole by 2.8 percent a year.⁷⁶ It accordingly set the productivity offset at that level.⁷⁷ Because this figure was recognized as uncertain and swings in LEC profits or losses were thought undesirable, the FCC gave carriers the option of choosing a second, higher X-Factor. The higher factor was a more challenging goal, but it also potentially permitted a greater return.⁷⁸

The Commission concluded that this two-tiered system would provide an adequate incentive for each LEC to select the productivity factor that

72. Policy and Rules Concerning Rates for Dominant Carriers, *Order on Reconsideration*, 6 F.C.C.R. 2637, para. 3, 69 Rad. Reg. 2d (P & F) 1 (1991) [hereinafter *Dominant Carriers Order on Reconsideration*].

73. *Dominant Carriers Second Report and Order*, *supra* note 30, para. 101.

74. *Dominant Carriers FNPRM*, *supra* note 21, para. 378.

75. See generally *Dominant Carriers Order on Reconsideration*, *supra* note 72, paras. 22-32. “This [initial productivity] factor was based largely upon two staff studies investigating the extent to which LECs have historically exceeded the economy as a whole in achieving improved productivity.” *Id.* para. 22.

76. *Dominant Carriers Second Report and Order*, *supra* note 30, para. 99.

77. *Id.*

78. *Id.* para. 8.

most closely reflected its potential efficiency savings.⁷⁹ Though these numbers were higher than previously proposed, the agency believed that they represented “an increase in the overall challenge of the price cap plan to the LECs, and substantially increased benefits to customers.”⁸⁰

B. The FCC Implemented a Consumer Productivity Dividend to Increase the Downward Pressure on Prices

In creating its price cap index, the Commission added to the productivity factors a consumer productivity dividend (CPD) of 0.5 percent. The rationale for this extra adjustment was that historical LEC productivity gains were under a rate-of-return system that provided less incentive for carriers to improve efficiency.

Under the new system of price caps, carriers would have a greater incentive to improve and innovate, and thus the agency believed that LEC productivity gains in the future would be far higher than in the past. The Commission asserted that the productivity factors, which had been based on a LEC’s performance under a rate-of-return regime, needed to be increased by the CPD in order to pass along these anticipated gains to consumers.⁸¹

In addition to this stated policy goal, the FCC may also have been motivated by a desire to drive consumer prices down even faster. The agency seemed to have great confidence in the ability of LECs to improve their productivity after the transition to a price cap system. Given this potential for productivity increases, the Commission may have assumed that the additional cost to a LEC of the CPD would benefit the consumer even further without harming the carriers. This also had the political appeal of making the controversial price cap scheme more palatable to IXCs and consumers.

C. Sharing Was Initially Instituted in the Event that the FCC Chose the Wrong X-Factor and to Ensure that Ratepayers Shared in Profits from Efficiency Gains

In addition to the X-Factor and CPD, the FCC, in 1990, instituted another measure to ensure that the LECs would not receive windfall profits

79. *Id.*

80. *Id.* para. 74.

81. Policy and Rules Concerning Rates for Dominant Carriers, *Report and Order and Second Further Notice of Proposed Rulemaking*, 4 F.C.C.R. 2873, para. 248, 66 Rad. Reg. 2d (P & F) 372 (1989); see also Price Cap Performance Review for Local Exchange Carriers, *Fourth Further Notice of Proposed Rulemaking*, 10 F.C.C.R. 13,659, para. 94, 8 Comm. Reg. (P & F) 2005 (1995) [hereinafter *Price Cap Fourth FNPRM*] (“The CPD was included in the X-Factor to reflect improvements in productivity that [the FCC] believed would occur under price caps and to flow through some of the benefit of those anticipated improvements immediately to consumers.”).

and that consumers would share in the profits from improved efficiency. The Commission created a procedure it termed "sharing." Under this doctrine, when a LEC's earnings exceeded a certain threshold, the LEC had to reduce its price cap index for the following year to "share" a preset portion of its earnings with customers.⁸²

The amount of the sharing would vary with the X-Factor the carrier had chosen.⁸³ A carrier choosing an X-Factor of 3.3 percent was permitted to keep all returns up to 12.25 percent.⁸⁴ For a rate of return between 12.25 percent and 16.25 percent, the LEC would share 50 percent of the additional profit with consumers.⁸⁵ For a rate of return above 16.25 percent, the LEC would share all the profits with ratepayers beyond that level.⁸⁶

On the other hand, if the LEC had chosen the more demanding X-Factor of 4.3 percent, the respective sharing thresholds increased to 13.25 percent and 17.25 percent.⁸⁷ Thus, a profit in excess of 13.25 percent was shared 50:50 with ratepayers, and all profit over a 17.25 percent rate of return was required to go toward reduction of access charges.⁸⁸

The result of sharing was to limit LEC profits from productivity improvements. The carrier did have a financial incentive to increase productivity, but if it proved too efficient in any given year, the extra profits could not be retained. Thus, LECs would be forced to return excessive profits generated by efficiency gains. A carrier that substantially improved productivity in any given year might lose some of those savings, whereas a more mediocre carrier that improved performance only gradually over the course of several years might retain all of its profits.

Moreover, because sharing required the Commission to review rates of return, it in effect required the Commission to perform costly and difficult evaluations of the proper LEC profit margin. Thus, despite incentive-based regulation under price caps, the Commission still engaged in a retrospective evaluation of LEC profit levels to limit profit achieved through efficiency gains.

82. *Dominant Carriers Second Report and Order*, *supra* note 30, paras. 120-25.

83. Except where specified, for the remainder of this Article, the CPD is included within the X-Factor.

84. *Dominant Carriers Second Report and Order*, *supra* note 30, para. 123.

85. *Id.* para. 124.

86. *Id.* para. 125.

87. *Id.* para. 126. *See also generally* Frank & Lazarus, *supra* note 67.

88. *Dominant Carriers Second Report and Order*, *supra* note 30, para. 126.

D. The Low-End Adjustment Was Established to Ensure that Rates Did Not Become Confiscatory

While the FCC's sharing policy prevented a LEC from making a wind-fall profit, the low-end adjustment kept the carrier from an excessively low rate of return. Under the low-end adjustment, a LEC whose rates were below the price cap, yet that still fell below the low-end adjustment mark in a base year period, could raise its rates. This would ensure a rate of return equal to the low-end figure.⁸⁹

The FCC, however, did not want this price floor to reward LEC inefficiency or poor performance; so the upward adjustment was allowed only to one percentage point below the 11.25 percent rate of return—the LEC was guaranteed only a 10.25 percent rate of return.⁹⁰ Commission officials also stated that they would “of course retain [their] authority and responsibility to examine the management of the LECs to ensure that the low earnings do not indicate mismanagement, fraud, or other misbehavior.”⁹¹

Adding this price floor to the price cap regime created a range of prices in which the LEC, for better or worse, would remain. Under rate-of-return regulation, the Commission regulated the exact profit a LEC could earn. The price cap regulations as originally enacted in 1990 granted carriers additional flexibility and a greater incentive to improve efficiency, but shielded both producers and consumers from the full effects of market forces.

E. The Formula Incorporated Increases and Decreases for “Exogenous Costs” Outside the Carrier’s Control to Ensure that Incentives Were Not Undermined and that the Carrier Did Not Receive an Unfair Windfall

“Exogenous costs” are defined by the FCC as those costs that a LEC saves “that are triggered by administrative, legislative or judicial action” beyond a carrier’s control.⁹² Because LECs cannot reduce such costs by improving efficiency, the Commission separated these expenses in the price cap incentive system. Without a separate adjustment for such costs, the price cap regime could have led to unreasonably high or low rates.⁹³ If the carrier had to pay exogenous costs with the money saved from efficiency gains, it would reduce the incentive for carriers to increase efficiency. Furthermore, if exogenous costs were included in the rate of productivity improvement, the

89. *Id.* para. 127.

90. *Id.*

91. *Id.*

92. *Id.* para. 166.

93. *Id.*

carrier could gain a windfall profit without any substantial improvement in efficiency.

The FCC has specified cost changes that may be considered exogenous:

- (i) The completion of the amortization of depreciation reserve deficiencies;
- (ii) Such changes in the Uniform System of Accounts [requirements] . . . ;
- (iii) Changes in the Separations Manual;
- (iv) Changes to the level of obligation associated with the Long Term Support Fund and the Transitional Support Fund described in [47 C.F.R.] § 69.612;
- (v) The reallocation of investment from regulated to non-regulated activities pursuant to [47 C.F.R.] § 64.901;
- (vi) Such tax law changes and other extraordinary cost changes as the Commission shall permit or require be treated as exogenous by rule, rule waiver, or declaratory ruling;
- (vii) Retargeting the [Price Cap Index] to the level specified by the Commission for carriers whose base year earnings are below the level of the lower adjustment mark;
- (viii) Inside wire amortizations;
- (ix) The completion of amortization of equal access expenses.⁹⁴

Each of these items may entail significant costs for a LEC, but these expenses would not directly affect a carrier's efficiency incentives because it has no control over the amount of the costs. Therefore, the agency better achieves its desired incentives by allowing the carrier to separate those costs that it can reduce by improving productivity from those that it cannot. The result is to permit efficiency gains to result in higher profits to the LEC, where such a reward might not occur if exogenous costs were not evaluated separately. Similarly, excluding exogenous costs precludes LECs from relying on phantom efficiency gains, which have no impact on a LEC's actual operating efficiency.

F. A System of Baskets and Bands Restricted Price Caps to Prevent Cross-Subsidization

The Commission also wished to give LECs some discretion to modify pricing to achieve additional efficiencies. On the one hand, a simple rule that gave LECs broad authority to make their own rates raised concerns that the

94. 47 C.F.R. § 61.45(d)(1)(i)-(ix) (1998). General tax law changes, costs of converting to equal access, costs from changes in depreciation rates, and point of presence migration are all presumptively endogenous, however. See *Dominant Carriers Second Report and Order*, *supra* note 30, paras. 176, 180, 182, 188.

companies would engage in predatory pricing against competitors, and subsidize this pricing by inflating rates in areas where no competition existed.⁹⁵ On the other hand, flexible pricing was desirable, as it allowed “LECs to migrate their rates toward a set of prices that enhance[d] efficiency.”⁹⁶ The more freedom that LECs had to set their own prices in relation to the demand that existed for their services, the closer the resemblance to an unregulated market. Moreover, making the range of flexibility too narrow potentially would harm the LECs. The FCC set the productivity factor and the CPD based on certain assumptions about the amount of efficiency gains that the LECs could be expected to achieve in a year. If the LECs were hamstrung by pricing options that were not broad enough, they would have the worst of both worlds—declining prices based on predicted productivity gains that could not be achieved.

To satisfy these competing concerns, the FCC adopted the baskets and bands framework. First, the many services offered by LECs were split into four distinct baskets or groups. The initial four baskets were: “(1) common line services; (2) traffic sensitive services; (3) special access services; and (4) interexchange services.”⁹⁷ A fifth basket was later added for video dialtone services,⁹⁸ followed by a sixth basket for marketing expenses.⁹⁹ These baskets encompassed a variety of different services that a LEC could offer.

The price cap was applied to each overall group. Thus, the overall basket could not exceed the price cap. This reduced the risk that lower-priced services in competitive markets could be supported by higher prices in noncompetitive segments because it limited the extent to which prices for individual services could vary in relation to one another.¹⁰⁰

The FCC then created “bands” of prices. Essentially, the band was an annual 5 percent margin above and a 5 percent margin below the actual price cap.¹⁰¹ The Commission would presume tariffs that fell within the

95. *Dominant Carriers Second Report and Order*, *supra* note 30, paras. 225-26.

96. *Id.* para. 35.

97. *Id.* para. 201.

98. See 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*, 10 F.C.C.R. 11,098, 78 Rad. Reg. 2d (P & F) 1573 (1995). The basket for video dialtone service has little continuing relevance today because Congress eliminated video dialtone service in the 1996 Telecommunications Act. See 47 U.S.C. § 573 (Supp. II 1996); see also *Price Cap Fourth Report and Order*, *supra* note 52, para. 182.

99. See Access Charge Reform et al., *First Report and Order*, 12 F.C.C.R. 15,982, paras. 323-24, 7 Comm. Reg. (P & F) 1209 (1997) [hereinafter *Access Charge Reform First Report and Order*].

100. *Dominant Carriers Second Report and Order*, *supra* note 30, para. 221.

101. *Id.* para. 223.

band were reasonable. The reason for the upper limit was to protect ratepayers from radical price hikes by the LECs.¹⁰² Some commentators at the time of implementation argued that the establishment of a 5 percent upper band would have the practical effect of raising prices by that amount because all LECs would set their prices at the maximum amount allowed by law.¹⁰³ The FCC rejected this reasoning, saying that in its experience, access charges had been coming down, and it saw no reason to believe that LECs would automatically raise rates as high as possible every year.¹⁰⁴

On the other side, there was also disagreement about implementing a band below the price cap. Some LECs argued that no good reason existed to impose a floor on the prices that they could charge.¹⁰⁵ This position, which relied on the logic that lower prices necessarily must be good for ratepayers, was also rejected by the Commission. The FCC noted that allowing LECs to set prices as low as they chose would increase the danger of predatory pricing as the LECs might try to undercut newly developing competition.¹⁰⁶ Thus, the band did not completely foreclose the LECs from setting lower prices, but it did require that if they wished to go below the allowed amount (5 percent), they must show the charged price was above the cost of providing the service.¹⁰⁷

The basket and band policy thus sought to glean the benefits of truly variable prices, such as increased efficiency and more innovative service, while preventing some of the perceived harms that would come from a completely deregulated approach. However, the policy as adopted did receive significant criticism from the LECs, which argued that the FCC had not set the balance properly by making the range of pricing too narrow.¹⁰⁸ This jeopardized the ability of the LECs to meet the efficiency targets that the FCC had set out. Because under the new regime the LECs' profitability was defined by whether they met (or exceeded) these targets, it was a serious concern.

IV. SUBSEQUENT MODIFICATIONS TO THE ORIGINAL PRICE CAP SCHEME

As originally envisioned, price caps were to introduce market forces into telephone pricing. In practice, however, the FCC proved less willing to

102. *Id.* paras. 224-26.

103. *Id.* para. 225 (citations omitted).

104. *Id.*

105. *Id.* para. 226 (citations omitted).

106. *Id.*

107. *Id.*

108. *Id.*

leave LECs and consumers to market disciplines and incentives. This section describes various ways in which the original price cap regime was modified—often in ways that seemed to regress to the discredited principles of rate-of-return regulation.

A. *The FCC Repeatedly Increased the Productivity Factor and Retroactively Adjusted Earlier Period Indexes to Account for the Higher Productivity Factors*

Initially, the FCC's data led it to conclude that the Factor should be 3.3 percent because that figure best reflected the agency's empirical studies about how much LEC productivity increases had surpassed those of the general economy.¹⁰⁹ The agency, however, modified that initial conclusion. In 1995, the FCC increased the basic X-Factor from 3.3 percent to 4.0 percent.¹¹⁰ Most recently, the Commission voted in May 1997 to require a new X-Factor of 6.5 percent.¹¹¹

The agency's explanation for raising the X-Factor to 6.5 percent was that it had adopted a new method for calculating the productivity factor.¹¹² Rather than simply relying on historic data, the FCC switched to a consideration of what it called "total factor productivity" (TFP), which examined the ratio of total output to total input.¹¹³ Output and input are measured by indices, with the output index representing the quantities of goods and services produced, and the input index measuring the quantities of capital, labor, and materials used in production.¹¹⁴ The goal of a TFP analysis is "to isolate the real change in productivity."¹¹⁵

In addition to raising the X-Factor to 6.5 percent, the FCC, in 1997, retroactively adjusted earlier period indexes to account for the higher productivity factors. The Commission required each LEC to adjust its price cap index effective July 1, 1997, to the levels for the 1997-1998 tariff year that would have been in effect had the agency adopted the 6.5 percent X-Factor

109. *Id.* para. 100.

110. *Price Cap First Report and Order*, *supra* note 67, para. 209. As with the initial system, the Commission again allowed carriers to choose among various X-Factors—4.0%, 4.7%, or 5.3%—each corresponding to a different sharing obligation. *Id.* paras. 214-15. This decision was subsequently upheld by the D.C. Court of Appeals in *Bell Atlantic Telephone Company v. FCC*, 79 F.2d 1195 (D.C. Cir. 1996).

111. *Price Cap Fourth Report and Order*, *supra* note 52, para. 18. In this *Order*, the Commission adopted the single 6.5% X-Factor and eliminated sharing.

112. *Id.* para. 19.

113. *Id.* paras. 8-9.

114. *Id.* para. 9.

115. *Id.* para. 30. Under the old regime, changes in prices had a more pronounced impact on the X-Factor. Total factor productivity attempted to limit this effect.

in time for the LECs' 1996 annual filings.¹¹⁶ The reason for this retroactive change was that the FCC believed the interim productivity factor of 4.0 percent adopted in 1995 "understate[d] LEC industry productivity growth."¹¹⁷ Consequently, the agency concluded "that allowing all of the past two years of understated productivity to become permanently ingrained in LEC [price cap indices] would not strike the proper balance between stockholder and ratepayer interests."¹¹⁸ The Commission thought carriers had notice that the 4.0 percent productivity factor was only interim, and thus the FCC believed it was reasonable to adjust the price cap retroactively to apply to the 1997-1998 tariff year.¹¹⁹

Carriers on both sides challenged the Commission's conclusion in the court of appeals. Long-distance carriers argued that the X-Factor had been set too low. Local carriers challenged the *Order* as a result-driven political deal with the long-distance carriers. Media reports at the time of the *Order* indicated that the Commission had reached a deal with AT&T under which AT&T would pass along certain access charge reductions to consumers.¹²⁰ In exchange, the Commission would agree to cut access charges by \$1.7 billion.¹²¹ The local carriers argued that this "deal" led the Commission to manipulate the X-Factor data and apply it retroactively in order to reach the preordained reduction level.¹²² The Commission responded that the Price Cap decision represented reasoned decision making based on the totality of a highly complex record. These issues are pending an appeal in the D.C. Circuit as of February 11, 1999.¹²³

B. *The FCC Eliminated the Multiple Productivity Factor Choices*

Under the initial *Price Cap Order* in 1990, the agency had allowed the carriers to choose between different X-Factors: the standard one of 3.3 percent or a higher factor of 4.3 percent. Choosing a higher X-Factor demanded greater efficiency gains, but also offered a greater potential for profit.¹²⁴

116. *Id.* para. 179.

117. *Id.* para. 178.

118. *Id.* para. 179.

119. *Id.*

120. Ola Kinnander, *AT&T Puts Pressure on FCC to Reduce Access Charges More than Had Been Expected*, COMM. TODAY, May 6, 1997, at 1; John M. Broder, *AT&T to Lower Long-Distance Rates*, INT'L HERALD TRIB., May 5, 1997, at 15.

121. *See supra* note 120.

122. Initial Brief for Local Exchange Carrier Petitioners at 7-13, United States Tel. Ass'n v. FCC, No. 97-1469 (D.C. Cir. Apr. 30, 1998) (on file with author).

123. United States Tel. Ass'n v. FCC, No. 97-1469 (D.C. Cir. Apr. 30, 1998).

124. *See supra* Part III.A.

In 1997, after expanding the multiple X-Factor approach in 1995, the FCC decided that a higher X-Factor of 6.5 percent would be the only one permitted.¹²⁵ Carriers could no longer choose among different rates. The Commission's rationale was that: (1) most LECs had chosen the highest X-Factor; (2) the low-end adjustment mechanism was sufficient to address any heterogeneity existing among price cap LECs; and (3) permitting multiple X-Factors would attach differential sharing obligations that might undermine economic efficiency.¹²⁶ The FCC also thought that requiring a single X-Factor would simplify the FCC rules and prevent LECs from "gaming the system" by increasing profits without improving productivity growth by shifting between different X-Factor options.¹²⁷

C. The FCC Refused to Eliminate the Consumer Productivity Dividend

The consumer productivity dividend, as originally conceived, was to compensate for anticipated gains in LEC productivity after the initial transition from rate-of-return regulation to price caps.¹²⁸ Consequently, many observers thought that the CPD would disappear once the transition took place.¹²⁹

Instead, the FCC opted to retain the consumer productivity dividend. It disagreed that "the passage of time by itself has eliminated the need for a CPD. The CPD remains necessary to require LECs to transfer some portion to their unit cost reductions to their access customers. . . . The passage of time has not altered the need to strike this balance between ratepayer and shareholder interests."¹³⁰

This explanation seemed cryptic if not curt. Perhaps thinking a more detailed justification necessary, FCC Commissioner Rachelle B. Chong issued a separate statement addressing this issue. Commissioner Chong said:

I recognize that some have argued that the CPD was initially adopted as a way to flow through the first benefits of the price cap plan to access charge customers, and that it may be time to bid the CPD a fond farewell. Given the current state of competition in most price cap LEC markets, we have decided to continue use of the CPD as a way to ensure that productivity gains realized by the LEC will be shared between ratepayers and shareholders. In the future, however, a Commission may decide that competition has progressed to the stage where a

125. *Price Cap Fourth Report and Order*, *supra* note 52, paras. 156-61.

126. *Id.* paras. 157-58.

127. *Id.* para. 159.

128. *See supra* Part III.B.

129. *See Price Cap Fourth Report and Order*, *supra* note 52, para. 125.

130. *Id.*

CPD mechanism could be safely discarded because market forces will provide consumers with the benefit of the LEC's productivity.¹³¹

Yet Commissioner Chong's statement was more an acknowledgment of the problem than it was a justification. Few people would dispute that the FCC still must balance the interests of ratepayers and shareholders; but what was remarkable about the agency's explanation is how little it explained. The justification for the CPD's existence—the added productivity gains from the initial transfer to a price cap system—occurred almost eight years ago. Yet the FCC's official report never explained why “the passage of time” would not remove the need for the CPD. Logically, it would, and the agency's public statement gave no explanation about why this logic should not apply. Perhaps the Commission feared the abolition of sharing might create an unjust windfall to the LECs, but the higher X-Factor, crafted through a TFP analysis to gain the most accurate result, was designed to prevent that.

The agency's stated rationale for preserving the CPD was to ensure that efficiency savings flowed through to consumers, but the FCC had raised the X-Factor to do exactly that. The real question—left unanswered in the record—was why the newly increased and allegedly more accurate X-Factor did not obviate the CPD.

If the agency's objective was to pass efficiency savings along to consumers, raising the X-Factor or even retaining the sharing program would have accomplished that goal with a closer connection to the agency's stated policy goal and on a rational, reasoned basis. There was little need to muddy this already complex area of law by extending the CPD's lifetime without credible explanation.¹³²

D. *The FCC Reduced Eligible Exogenous Costs*

In 1995, the FCC modified the original exogenous cost rules to deny exogenous treatment for accounting rule changes that do not affect a carrier's real economic costs.¹³³ The agency instituted an “economic cost standard” intended to limit exogenous cost treatment of cost fluctuations result-

131. *Id.* (statement of Comm'r Rachelle B. Chong).

132. On appeal, the agency argued for the first time that the extension of the CPD was needed due to the elimination of sharing. Without sharing, the Commission argued, carriers would have greater profit incentive to be efficient, making past productivity experiences with sharing consistently lower than could now be expected. The Commission's *Order* was cryptic at best on this point. The seeming post-hoc explanation for retention of the CPD led to charges by local carriers that the adjustment was retained as part of a political deal to lower access charges by a specific predetermined amount. *See generally* Initial Brief for Federal Communications Commission at 37-40, *United States Tel. Ass'n v. FCC*, No. 97-1469 (D.C. Cir. Apr. 30, 1998) (on file with author).

133. *Price Cap First Report and Order*, *supra* note 67, paras. 293-303.

ing from changes in the FCC's uniform accounting requirements.¹³⁴ Exogenous cost treatment was limited "to economic cost changes caused by administrative, legislative, or judicial requirements beyond the control of the carriers that are not reflected in the [Gross Domestic Product Price Index]." ¹³⁵ The agency believed that "[b]y narrowing this exception, efficiency incentives should improve."¹³⁶ The concern was to avoid double counting.¹³⁷ Because the price cap index already was adjusted for inflation, the agency did not wish to include the same cost increase under both the inflation and the exogenous cost categories. To do so would grant the LEC additional profits without requiring any greater increases in efficiency.

In framing the new rule, the Commission focused on a LEC's discounted cash flows. According to the FCC, a change in accounting rules that affects a carrier's discounted cash flow represents a true change in economic costs and opportunity.¹³⁸ Thus, it should merit classification as an exogenous cost. On the other hand, a change in accounting rules that does not affect discounted cash flow or opportunity costs should not be eligible for exogenous treatment.¹³⁹

E. The FCC Eliminated Sharing but Not the Low-End Adjustment

At the same time it was tightening the eligibility for exogenous costs, the FCC in 1995 questioned whether it should continue to include a sharing mechanism in its price cap formula: "Based on our experience over the initial four years of LEC price cap regulation and the extensive record developed in this proceeding, we conclude that the sharing mechanism is not essential to ensuring that LEC rates under price cap regulation remain just and reasonable."¹⁴⁰ Although the FCC did not eliminate sharing at that time, it noted that a sufficiently high X-Factor could fulfill the same purpose of benefiting consumers.¹⁴¹

In 1997, the FCC formally removed the sharing requirement "as part of [its] overall strategy to devise a more deregulatory and efficiency-enhancing regulatory framework."¹⁴² The agency believed that eliminating sharing removed a "major vestige" of rate-of-return regulation and in the

134. *Id.* paras. 294-95.

135. *Id.* para. 294.

136. *Id.*

137. *Id.*

138. *Id.* para. 295.

139. *Id.* paras. 294-95.

140. *Id.* para. 16.

141. *Id.*

142. *Price Cap Fourth Report and Order*, *supra* note 52, para. 146.

future would facilitate more deregulation as local markets opened to competition.¹⁴³

The Commission thought that the sharing system “severely blunt[ed] the efficiency incentives of price cap regulation by reducing the rewards of LEC efforts and decisions.”¹⁴⁴ If the LEC would not gain the profits from a remarkable increase in productivity, it had far less incentive to achieve tremendous productivity improvements. If a higher X-Factor created further incentives, however, the LECs would receive the marginal profits and thus had a strong incentive to continue to improve productivity. At the same time, consumers would benefit from the lower costs LECs charged long-distance providers for using the local network to complete an interstate telephone call.

The FCC, however, did not remove the low-end adjustment.¹⁴⁵ It feared that in its absence, the higher X-Factor might force the LECs to charge unreasonably low rates.¹⁴⁶ The profit cap on productivity improvements disappeared—the profit floor did not. Of course, the carriers still faced a much higher X-Factor and the retention of the CPD, but retention of the low-end adjustment did serve to limit any potential damage.

F. *The FCC Modified New Services Pricing and Procedural Rules*

“New services” are those that “add to the range of options already available to consumers. [They] may, but need not, include a new technology or functional capability.”¹⁴⁷ New services are not included under the price cap indices until “the first annual price cap tariff filing after the completion of the base year in which the new service becomes effective.”¹⁴⁸ Local exchange carriers may charge a “reasonable” level of the overhead costs of a new service.¹⁴⁹ New services subject to LEC price caps must be disclosed to the FCC with at least forty-five-days’ notice; such disclosure must also be

143. *Id.*

144. *Id.* para. 148.

145. *Id.* para. 11 (“To guard against our new X-Factor requiring individual LECs to charge unreasonably low rates, we will retain our current low-end adjustment mechanism.”).

146. *Id.*

147. *Dominant Carriers Second Report and Order*, *supra* note 30, para. 314.

148. *Id.* para. 312.

149. Amendments of Part 69 of the Commission’s Rules Relating to the Creation of Access Charge Subelements for Open Network Architecture; Policy and Rules Concerning Rates for Dominant Carriers, *Report and Order & Order on Further Reconsideration & Supplemental Notice of Proposed Rulemaking*, 6 F.C.C.R. 4524, para. 38, 69 Rad. Reg. 2d (P & F) 641 (1991).

accompanied by a detailed cost report showing that “the LEC has used a consistent costing methodology for direct costs ‘for all related services.’”¹⁵⁰

In 1995, the Commission gave the LECs greater flexibility to lower prices within service category bands.¹⁵¹ The lower pricing bands were expanded by an additional 5 percent to allow the LECs additional downward pricing flexibility.¹⁵² Some critics had objected that this might increase the risk of predation, create unreasonable discrimination by departing from fully distributed cost pricing, and allow the LECs to abuse pricing flexibility to foreclose competitive entry.¹⁵³ The agency did not find these concerns compelling, and it concluded, “we believe that any increased risk of such conduct is outweighed by the benefits that consumers will receive from lower prices.”¹⁵⁴ However, the FCC promised to “continue to review new services tariff filings for possible discrimination.”¹⁵⁵

G. The FCC Began to View Price Caps Not as a Permanent Replacement for Rate-of-Return Regulation, but Rather as a Transition to Local Exchange Competition

In 1995, the FCC undertook a “comprehensive review” of the LEC price caps, focusing specifically on whether the original policy goals should be modified.¹⁵⁶ The agency reaffirmed its conviction about the superiority of competition to regulation and its rationale for price caps: “[W]e adopted the current price cap system which, we believed, was not only superior to rate-of-return regulation, but could also act as a transitional system as LEC regulated services became subject to greater competition.”¹⁵⁷ The goal was not merely to replace rate-of-return regulation but to “replicate the competitive outcome” present in the marketplace.¹⁵⁸ In that light, the Commission continues to believe price caps are a transitional device meant to allow the FCC to gradually reduce regulation as the LECs move from a fully regulated service to a competitive local exchange marketplace even if many of the implementation features of the FCC’s regulatory regime suggest that the FCC views price caps as a more permanent fixture.¹⁵⁹

150. *Price Cap First Report and Order*, *supra* note 67, para. 394 (citation omitted).

151. *Id.* paras. 24-26.

152. *Id.* para. 26.

153. *Id.* para. 409.

154. *Id.* para. 410.

155. *Id.* para. 418.

156. *Id.* para. 5.

157. *Id.* para. 64.

158. *Id.* paras. 91-92.

159. Frank & Lazarus, *supra* note 67, at 27.

In sum, the 1997 changes to the initial 1990 *Price Cap Order* were substantial: The X-Factor was raised significantly; the CPD was retained; sharing was eliminated; and multiple productivity factors were abolished.

V. EXPERIENCE WITH IMPLEMENTATION OF PRICE CAPS AT THE STATE LEVEL

Changes in LEC regulation are not limited to the federal government. In fact, some state legislatures and public utilities commissions were ahead of the FCC in adopting alternative regulatory plans for telecommunications companies.¹⁶⁰ The Commission noted that as of 1990, California, Illinois, Kansas, Michigan, New York, and Wisconsin had implemented variants of the price cap scheme.¹⁶¹ Since then, other states, such as Alabama, Maine, North Carolina, Pennsylvania, South Carolina, Vermont, and Virginia have followed this lead.¹⁶²

The price cap systems adopted at the state level are broadly similar to the FCC's regime. The division of services into baskets, for example, is an almost universal reaction to the problem posed by cross-subsidization. It is also common to find a productivity factor (an "X-Factor") to take into account the declining cost nature of the telecommunications industry. However, despite these general similarities, many of the state plans differ significantly from the FCC's structure. For example, several states apply different price caps to different service baskets. The state productivity factors are frequently much lower than that imposed by the FCC, and the use of a consumer productivity dividend (CPD or stretch factor) is quite rare at the state level. In fact, California, one of the few states that initially adopted such a factor, recently eliminated it. The extensive state experiences with price caps should inform any analysis of possible price cap modifications. More specifically, states like California, which have a long history with price caps in a large market, may offer significant guidance for future FCC reforms.

160. *Dominant Carriers Second Report and Order*, *supra* note 30, paras. 41-44. Fink, *supra* note 52, at 204.

161. *See supra* note 160.

162. *Re* South Central Bell Tel. Co., 164 Pub. Util. Rep. 4th (PUR) 324 (Ala. P.S.C. 1995); *Re* New England Tel. & Tel., 162 Pub. Util. Rep. 4th (PUR) 38 (Me. P.U.C. 1995); *Re* BellSouth Telecomm., Inc., 168 Pub. Util. Rep. 4th (PUR) 438 (N.C. U.C. 1996); *Re* Implementation of Chapter 30 of the Public Utility Code, Streamline Form of Regulation M-00930483, 1995 WL 809963 (Pa. P.U.C. Apr. 13, 1995); *Re* BellSouth, 169 Pub. Util. Rep. 4th (PUR) 144 (S.C. P.S.C. 1996); *Re* New England Tel. & Tel., 157 Pub. Util. Rep. 4th (PUR) 112 (Vt. P.S.B. 1994); *Re* Telephone Regulatory Methods, 157 Pub. Util. Rep. 4th (PUR) 465 (Va. S.C.C. 1994).

A. *Some States Have Implemented Different Price Caps for Different Service Baskets*

When the FCC adopted an incentive-based system to regulate the largest LECs in 1990, it noted: "The productivity offset we have defined was selected on the basis of total company performance, not the performance of individual 'baskets' of services or on a service-specific basis."¹⁶³ Thus, the FCC applied the same productivity offset and price cap structure to all of the services offered by the LECs, regardless of their basket grouping. Some states have rejected this universal, one-size-fits-all approach and have instead created different price caps for different service baskets, generally easing price cap restrictions in areas where competition has either already developed or is in the process of doing so.¹⁶⁴

In South Carolina, for instance, the Public Service Commission approved a plan that divided the LEC's services into three baskets: basic, interconnection, and non-basic.¹⁶⁵ Both the basic and interconnection service baskets are governed by a three-year rate freeze, after which they may be increased by the amount of inflation (determined by the Gross Domestic Product-Price Index (GDP-PI)), less a 2.1 percent productivity factor.¹⁶⁶ However, the price of services in the non-basic basket, which includes services that are deemed to face competition from other sources, may be raised by as much as 20 percent in any given twelve-month period, after the expiration of a five-year rate freeze.¹⁶⁷

Alabama has adopted a very similar structure that also uses three baskets called basic, interconnection, and non-basic.¹⁶⁸ The basic category, which includes all of the services necessary for either a business or residential consumer to make a local call, is capped for five years, after which South Central Bell and any other LEC adopting this regulatory plan can increase prices by the GDP-PI minus a set productivity factor of 3 percent for South Central Bell and 1 percent for non-South Central Bell LECs.¹⁶⁹ The Commission further ruled that intrastate interconnection services would be

163. *Dominant Carriers Second Report and Order*, *supra* note 30, para. 210.

164. *Re South Central Bell Tel. Co.*, 164 Pub. Util. Rep. 4th (PUR) at 324; *Re Bell Atl.-Washington, D.C., Inc.*, 173 Pub. Util. Rep. 4th (PUR) 55 (D.C. P.S.C. 1996); *Re Alternative Forms of Regulating Tel. Cos.*, 174 Pub. Util. Rep. 4th (PUR) 120 (Md. P.S.C. 1996); *Re BellSouth Telecomm., Inc.*, 168 Pub. Util. Rep. 4th (PUR) at 438; *Re BellSouth*, 169 Pub. Util. Rep. 4th (PUR) at 144.

165. *Re BellSouth*, 169 Pub. Util. Rep. 4th (PUR) at 144.

166. There is also a 5% band similar to the one used by the FCC, described *supra* Part III.F.

167. *Re BellSouth*, 169 Pub. Util. Rep. 4th (PUR) at 144.

168. *Re South Central Bell Tel. Co.*, 164 Pub. Util. Rep. 4th (PUR) at 324.

169. *Id.* at 333.

tied to the interstate rates set by the FCC, reduced by 2.5 cents per minute (phased in over a three-year period).¹⁷⁰ The price of non-basic services, after a freeze of twelve months, may be raised by as much as 10 percent per year.¹⁷¹

In North Carolina, the Utilities Commission split the LECs' services into five, rather than three, different baskets: basic, non-basic 1, non-basic 2, interconnection, and toll switched access.¹⁷² The Commission applied a cap of GDP-PI minus a 2 percent productivity factor to the basic basket, a cap of GDP-PI minus 3 percent to the non-basic 1 and interconnection baskets, a total freeze on prices in the toll switched access group, and left the prices in the non-basic 2 group unregulated, allowing the LECs total pricing flexibility in that area.¹⁷³

Finally, in Washington, D.C., the Public Service Commission has adopted a three-basket approach, dividing LEC services into basic, discretionary, and competitive.¹⁷⁴ The basic basket is restricted to an increase of GDP-PI minus 3 percent, while prices for discretionary services may be increased up to 15 percent per year.¹⁷⁵ Services defined as "competitive" are not subject to any pricing restrictions; prices in that category are entirely subject to the discretion of the LEC.¹⁷⁶ As with the other states, the D.C. Commission decided that the presence of competition in the market for certain services justified the removal of price regulation, as the free market would be able to adequately control the prices of these services.

It should be pointed out that these decisions all post-date the initial FCC implementation of price caps in 1990 by at least five years, and that by 1995, it was far more apparent that competition would become a feature of the LEC landscape than it had seemed in 1990. The FCC itself recognized this, by stating that the flexibility offered by price caps "gives the LECs the ability to adjust their prices to a limited extent in response to competitive entry."¹⁷⁷ There have, however, been two major overhauls to the FCC price

170. *Id.* at 335.

171. *Id.* at 334-35.

172. *Re BellSouth Telecomm., Inc.*, 168 Pub. Util. Rep. 4th (PUR) 438 (N.C. U.C. 1996).

173. Non-basic 2 includes Centrex, billing, and collection services. Basic is defined as those services necessary to make a local call, and non-basic 1 is the catch-all category. *Id.* at 471.

174. *Re Bell Atl.-Washington, D.C., Inc.*, 173 Pub. Util. Rep. 4th (PUR) 55 (D.C. P.S.C. 1996).

175. *Id.*

176. *Id.*

177. *Price Cap First Report and Order*, *supra* note 67, para. 4.

cap system since it was first announced, in 1995 and 1997; in each case, the FCC declined to pursue a course similar to the one adopted by the states.¹⁷⁸

B. States Typically Set Much Lower Productivity Offsets than Those Used by the FCC

The FCC began in 1990 by offering two different X-Factors, which brought with them different sharing requirements. These X-Factors were 2.8 percent and 3.8 percent, plus the addition of a 0.5 percent consumer productivity dividend, which brought the total to 3.3 percent and 4.3 percent.¹⁷⁹ In 1995, the number of X-Factors was increased to three, and the FCC continued with a 0.5 percent consumer productivity dividend, bringing the total offsets from 4.5 percent to 5.3 percent.¹⁸⁰ Last year, the FCC eliminated the multiple X-Factors, moving to a single, 6.0 percent figure, that yielded a total offset of 6.5 percent (when combined with the CPD).¹⁸¹

Despite the gradual increase in the total productivity offset that the FCC has favored, most states use X-Factors much closer to the 2.8 percent figure (without the CPD) initially used by the FCC as its lowest offset. States with X-Factors in this range include Kansas (3.0 percent), Pennsylvania (2.93 percent), North Carolina (2.0 percent), South Carolina (2.1 percent), and Alabama (3.0 percent); the District of Columbia also uses a 3.0 percent offset.¹⁸² Maryland ties its X-Factor to a three-year average of the Consumer Price Index, which recently has averaged approximately 3 percent.¹⁸³ Indeed, a survey of all states that have adopted productivity factors, cited by the Kansas Corporation Commission, reveals that the national average is 2.6 percent.¹⁸⁴

178. For a detailed discussion of the changes that the FCC made in 1995 and 1997, see *supra* Part IV.

179. *Dominant Carriers Second Report and Order*, *supra* note 30, para. 99.

180. *Price Cap First Report and Order*, *supra* note 67, para. 214.

181. *Price Cap Fourth Report and Order*, *supra* note 52, para. 144.

182. *Re South Central Bell Tel. Co.*, 164 Pub. Util. Rep. 4th (PUR) 324 (Ala. P.S.C. 1995); *Re Bell Atl.-Washington, D.C., Inc.*, 173 Pub. Util. Rep. 4th (PUR) 55 (D.C. P.S.C. 1996); *Re Telecommunications Industry*, No. 190, 492-U, 94-GIMT-478-GIT, 1996 WL 938814, at *9 (Kan. S.C.C. Dec. 27, 1996); *Re Alternative Forms of Regulating Tel. Cos.*, 174 Pub. Util. Rep. 4th (PUR) 120 (Md. P.S.C. 1996); *Re BellSouth Telecomm., Inc.*, 168 Pub. Util. Rep. 4th (PUR) 438 (N.C. U.C. 1996); *Re Implementation of Chapter 30 of the Public Utility Code, Streamline Form of Regulation M-00930483*, 1995 WL 809963 (Pa. P.U.C. Apr. 13, 1995); *Re BellSouth*, 169 Pub. Util. Rep. 4th (PUR) 144 (S.C. P.S.C. 1996).

183. *Re Alternative Forms of Regulating Tel. Cos.*, 174 Pub. Util. Rep. 4th (PUR) at 120.

184. *Re Telecommunications Industry*, 1996 WL 938814, at *16.

C. *The Use of a Consumer Productivity Dividend, in Addition to the X-Factor, Is Uncommon at the State Level*

While there is almost universal recognition among the states that an X-Factor is required to take into account the productivity differential between LECs and the rest of the economy, states use a consumer productivity dividend or "stretch" factor much less frequently. Illinois is an example of the rare case, using a 1 percent consumer productivity dividend that is added to the differential productivity growth measure (the X-Factor).¹⁸⁵ However, unlike the FCC's X-Factor, which is 6 percent, Illinois' X-Factor is only 1.3 percent.¹⁸⁶ Many states, like California, have eliminated this stretch factor based on their analysis of the potential efficiency gains now available to carriers.

For example, Kansas has decided that the inclusion of a stretch factor is not appropriate.¹⁸⁷ Dismissing the FCC's decision to include such a dividend as unpersuasive, the Kansas Corporation Commission found that a stretch factor would not produce any benefit: "The LECs have existing incentives to achieve the greatest possible efficiencies."¹⁸⁸ The Commission went on to set the X-Factor at 3 percent, which it felt was in line with the average of 2.6 percent used in other states.¹⁸⁹

The Public Service Commission in Maryland made a similar decision in *Re Alternative Forms of Regulating Telephone Companies*.¹⁹⁰ There, the Commission adopted a rate regulation plan broadly similar to the one used by the FCC, including baskets, bands, and a productivity factor. The Commission declined, however, to impose an additional stretch factor, concluding that the Consumer Price Index served as a reasonable "proxy for expected future productivity gains," and was thus all that was necessary.¹⁹¹

The Pennsylvania Public Utility Commission "specifically reject[ed] the inclusion of a stretch factor" in LEC price cap regulation.¹⁹² In addition to concluding that a stretch factor added nothing to a properly determined X-Factor, the Commission was concerned that inclusion of a stretch factor

185. *Illinois Bell Tel. Co. v. Illinois Commerce Comm'n*, 669 N.E.2d 919, 927 (Ill. App. Ct. 1996).

186. *Id.*

187. *Re Telecommunications Industry*, 1996 WL 938814.

188. *Id.* at *16.

189. *Id.*

190. *Re Alternative Forms of Regulating Tel. Cos.*, 174 Pub. Util. Rep. 4th (PUR) 120, 120-62 (Md. P.S.C. 1996).

191. *Id.* at 120.

192. *Re Implementation of Chapter 30 of the Public Utility Code*, 1995 WL 809963, at *17 (Pa. P.U.C. Apr. 13, 1995) (citation omitted).

might actually damage the accuracy of the regulation.¹⁹³ It noted, “we are faced with both the uncertainty of the stretch factor theory and the relative imprecision of the estimated factor values available to us in this proceeding.”¹⁹⁴ The Commission went on to conclude that an X-Factor of 2.8 percent was appropriate.¹⁹⁵

Finally, California, which adopted a consumer productivity dividend when it first went to alternative regulation, has recently eliminated this stretch factor as a component of calculating the X-Factor.¹⁹⁶ The California Public Utilities Commission, in fact, engaged in a sweeping overhaul of its price cap system, which the FCC had once cited as being the “most similar” to the FCC’s own regulations.¹⁹⁷ This reform not only eliminated the 0.5 percent stretch factor, it also froze the application of the price cap formula, which effectively equates the X-Factor to the GDP-PI.¹⁹⁸ This reduced the X-Factor from 5 percent to roughly 3 percent.¹⁹⁹ The California Commission concluded that the LECs had “achieved [all of] the easy gains by becoming highly efficient,” and that while additional gains in efficiency were certainly possible, it was “unrealistic to believe that [LECs] can continue to realize additional efficiency gains at current levels.”²⁰⁰ Because of increased competition and the fact that “simple productivity gains realized in the initial years of price cap regulation ha[d] come to an end,” the use of a stretch factor was “no longer appropriate public policy.”²⁰¹ The Commission was persuaded that the declining revenues shown by Pacific Bell were caused in part by an overly onerous obligation to reduce rates, which was prompted by an overly high X-Factor combined with the consumer productivity dividend.²⁰²

Thus, while solid consensus does not exist on the use of consumer productivity dividends among the states, several states have concluded for similar reasons that such a stretch factor is unnecessary if the productivity differential is properly determined. Moreover, a number of states have also determined that the inclusion of a stretch factor can do more harm than good

193. *Id.*

194. *Id.*

195. *Id.*

196. *Re Incentive-Based Regulatory Framework for Local Exchange Carriers*, 167 Pub. Util. Rep. 4th (PUR) 1 (Ca. P.U.C. 1995).

197. *Dominant Carriers Second Report and Order*, *supra* note 30, para. 42.

198. *Re Incentive-Based Regulatory Framework for Local Exchange Carriers*, 167 Pub. Util. Rep. 4th (PUR) at 1.

199. *Id.* at 1-6.

200. *Id.* at 17.

201. *Id.* at 18-19.

202. *Id.* at 25.

by making the total obligation of LECs more arbitrary than it would otherwise be.

VI. EVALUATION OF THE PRICE CAP VOYAGE

As often happens, the difference between theory and practice does not become apparent except through years of experience. After eight years, all parties should have witnessed enough results to evaluate whether the theory of price caps was successfully implemented in practice and whether jettisoning rate-of-return regulation was a wise decision.

Massive criticism has been leveled at the FCC over the implementation of price caps from both LECs and access customers. Local exchange carriers, on the one hand, although preferring price caps to rate of return, would have the FCC make the entire scheme more flexible.²⁰³ These LECs are not lobbying for access price increases, *per se*. Rather, they argue that they should be given the flexibility to shape their offerings in response to customer needs and competitive offerings.²⁰⁴ Interexchange carriers, on the other hand, would have the FCC make the scheme more rigid.²⁰⁵ In fact they often make arguments that appear more aimed at repealing the entire system than at reforming it.²⁰⁶

All parties have argued that the Commission has often been slow to implement changes to price caps that reflect market and regulatory changes. The agency has dribbled these changes out over years, thus exacerbating regulatory uncertainty and undermining the very goals it hopes to achieve. For example, by the time of its four-year review in 1995, the FCC was already moving in the direction of adopting a total factor productivity measure for the X-Factor. The Commission was also considering the elimination of sharing. The four-year review contained requests for comments on both of these topics; however, the changes were finally implemented in 1997. In adopting price caps four years before, the Commission had been careful to develop a price cap system that could serve as a permanent regulatory re-

203. *Price Cap Fourth Report and Order*, *supra* note 52, para. 161.

204. *Id.* paras. 165-67; *see also Price Cap First Report and Order*, *supra* note 67, paras. 71-72.

205. *See, e.g., Price Cap Fourth Report and Order*, *supra* note 52, paras. 25-28, 37-38; *Access Charge Reform First Report and Order*, *supra* note 99, paras. 162-64.

206. Interexchange carrier arguments that access charges be prescribed based on "total service long run incremental costs" (TSLRIC) is nothing more than a demand that access rates be set in accordance with rate-of-return principles, thereby eliminating the last eight years' impact of incentive-based prices. *See Access Charge Reform et al., MCI WorldCom, Inc. Comments*, CC Docket Nos. 92-262, 94-1, RM-9210, at 22-27 (Oct. 26, 1998) (urging the FCC to base access charges on "forward-looking economic costs") (on file with author); *cf. Access Charge Reform First Report and Order*, *supra* note 99, paras. 294-95 (rejecting IXC requests that costs be prescribed according to TSLRIC).

placement for rate of return. By the time of the review, the FCC had begun to speak of the price cap regime as affording the flexibility necessary for LECs to make the transition from being regulated utilities to competitive telecommunications service providers.

Who is right? Sifting through the rhetoric, the implementation of price caps at the federal level has had both its plusses and minuses. With the clear majority of states following the FCC's lead by moving to price caps for local services, the regulatory community obviously views price cap theory as conceptually appealing. Most of these policymakers appear to conclude that the positives outweigh the negatives. In fact, as described below, with some significant modifications to bring the program back in line with its underlying principles, these minuses would be even less problematic than they are today.

A. *The FCC's Price Cap Regulations Generated Substantial Benefits*

1. The Elimination of Sharing Bolstered the Efficiency-Producing Impact of Price Cap Regulation

The sharing concept has often been referred to by the FCC as a "back-stop" mechanism to ensure that ratepayers were not being overcharged because the FCC failed to accurately set the X-Factor.²⁰⁷ In other words, it was thought to protect against an X-Factor that was set too low, and thus return "excess profits" to ratepayers to "correct" for this potential error.²⁰⁸ Obviously, the concept has a clear rate-of-return flavor, where customers are given "refunds" of "excess earnings," except that with sharing, carriers "share" with ratepayers the profits that exceeded the "sharing zones."²⁰⁹

Since the theory behind price caps is to encourage carriers to become more efficient by allowing them to keep earnings that exceed the traditional rate of return by increasing output or reducing costs, the idea of requiring LECs to give back to ratepayers some of those "rewards" for becoming more efficient must have a dampening effect on the efficiency motivation of price caps. Although there is some question about how precisely a company can gauge its efficiency improvements, one might expect that, when sharing

207. *Price Cap Fourth Report and Order*, *supra* note 52, para. 154.

208. *See supra* Part III.C.

209. In fact, the FCC itself has actually referred to sharing as a rate-of-return-like mechanism. *Price Cap First Report and Order*, *supra* note 67, paras. 186-88.

is eliminated completely, steps to improve efficiency can proceed full steam ahead with confidence that those steps will be fully rewarded.²¹⁰

Interexchange carriers, of course, have criticized the elimination of sharing, claiming that this mechanism is still necessary, in part because they believe that the FCC has not set the productivity factor high enough.²¹¹ These parties never appear to directly contest the premise that sharing has a dampening impact on efficiency.²¹² Eliminating sharing also enables the FCC to jettison some regulatory requirements that are relics of the rate-of-return era retained solely because sharing requires a detailed examination of earnings. For instance, the FCC continues to be concerned about misassignment of costs, even though cost assignments have no impact in a price cap environment.²¹³ Eliminating such relics of the rate-of-return regime would reduce carrier costs and free up regulatory staff to concentrate on other issues.²¹⁴ Finally, sharing was believed necessary to prevent any gross underestimation of the X-Factor from creating excessive earnings. Such a buffer is less needed because the FCC is now convinced that the X-Factor is set at the right level.²¹⁵

2. Price Caps Have Led to Substantial Rate Decreases that Have Benefited Long-Distance Carriers

Access prices for price cap carriers have declined by over 45 percent during the last eight years, arguably price caps' most significant achieve-

210. Several carriers had already elected the option of not sharing even prior to its elimination.

211. See Price Cap Performance Review for Local Exchange Carriers, *Petition for Limited Reconsideration or, in the Alternative, Clarification*, CC Docket No. 94-1, at 7 (filed May 19, 1995) (on file with author); Price Cap Performance Review for Local Exchange Carriers, *Petition for Expedited Partial Reconsideration of the Ad Hoc Telecommunications Users Committee*, CC Docket 94-1, at 5 (filed May 19, 1995) (on file with author).

212. AT&T has argued that a system of multiple X-Factors coupled with a sharing requirement would be, overall, more efficient economically than a single X-Factor with no sharing because it would allow LECs to select X-Factors that were closer to those appropriate for their individual circumstances. However, even AT&T acknowledges that, all other things being equal, sharing reduces a LEC's incentives to become more efficient. See Price Cap Performance Review for Local Exchange Carriers, *Comments of AT&T*, CC Docket 94-1, at 36 (filed Jan. 11, 1996) (on file with author).

213. See Amendment of the Commission's Rules to Establish Competitive Service Safeguards for Local Exchange Carrier Provision of Commercial Mobile Radio Services, *Notice of Proposed Rulemaking, Order on Remand, and Waiver Order*, 11 F.C.C.R. 16,639, paras. 93-126, 9 Comm. Reg. (P & F) 2151 (1996).

214. See Position Paper of Arthur Andersen LLP, *Accounting Simplification in the Telecommunications Industry (ex parte)*, at 11, 17-18 (filed July 15, 1998) (on file with author).

215. See *Price Cap Fourth Report and Order*, *supra* note 52, para. 149.

ment.²¹⁶ Most of these declines can be attributed to the consistent downward pressure of the X-Factor. The rest is due to a mixture of exogenous cost adjustments and the sharing mechanism. The new 6.5 percent X-Factor is expected to decrease rates by over \$1.7 billion a year.²¹⁷

Interexchange carriers have claimed that access charges should have declined even faster.²¹⁸ However, the real deterrent to attaining realistic access pricing has been the continued existence of persistent subsidies in those prices.²¹⁹ Furthermore, rate-of-return regulation could do no better at eliminating these subsidies and certainly could not have been expected to decrease rates faster than did price caps. Therefore, reform of the lingering subsidies in access pricing and realistic universal service funding mechanisms are the real solution to these IXC concerns.

3. Price Cap Regulation Has Simplified the Documentation that Must Be Filed with, and Has Streamlined the Evaluation of, Price Changes

One of the corollary benefits of price cap regulation is that it has substantially eliminated much of the paperwork associated with rate-of-return regulation. Because price cap regulation focuses only on the movement of prices, a detailed showing of costs is no longer necessary. Therefore, the only support material required is a demonstration of how the price movement is within the appropriate service category band and whether aggregate price changes within a basket are below the price cap index. This has reduced paperwork for individual rate filings.

Along with the reduced paperwork comes a streamlined review of such changes. It is obviously easier for the regulator to confirm that price movements are within band and below cap than to conduct a detailed examination of cost support materials. This will have even more of an impact on the state level, where full trial-type hearings have often been conducted to evaluate rate-of-return showings.

Although there has been a significant upsurge in investigations under the price cap regime from the rate-of-return regime, this seems to be the product of two more recent phenomena, rather than as a result of price caps.

216. INDUSTRY ANALYSIS DIVISION, FEDERAL COMMUNICATIONS COMMISSION, TRENDS IN TELEPHONE SERVICE 4 (July 1998).

217. Initial Brief for Local Exchange Carrier Petitioners at 6, United States Tel. Ass'n, v. FCC, No. 97-1469 (D.C. Cir. Apr. 30, 1998) (on file with author).

218. See, e.g., *Price Cap Fourth Report and Order*, supra note 52, paras. 71-72.

219. Even the FCC has recognized that it has not yet wrung all subsidies out of access pricing, even though section 254 of the Communications Act required it to do so. See *Access Charge Reform First Report and Order*, supra note 99, paras. 29-32, *aff'd*, *Southwestern Bell Tel. Co. v. FCC*, 153 F.3d 523 (8th Cir. 1998).

First, the Commission has instituted an unprecedented number of regulatory changes in the access pricing context over the last eight years, much of which surrounds the promotion of competition.²²⁰ Second, the Commission has become a more aggressive regulator in the last few years supported by more sophisticated tools to conduct rate investigations.²²¹ These same two factors appeared to be the cause of increased investigative activity even during the latter half of the 1980s, when rate-of-return regulation was still in vogue.²²²

B. The FCC's Implementation of Price Caps Suffered from Significant Shortcomings

1. Politicizing Price Caps Has Undermined the Consumer Benefits that Can Be Achieved

The strength of any economic incentive regulation is that it lends predictability to the marketplace. Price cap regulators, in their brief eight-year existence, have seemingly ignored this maxim. Indeed, the FCC has already revisited the price cap regulatory regime twice in its short history.²²³ In each of these cases, the agency has not only altered the regulatory regime going forward, but has also reached back to "correct" perceived errors or oversights in the previous regime through retroactive application of the newly revised X-Factor. Yet the core appeal of price cap regulation is that it provides an incentive for carriers to achieve higher efficiencies and thus higher profits by exceeding predefined efficiency goals.²²⁴ By making these incentives un-

220. See, e.g., Expanded Interconnection with Local Telephone Company Facilities, *Memorandum Opinion and Order*, 9 F.C.C.R. 5154, 75 Rad. Reg. 2d (P & F) 1040 (1994); Transport Rate Structure and Pricing, *Report and Order and Further Notice of Proposed Rulemaking*, 7 F.C.C.R. 7006, 71 Rad. Reg. 2d (P & F) 567 (1992).

221. The FCC's use of computerized auditing and statistical programs to evaluate carrier data makes an investigation possible since it can be done without traveling on site and poring through massive carrier records. See, e.g., Common Carrier Bureau Solicits Comments on Proposed Modifications to ARMIS 43-07 Infrastructure Report, *Public Notice*, 8 F.C.C.R. 7130, 73 Rad. Reg. 2d (P & F) 1017 (1993); 800 Database Access Tariffs and the 800 Service Management System Tariff and Provision of 800 Services, *Report and Order*, 11 F.C.C.R. 15,227, 4 Comm. Reg. (P & F) 1279 (1996).

222. See, e.g., Investigation of Access and Divestiture Related Tariffs, *Memorandum Opinion and Order*, CC Docket No. 83-1145, Phase I and Phase II, Part 1, 1986 WL 292562 (1986); Investigation of Special Access Tariffs of Local Exchange Carriers, *Memorandum Opinion and Order*, CC Docket No. 85-166, Phase I, 1986 WL 291617 (1986).

223. See *Price Cap First Report and Order*, *supra* note 67, para. 199; see also *Price Cap Fourth Report and Order*, *supra* note 52.

224. Indeed, even the Commission, at least publicly, has embraced the notion that individual carriers are entitled to excess profits if they achieve exceptional efficiency gains. In eliminating sharing, the Commission has noted that "[a] firm that is more efficient than its competitors in a competitive market has the option of not lowering its price and reaping

certain, or altogether illusory, the Commission has undermined one of the core appeals of the price cap system.

The most extensive, and most damaging, alterations to the price cap regime have come in the form of repeated increases and retroactive changes in the X-Factor. As set out above, the original 1990 price cap indices were set at 3.3 percent (with sharing) and 4.3 percent (without sharing obligations). These indices remained in effect until 1995, when the Commission issued its Price Cap Performance Review.²²⁵ In the review, the Commission not only scrapped the existing indices, but reached back to apply those indices to the 1990-1994 period. First, the Commission instituted a prospective three-level price cap regime with X-Factors of 4.0 percent (with sharing), 4.7 percent (with reduced sharing obligations), and 5.3 percent (with no sharing).²²⁶ Second, the Commission determined that those carriers that had selected the 3.3 percent X-Factor for any of the years 1990 to 1994 would be forced to “reinitialize” their rates for that year as if the carrier had been subject to a 4.0 percent X-Factor all along.²²⁷ The retroactive application of these changes, of course, cannot affect LEC efficiency because the changes occurred after the fact. These unpredictable retroactive adjustments dampen efficiency incentives and upset business planning and expectations. By adjusting the X-Factor, the FCC is also engaged in back door rate-of-return regulation, a result the FCC said it was trying to avoid.

The 1997 *Order* furthered this disturbing trend by once again altering the prospective price cap index—this time by establishing a uniform 6.5 percent X-Factor for all carriers and eliminating the sharing requirement.²²⁸ The 1997 *Order* also reinitialized rates for all carriers for 1996 by imposing a 6.5 percent X-Factor, regardless of the carriers’ initial X-Factor election.²²⁹ In total, for the first six years of the price cap regime carriers were able to enjoy the long-term benefits of their regulatory choices for exactly one year. These shifting regulatory sands meant that higher-than-expected productivity gains were greeted by regulators with higher X-Factors to take away these efficiency rewards—the exact rewards that were advertised to greet more efficient carriers as the core of the incentive-driven price cap regime.

higher margins on the units it sells at the prevailing market price,” and that continuing “[s]haring would eliminate such an option.” *Price Cap Fourth Report and Order*, *supra* note 52, para. 153.

225. See *Price Cap First Report and Order*, *supra* note 67.

226. *Id.* paras. 199-200.

227. *Id.* paras. 245-56.

228. See *Price Cap Fourth Report and Order*, *supra* note 52, paras. 157-58.

229. *Id.* paras. 177-81.

The Commission has similarly disrupted expectations in the regulation of exogenous costs. For example, starting in 1992, companies were required to shift their accounting procedures to account for post-employment benefits other than pensions on an accrual basis. Several companies adjusted their caps accordingly, but the Commission attempted to disallow the modifications. The D.C. Circuit reversed the Commission because the existing rules had permitted the adjustment.²³⁰ In response, the Commission promulgated a new rule to preclude recovery of future, amortized installments of other post-employment benefit costs.²³¹ Here too, the Commission has altered the rules repeatedly making carriers leery of any future decisions based on an unreliable regulatory regime.

Even the unscientific way in which the X-Factor has been established underscores the politicization of the X-Factor. Although some mathematical formula based on historic efficiency gains could be justified, the FCC has always adjusted these averages based on its "prediction" about future gains. For instance, in raising the X-Factor to 6.5 percent, the FCC arbitrarily tossed out 1992 from the average because it was "anomalously low," without convincing reasoning or evidence for that conclusion. The FCC failed to throw out anomalously high years and never explained why averaging results would not adequately correct for the low figures.²³² Failure to straightforwardly deal with these numbers gives credence to the political manipulation charges. Given that prediction is an art rather than a science, charges of political manipulation would not be possible if the FCC had simply used historical trends and been done with it.²³³

2. Price Caps Should Be Structured to Increase the Role of the Marketplace When Competition Is in Place

There is little question that the Commission needs to quit tampering with the inner workings of price cap regulation; the agency must also, however, limit the reach of the overall price cap regime to allow the open markets it ultimately desires to function properly. Two areas illustrate this latter concern: inadequate pricing flexibility and inclusion of new services. Both of these elements have served to delay the transition to an open competitive market. As the Commission itself has observed, "[e]conomic logic holds that giving incumbent LECs increased pricing flexibility will permit them to re-

230. See *Southwestern Bell Tel. Co. v. FCC*, 28 F.3d 165 (D.C. Cir. 1994).

231. See *Price Cap First Report and Order*, *supra* note 67, para. 307 & n.578.

232. See *Price Cap Fourth Report and Order*, *supra* note 52, paras. 138-41.

233. The United States Telephone Association proposed one such unmanipulable average—a moving five-year average that would change each year based on the previous five-year average. See *id.* para. 35.

spond to competitive entry, which will allow prices to move in a way that they would not have moved were the pricing restrictions maintained. This can lead to better operating markets and produce more efficient outcomes.”²³⁴ Yet, the Commission has thus far failed to grant carriers these market-aiding reforms.

In its *Notice of Proposed Rulemaking* addressing price cap reform, the Commission seemed to be on the right track in considering regulatory alternatives that would have given LECs greater flexibility in pricing services while still reducing the overall price cap.²³⁵ More specifically, the Commission proposed elimination of four regulatory constraints that would have permitted greater flexibility in pricing upon a showing by the carrier of potential competition. The proposal included lifting: (1) the prohibition on geographic deaveraging; (2) the ban on volume and term discounts for interstate access services; (3) the prohibition against contract tariffs and individual requests for proposals; and (4) various constraints on the ability of incumbent LECs to offer new, innovative access services.²³⁶

The Commission also proposed greater flexibility upon a showing that carriers faced actual competition. These reforms included: (1) elimination of price cap service categories within baskets; (2) removal of the ban on differential pricing for access among different classes of customers; (3) an end to mandatory rate structure rules for transport and local switching; and (4) consolidation of the traffic-sensitive and trunking baskets.²³⁷ These proposals languish without action.

The Commission has still not developed a plan that relies on market-place forces to drive interstate access prices to levels that would be achieved through competition. The market-based approach was supposed to give carriers greater flexibility in setting rates as competition develops. Notably, however, the agency did not even propose to rely on market forces to set rates for all access services; those services not currently subject to competitive pressures will be subject to a regulatory “safeguard” to bring the related access rates to competitive levels. For those services subject to competitive pressures, the FCC intends to provide detailed rules for implementing this market-based approach in the near future. In the meantime, proposals have

234. See *Access Charge Reform First Report and Order*, *supra* note 99, para. 270 (citation omitted).

235. See *Access Charge Reform, Price Cap Performance Review for Local Exchange Carriers, Notice of Proposed Rulemaking, Third Report and Order, and Notice of Inquiry*, 11 F.C.C.R. 21,354, 5 Comm. Reg. (P & F) 604 (1997) [hereinafter *Price Cap NPRM*].

236. See *id.* para. 168.

237. See *Price Cap Fourth FNPRM*, *supra* note 81.

surfaced that would take an even more prescriptive approach in light of the perceived competitive shortcomings of the current marketplace.²³⁸

The Commission's reluctance seems to be contrary to the stated goal of ultimately moving these services to a fully competitive price structure.²³⁹ For example, geographic deaveraging would permit carriers to set prices based on smaller geographic units, therefore driving prices closer to costs. Geographic deaveraging would also correct the false signals that the current regulated market sends for these services. The current system averages out costs over large service areas and thus sets rates artificially high in some areas (thereby creating a perverse incentive for entry) and artificially low in other areas (thereby creating a perverse incentive against entry). Other proposals such as volume and term discounts also seem consistent with cost-based pricing and would spur more competitive pricing for these services, along with their obvious consumer benefits. Such cost-based reforms are consistent with the overall Commission policy of driving prices to costs and creating market-based rates.

The *Price Cap Notice of Proposed Rulemaking* also considered the possibility of "whether price [cap] regulation of new services is still needed or warranted."²⁴⁰ The *Price Cap Notice of Proposed Rulemaking* further observed that

[m]any new services take advantage of new technical capabilities, and the delay entailed in obtaining regulatory approval may harm consumer welfare. Because the underlying core access service offerings, as well as unbundled network elements, would still be available, there may be little benefit from requiring an incumbent LEC to obtain regulatory approval before introducing a new service.²⁴¹

The Commission also considered whether some services formerly subject to the waiver requirement could also be eliminated from price cap regulation "if competing carriers can develop substitute services to respond to customer needs."²⁴² Unfortunately, the Commission has deferred a decision on this issue as well. New services represent another fertile area for the FCC to roll back regulation because competition can be virtually assumed and lessened regulation will encourage innovation. Ultimately opening new service markets and granting increased pricing flexibility will encourage a transition to more open markets, innovation, and lower prices for consumers.

238. *See id.*

239. *See supra* Part IV.G.

240. *Price Cap NPRM, supra* note 234, para. 199. The Commission had previously decided to loosen the tariff requirements on new service offerings. *Id.* para. 309.

241. *Id.* para. 199.

242. *Id.* para. 200.

3. The Lack of a Pass-Through Requirement Imposed upon IXCs Has Undermined End-User Benefits

The long-term goal of price caps is to lower rates for consumers and this goal has, in part, been achieved. Lower access charges have resulted in some consumer gains. However, it still appears as if the regulatory scheme does not “flow through” access charge reductions to consumers unaltered. Instead, consumers only receive some percentage of the overall reduction. Indeed by one estimate while access charges fell by an average of 21 percent from 1993 to 1997,²⁴³ AT&T’s residential basic rates for long-distance carriers climbed 18 percent.²⁴⁴ Moreover, pricing in the long-distance market, especially for residential users, is still largely a function of lock-step pricing among the big three: AT&T, Sprint, and MCI WorldCom.

In 1997, the FCC, not unaware of this phenomenon, secured a deal with AT&T to flow through access charge reductions to consumers.²⁴⁵ Even this “deal” only flowed through half of the access charge reductions.²⁴⁶ The Commission has voiced its belief that the market will eventually force carriers to flow through the benefits of reduced access charges to consumers.²⁴⁷ However, until the long-distance marketplace forces increased flow through of these reductions or the Commission mandates such flow throughs, the full benefits of price caps will be lost to consumers.

C. *The Commission Should Reform Price Caps Consistent with Its Initial Goals and the Ultimate Destination of Full Competition*

The Commission can move in a common sense direction by returning price caps to first principles to ensure that the incentive-based structure is

243. See *FCC Monitoring Report, Table 5.12* (May 1997) <http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/Monitor/mr97-5.pdf> (John Scott, Competitive Pricing Division, Federal Communications Commission (preliminary)).

244. See *AT&T Proposes \$750 Million Rate Hike, New Calling Plan Aimed at High-Volume Residential Users*, TELECOMM. REP., Jan. 3, 1994, at 8 (announcing a 6.3% rate hike); *AT&T and Rivals Boost Rates Further*, WALL ST. J., Nov. 29, 1994, at A3 (3.7% rate hike); *AT&T to Raise Basic Prices an Average 40c a Month*, BLOOMBERG NEWS SERVICES, Feb. 16, 1996 (4.3% rate hike); *AT&T Follows MCI, Sprint with Long Distance Rate Increases*, TELECOMM. REP., Dec. 2, 1996, at 5 (5.9% rate hike); *Bill Harvesting II*, PNR & Associates (indicating a 5.8% rate decrease in July 1997, and a 2.7% rate hike in November 1997). Cumulatively, these rate changes amount to an increase of 18% from 1993 to 1997.

245. See Kinnander, *supra* note 120, at 1. The deal itself has also drawn the ire of some carriers that believe the reductions in access charges were simply too steep.

246. *Id.*

247. *Price Cap Fourth Report and Order*, *supra* note 52, para. 185.

preserved and consumers enjoy the benefits of local carrier efficiency gains. The Commission should:

(1) simplify the X-Factor calculations to maintain their statistical integrity. This will limit charges of political manipulation and outcome-based regulation, while assisting all parties in providing relevant comment and data.

(2) adopt a single X-Factor and maintain it over the long haul to create firm incentives for LECs to become more efficient. This will lend predictability to price cap regulation and increase local carriers' ability to take advantage of the profit incentives, while allowing long-distance carriers and consumers to rely on lower fees.

(3) refrain from tinkering with the X-Factor itself or the calculation formula. Price caps are inherently imprecise. The Commission's constant tampering to "fix" this problem or that miscalculation has created a larger problem—complete unpredictability and constant uncertainty.

(4) refrain from making retroactive adjustments in the cap that deny LECs the benefit of their bargain. The entire regime is based on the ability to keep profits created by large efficiency gains; the subsequent reclamation of these gains when doing so cannot alter the carrier's past efficiency, and undermines the core incentives of the regime.

(5) eliminate the consumer productivity dividend so that the cap reflects actual achievable efficiency gains. The CPD may have been necessary in the transition from a rate-of-return regime to price caps. That utility has now disappeared. An accurate X-Factor makes the CPD an anachronism.

(6) adopt an explicit pass-through requirement that will require long-distance carriers to pass through price cap reductions to consumers. This requirement is needed to guarantee that consumers enjoy the benefits of price cap reductions and eliminates the need for side deals to promote these policies.

In addition to these changes, the Commission should also use price caps as a transitional mechanism to the eventual free market. These changes include:

(1) increased pricing flexibility. As flexibility increases, the price cap regime moves closer to functioning like a true marketplace. This can be achieved while still reducing overall rates by the X-Factor. This flexibility could be achieved through such reforms as geographic deaveraging, permitting volume and term discounts, and the elimination of price cap service categories within baskets.

(2) placement of new services outside of the caps. The market for new services is largely competitive. In order to encourage innovation and transi-

tion to the free market, these services should be placed outside the price cap regime.

These changes can ensure that the promises of the price cap regulation voyage are achieved, while easing and speeding the journey to the fully competitive marketplace destination to which all parties purportedly aspire.

VII. CONCLUSION

In replacing rate-of-return regulation with price caps, the FCC adopted a system with great potential for finally bringing market forces to local telephone pricing. That initial promise, however, has not fully materialized due to well-intentioned, but ultimately misguided efforts to tinker with the price caps' course to competition. Although the price cap voyage has made substantial progress, the Commission would be well-served to return to its initial course in order to reach the destination of competition as soon as possible. Until the obstacles to market forces disappear, consumers will not experience the true benefits of the price cap system.