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CAP-SIZED: HOW THE PROMISE OF THE PRICE
CAP VOYAGE TO COMPETITION WAS LOST
IN A SEA OF GOOD INTENTIONS

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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

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 All too often, the task has involved an anachronistic regulatory regime that is being rapidly outdated by marketplace developments.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

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.

pricing than under 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.

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.

Initially, because AT&T had a monopoly in the provision of both local and long-distance services, the FCC relied upon informal negotiated rate 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 IXC's 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

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).

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 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 interexchange system was the best means of providing uniform and

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).

universal service.¹² Moreover, the FCC realized that negotiated informal rate making 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

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

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).

the regulatory commissions considerable flexibility to work with businesses to reach a desired rate of return.¹⁸

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

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

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.

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

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.

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 directly 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

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.

the companies and the government, and the system still failed to provide positive incentives for utilities to reduce costs.³⁰

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

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*].

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

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

33. *Id.* para. 28.

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.

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

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.*

would be subject to minimal regulation, at most, of particular services.³⁷

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

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).

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.*

policy concerns, the FCC rejected social compacts as a replacement for rate-of-return regulation.

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

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.

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 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

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

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.

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 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

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.

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, 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 estab-

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.

lished in the marketplace, government regulation in general can be reduced or eliminated; the free market will produce efficient prices and high quality service.⁶³

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 noncompetitive 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

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

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.

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.

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 pro-

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.

ductivity 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 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

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.

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 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 po-

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

77. *Id.*

78. *Id.* para. 8.

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.").

tential 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 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

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.

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.

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 windfall 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.

89. *Id.* para. 127.

90. *Id.*

91. *Id.*

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 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

92. *Id.* para. 166.

93. *Id.*

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.

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 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 ex-

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)

penses.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 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

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.

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

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

104. *Id.*

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

106. *Id.*

penses.⁹⁹ These baskets encompassed a variety of different services that a LEC could offer.

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