

EXHIBIT 1

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)	
)	
Special Access Rates for Price Cap Local Exchange Carriers)	WC Docket No. 05-25
)	
AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services)	RM-10593
)	

REPLY DECLARATION OF TIMOTHY J. TARDIFF AND DENNIS L. WEISMAN IN SUPPORT OF THE REPLY COMMENTS OF QWEST COMMUNICATIONS INTERNATIONAL INC.

I. Introduction

1. We submit this reply declaration in further support of Qwest's comments in this proceeding and in response to the comments and declarations submitted by other parties. We submitted a declaration on behalf of Qwest on January 19, 2010 and our qualifications are set forth therein.¹
2. In that declaration, we recommended a set of economic principles for developing an analytical framework that should assist the Commission in determining whether (1) the present approach to identifying geographic areas within which incumbent providers are deemed to face competition sufficient to justify pricing flexibility is working as intended; and (2) whether prices in areas with pricing flexibility as well as those that are still subject to price caps remain just and reasonable. In addition, we responded to the Commission's

¹ Declaration of Timothy J. Tardiff and Dennis L. Weisman in Support of the Comments of Qwest Communications International, Inc., Exhibit 1 to Comments of Qwest Communications International, Inc., Before the Federal Communications Commission, *In the Matter of Special Access Rates for Price Cap Local Exchange Carriers*, WC Docket No. 05-25, *AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Special Access Services*, RM-10593, January 19, 2010. ("Opening Declaration") In this reply declaration, we also refer to Exhibit 3 of the opening declaration: Dennis L. Weisman and Timothy J. Tardiff, "Principles of Competition and Regulation for the Design of Telecommunications Policy," October 21, 2009. ("White Paper")

request to comment on whether ARMIS data provide a credible basis for determining whether special access rates have been just and reasonable. We concluded that such data would not be a proper basis for either evaluating current rates or adjusting going-forward rates.

3. Our proposed analytical framework is based on the propositions that (1) competitive prices are by definition just and reasonable; and (2) prices in competitive markets can serve as benchmarks for evaluating the reasonableness of prices in markets that remain subject to regulation. These propositions reflect a consensus view among economists regarding the superiority of market-determined prices and are also consistent with previous Commission determinations. Therefore, our proposal contains two basic elements: (1) first collect and analyze information necessary to identify geographic areas with sufficient competition; and (2) use incumbent's prices that prevail in these areas as benchmarks for evaluating the reasonableness of incumbent's prices in other areas. The same information would also provide for a rigorous test of how well the existing triggers for granting price flexibility are working, as well as a basis for adjusting the triggers to reduce the incidence of any "false positives" or "false negatives" that may be produced by the current triggers.
4. While there are some areas of emerging consensus among the various parties on certain elements of the analytical framework (e.g., the need to collect data necessary to identify customers and services of *incumbents and competitors*), major areas of contention remain. Perhaps the most fundamental is that a number of specific recommendations appear to assume that whatever information the Commission uses in the analytical framework, it will inevitably conclude that competition is insufficient everywhere. A related concern is that the specific information these parties recommend the Commission rely upon for the framework may well be structured to pre-ordain such an outcome.
5. The conjecture that competition is insufficient is also the basis for some parties' recommendations for immediate changes to the current special access regulatory regime. Premature changes to the current regime before a proper analytical framework has been designed and implemented would be ill-advised. This is the case because (1) dismantling the current regime would result in significant harm to competition, customers, and incentives to invest in telecommunications infrastructure when in fact the regime may be working properly, (2) real (inflation-adjusted) special access prices for the incumbents' special access

services at issue in this proceeding—TDM-based DSn-level services—have been falling as volumes have increased, and (3) there is no credible evidence that incumbents have earned supranormal economic profits.

6. Indeed, the current regulatory regime for special access services is well aligned with the general observation in theory and practice that regulatory oversight should adapt to the competitive “facts on the ground.” Conversely, the “one-size-fits-all” version of price-cap regulation proposed by certain commenters in this proceeding would be a major step backwards.² In particular, a corollary to the premise that “regulation serves as a surrogate for competition” is that the scope of regulatory oversight should adapt to evolving market conditions. In other words, regulation should defer to competition where the latter is capable of supplying the requisite degree of market discipline. Based on this premise, rate-of-return regulation was replaced initially with rate moratoria; price caps were replaced with earnings sharing and subsequently with pure price cap regulation; and price cap regulation was itself modified to permit pricing flexibility in competitive areas. Moreover, the latest generation of price cap plans have been applied to an ever-diminishing subset of the regulated firm’s services. Regulators have duly recognized the economic benefits that can be realized from decentralizing control to the regulated firm as market forces supplant the need for stringent regulatory oversight.

These tenets imply a continuum over which industries initially in need of regulation (that is, natural monopoly providers of services essential to consumers and/or competitors) are heavily regulated at first. Yet as competitive conditions change (essentially the erosion of the natural monopoly conditions that called for regulation), regulation itself must evolve in order for it to deliver the economic benefits that competition, supplemented by regulation where necessary, can bring. And that evolution entails both reducing the range of services still subject to regulation and replacing particular regulatory mechanisms when they are no

² See David E. M. Sappington and Dennis L. Weisman, “Seven Myths About Incentive Regulation,” In Michael A. Crew, ed., *Pricing and Regulatory Innovations Under Increasing Competition and Other Essays*, Boston: Kluwer Academic Publishers, 1996, pp. 1-19. Myth 1 regarding incentive regulation states that: Incentive regulation is best viewed as a “one-size-fits-all” proposition: an incentive plan that performs well in one setting will always perform well in other settings. As the authors point out, “Myth 1 is incorrect because the best incentive regulation plan in any setting will depend critically upon regulatory goals and regulatory resources” (p. 4).

longer effective. The end-state of this evolutionary continuum is full competition with no regulation.³

7. What this implies, of course, is that any modifications to the current regime, especially to the extent that they entail re-imposing more stringent regulatory controls, must be carefully calibrated to reflect prevailing market conditions as well as the public policies and objectives that the government has set for the telecommunications sector. This calls for a policy design in which the scope of regulatory oversight varies dynamically with market conditions to enable the discipline imposed by economic regulation to shade “seamlessly” into the discipline imposed by market forces.
8. The Commission’s Phase I and Phase II structure for special access pricing flexibility is consistent with this principle of transitioning through a continuum of regulatory regimes as competition intensifies. Whether the specific triggers that the Commission has employed to distinguish between these various types of pricing flexibility are effective metrics for doing so will ultimately be revealed by the data-gathering exercise that is one of the principal objectives of this proceeding.
9. The remainder of this declaration is organized as follows. First, we respond to parties that continue to advocate the use of ARMIS rates of return as a basis for evaluating current rates and adjusting those rates going-forward. Second, we respond to a proposal to impose a price cap regime on geographic areas that have previously been granted price flexibility and significantly tighten price cap regulation in those areas still subject to price caps. Finally, we comment on a number of specific features of the analytical framework proposed by other parties.

II. Rates of Return Based on ARMIS Data

10. Economics and Technology, Inc. (ETI), on behalf of Ad Hoc, claims that ARMIS data demonstrates that incumbents have market power in the provision of special access services.⁴

³ Timothy J. Tardiff and William E. Taylor, “Aligning Price Regulation with Telecommunications Competition,” *Review of Network Economics*, Vol. 2(4), December 2003, p. 345.

⁴ Susan M. Gately, Helen E. Golding, Lee L. Selwyn, and Colin B. Weir, “Longstanding Regulatory Tools Confirm BOC Market Power: A Defense of ARMIS,” Economics and Technology, Inc., Prepared for the Ad Hoc Telecommunications Users Committee, January 2010. Attachment B to the Comments of the Ad Hoc Telecommunications Users Committee, Before the Federal Communications Commission, *In the Matter of Analytical Framework Necessary to Resolve Issues in the Special Access NPRM*, WC Docket No. 05-25, RM-10593,

In particular, the ETI report (1) presents ARMIS accounting returns for special access services, (2) relies upon the magnitude of these returns to conclude that incumbents are earning supranormal returns, (3) attempts to explain away the deficiencies in ARMIS data that have arisen since the 2001 separations freeze, and (4) appears to recommend special access rate reductions, based on ARMIS accounting returns.

11. We note at the outset that we anticipated in our opening declaration that some parties would attempt to use ARMIS data to justify retrogressive regulatory measures, including massive rate reductions. For reasons that we (and other economists)⁵ explained in detail, accounting returns, in general, and the ARMIS returns calculated for specific services, in particular, cannot credibly demonstrate that a particular firm has market power. Indeed, the research of Professor Fisher and Dr. McGowan, which is discussed at length in our opening declaration, presciently explains why the very title of the ETI report—“Longstanding Regulatory Tools Confirm BOC Market Power” is a misnomer

[T]here is no way in which one can look at *accounting* rates of return and infer anything about relative economic profitability or, a fortiori, about the presence or absence of monopoly power....[I]t is the *economic* rate of return which is the magnitude of interest for economic propositions. Economists (and others) who believe that analysis of accounting rates of return will tell them much (if they can only overcome the various definitional problems which separate economists and

January 19, 2010. (“ETI Report”). A number of other parties draw essentially the same erroneous conclusion from ARMIS rates of return. Comments of the Nochokepoints Coalition, Before the Federal Communications Commission, *In the Matter of Special Access Rates for Price Cap Local Exchange Carriers*, WC Docket No. 05-25, *AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Special Access Services*, RM-10593, January 19, 2010 at p. 24-27 (“Nochokepoints Comments”); Comments of PAETEC Holdings Inc.; TDS Metrocom, LLC; U.S. Telepacific Corp. and Mpower Communications Corp., both D/B/A Telepacific Communications; Masergy Communications, Inc.; and New Edge Network, Inc., Before the Federal Communications Commission, *In the Matter of Special Access Rates for Price Cap Local Exchange Carriers*, WC Docket No. 05-25, *AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Special Access Services*, RM-10593, January 19, 2010 at pp. 64-67 (“PAETEC, et al. Comments”); and Comments of TW Telecom, Before the Federal Communications Commission, *In the Matter of Special Access Rates for Price Cap Local Exchange Carriers*, WC Docket No. 05-25, *AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Special Access Services*, RM-10593, January 19, 2010 at p. 5 (“tw telecom Comments”).

⁵ Opening Declaration at ¶¶ 22-37. See, also, Declaration of Dennis W. Carlton and Hal S. Sider in Support of the Comments of AT&T Inc. at ¶¶ 73-83, Exhibit A to the Comments of AT&T Inc., Before the Federal Communications Commission, *In the Matter of Special Access Rates for Price Cap Local Exchange Carriers*, WC Docket No. 05-25, *AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Special Access Services*, RM-10593, January 19, 2010 and Declaration of Michael D. Topper on Behalf of Verizon and Verizon Wireless at ¶¶ 77-83, Attachment A to the Comments of Verizon and Verizon Wireless, Before the Federal Communications Commission, *In the Matter of Special Access Rates for Price Cap Local Exchange Carriers*, WC Docket No. 05-25, *AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Special Access Services*, RM-10593, January 19, 2010.

accountants) are deluding themselves ... [E]xamination of absolute or relative accounting rates of return to draw conclusions about monopoly profits is a totally misleading enterprise.⁶

12. As we explained in detail in our opening declaration, there are three fundamental and independent reasons why rates of return based on ARMIS data are useless or worse in evaluating the performance of a regulatory regime. First, because incumbents produce multiple services over a shared network, the accounting costs that form the basis for ARMIS returns for individual services are the result of inherently arbitrary cost allocations. Consequently, as economists have long recognized, rates of return for individual services are themselves arbitrary and economically meaningless. To the extent that accounting returns provide any useful information at all, it would be at the company-wide level.
13. Second, even at the company-wide level, accounting returns for a particular year do not provide an answer to the fundamental market power question: is a firm earning supranormal *economic* returns on its investments? In fact, as we illustrated in our opening declaration, accounting returns are particularly misleading when investments have been substantially depreciated—a condition that describes Qwest and the other incumbents.
14. Third, quite apart from those basic methodological problems with using *any* accounting data to derive any service-specific rate-of-return, the use of ARMIS data in particular is inappropriate for yet further reasons relating to the separations freeze. ETI's attempt to defend the relevance of special access ARMIS returns—offering the triple digit level of such misleading measures as “proof” of market power—is thus especially egregious. ETI's protestations notwithstanding, there is simply no getting around the fact that the 2001 separations freeze has exacerbated the fundamental problems with arbitrary cost allocations and the inherent arbitrariness of relying on any accounting returns as a measure of market power for companies with substantially depreciated assets. In particular, the costs assigned to special access services do not reflect the fact that the bulk of incumbents' traditional narrow-band services have been rapidly losing volumes while special access volumes have greatly increased. To the contrary, ARMIS data erroneously suggest that Qwest's special access investment levels have been changing at about the same rate as (or in some cases, even less than) the investment levels for the declining narrow-band services. Therefore, net

⁶ Franklin M. Fisher and John J. McGowan, “On the Misuse of Accounting Rates of Return to Infer Monopoly Profits,” *The American Economic Review*, Vol. 73, No. 1, March 1983, pp. 90-91 (emphasis added).

return—the numerator in the rate of return calculation—is too high and net investment (the denominator) is too low, with both effects producing artificially high rates of return,

15. In particular, while Qwest’s ordinary switched lines and interstate switched access minutes of use both declined by about one-third between the onset of the separations freeze in 2001 and 2007, its special access lines (measured as DS0 equivalents) increased by over 60 percent.⁷ Yet, total plant in service, as well as the net investment, assigned under the separations freeze to the various services and jurisdictional categories all increased (or decreased) by the same percentages as shown in the following table.

Change in Total Plant-in-Service and Net Investment: 2001 - 2007

	Total Plant	Net Investment
Subject to Separations	8.62%	-47.40%
Intrastate	8.20%	-47.87%
Common Line	11.61%	-37.43%
Interstate Traffic	8.66%	-40.17%
Sensitive		
Special Access	7.19%	-50.13%

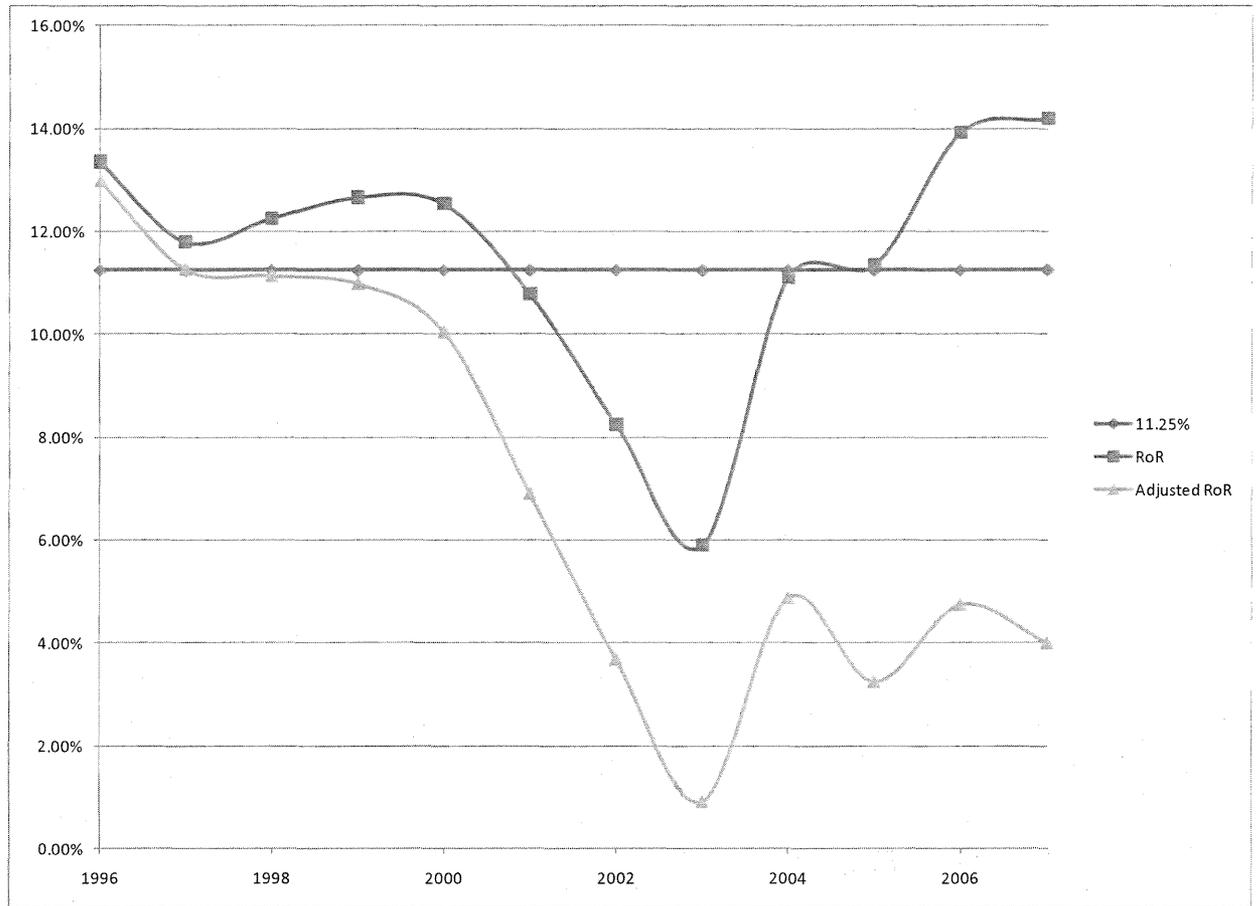
16. Indeed, contrary to ETI’s assertion that (1) proportionately more costs are being assigned to special access service in recent years, and (2) net investment for special access is decreasing at a slower rate than for other services, for Qwest the pattern has been just the opposite. Despite the fact that special access volumes have been growing while the volumes that drive costs for the other categories have declined by one-third or more, total plant assigned to special access grew at a slower pace and net investment assigned to special access declined at a faster pace than the rates for other categories. The latter observation is especially significant in light of the fact that the special access demand growth would seem to call for

⁷ The ETI report (at p. 14) criticizes the use of DS0 equivalents as the measure of special access volume growth. The specifics of this criticism do not change the fundamental conclusion that special access volumes have grown, while the volumes for narrow-band services have fallen off sharply. We further note that ETI itself has used DS0 equivalents to measure special access volume growth. In particular, in a 2005 filing in this proceeding, ETI recommended that this Commission impose an unrealistically high (double-digit) “X factor,” which was based on a study in which special access volume growth, measured in DS0 equivalents, was a critical component. Appendix 2 of Reply Declaration of Susan M. Gately on behalf of the Ad Hoc Telecommunications Users Committee, Attached to Reply Comments of the Ad Hoc Telecommunications Users Committee, Before the Federal Communications Commission, *In the Matter of, Special Access Rates for Price Cap Local Exchange Carriers*, WC Docket No. 05-25, July 29, 2005.

directing new investment towards accommodating that growth, which in turn would slow down the aging of the plant that declining net investment signifies. Indeed, common line total plant, which is supposed to provide for ordinary switched lines, increased by substantially more (in percentage terms) than the total plant assigned to special access. Likewise, net investment assigned to common line decreased by a considerably smaller percentage than did the net investment assigned to special access. In other words, since special access revenues have increased as volumes have grown, while the investments represented in ARMIS data have not kept pace, the calculated rates of return for special access services are meaningless.

17. In light of the fact that special access rates of return are becoming even more skewed as time goes by, ETI's Figure 1.2, which purports to show accelerating rates of return for special access, is highly misleading. Indeed, because they do not include economically meaningless allocations of shared resources, in general, and the highly distorting effects of the separations freeze, in particular, company-wide accounting returns have a very different pattern. To illustrate this point, we replace ETI's figure with one that depicts (1) total company accounting rates of return and (2) what those returns would have been had ETI's apparent recommendation to limit special access accounting returns to 11.25 percent been in effect.
18. The figure below shows the results of this analysis. On a company-wide basis, incumbents' returns average 11.5 percent from 1996 to 2007. Had special access prices been reduced to produce an 11.25 percent return, company-wide accounting returns would have averaged only about seven percent (and been much lower in the most recent years), as indicated by the "adjusted RoR" line in the figure below. That is, ETI's recommendation to reduce special access rates to remove "excess profits" would drive accounting returns—and most likely economic returns—to well below competitive levels. What is more, these results do not even account for the fact that because network assets have been substantially depreciated in recent years, accounting returns in those years are likely to be both economically meaningless and substantially higher than the economic returns on incumbents' investments. Moreover, the reluctance on the part of incumbents to invest—the underlying cause of the highly depreciated plant—will most assuredly not be remedied by the imposition of ever-more stringent price regulation.

Incumbent Company-wide Accounting Returns: 1996-2007



III. Re-imposing Price Caps Would Produce Unreasonably Low Rates

19. Even though the analytical framework that the Commission seeks to design has yet to be implemented, a number of parties have nonetheless proposed immediate changes in the regulation of special access prices. The key features of such proposals are (1) ending Phase II price flexibility and/or (2) reducing special access rates from current levels going forward. As a threshold matter, not only would such measures be retrogressive, but they would run counter to both sound economics and previous Commission determinations. In particular, ending Phase II flexibility everywhere would result in substituting regulated rates for market-determined rates in geographic areas where competition is in fact sufficient, which is

contrary to this Commission's strong preference for market outcomes in such circumstances.⁸ Similarly, tightening price caps in those areas still subject to such caps would run counter to the Commission's repeated warnings to avoid the incentive-robbing effects that rate re-initializing would entail⁹ and/or involve the imposition of an "X-factor" that was not the result of a rigorous analysis of productivity trends. And perhaps most troubling, regulating the price of one firm in a competitive market distorts the prices of all other competing firms and thereby undermines the competitive process.

20. This section has two major subsections. First, we respond to the conceptual characterization of price cap regimes presented by Dr. Bridger Mitchell on behalf of Sprint Nextel.¹⁰ We then comment on other proposals to modify specific aspects of the current regulatory regime, with particular emphasis on proposals to re-initialize rates and re-impose an explicit productivity ("X factor").

A. Response to Dr. Mitchell

21. In his declaration on behalf of Sprint Nextel, Dr. Mitchell makes a number of arguments about price cap regulation and its application to the market for special access, in particular.¹¹ At the outset of this discussion, it is important to point out that just as price cap regulation is superior to rate-of-return regulation, competition is superior to price cap regulation when market forces are sufficiently robust to provide the requisite level of market discipline. This reflects the importance of moving through the continuum of regulatory regimes that we discussed at length in Section I. The data-gathering exercise that is a principal focus of this proceeding will ultimately determine where market forces are sufficient for regulation to defer to the market forces. This observation notwithstanding, Dr. Mitchell opines at the macro level about the failure of the Commission's overall regime to effectively curb market power in special access markets and at the micro level about the failings of the price cap regime in particular. Specifically, Dr. Mitchell sets forth the following six propositions:

⁸Federal Communications Commission, *In the Matter of Access Charge Reform*, CC Docket No. 96-262, *Price Cap Performance Review for Local Exchange Carriers*, CC Docket No. 94-1, *Transport Rate Restructure and Pricing*, CC Docket No. 91-913, *End User Common Line Charges*, CC Docket No. 95-72, First Report and Order and Order, Released May 16, 1997 at ¶ 263.

⁹*Ibid.* at ¶ 292.

¹⁰Declaration of Bridger M. Mitchell, Attachment A to the Comments of Sprint Nextel Corporation, Before the Federal Communications Commission, *In the Matter of Special Access Rates for Price Cap Local Exchange Carriers*, WC Docket No. 05-25, *AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Special Access Services*, RM-10593, January 19, 2010. ("Mitchell Declaration")

¹¹ Mitchell Declaration at ¶¶ 6-15.

- (1) By setting the initial level [of the price cap index] at a measure of the forward-looking cost of producing special access services the resulting regulated prices mimic the results that would be expected if the market were competitive.¹²
- (2) In competitive markets, suppliers' productivity gains lower their forward-looking costs and are passed on to consumers as lower prices or increases in product quality. In the price cap index, the productivity factor ensures that the expected gains are translated into updated prices.¹³
- (3) In the case of special access, the initial [price] levels were not set at forward-looking cost, but based on accounting costs prevailing in 1990.¹⁴
- (4) The Commission's price cap framework has not worked effectively to control market power because special access prices are above measures of forward-looking costs.¹⁵
- (5) The declining-cost nature of providing special access should result in reduced prices, but this has not occurred under the Commission's price cap framework.¹⁶
- (6) For special access services sold in Phase II price flexibility areas, where the price cap limit does not apply, the predominant pattern has been prices higher than in price cap areas.¹⁷

We respond to each of these propositions in turn.

Rebuttal to Proposition 1.

By setting the initial level [of the price cap index] at a measure of the forward-looking cost of producing special access services the resulting regulated prices mimic the results that would be expected if the market were competitive.

22. Dr. Mitchell's assertion that sound price cap regulation should set the initial level of the price cap index at a measure of forward-looking cost assumes away the very type of problem with asymmetric information that price cap regulation was designed to address. The early

¹² *Ibid.* at ¶ 6.

¹³ *Ibid.* at ¶ 7.

¹⁴ *Ibid.* at ¶ 8.

¹⁵ *Ibid.* at ¶ 14.

¹⁶ *Ibid.*

¹⁷ *Ibid.*

economics literature on price cap regulation emphasizes two distinct yet related themes. First, the regulator is not omniscient and hence the regulated firm may well have superior information with respect to its own costs. Second, efficiency is the result of a discovery process and the regulated firm must be provided with the requisite incentives to invest in the (unobservable) effort required for such discovery. The following two quotations concerning price cap regulation underscore these two major themes.

The interest in price caps also reflects a growing understanding that governmental regulation is limited in what it can accomplish. The firms that are the object of regulation are almost always better informed than regulators about their costs and the consequences of adopting particular, detailed regulatory schemes for prices or conditions of service. Thus, rather than creating regulation based on the premise of an omniscient regulator being able to set optimal prices based on full knowledge of costs and demand, a more realistic regulatory goal is to design incentive mechanisms for the regulated firm that will lead it to maximize society's objectives (whether these are efficiency, distributive, or other objectives) while pursuing its self interest.¹⁸

It [RPI – X] does not assume costs and demands are given or known; indeed, the problem is to provide adequate incentives for the company to discover them. The aim is to stimulate alertness to lower cost techniques and hitherto unmet demands. The emphasis is on productive rather than allocative efficiency (and even the RPI – X price caps reflects distributional rather than allocative considerations).¹⁹

23. Hence, Dr. Mitchell is incorrect about his assertion that price cap regulation begins with setting the initial price level at forward-looking cost. It is precisely because regulators, no matter how astute, do not know (and cannot know) what these costs are that they must use price cap regulation to provide the regulated firm with the incentives to discover them. Moreover, if price cap regulation is a *de facto* admission by the regulator that it is not all-knowing and hence the regulated firm must be provided with incentives to discover how to operate efficiently, then what is the rationale for Dr. Mitchell's endorsement of hypothetical forward-looking cost measures or total-element long-run incremental cost (TELRIC)—an

¹⁸ Jan Paul Acton and Ingo Vogelsang, "Introduction to the Symposium on Price Cap Regulation." *Rand Journal of Economics*, Vol. 20(3), Autumn 1989, p. 369.

¹⁹ M.E. Beesley and S.C. Littlechild, "The Regulation of Privatized Monopolies in the United Kingdom," *Rand Journal of Economics*, Vol. 20(3), Autumn 1989, p. 467. In a later article commenting on a particular application of TELRIC, Professor Littlechild succinctly characterized the fundamental inconsistency between incentive regulation and TELRIC-based pricing as follows: "Although this paper responds to one of the concerns about TELRIC pricing, it does not seem to come to terms with the limited knowledge of the regulator in a way that incentive regulation does." Stephen Littlechild, "Reflections on Incentive Regulation," *Review of Network Economics*, Vol. 2(4), December 2003, p. 306.

approach that assumes, against uniform evidence and analysis to the contrary, that the regulator is all-knowing?

In fact, the widespread adoption of price cap regulation, not only in North America, but throughout the world, is recognition on the part of regulators that they do not have sufficient information to do what the efficient-firm approach proposes to do. It is not that the forward-looking costs for the efficient firm are unknown; they are unknowable. To paraphrase Professor Alfred Kahn, this is not like looking for a black cat in a room in which all of the lights have been turned out; there is no cat there! The extreme informational requirements of the efficient firm approach are seemingly prohibitive.²⁰

24. The bottom line is that if regulators actually *were* omniscient, and thus did know the forward-looking costs of the regulated firm, there would be no need for competition (because such regulation could perfectly replicate competitive outcomes). The regulators could simply direct the regulated firm to produce in accordance with the efficient-firm standard for forward-looking costs. Hence, Dr. Mitchell cannot reasonably fault the Commission's special access regime for failing to set the initial level of prices at forward-looking costs when it was the very existence of these informational asymmetries that prompted regulators to move away from traditional rate-of-return regulation in favor of price cap regulation.

Rebuttal to Proposition 2.

In competitive markets, suppliers' productivity gains lower their forward-looking costs and are passed on to consumers as lower prices or increases in product quality. In the price cap index, the productivity factor ensures that the expected gains are translated into updated prices.

25. It is accurate for Dr. Mitchell to assert that, in competitive markets, productivity gains on average are passed along to consumers in the form of lower price or higher quality services. It is also true that if the initial price cap index were by chance set at the competitive level by the omniscient regulator, the application of the appropriately calculated X factor would be expected to update prices accordingly. This is akin to arguing that the *Five-Year Plans* in the former Soviet Union would have worked perfectly if only the government had perfect information about supply and demand conditions in the Soviet economy. In other words, the analysis depends critically on a number of "ifs" and "buts" that are not met in practice.

Indeed, as Don Meredith, the former Dallas Cowboys quarterback, observed in his role as a

²⁰ Dennis L. Weisman, "The (In)Efficiency of the 'Efficient-Firm' Cost Standard," *The Antitrust Bulletin*, Vol. XLV(1), Spring 2000, pp. 200-201 (footnote omitted).

commentator on Monday Night Football, “If ‘ifs’ and ‘buts’ were cookies and nuts, wouldn’t it be a Merry Christmas?”

26. The facts of the matter are that prices were not set at forward-looking costs at the outset of price cap regulation for special access, nor are we aware of any application of price cap regulation in U.S. telecommunications markets where this is the case. The problem with the approach outlined by Dr. Mitchell is that it risks putting in place a confiscatory rate structure,²¹ which in turn would reduce internal sources of funds available for network modernization, infrastructure improvements, and cost-reducing innovations.²² Of course, the creation of incentives to invest in cost-reducing innovation is one of the principal reasons why price caps is considered a superior form of economic regulation.
27. Also, Dr. Mitchell’s discussion of the X-factor appears to assume, improperly, that per-unit costs in this industry are necessarily declining, whereas they may be rising for reasons that he appears to overlook. He argues that the proper application of “the productivity factor ensures that the expected gains are translated into updated prices.” It is, of course, more accurate to state that the *proper* application of the productivity factor ensures that expected gains *or losses* are translated into updated prices. A properly calculated X factor (productivity factor) measures the differences between productivity growth and input price growth in the telecommunications industry relative to the overall economy. Such a mechanism must take into account not only productivity enhancements, but also the loss of an incumbent’s economies of scale as competition intensifies and it sheds demand to competing providers. In such circumstances, an incumbent’s per unit costs increase accordingly.²³ An X factor that fails to account for this loss in scale economies would drive special access prices below competitive levels, forestalling competition and discouraging investment. It is therefore important that price regulation for special access services not become a self-fulfilling prophecy. In particular, the Commission should be careful not to drive down incumbents’

²¹ In addition, a firm would have little incentive to invest in cost-reducing innovation when the price cap constraint is unduly stringent and the regulator retains a legal obligation to provide for a compensatory rate structure or risk being overturned by the courts on grounds that the rate structure constitutes a governmental taking. In fact, investing in cost-reducing innovation under such conditions would only weaken the firm’s prospects for proving the confiscatory nature of the rate structure that has been forced upon it. See, for example, Luis M.B. Cabral and Michael H. Riordan, “Incentives For Cost Reduction Under Price Cap Regulation,” *Journal of Regulatory Economics*, Vol. 1, 1989, pp. 93-102.

²² Opening Declaration at ¶ 36.

²³ See Jeffrey I. Bernstein and David E. M. Sappington, “Setting the X Factor in Price Cap Regulation Plans,” *Journal of Regulatory Economics*, 16, 1999, pp. 5-25.

prices to levels that foreclose would-be competitors from the market, and then accept the claims from these would-be competitors that the resulting dearth of competition is a credible rationale for continued regulation.

Rebuttal to Proposition 3.

In the case of special access, the initial [price] levels were not set at forward-looking cost, but based on accounting costs prevailing in 1990.

28. The typical approach in transitioning from traditional rate-of-return regulation to price cap regulation is to conduct a true-up of earnings to a target rate-of-return. The initial price cap index would be set so as to provide the regulated firm with a reasonable opportunity to achieve that target rate-of-return based, in part, on the costs allocated to special access under the separations process. Rates set lower than this level risk being confiscatory.
29. Dr. Mitchell is correct in observing that regulators did not use a forward-looking cost analysis to establish the price cap index. In fact, the initial price cap index, in combination with annual updates from the application of X factors, may well have resulted in rates below a proper measure of forward-looking costs at the onset of pricing flexibility, given factors such as the erosion in scale economies and the increased risk posed by ever-increasing competition for special access and other services. If so, we would not necessarily expect special access prices to be trending downward, as regulated rates were already below market rates; we might well expect them to trend up, even in highly competitive markets. In other words, if special access prices are already set below market levels by regulatory fiat, we would not expect the market to drive them lower still. This possibility undermines Dr. Mitchell's contention that a supposed lack of a downward pricing trend somehow establishes that prices were set at or above competitive levels at the outset of price cap regulation. And as we discuss below, special access prices *have* trended downwards in any event.

Rebuttal to Proposition 4.

The Commission's price cap framework has not worked effectively to control market power because special access prices are above measures of forward-looking costs.

30. Dr. Mitchell has essentially set up a straw man in claiming that the Commission's price cap framework for special access has not worked effectively in curbing incumbents' market power because prices exceed forward-looking costs. This is the case for the following

reasons. First, there can be no credible claim by Dr. Mitchell or anyone else for that matter that forward-looking cost measured *à la* TELRIC is a credible metric of an incumbent's actual forward-looking costs.²⁴ In fact, the Commission itself has raised concerns that highlight what are potentially fatal flaws in the TELRIC methodology.

Our concerns in evaluating the TELRIC pricing rules are somewhat different than those present at the time the Commission adopted its *Local Competition Order*. At that time, local competition was largely a theoretical exercise and we placed a premium on the need to stimulate entry into the local exchange market.²⁵

To the extent that the application of our TELRIC pricing rules distorts our intended pricing signals by understating forward-looking costs, it can thwart one of the central purposes of the Act: the promotion of facilities-based competition.²⁶

Hence, it is curious that Dr. Mitchell would advocate a costing methodology (TELRIC) for setting prices that serves to discourage entry and then complain that the lack of competitive alternatives in the market for special access serves to confer market power on the incumbents.²⁷ Moreover, quite apart from the perverse incentive effects that TELRIC creates, it contains several basic methodological flaws that render it unreliable as a measure of any firm's actual costs, as the Commission itself suggested in its 2003 NPRM and as we discuss below. In fact, one would be hard pressed to identify another economic construct developed by the Commission that has elicited more widespread controversy among economists than TELRIC. Professor Alfred Kahn has been among the most vocal critics of TELRIC and its role in subverting the competitive process and discouraging entry by facilities-based providers. The following passages are instructive:

²⁴ For a critical analysis of the "efficient-firm" (TELRIC) standard for setting benchmarks for "competitive" pricing, see Alfred E. Kahn, Timothy J. Tardiff and Dennis L. Weisman, "The 1996 Telecommunications Act At Three Years: An Economic Evaluation of Its Implementation by The FCC." *Information Economics and Policy*, Vol. 11, No. 4, December 1999, pp. 319-365 and Dennis L. Weisman, "The (In)Efficiency of the 'Efficient-Firm' Cost Standard," *op. cit.*

²⁵ Federal Communications Commission, *In the Matter of Review of the Commission's Rules Regarding the Pricing of Unbundled Network Elements and the Resale of Service by Incumbent Local Exchange Carriers*, WC Docket No. 03-173, Notice of Proposed Rulemaking, Released September 15, 2003 at ¶ 2. ("TELRIC NPRM")

²⁶ *Ibid.* at ¶ 3.

²⁷ Nor can it credibly be argued that the economic validity of TELRIC was substantiated by the U.S. Supreme Court in *Verizon Communications Inc. v. FCC*, 535 U.S. 467 (2002). The court went to great lengths to point out that while TELRIC passed legal muster, it was making no pronouncement as to its economic merits. See Glen O. Robinson and Dennis L. Weisman, "Designing Competition Policy for Telecommunications." *The Review of Network Economics*, Vol. 7(4), December 2008, pp. 509-46; and Dennis L. Weisman, "Did The High Court Reach An Economic Low in *Verizon v. FCC*?" *The Review of Network Economics*, Vol. 1(2), September 2002, pp. 90-105.

The Commission has in effect declared: *We will determine not what your costs are or will be but what we think they ought to be.* Why should we bother to let the messy and uncertain competitive process determine the outcome when we can determine at the very outset what those results would be and prescribe them now?²⁸

In unregulated markets, prices tend to be set on the basis of the actual costs of incumbent firms, and they should be. The economic purpose of prices set at incremental cost is to inform buyers—and make them pay—the cost that society will *actually* incur if they purchase more or would *actually* save if they reduced their purchases, entirely or partially. These can only be the costs of the supplier whose prices are being set, not some hypothetical ideal producer. ... In contrast, TELRIC-based charges ... would actually discourage competitors coming in and building their own facilities, which it was the clear intension of the new Act to encourage.²⁹

31. In any event, assume for the purposes of argument that Dr. Mitchell is correct that TELRIC is somehow an accurate measure of the incumbents' forward-looking costs and that the incumbents are pricing at inordinately high levels above such costs. How can he then explain his assertion that there is a paucity of competition? Presumably, even very high barriers to entry could be overcome if the price-cost margins are even remotely close to the levels that Dr. Mitchell claims. That is to say, the scale effects that Dr. Mitchell contends are necessary for viable competitive entry are largely nullified by the inordinately high price-cost margins that Dr. Mitchell claims to have identified.³⁰

Rebuttal to Proposition 5.

The declining-cost nature of providing special access should result in reduced prices, but this has not occurred under the Commission's price cap framework.

32. Dr. Mitchell contends that the Commission's price cap framework for special access has failed, principally because prices have failed to track the declining cost nature of the industry. Dr. Mitchell's observation, even if true, is difficult to understand, particularly in light of his previous observations about how the Commission set (or did not set) the initial level of the price cap index.

²⁸ Alfred E. Kahn, *Letting Go: Deregulating the Process of Deregulation*. Michigan State University Press, 1998, p. 92. (emphasis in original, footnote omitted)

²⁹ *Ibid.*, p. 96.

³⁰ Mitchell Declaration at ¶¶ 114-134.

33. First, special access prices have, in fact, decreased in inflation-adjusted terms even as total revenues have increased. For example, as we observed at paragraph 17 of our opening declaration in this proceeding:

The increases in special access revenues observed above and represented in Figure 1 have been accompanied by *decreases* in the real (inflation-adjusted) prices of special access. From an economic perspective, the combination of expanding volumes and decreasing prices typically indicates that consumers are benefiting from market competition and/or in the case of services still subject to some degree of regulation, the performance of firms under that regime.

34. Dr. Mitchell's claim that special access prices did not trend downward is factually incorrect. To wit, inflation-adjusted prices did trend downward, which implies that special access prices were "updated" to reflect a rate of productivity growth at least as high as that realized in the aggregate U.S. economy. Moreover, as discussed, even if special access prices had not trended downward over time, this would not be dispositive of market power, for three reasons. First, it is at least possible that special access rates at the onset of pricing flexibility were set below competitive levels. Second, it is by no means clear that per-unit costs have declined over time rather than risen, given that competitive entry decreases scale economies and increases costs of capital. Finally, even if telecommunications were a declining-cost industry, this does not imply that the price for *every service* should necessarily be expected to fall, given (among other considerations) the prevalence of joint and common costs throughout the industry.

Rebuttal to Proposition 6.

For special access services sold in Phase II price flexibility areas, where the price cap limit does not apply, the predominant pattern has been prices higher than in price cap areas.

35. Dr. Mitchell observes that special access prices may be higher in Phase II areas where incumbents have both upward and downward pricing flexibility in comparison with Phase I areas where incumbents have only downward pricing flexibility. This observation is akin to observing fewer smokers in non-smoking areas and asking why. As we observed in our opening declaration and we reiterate here, there can be no reasonable supposition that prices were pegged at competitive or market levels under regulatory fiat. Hence, when regulation is

relaxed, as it would be under Phase II pricing flexibility, it is reasonable to expect prices to adjust in both the upward and downward direction to respond to market forces.

36. Historical ratemaking policies in telecommunications that diverge from the competitive standard can lead regulators astray in applying standard market definition guidelines. This suggests two additional observations. First, because regulators typically did not set rates in an attempt to emulate a competitive-market standard, price increases that may follow the relaxation of regulation are not dispositive of market power. Second, the dearth of competitive entry may be due to regulated prices that are too low rather than some form of strategic entry deterrence on the part of the incumbents. In other words, any dearth of competition in retail telecommunications markets is likely an artifact of regulatory-rate distortions that served to suppress competition.³¹
37. An example may prove instructive. Suppose there are four Metropolitan Statistical Areas (MSAs) that have Phase II pricing flexibility and four MSAs with Phase I pricing flexibility. If regulatory fiat has, on average, maintained prices below market levels, it would not be surprising to observe higher prices in the Phase II MSAs than in the Phase I MSAs. This is the case because regulatory fiat has precluded the incumbents from adjusting prices in the upward direction in the Phase I MSAs. Thus, the mere fact that prices may be higher in Phase II areas does not demonstrate market power.
38. Dr. Mitchell further opines that the collocation trigger is not a very effective screen for distinguishing between those market areas in which sufficient competition is present and those where it is not.³² However, to address such claims, the proper approach is to collect information that will allow the Commission to determine the areas that are competitive. In these areas, prices are by definition just and reasonable. But even in those areas where competition is deemed to be insufficient and some form of price cap regulation is warranted, it is critical that the regime be structured so as not foreclose prospective entrants. As discussed below, this is the case because the greater harm to economic welfare over the long-run is from prices that are too low rather than prices that are too high.

³¹ See Principles 5 and 6. White Paper at ¶¶ 47-60.

³² Mitchell Declaration at ¶¶ 38-49.

B. Response to proposals to change certain features of the current regulatory regime

39. A number of parties have urged the Commission to make immediate changes to the current regulatory regime.³³ In this section, we focus on two components of such proposals: lowering (re-initializing) current rates (or rate ceilings) and changing the way in which rate ceilings in future years would be calibrated. These proposals would also end pricing flexibility by restoring price cap regulation to geographic areas that have previously been granted such flexibility.
40. We emphasize at the outset of this discussion that the micro-level details of the price cap regime that we discuss herein are relevant only (1) in those areas that the Commission’s data-gathering exercise finds that competition is insufficient to provide the requisite market discipline; and then (2) only where the imposition of economic regulation passes a cost-benefit test. Because there is a cost associated with economic regulation—it distorts marketplace outcomes and is frequently administratively burdensome—it is critical that whatever form of regulation that is adopted be narrowly tailored to the task at hand. In other words, regulation, where applied, should be justified, in the sense that it passes a cost-benefit test, and proportionate, in the sense that it is the least intrusive (and thus “welfare maximizing”) form of regulation consistent with the realization of the stated objectives.³⁴
41. Currently, prices in areas still subject to price cap regulation are frozen on average at current levels.³⁵ In contrast, some parties suggest a future price cap mechanism based on two considerations: (1) overall economy-wide inflation³⁶ and (2) the extent to which inflation in telecommunications prices can be expected to differ from economy-wide inflation (the “X

³³ Comments of Sprint Nextel Corporation, Before the Federal Communications Commission, *In the Matter of Special Access Rates for Price Cap Local Exchange Carriers*, WC Docket No. 05-25, *AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Special Access Services*, RM-10593, January 19, 2010 at p. 46 (“Sprint Nextel Comments”). PAETEC, et al. Comments at pp. 75-80.

³⁴ See, for example, Dennis L. Weisman, *Principles of Regulation and Competition Policy for the Telecommunications Industry - A Guide For Policymakers*. The Center for Applied Economics, KU School of Business, Technical Report 06-0525, 2006, Section 2.1.1.

³⁵ This assumes that there are no allowed exogenous cost changes. Since the purpose of this discussion is to contrast current regulation with alternative proposals (under which exogenous cost treatment would presumably not change), we ignore this qualification.

³⁶ In this Commission’s previous price cap plans, inflation was measured by the annual percentage change in the price index for Gross Domestic Product (GDP-PI)

factor”).³⁷ If the X factor turned out to be just equal to economy-wide inflation, the typical price cap mechanism would result in future prices being non-increasing on average.

Therefore, in order to evaluate proposals to change the manner in which prices in areas subject to price caps would be regulated, two questions must be asked and answered. First, are current price levels unreasonably high? Second, is it reasonable to expect future real (inflation-adjusted) telecommunications prices to decline faster than the economy-wide inflation rate, i.e., will productivity gains more than offset inflation?

1. Re-initializing rates

42. While not all parties have explicitly elaborated on all of the elements that re-imposing and tightening price caps across-the-board would entail, at least one component would be an explicit or implicit reduction in special access prices. Rather than relying on the fundamental economic proposition that prices, product offerings, and other outcomes from the competitive process (when competition is sufficient) are inherently superior to regulatory attempts to ascertain the same, these parties point to a plethora of indices that purport to demonstrate incumbents' rates are unreasonably high. For example, ETI's assertion that incumbents' special access rates have generated "excess profits" would seem to imply that such rates should be reduced to eliminate the "excess." As we have discussed elsewhere, such a reduction would drive incumbents' earnings well below economic levels, and in the process severely undermine the incentives of incumbents and entrants alike to invest in broadband telecommunications infrastructure.
43. Other parties have suggested (or implied) that special access rates be adjusted based on rates adopted for unbundled network elements.³⁸ As we have explained, the TELRIC

³⁷ The basic "X factor" accounts for two effects: the difference in economy-wide and industry productivity and (2) difference in economy-wide and industry *input* price inflation.

³⁸ PAETEC, et al. Comments at pp. 67-71 and pp. 75-76; Comments of Comptel, Before the Federal Communications Commission, *In the Matter of Special Access Rates for Price Cap Local Exchange Carriers*, WC Docket No. 05-25, *AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Special Access Services*, RM-10593, January 19, 2010 at pp. 11-15; Comments of XO Communications, LLC, Before the Federal Communications Commission, *In the Matter of Special Access Rates for Price Cap Local Exchange Carriers*, WC Docket No. 05-25, *AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Special Access Services*, RM-10593, January 19, 2010 at p. 10 ("XO Comments"); and Mitchell Declaration at ¶ 98. Dr. Mitchell (at ¶¶ 45-46) appears to be open to the possibility that some wire centers or wire center groupings, e.g., based on TRRO triggers, could have sufficient competition to warrant price flexibility. If in fact such wire centers are identified, incumbent prices would be at

methodology upon which these rates are based tends, by design, to produce costs that understate the actual forward-looking costs that incumbents will incur in providing wholesale facilities and services to competing carriers.³⁹ Indeed, in its TELRIC NPRM, the Commission succinctly identified “one of the key internal tensions” in that methodology: “the assumption that for some purposes”—such as TELRIC’s insistence on estimating the costs only of the most cutting-edge technology throughout the network—“rates should reflect a market with widespread facilities-based competition[,] but, for other purposes”—such as calculation of scale economies or costs of capital—“rates should reflect a market with a single dominant carrier.”⁴⁰ As the Commission properly concluded, that “internal tension” may well “work to reduce estimates of forward-looking costs below the costs that would actually be found even in an extremely competitive market[.]”⁴¹ More generally, TELRIC (1) assumes a hypothetical replacement network and thus does not identify the *actual* forward-looking costs that any carrier is likely to incur, (2) includes unrealistic efficiencies both in how a network can be configured and in how rapidly a carrier deploying assets with long lives can incorporate the latest technology throughout the network, and (3) may include depreciation and cost of capital estimates that fail to reflect the risk that levels of demand necessary to make investments economic could fail to materialize over asset lifetimes, because of technological advances and/or competitive inroads.⁴²

44. This Commission has acknowledged these deficiencies on a number of occasions. In particular, shortly after the U.S. Supreme Court upheld its authority to prescribe TELRIC, the Commission nonetheless began an investigation of whether that methodology should be modified in order to render the cost estimates more realistic.⁴³ Specifically, the Commission observed

competitive levels, and therefore would be proper benchmarks for evaluating special access rates in areas deemed to have less competition.

³⁹ See note 24 *supra*.

⁴⁰ *TELRIC NPRM* ¶ 4.

⁴¹ *Ibid.* ¶ 51; Kahn, *op. cit.*, pp. 91-92.

⁴² For a discussion of the unique forms of risk that confront regulated firms making irreversible investments, see Graeme Guthrie, “Regulating Infrastructure: The Impact on Risk and Investment,” *Journal of Economic Literature*, XLIV, 2006, pp. 925-972; and Robert S. Pindyck, “Mandatory Unbundling and Irreversible Investment in Telecom Networks,” *Review of Network Economics*, 6, 2007, pp. 274-298; and Jerry A. Hausman, “Valuing the Effect of Regulation on New Services In Telecommunications,” *Brookings Papers on Economic Activity: Microeconomics*, 1997, pp. 1-54.

⁴³ This development is noteworthy because Justice Breyer’s criticism of TELRIC in his dissent in *Verizon* was based in large part on the fact that it represented too much of a disconnect from reality. To wit, TELRIC might be very

One of the central internal tensions in the application of the TELRIC methodology is that it purports to replicate the conditions of a competitive market by assuming that the latest technology is deployed throughout the hypothetical network, while at the same time assuming that this hypothetical network benefits from the economies of scale associated with serving all of the lines in a study area. In the real world, however, even in extremely competitive markets, firms do not instantaneously replace all of their facilities with every improvement in technology. Thus, even the most efficient carrier's network will reflect a mix of new and older technology at any given time.⁴⁴

The Commission then stated "We tentatively conclude that our TELRIC rules should more closely account for the real-world attributes of the routing and topography of an incumbent's network in the development of forward-looking costs."⁴⁵

45. Even earlier, when the Commission first developed TELRIC, it acknowledged that competition increases the risks, and hence the costs, of deploying network assets.

[W]e also agree that, as a matter of theory, an increase in risk due to entry into the market for local exchange service can increase a LEC's cost of capital. We believe that this increased risk can be partially mitigated, however, by offering term discounts, since long-term contracts can minimize the risk of stranded investment.⁴⁶

46. Despite this acknowledgement, state commissions typically set TELRIC rates based on cost-of-capital inputs that did not reflect the additional risks identified by the Commission. Absent long-term contracts, the cost of capital faced by facilities-based providers is considerably higher than what is typically assumed in cost studies used to establish regulator-prescribed rates.⁴⁷ We further note the irony inherent in some parties' advocacy to use TELRIC rates as a standard of what reasonable special access rates should be, while at the same time criticizing the use of long-term contracts which would serve to mitigate some (but by no means all) of the deficiencies in TELRIC-based rates.

different from any incumbent's actual cost." *Verizon v. FCC Op. Cit.*, Opinion of Breyer J. at 4. See also note 24 *supra* and the references cited therein.

⁴⁴ TELRIC NPRM at ¶ 50.

⁴⁵ *Ibid.* at ¶ 52.

⁴⁶ Federal Communications Commission, *In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, *Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, CC Docket No. 95-185, First Report and Order and Order, Released August 8, 1996 at ¶ 687.

⁴⁷ See note 42 *supra*.

47. A number of parties have also suggested that incumbents' retail services such as DSL be used to assess the reasonableness of special access rates.⁴⁸ On the other hand, some of these same parties, as well as other parties, argue that the competing retail services offered by other providers (e.g. cable companies) should not be included in the same market, because of differences in quality and other product features.⁴⁹ Clearly, to the extent that such differences exist (and they are sufficiently pronounced to render these other services non-comparable), the *prices* of these other services are not a proper benchmark for incumbents' special access services.⁵⁰ Again, the Commission cannot reasonably resolve these various empirical questions unless it conducts the empirical inquiry outlined in our opening declaration.

2. Re-imposing an explicit X Factor

48. We do not believe that the record to date warrants any of the proposed changes to the current price cap calculations, and implementation of the analytical framework Qwest has proposed, which would provide benchmarks for measuring the reasonableness of rates in areas where price caps are used, is a far more empirical and thus superior means of determining whether any changes are needed to the current price cap mechanism. In any event, we briefly explain why these proposed changes are analytically unsound even on their own terms. Price caps include an explicit or implicit mechanism for adjusting prices in future years. From the final year of the CALLS plan (July 1, 2004 to June 30, 2005) to the present, maximum prices in areas subject to price caps have been frozen, on average, in nominal terms.⁵¹ Accordingly, real (inflation-adjusted) maximum special access prices have been declining at the rate of inflation. In terms of the traditional "Inflation – X" formula, nominal prices that on average are non-increasing would result from the use of an "X factor" set equal to the rate of inflation

⁴⁸ Mitchell Declaration at ¶ 112 and Nochokepoint Comments at p. 23-24. PAETEC, et al. also claim that incumbents' special access rates are higher than those charged by small carriers under the NECA tariff. PAETEC, et al. Comments at pp. 71-72. In fact, the \$218 that PAETEC, et al. offer as an illustrative 10-mile DS1 circuit under the NECA tariff applies to less than one percent of such carriers. The weighted average rate for such an illustrative circuit is actually \$536, which is considerably higher than Qwest's DS1 rates anywhere in its territory.

⁴⁹ Mitchell Declaration at ¶ 68. twtc Comments at pp. 11-12.

⁵⁰ Because competitive facilities-based providers such as cable companies can and in some cases do use their networks to offer services that compete with incumbents' special access offerings, such providers' services (actual and potential) should be considered when evaluating the competition incumbents face in particular geographic areas.

⁵¹ Federal Communications Commission, *In the Matter of Special Access Rates for Price Cap Local Exchange Carriers*, WC Docket No. 05-25, *AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Special Access Services*, RM-10593, Order and Notice of Proposed Rulemaking, Released January 31, 2005 at ¶ 15.

(i.e., maximum real prices decline at the rate of inflation). For example, between 1999 and 2009, economy-wide inflation, as measured by the change in GDP-PI averaged about 2.4 percent per year. Thus, the X-factor of 5.3 percent proposed by some parties⁵² would more than double the effective X factor that is currently in place.⁵³ Again, we reiterate that it would be premature to change how prices in areas still subject to price caps are regulated. Further, as we explain below, the current freeze on average rates (apart from possible exogenous changes) appears to be a sufficient, if not more than sufficient, constraint on prices in such areas.

49. The X factor (either an explicit annual percentage or a rate equal to inflation implicit in non-increasing nominal prices) is arguably the most critical parameter of the price cap formula as it determines the trajectory of the regulated firm's prices over time. An X factor that is set too high (*i.e.*, with an excessive downward effect on prices) can undermine the regulated firm's financial viability and deter competitive entry. An X factor that is set too low can potentially enable the regulated firm to earn *supranormal* profits that may be non-transitory in nature.
50. In an evolving competitive marketplace, the "costs" of error with respect to setting the X factor "too high" or "too low" are not symmetric. To wit, an X factor that is set too high (possibly leading to compelled below-cost prices) can be anti-competitive in the sense that the incumbents' prices are maintained by regulatory fiat at levels that serve to discourage competitive entry. This error may not be self-correcting, as both investment and competitive entry are forestalled, leading to prolonged market distortions.⁵⁴ In addition, given the relatively high degree of substitutability between special access and comparable services provided over next-generation networks (NGNs), the artificially low prices that would result from applying an unreasonably high X factor for special access could be expected to repress

⁵² Sprint Nextel Comments at p. 46. PAETEC et al. also propose that if the Commission does not re-initialize rates on another basis, it should retroactively reduce rates starting in 2004 using a 5.3 percent X factor. PAETEC et al. Comments at p. 76 (note 260). Because (as we explain in the remainder of this section) there is no justification for applying such an X factor going forward, retroactive application would be similarly unreasonable.

⁵³ Over a ten-year period, real prices would decline by 22 percent with an X factor of 2.4 percent and 42 percent with a 5.3 percent X factor.

⁵⁴ As we explain in *Principle 2* of our white paper: The optimal regulatory policy should balance Type I errors (regulating when market forces provide sufficient competitive discipline) and type II errors (not regulating when market forces provide insufficient competitive discipline) so as to minimize the expected social cost of error. White Paper at ¶¶ 25-27.

demand for NGN services and, in turn, discourage investment in NGNs. In other words, artificially low prices for the services provided over legacy networks will serve to retard the development of NGNs, *ceteris paribus*. In contrast to an X-factor set too high, an X factor that is set too *low* (thus leading to above-cost prices) may be self-correcting (i.e., sow the seeds of its own destruction) because *supracompetitive* prices would serve to attract entry and drive prices back to “competitive” levels. In short, the social costs of erring on the side of regulated prices that are too low far exceeds, over the long term, the social costs of erring on the side of permitting prices above competitive levels on a transitory basis.

51. It is noteworthy that Professor Stephen Littlechild, who was the original proponent of price cap regulation in the U.K. and also presided over its implementation, viewed the X factor as “a number to be negotiated.”⁵⁵ In addition, Professor Littlechild’s more recent reflections upon the intellectual foundations for price caps in the U.K. reveal that the focus of price cap regulation was not cast in traditional negative terms—the “prevention of excess profits”—but rather on improving efficiency and expanding the range of profitable opportunities through innovation and discovery.⁵⁶ In other words, the price cap model was cast in the likeness of the “competitive process” itself and as such marked a significant departure from traditional regulatory practice, both in design and intent.^{57, 58}
52. In the U.K., where price caps in its modern form originated, the X factor that was applied to the retail rates for British Telecom was revised and set equal to the rate of inflation, essentially ensuring that nominal prices do not rise on average.⁵⁹ In a fashion similar to the U.S., British regulators had previously set the value of X so as to pass along to consumers anticipated industry-wide productivity gains. Notably, regulators in the U.K. explained the rationale for this policy change by recognizing that “such a safeguard control reduces the risk

⁵⁵ Stephen C. Littlechild, “Regulation of British Telecommunications’ Profitability,” Report to The Secretary of State, February, 1983, Department of Industry, London, paragraph 13.17.

⁵⁶ Stephen Littlechild, “The Birth of RPI-X and Other Observations,” in Ian Bartle (ed.), *The UK Model of Utility Regulation*, London: CRI, September 2003, pp. 31-49.

⁵⁷ The view that competition and competition policy should not be focused on reducing prices and profits, but on fostering innovation and discovery is a key theme in the works of Joseph Schumpeter. See Joseph A. Schumpeter. *Capitalism, Socialism and Democracy*, New York: Harper Torchbooks, 1975.

⁵⁸ See the discussion underlying *Principle 1* in our white paper and specifically the emphasis that Professor Schumpeter places on the innovation and discovery dimensions of competition. (*Principle 1* states that: The optimal regulatory policy should recognize the tradeoffs between static and dynamic efficiency and its implications for consumer welfare. White Paper at ¶¶ 19-24.)

⁵⁹ OFTEL, *Review of Fixed Narrowband Retail markets* - 17 March 2003, at paragraph 6.17. See http://www.ofcom.org.uk/static/archive/oftel/publications/eu_directives/2003/eu_retail/retail_3.htm.

of distortion of competition. Competition, rather than regulation, should in future be the main determinant of price reductions.”⁶⁰ The implication is that an X factor that is set “too high” in an increasingly competitive environment risks impeding the natural development of market forces that would ultimately render economic regulation unnecessary. This consideration is particularly important in light of the primacy that the government has placed on stimulating competition and creating proper incentives for the construction of next-generation, fiber facilities.

53. Sprint Nextel bases its proposal for an explicit X factor of 5.3 percent on the fact that 5.3 percent had been used by the Commission in the mid-1990s. Sprint Nextel has argued that its recommendation of this X-factor value was consistent with the Commission’s previous reliance on company-wide productivity when establishing X factors.⁶¹
54. In fact, applying the company-wide methodology that the FCC most recently used to develop an X-factor⁶² would likely produce an X-factor no larger than the rate of inflation. In other words, the current price freeze appears to be conservative.
55. Specifically, we applied the FCC’s methodology from the mid 1990s to publicly available ARMIS data from 1995 through 2007.⁶³ The following table displays the annual X factors

⁶⁰ *Ibid.*

⁶¹“Special Access Pricing,” Written *Ex Parte* Presentation of Sprint Nextel Corporation, WC Docket No. 05-25, October 5, 2007 at p. 33. Ad Hoc and Sprint Nextel had purported to estimate X factors specific to special access services. See note 7 *supra* and Comments of Sprint Nextel Corporation, Before the Federal Communications Commission, *In the Matter of Special Access Rates for Price Cap Local Exchange Carriers*, WC Docket No. 05-25, *AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Special Access Services*, RM-10593, August 8, 2007, Exhibit 2. The double-digit “X factors” that resulted from these exercises are flawed for two fundamental reasons. First, Ad Hoc now criticizes the use of DS0 equivalents as a measure of special access volume growth. In so doing, Ad Hoc has effectively disowned its prior study of special access productivity (as well as Sprint’s, which was merely an update of Ad Hoc’s). In particular, since productivity is the difference between the growth rate of outputs and the growth rate of inputs, an error in the measurement of output growth (special access volumes) necessarily invalidates any measure of productivity based on that output growth measure. Second, for the same reason that it is impossible to develop economically meaningful measures of profitability for the individual products and services of a multiproduct firm with shared network assets, it is likewise impossible to calculate economically meaningful total factor productivity measures for individual services or subsets of services. Indeed, this Commission previously rejected the use of an interstate-only productivity factor, correctly observing “We noted that interstate and intrastate services are usually provided over common facilities, and questioned whether it would be possible to develop separate production functions for interstate and intrastate services.” Federal Communications Commission, *In the Matter of Price Cap Performance Review for Local Exchange Carriers*, CC Docket No. 94-1, *Access Charge Reform*, CC Docket No. 96-262, Fourth Report and Order and Order in CC Docket No. 94-1 and Second Report and Order and Order in CC Docket No. 96-262, Released May 21, 1997 at ¶ 107 (“1997 Price Cap Order”).

⁶² *USTA v. FCC*, 188 F.3d 521 (D.C. Cir. 1999). While the Court invalidated the specific X factor that the Commission derived from applying its methodology, it upheld the Commission’s intermediate decision to focus on company-wide data rather than service-specific data. *Id.* at 528-29.

that would have been derived from this methodology, along with inflation rates, total company-wide annual revenue changes, and output growth rates. The table shows that (1) while output growth grew strongly in the early years, it has been declining sharply in recent years;⁶⁴ (2) annual X factors averaged 0.2 to 1.1 percentage points *less* than inflation throughout the 1995 – 2007 period; and (3) in the most recent years, the annual X factors have become negative, a trend that would in turn justify *increasing rather than decreasing nominal prices* for special access services.

⁶³ The X factor that would be produced by the cited methodology (excluding a “consumer productivity dividend” add-on of 0.5 percentage points) is based on average values of the difference between economy-wide and incumbent total factor productivity and the difference between economy-wide and incumbent input price inflation. It turns out that with the FCC’s methodology, that result is closely approximated by the percent change in GDP-PI – (the percent change in company-wide revenue – the percent change in output). Timothy J. Tardiff and William Taylor, “Revising Price Caps: The Next Generation of Incentive Regulation Plans, In Michael A. Crew, ed., *Pricing and Regulatory Innovations Under Increasing Competition and Other Essays*, Boston: Kluwer Academic Publishers, 1996, p. 27. Accordingly, our estimates use the FCC methodology (as represented in Charts D2-D5 of the 1997 Price Cap Order) to develop the output quantity index (adjusted as needed for definitional changes for certain data) in conjunction with the annual changes in total revenue and GDP-PI.

⁶⁴ Thus, as we discussed earlier, competitive inroads are eroding incumbents’ scale economies.

X Factors Consistent with FCC's Most Recent Total Factor Productivity Methodology

Year	Total Revenue Change	Output Change	Inflation	Annual X Factor
1995				
1996	4.72%	6.64%	2.03%	3.95%
1997	2.49%	4.89%	1.88%	4.28%
1998	3.98%	3.36%	1.65%	1.03%
1999	4.09%	5.27%	1.10%	2.27%
2000	1.58%	2.26%	1.44%	2.11%
2001	-1.08%	-2.56%	2.15%	0.68%
2002	-5.40%	-6.52%	2.37%	1.24%
2003	-6.92%	-5.57%	1.73%	3.08%
2004	-6.03%	-5.46%	2.11%	2.68%
2005	-3.15%	-0.50%	2.83%	5.48%
2006	-2.99%	-7.47%	3.21%	-1.28%
2007	-1.91%	-7.10%	3.17%	-2.02%
Average				
1996-2007	-0.88%	-1.06%	2.14%	1.96%
2001-2007	-3.92%	-5.03%	2.51%	1.41%

Source: ARMIS 43-03 and ARMIS 43-08

Notes:

1. GDP-PI is used to measure inflation
2. Output quantity annual percentage changes are based on the FCC's Total Factor Productivity Methodology
3. Annual X = percent change in inflation – (percent change in total revenue – percent change in output quantity)

C. Concluding Observations on changing regulatory regimes

56. Regulatory commitment is the *sine qua non* for the superior performance of price cap regimes. The general proposition that price cap regulation is superior to traditional earnings regulation must be qualified accordingly. Specifically, price cap regulation provides stronger incentives for economic efficiency relative to traditional earnings regulation provided that the firm believes that the regulator's commitment to the basic tenets of price cap regulation is a

credible one.⁶⁵ In other words, the firm must have confidence that the level of the price cap (respectively, the value of the X factor) is independent of its own performance.⁶⁶ When this is not the case, the regulatory regime is said to incorporate a “ratchet effect” and the firm’s incentives for superior performance are adversely affected.⁶⁷

57. The primary contention of Dr. Mitchell’s Declaration is that the Commission’s price cap framework for special access has not been sufficiently stringent—prices, he claims, are markedly above forward-looking costs. And yet, changing the parameters of the price cap regime on the basis of the financial performance of the individual firm is simply rate-of-return regulation by a different name.
58. A strong regulatory commitment is critical to the superior performance of price cap regulation relative to traditional rate of return regulation. Under pure price cap regulation, the regulatory authority agrees not to adjust the prices of the regulated firm’s services on the basis of its actual earnings or costs. To do so, of course, would represent a form of earnings regulation and re-establish the very link between allowed earnings and costs that price cap regulation attempts to break. The regulated firm has limited incentives to innovate and discover opportunities to improve efficiency if it believes the regulator will simply appropriate these efficiency gains at the next price cap review and pass them on to consumers in the form of still lower rates. Similarly, the firm will have limited incentives to bear the risk associated with large-scale investment in infrastructure modernization if it believes the regulator will appropriate the returns from this investment.

IV. Analytical Framework

59. The analytical framework we described in our opening declaration has the following characteristics: (1) it is based on a sample of MSAs, (2) for each sampled area, information to measure the amount of actual and potential competition is collected from incumbents and

⁶⁵ See David E. M. Sappington and Dennis L. Weisman. *Designing Incentive Regulation For The Telecommunications Industry*. Cambridge MA.: MIT Press and Washington D.C.: AEI Press, 1996, Chapter 7; and Jean-Jacques Laffont and Jean Tirole. *Competition in Telecommunications*. Cambridge MA.: MIT Press, 2000.

⁶⁶ In order to preserve ideal incentives for cost-reducing innovation and infrastructure investment, the regulated firm must perceive that the X factor is invariant to its own performance—what is sometimes referred to as the immutability condition. This condition is satisfied if the criteria for X factor adjustment excludes data on the firm’s own performance. Alternatively, this condition is satisfied if the regulated firm’s share of total industry output is so small that it perceives no direct linkage between its own performance and that of the industry.

⁶⁷ This practice is sometimes referred to as “moving the goalposts.”

suppliers of services that compete with incumbents' TDM-based DS_n-level services, (3) additional information necessary to evaluate current triggers and possibly test alternative triggers is collected, and (4) because incumbent prices in areas deemed to have sufficient competition would be used as benchmarks for incumbent special access prices in other areas, that price data would be collected as well.

60. The need for an analytical framework that includes *comprehensive and complete information from all providers* that offer services that compete with incumbent special access offerings arises in large part from the fact that to date available data sources have tended to understate the extent of competition. For example, as has been widely noted, the NRRI study, which is often cited by proponents of regulation as evidence of the lack of competition for special access services, failed to include many major providers of broadband services (a fact that the report itself acknowledges).⁶⁸ Consequently, it is not possible to infer the presence of market power from such incomplete data. The development of an analytical framework in this proceeding is first and foremost an opportunity to remedy the deficiencies in available data. To this end, it is important that one looks for competition in all the right places by not ruling out the possibility of competition based on preconceived notions of where it should appear (or what specific platforms will deliver it). For example, Dr. Mitchell appears to suggest that competitive providers only enter buildings with at least DS3 levels of demand.⁶⁹ Yet, tw telecom has informed its investors that it counts sites with as few as 2 DS1s of demand (1/14 of the capacity of a DS3 circuit) among its target businesses.⁷⁰ Indeed, wireless carriers such as Dr. Mitchell's client, Sprint Nextel—most likely a large consumer of services at a DS1 volume level—are likely targets for providers of wireless backhaul services, which are available at the DS1 level.⁷¹

61. There are areas of emerging consensus among the parties. In particular, there appears to be agreement that (1) the analytical framework should be designed to distinguish between areas with varying amounts of competition⁷² and (2) data from both incumbents and competitors is

⁶⁸ See, for example, Patrick Brogan & Evan Leo, *High-Capacity Services: Abundant, Affordable, and Evolving*, US Telecom, July 2009) (available at http://www.ustelecom.org/uploadedFiles/News/News_Items/High.Capacity.Services.pdf) at pp. 29-33 (“USTA Report”).

⁶⁹ Mitchell Declaration at ¶¶ 51-54.

⁷⁰ tw telecom, Investor Presentation December 2009 at p. 10.

⁷¹ See, for example, USTA Report at p. 21.

⁷² See, for example, Mitchell Declaration at ¶¶ 88-90.

needed.⁷³ On the other hand, parties differ with respect to a number of details: (1) which products should be included in the analysis, (2) the geographic scope over which competitiveness should be measured, (3) the extent to which potential competition is considered when assessing competition, and (4) the amount of competition deemed to be sufficient to warrant continuing (or perhaps newly granted) price flexibility.

62. The focus of this proceeding is whether rates for incumbents' TDM-based DSn-level special access services are just and reasonable. Accordingly, the relevant products for purposes of this empirical inquiry are (1) incumbents' TDM-based DSn-level special access services and (2) actual and potential competitive services that constrain the prices of incumbents' TDM-based DSn-level special access services. Conversely, in light of the facts that (1) the Commission previously removed all other enterprise broadband services from price regulation⁷⁴ and (2) as the Commission noted in those decisions, competition for those services is rapidly developing and dynamic,⁷⁵ any re-regulation of those services would produce substantial harms, such as the stifling of dynamic efficiency, that would likely far outweigh the static efficiency benefits from possible lower prices for these services. Therefore, expanding the analytical framework to include other incumbent services—such as the full-blown European style “dominant firm” framework proposed by BT America⁷⁶—would be unduly burdensome and time-consuming, at best, and potentially quite harmful to broadband investment and competition, at worst.⁷⁷

⁷³ Mitchell Declaration at ¶ 39. *Ex Parte Letter of Computer & Communications Industry Association et al.*, WC Docket 05-25 (June 3, 2009)

⁷⁴ See, for example, Federal Communications Commission, *In the Matter of Qwest Petition for Forbearance Under 47 U.S.C. § 160(c) from Title II and Computer Inquiry Rules With Respect to Broadband Services*, WC Docket No. 06-125, Memorandum Opinion and Order, Released August 5, 2008 (“Qwest Enterprise Forbearance Order”).

⁷⁵ Indeed, even the sources cited by proponents of re-regulating these services attest to the continuing dynamic nature of competition. For example, despite difficult economic conditions, Ethernet services grew by 43 percent in 2008 (Ed Gubbins, “Ethernet Services Grew by 43% Last Year,” Telephony Online, February 26, 2009) and continued to grow during the first half of 2009. (Fierce Wireless, “Mid-2009 Business Ethernet Leaderboard,” August 21, 2009, available at <http://www.fiercewireless.com/press-releases/mid-2009-business-ethernet-leaderboard>) And according to these sources, Qwest trails not only AT&T and Verizon, but also tw telecom and Cox (with Time Warner Cable in close pursuit). Thus, competitive conditions for Ethernet services—rapidly growing demand with no single “dominant” firm—are consistent with the Commission’s rationale for and decision to forbear from subjecting these services to price regulation.

⁷⁶ Comments of BT Americas Inc., Before the Federal Communications Commission, *In the Matter of Special Access Rates for Price Cap Local Exchange Carriers*, WC Docket No. 05-25, *AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Special Access Services*, RM-10593, January 19, 2010. twtc Comments at pp. 8-10 and 22-23.

⁷⁷ Dr. Mitchell, who has presented a detailed proposal for an analytical framework on behalf of Sprint, properly limits the incumbent services to TDM-based DSn-level special access services. Mitchell Declaration at ¶ 51.

63. The major contention with respect to geographic scope boils down to the question of whether the appropriate geographic areas should be MSAs, which the Price Flexibility Order selected on the basis that the MSA reflects the scope of competitive entry,⁷⁸ or smaller areas (starting with a “geographic market” as small as an individual building).⁷⁹ We addressed the theoretical and practical deficiencies of using such narrowly defined geographic areas in our opening declaration.⁸⁰ We also recognize that parties generally agree that such narrowly defined geographic areas would be impractical and that there needs to be some level of geographic aggregation.⁸¹ Accordingly, a major consideration in determining the geographic scope of such groupings is the extent to which the available competitive alternatives within groups must be uniform. In other words, do all locations need to have the same (or same number) of real or potential competitors? In this regard, this Commission’s analysis in recent merger decisions is instructive. For example, when approving the merger of SBC and legacy AT&T to form the new AT&T, the Commission noted the following:

While we recognize that facilities-based VoIP services may not be available ubiquitously in SBC’s territory, our product market analysis does not require that all mass market consumers would be willing or able to substitute VoIP service for wireline local service, or even that it is widely available for it to be included in the relevant product market. Rather, *our product market definition analysis only requires evidence of sufficient demand substitutability in those geographic markets where facilities-based VoIP service is available.*⁸²

Even if most segments of the mass market are unlikely to rely upon mobile wireless services in lieu of wireline local services today, as discussed above, our product market

⁷⁸ Federal Communications Commission, *In the Matter of Access Charge Reform*, CC Docket No. 96-262, *Price Cap Performance Review for Local Exchange Carriers*, CC Docket No. 94-1, *Interexchange Carrier Purchases of Switched Access Services Offered by Competitive Local Exchange Carriers*, CCB/CPD File No. 98-63, *Petition of U.S. West Communications, Inc. for Forbearance from Regulation as a Dominant Carrier in the Phoenix, Arizona MSA*, CC Docket No. 98-157, Fifth Report and Order and Order and Further Notice of Proposed Rulemaking, Released August 27, 1999 at ¶ 72.

⁷⁹ Comments of Level 3 Communications, LLC, Before the Federal Communications Commission, *In the Matter of Special Access Rates for Price Cap Local Exchange Carriers*, WC Docket No. 05-25, *AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Special Access Services*, RM-10593, January 19, 2010 at 13-14 (“Level 3 Comments”); Nochokepoints Comments at pp. 11-12. PAETEC, et al. Comments at p. 36. twtc Comments at pp. 13-14. XO Comments at p. 8.

⁸⁰ Opening Declaration at ¶ 45.

⁸¹ For example, Dr. Mitchell suggests that wire centers be employed for the geographic scope in his proposed analytical framework. Mitchell Declaration at ¶¶ 41-45.

⁸² Federal Communications Commission, *In the Matter of SBC Communications Inc. and AT&T Corp. Applications for Approval of Transfer of Control*, WC Docket No. 05-65, Memorandum Opinion and Order, Released November 17, 2005 at ¶ 87 (emphasis added, footnote omitted).

analysis only requires that there be evidence of sufficient substitution for significant segments of the mass market to consider it in our analysis.⁸³

64. While the Commission's observations were in the context of product market definition, the economic principle is the same. The important question is not whether customers have the same alternatives (or the same number of alternatives), but whether the number of customers that have such alternatives is sufficient to constrain prices. In particular, if a sufficient number of customers within a particular area, such as an MSA, have alternatives that constrain the ability of incumbents to charge supracompetitive prices throughout that area, such an area would constitute a proper geographic scope for pricing flexibility.
65. A closely related issue is whether a certain number of competitors needs to be uniformly available across a geographic area, and whether a certain level of alternatives are needed in order to conclude that competition is sufficient to warrant full pricing flexibility (i.e., to conclude that prices in that area are sufficiently constrained by competitive forces). Perhaps the most explicit proposal on this issue is provided by PAETEC, et al., who claim that three and preferably four alternatives must be available (presumably to all customer locations) for real competition to exist.⁸⁴ In support of this proposition, these parties allude to the Merger Guidelines' definition of "concentrated industries," as well as a recent Department of Justice filing in this Commission's broadband investigation.⁸⁵
66. As we explained in our opening declaration, the cost structure of wired telecommunications providers—namely, the large proportion of fixed/sunk costs to relatively low variable costs—implies that (1) there will be a limited number of such competitors building facilities in a given geographic area⁸⁶ and (2) a little such competition can go a long way in constraining the ability of a particular provider to raise prices to supracompetitive levels.⁸⁷ Indeed, what is most instructive in the DoJ filing cited by PAETEC, et al. is not the observation that more providers may strengthen competition (and therefore, that public policy should consider

⁸³ *Ibid.* at ¶ 90

⁸⁴ PAETEC, et al. Comments at pp. 50-53. See, also, twtc Comments at pp. 26-27.

⁸⁵ *Ex Parte* Submission of the United States Department of Justice, Before the Federal Communications Commission, *In the Matter of Economic Issues in Broadband Competition: A National Broadband Plan for Our Future*, GN Docket No. 09-51, January 4, 2010 ("DoJ *Ex Parte* Submission").

⁸⁶ The DoJ made the same observation, *ibid.* at pp. 13-14.

⁸⁷ This also reflects the logic underlying *Principle 7* in our white paper: The cost structure for wireline providers (i.e., pronounced scale/scope economies) and the corresponding high price-cost margins required for financial viability implies that relatively modest levels of competition may be sufficient to impose the requisite pricing discipline. White Paper at ¶¶ 61-65.

measures such as increasing spectrum for wireless broadband applications), but that the mere fact that there are only two competitors (and perhaps even one competitor in certain areas) does not necessarily justify price regulation:

The Department recommends that the Commission monitor carefully those areas in which only a single provider offers—or even two providers offer—broadband service. Although enacting some form of regulation to prevent certain providers from exercising market power may be tempting with regard to such areas, care must be taken to avoid stifling the infrastructure investments needed to expand broadband access. In particular, price regulation would be appropriate only where necessary to protect consumers from the exercise of monopoly power and where such regulation would not stifle incentives to invest in infrastructure deployment.^{88, 89}

67. Thus, rather than supporting PAETEC, et al.'s position that at least three (and maybe four) competitive alternatives are needed to justify price flexibility, DoJ's analysis implies that the presence of just two potential competitors in dynamic industries provides consumer benefits that can outweigh the costs imposed by regulation. That conclusion is consistent with this Commission's earlier determination to effectively deregulate broadband Internet access services at a time when wireless services were only just beginning to erode what many then viewed as a duopoly composed of the local telephone company and cable company.
68. Finally, we make two additional observations about the type of information that Dr. Mitchell recommends be collected as part of the analytical framework for evaluating the current special access regulatory regime. First, his fundamental geographic unit from which a sample of observations would be drawn appears to be the wire center.⁹⁰ The primary problem with using the wire center as the sampling unit is that it seemingly assumes that MSAs are not the appropriate geographic scope within which to grant pricing flexibility. In order to test whether there are actual or potential competitive alternatives within an MSA sufficient to constrain incumbent's special access prices, detailed information on the extent

⁸⁸ DoJ *Ex Parte* Submission at p. 28. DoJ notes that its discussion relates to residential broadband services (note 72), but notes earlier that the same principles of competition apply to services for other classes of customers (p. 5, note 10).

⁸⁹ DOJ's policy prescription here is perfectly aligned with *Principle 1* in our White Paper: The optimal regulatory policy should recognize the tradeoffs between static and dynamic efficiency and its implications for consumer welfare. White Paper at ¶¶ 19-24. Moreover, the DOJ recognizes in its filing, as we did in our White Paper, that dynamic efficiency must take primacy over static efficiency.

⁹⁰ Mitchell Declaration at ¶ 81. However, earlier in the declaration, Dr. Mitchell appears to describe sampling individual buildings within a higher level sampling of MSAs. Mitchell Declaration at ¶¶ 36-37. The problems we identify with wire center sampling and analysis would apply with even greater force to a route- or building-focused sampling or analysis.

of competitive supply is necessary.⁹¹ For example, MSA-wide information on the location of competitors' networks would reveal where networks in a particular wire center crossed into (or could potentially expand into) nearby wire centers. In contrast, because a wire center-sampling framework would not have information for all wire centers in an MSA, it may well lack the precision necessary to test whether there is sufficient competition throughout particular MSAs to warrant pricing flexibility—the question that the analytical framework is logically designed to test and evaluate. Further, within a sampling design based on MSAs, the geographically detailed information on competitive supply conditions would be available for smaller areas within the MSA (e.g., wire centers) in the event that the Commission concludes that pricing-flexibility decisions should be considered for areas smaller than MSAs.

69. Second, although he properly provides for competitive supply and self-supply in his analytical framework,⁹² Dr. Mitchell also appears to limit the measure of competitive supply to actual current demand.⁹³ In other words, Dr. Mitchell's framework relies on static market shares, rather than a forward-looking assessment of competitive conditions. Exhibit 3 to our opening declaration discusses how static market shares are especially misleading in the telecommunications industry and why, to the extent the Commission is interested in share information, capacity measures of such shares, which account for potential competition, would be preferable.⁹⁴ Indeed, in forbearing from price regulation of enterprise broadband services, this Commission made a similar observation:

In light of these factors and the emerging and evolving nature of this market, and consistent with traditional market power analysis, we do not find it essential to have such detailed information and would not give significant weight to static market share information in any event.⁹⁵

⁹¹ Although Dr. Mitchell describes how statistical analysis of competitive conditions in sampled wire centers could be used to estimate competitive conditions in non-sampled wire centers within an MSA (Mitchell Declaration at ¶ 88), such an approach would likely be much less precise than collecting the information necessary to measure competition throughout an MSA.

⁹² Mitchell Declaration at ¶ 39.

⁹³ Other parties similarly assume away or dismiss the importance of potential competition. Level 3 Comments at p. 16; Nochokepoints Comments at p. 12; twtc Comments at pp. 21-22.

⁹⁴ White Paper at ¶¶ 36-46: "*Principle 4*. Market share tests are inherently problematic in regulated industries and the Commission should not rely upon them to draw inferences about market power."

⁹⁵ Qwest Enterprise Forbearance Order at ¶ 26.

This view is consistent with Professor Dennis Carlton's pronouncement, written when he was Deputy Assistant Attorney General for Antitrust, that to the extent market shares convey useful information, it is the change in those shares rather than their absolute levels that is relevant.⁹⁶

V. Summary and Conclusions

70. In our opening and this reply declaration, we (1) explain (in response to the Commission's question) that ARMIS rates of return for special access do not demonstrate that rates have been unreasonable, (2) demonstrate that there is no credible evidence that incumbents are charging unreasonably high special access prices, and (3) recommend an analytical framework for testing the efficacy of the current pricing flexibility triggers and for using incumbent prices in competitive areas as benchmarks for the reasonableness of prices in less competitive areas.
71. The opposing parties in this proceeding make five basic arguments. First, calculated rates-of-return based on ARMIS data suggest that the incumbents are earning supranormal returns on their special access services. Second, there is a dearth of competition for special access services that confers market power on the incumbents. Third, prices for special access services are well in excess of forward-looking costs. Fourth, the Commission's price cap regime for special access services has failed to curb the incumbents' market power. Finally, the triggers that the Commission uses for granting pricing flexibility are not an effective screen to differentiate between market areas where competition is sufficiently robust and market areas where it is not. The single point of consensus seems to center on the need to collect more data on special access competition, but even here there are differences of opinion over how that process should be structured and the appropriate level of granularity.
72. In this reply declaration as well as in our opening declaration, we have sought to provide the Commission with a set of principles firmly grounded in the law and economics literature to inform its deliberations on these important issues. Specifically, we show that (1) accounting rates of return are fraught with problems that derive from arbitrary cost allocations, both over time and among services; and (2) company-wide economic rates of return would be a

⁹⁶ Dennis W. Carlton, "Market Definition: Use and Abuse," Economic Analysis Group Discussion Paper 07-06, United States Department of Justice, Washington D.C., April 2007.

superior metric for drawing inferences about market power. Based on these metrics there is no indication that the incumbents' are earning supranormal returns.

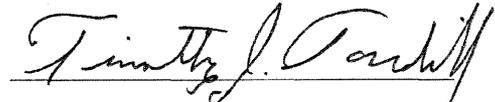
73. The studies that purport to demonstrate the dearth of competition in special access markets suffer from fatal problems of misreporting that render them wholly unreliable for drawing meaningful inferences about the presence of competition.
74. There is no indication that special access prices on average are greatly in excess of appropriately calculated measures of forward-looking costs, nor would evidence to that effect necessarily be dispositive of market power when there is no indication that the incumbents are earning supranormal returns on their overall operations.
75. There is likewise no credible evidence on the record to suggest that the Commission's price cap regime for special access services has failed to produce a rate structure that emulates a competitive market outcome. The robust demand growth for special access services coupled with steadily decreasing real prices would suggest that consumers are benefiting from the gains in productivity growth that would be expected of a competitive market. Accordingly, recommendations that prices be reduced, based on accounting earnings or comparisons to TELRIC (or other price standards) are premature at best and ill-advised at worst. To the extent that competition is insufficient in particular areas, incumbent prices in competitive areas, which are just and reasonable by definition, would be far superior benchmarks for determining the justness and reasonableness of rates in the less competitive areas.
76. Similarly, proposals by some parties that inordinately large X-factors should be applied to special access price caps should be dismissed, as such claims are not grounded in any rigorous economic analysis.
77. One of the principle objectives of this proceeding is to determine whether the triggers for Phase I and Phase II pricing flexibility are the best measures of differentiating between market areas in which there is sufficient competition and market areas where there is not sufficient competition. That question should be resolved by a rigorous empirical analysis. There is no credible basis to prejudge what that data will reveal based on the record to date.
78. Taken as a whole, the criticisms of the Commission's current special access regime as voiced by the opposing parties in this proceeding are either incorrect or unsubstantiated. As we have recognized throughout this proceeding, the optimal regulatory policy should balance the social costs of both Type I errors (regulating when market forces provide sufficient

competitive discipline) and type II errors (not regulating when market forces provide insufficient competitive discipline) so as to minimize the expected social cost of error.

79. The social costs of imposing more stringent regulation—measured in terms of forestalled competitive entry and reduced levels of investment and innovation—are likely to be far greater over the long term than any social costs associated with the continuation of the present regime until more information is available to provide the Commission with an accurate picture of the competitive landscape in special access markets. What this suggests in terms of sound regulatory policy is that the Commission should not change its special access regime absent indisputable evidence that the regime is fundamentally flawed. There is no such indisputable evidence on the record that could reasonably justify reversing the Commission’s present policies for special access services. Indeed, to reverse course at this time would undermine the government’s overarching objective to “promote competition[,] ... reduce regulation” and “encourage the rapid deployment of new telecommunications technologies” in the 1996 Telecommunications Act.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on February 24, 2010


Dr. Timothy J. Tardiff, Declarant

I declare under penalty of perjury that the foregoing is true and correct.

Executed on February 24, 2010

A handwritten signature in black ink, appearing to read "Dennis L. Weisman", is written over a horizontal line.

Professor Dennis L. Weisman, Declarant