

Market share is not a satisfactory gauge of the level of market power or competition within an access market.¹⁵⁶ First, as discussed below, even if market share is high, other measures of market power could show the presence of substantial competition in particular market segments.¹⁵⁷

Second, market share is a backward-looking indicator. It measures decisions that have been made in the past. These include decisions by new firms to invest in competitive facilities, and decisions by customers to purchase service from alternative access providers. If the degree of a LEC's pricing flexibility is dependent on market share, these decisions would be made based on the distorted and non-economic price signals generated by an artificially constrained market.¹⁵⁸ Regulation cannot replicate market

¹⁵⁶ AT&T has consistently argued that market share should not be used to measure market power. See, e.g., AT&T Comments in CC Docket No. 83-1147, filed April 2, 1984, p. 3 of summary (Market share is "an unreliable and inappropriate measure of market power."); AT&T Comments in CC Docket No. 85-107, filed February 24, 1986, p. 4, n. ("AT&T does not agree that market share analysis is relevant to the issues of market power in the telecommunications industry.").

¹⁵⁷ See Harris at 30. (Market share "fails to account for the extremely high degree of traffic and revenue concentration; a LEC with large market share can lose a substantial share of its revenue very quickly to an entrant covering a small portion of service territory.")

¹⁵⁸ See id. at 29-30. ("Market share is based on historical decisions; when change is occurring rapidly in markets, the use of historic measures biases the assessment against the incumbent.")

results if it waits until such decisions have been made before it allows participants to respond to competitive prices.¹⁵⁹

The presence of excess capacity in competitors' networks can indicate the absence of market power. For example, in the original price cap proceeding, AT&T argued that competitors with excess capacity "cannot be driven out of the market by AT&T's lowering its prices."¹⁶⁰ Further, in its proceeding on interexchange competition, the Commission concluded that AT&T's competitors have substantial excess capacity "to constrain AT&T's pricing behavior"¹⁶¹

Competitors are installing large-capacity fiber facilities in many access markets. Clearly, the presence of such facilities diminishes LECs' market power. While USTA does not propose a capacity measure as the trigger mechanism for classifying wire centers as TMAs or CMAs, USTA does incorpo-

¹⁵⁹ Professor Harris also notes that "market share is an extremely misleading indicator when the LEC is subject to regulatory [requirements] that are not imposed on competitors. For example, when the LEC is required to provide services to many customers at prices below costs, those sales increase its market share but are certainly not an indicator of market power." *Id.* at 30.

¹⁶⁰ Policy and Rules Concerning Rates for Dominant Carriers, CC Docket No. 87-313, 4 FCC Rcd at 3113-14.

¹⁶¹ Competition in the Interstate Interexchange Marketplace, Report and Order, CC Docket No. 90-132, 6 FCC Rcd 5880, ¶ 46 (1991).

rate the capacity concept in its measure of market power as discussed below.

"Contestability" basically holds that in setting prices, the incumbent firm will be influenced by the potential for market entry by competitive providers where no barriers to competition exist.¹⁶² Although it does not propose contestability as its trigger mechanism, USTA believes that the concept of contestability provides an economically sound theory for determining the degree of LEC market power.

USTA proposes a more conservative measure of LEC market power that focuses on the proportion of access demand in a market area that is "addressable" by alternative providers. For a customer's demand to be addressable, an alternative provider must already have facilities that can readily extend service to the customer upon request. In effect, this indicator asks: Does the customer have real alternatives available?¹⁶³

Unlike market share, addressability is a forward-looking indicator. Rather than reflecting decisions that customers have made in the past, addressability asks whether

¹⁶² See W. Baumol, J. Panzar and R. Willig, "Contestable Markets and the Theory of Industry Structure" (1982).

¹⁶³ See SPR Report, p. 27.

customers have choices.¹⁶⁴ Professor Harris states that a market power measure based on addressability would "give LECs the freedom to respond to competition as it emerges, rather than restraining [LEC response] until competitors have exploited the 'price umbrella' created by regulatory barriers to pricing flexibility."¹⁶⁵ This would help further the Commission's goals for price cap regulation in two ways. First, unlike reliance on backward-looking measures of market share, "customers [would] receive the full benefits of competitive pricing and service offerings."¹⁶⁶ Second, competitors' "entry decisions would be based on realistic price signals, which would induce technical and allocative efficiencies in network utilization and customer choices."¹⁶⁷

A measure of addressability is based on observable fact - the physical presence of alternative providers with the capacity and geographic coverage to serve a substantial portion of the market.¹⁶⁸ In order to obtain these facts, all interstate access providers must report to the Commis-

¹⁶⁴ See Harris at 30.

¹⁶⁵ Id.

¹⁶⁶ Id.

¹⁶⁷ Id.

¹⁶⁸ Addressability incorporates measures of capacity, but also considers the alternative providers ability to deliver services to the customers' locations.

sion the information required to make a determination as to whether customers in a particular access market have real alternatives to using the LEC's network.¹⁶⁹ Specifically, the Commission should require all such providers to file a description of the area in which they make each of their services generally available to all customers. This requirement can be satisfied by a general description of the service area (e.g., a listing of zip codes, city or county boundaries, LEC wire centers), or by the filing of a service area map. To the extent that the Commission does not require the filing of service area descriptions or maps, or to the extent that alternative access providers do not make their services generally available to all customers in a given area, the carriers should file on an annual basis detailed maps showing their network facilities within each area they serve, including planned additions within the following annual period.¹⁷⁰

c. Competitive Criteria.

A wire center or group of wire centers within an IMA could be reclassified as a TMA based upon the presence of substitutable access services from another source as deter-

¹⁶⁹ Such information is generally not available to the public.

¹⁷⁰ Professor Harris notes that "it is imperative that the Commission require, as USTA proposes, that all access providers report regularly on their facilities and access capabilities." Harris at 29.

mined from information filed with the Commission. Usually, this would be shown by the existence of an operational expanded interconnection arrangement within the wire center. It could also be shown by the offering of a substitutable access service by a CAP, IXC, cable television operator, cellular or PCS provider, private carrier, microwave carrier or other entity within the geographic area served by the wire center.

TMA's, or parts thereof, may be reclassified as CMA's as each wire center satisfies additional criteria demonstrating increased competition. These criteria include:

- (1) That customers within the serving area of the wire center representing at least 25 percent of the demand for the local exchange carrier's interstate access services, or 20 percent of the total market demand of interstate access services within that area, have available to them an alternative source of supply; and,
- (2) That customers in the serving area of the wire center whose demand represents at least 25 percent of the total demand within that area for the exchange carrier's interstate access services, or a single customer whose demand represents at least 15 percent of that total, actively seek to reduce the cost of their access services through the solicitation of bids, use of private networks, or construction of their own facilities.¹⁷¹

¹⁷¹ As set forth in USTA's Petition (pp. 26-27), because of the special circumstances of small and mid-size carriers, non-Tier 1 LECs should be permitted to classify a wire center as TMA or CMA based on "adjacency" criteria, whereby the geographic area of the wire center must be adjacent to the area served by a Tier 1 LEC wire center with the same classification.

The assessment of the CMA criteria would be initiated by a LEC tariff filing. The LEC would identify areas in the wire centers served by competitive facilities (as determined from the information on file with the Commission, and supplemented by LEC market research). Next, the LEC would determine wire center demand and would identify the portion of that demand that is addressable by competitive networks. Based on this showing, if the thresholds are satisfied, the Commission would classify the market area as a CMA.¹⁷²

* * *

In sum, USTA's market area approach provides an objective method for allowing increased pricing flexibility in competitive LEC access markets.

2. The Commission Should Adopt a New Price Cap Basket Design - Baseline Issue 2 and Transition Issue 3.

The current price cap basket structure is based on existing Part 69 service categories. Because USTA's proposal eliminates service category codification as defined by the existing Part 69 rules, the current price cap basket

¹⁷² LECs may satisfy the criteria for CMA designation for all access services originating or terminating within a wire center. Optionally, LECs may satisfy the CMA criteria for access services originating or terminating within a wire center for one or more access categories. For services that are not geographically based and which satisfy the CMA criteria for all wire centers in a large geographic area, it may be appropriate to remove the service in its entirety from price caps, and designate the service as a CMA.

structure is no longer appropriate. Instead, the current service-oriented structure should be replaced with revised baskets that allow the grouping of rates for equivalent functions, such as existing switched transport and special transport.¹⁷³ These baskets would facilitate pricing flexibility where warranted by competitive conditions and would readily accommodate new services, including, *inter alia*, ISDN, configurable private line, and software-defined network offerings, which combine features of existing switched and special access services. The proposed baskets include:

Transport, including:

- All interoffice transport, regardless of whether the transport facility is associated with a switching function;
- All facilities provided under interstate access tariffs between the local serving office and a customer's premises (including current special access channel terminations and entrance facilities between serving wire centers and customers' premises);
- Any features associated with transport, such as line conditioning; and,
- Interconnection Charge.¹⁷⁴

¹⁷³ This process has already begun as a result of the Commission's recent action in CC Docket No. 91-213. See Transport Rate Structure and Pricing, Second Report and Order, FCC 94-9, released January 31, 1994.

¹⁷⁴ The interconnection charge is in the Transport basket for price management purposes, but is codified as a Public Policy rate element.

Switching, including:

- All current switching functions;
- New switching functions; and,
- Features associated with switching, such as signalling and data base services.

Public Policy, including:

- Special Access Surcharge;
- EUCL Charge; and,
- Carrier Common Line (or substitute recovery mechanism).

Other, including:

- Any other rate elements which do not fit in the Transport, Switching, or Public Policy baskets.

Within a basket, separate market area categories will be established which correspond to the maximum number of IMAs established in any study area or zone (*i.e.*, IMA1 from each study area or zone would be assigned to market area category IMA1, all IMA2s would be assigned to market area category IMA2, etc.) Within the Transport basket, separate digital and non-digital categories would be established for each IMA. One TMA market area category would be established for all TMA elements within the Transport, Switching and Other baskets.¹⁷⁵

¹⁷⁵ IMA and TMA category designations would not apply to the Public Policy basket.

The Public Policy basket would, for price management purposes, contain the EUCL, carrier common line and special access surcharge elements.¹⁷⁶ Price changes within this basket would be subject to rules established specifically for each element. All other Public Policy elements would be price managed as they are today.¹⁷⁷

Price changes within IMAs and TMAs would continue to be subject to price cap regulation, with increased pricing flexibility for the TMA, as more fully described below. The price cap indices and bands would restrain the ability of price cap carriers to increase IMA prices to offset declines in TMA prices.

Price cap indices would be established for each of the aforementioned baskets. Consistent with current price cap regulation, the basket API could not exceed the basket PCI. Individual IMA and TMA categories would have an upper limit of 5 percent per year, adjusted for changes in the basket PCI. The lower limit for IMA categories would be 10 percent per year, while the lower limit for TMA categories would be

¹⁷⁶ While the EUCL element would be codified and the entire common line revenue target would be calculated pursuant to a specified formula, LECs should be able to propose new rate elements to recover revenues currently recovered through the carrier common line charge.

¹⁷⁷ These elements include Long Term Support, Telecommunications Relay Service, Lifeline Assistance, Universal Service Fund and the Expanded Interconnection Connection Charge.

15 percent. An exchange carrier could file below-band rates by providing supporting materials demonstrating that the rates cover average variable (i.e., incremental) cost. Prices could be adjusted either upward or downward within the above parameters.¹⁷⁸ Once a TMA has been established, price cap LECs would be able to respond to a request for proposal from a customer with a contract tailored to meet the customer's needs.¹⁷⁹

Services in a CMA would be removed from price cap regulation. CMA services, however, would continue to be subject to applicable Title II provisions.¹⁸⁰ Contract-based tariffs would be permitted for any service included in a CMA. The demand and price associated with both TMA and CMA contracts would not be included in the price cap index calculations for establishing prices.

¹⁷⁸ The applicability of this proposal to non-price cap LECs is discussed at p. 31 of the USTA Petition. While the instant proceeding is directed toward the regulation of price cap exchange carriers, USTA urges the Commission to adopt the proposal as it applies to non-price cap LECs to the extent indicated in USTA's Petition.

¹⁷⁹ See AT&T Communications Revisions to Tariff F.C.C. No. 12, CC Docket No. 87-568, Memorandum Opinion and Order, 4 FCC Rcd 4932 (1989); recon. denied, 4 FCC Rcd 7928 (1989); rev'd and remanded sub nom, MCI v. FCC, 917 F.2d 30 (D.C. Cir. 1990) on remand, 6 FCC Rcd 7039 (1991). (Customer-specific arrangements are acceptable if available to others.)

¹⁸⁰ These provisions could change as a result of pending legislation.

USTA's proposal affords limited pricing flexibility for TMAs in recognition of competition within the wire center.¹⁸¹ As Schmalensee and Taylor observe, however, the additional pricing flexibility provided in a TMA will not increase the LEC's ability to subsidize carrier access services in more competitive areas at the expense of carrier access customers in less-competitive areas.¹⁸² Rather, the additional flexibility will serve a competitive purpose by permitting the LEC to meet customers' needs and competitors' prices while retaining as much contribution to fixed and common costs as possible from those customers who have competitive alternatives.¹⁸³ Without the downward pricing flexibility for LECs afforded by USTA's proposal, a primary benefit of competition will not accrue to customers, and access competition could actually raise access costs rather than lower them.¹⁸⁴

Schmalensee and Taylor also show that LECs will not have any increased ability or incentive to cross-subsidize their access services in more competitive wire centers -

¹⁸¹ It is when competition starts, not when competitors succeed, that should determine when the incumbent firm must be able to adjust its prices and services to the new environment. See Schmalensee and Taylor at 28.

¹⁸² Schmalensee and Taylor at 27.

¹⁸³ See id.

¹⁸⁴ See id. at 31.

i.e., CMAs.¹⁸⁵ Nor will the LECs' ability or incentive to engage in other forms of anticompetitive pricing be increased.¹⁸⁶ Overall, Schmalensee and Taylor conclude that USTA's pricing flexibility proposal "engender[s] economic efficiency incentives that support the FCC's stated goals for carrier access regulation."¹⁸⁷

**3. New Service Pricing Rules and
Tariff Processing Procedures
Must Be Simplified and Must Re-
flect the Extent of Competition
in Access Markets - Baseline
Issues 8a, 8b, and 8c.**

USTA has shown (Section IV.B above) that the rigid Part 69 rate structure is a major hurdle to achieving increased and meaningful innovation by the price cap LECs. Another stumbling block is the Commission's complex and ever-changing new service pricing rules, and the tariff filing and approval process for new services.

The Commission acknowledges that the development of the cost support information required by the new service pricing rules, "and the delay associated with notice requirements and tariff review . . . do generate delay and increase the

¹⁸⁵ See id. at 39.

¹⁸⁶ Id.

¹⁸⁷ Id. at 44.

costs of introducing new services."¹⁸⁸ Indeed, the more innovative the service, the more likely that the service will be delayed.¹⁸⁹ This is so because the most innovative services attract the most opposition from LEC competitors which often have strong incentives to delay the introduction of such services.¹⁹⁰

The Commission also notes that the rules may "inhibit the LECs' ability to compete with services offered by CAPs."¹⁹¹ Despite these and other concerns over the exist-

¹⁸⁸ NPRM, ¶ 79. The delay associated with the tariff review procedures occurs despite the fact that Section 7 of the Communications Act provides that a party opposing the introduction of a new service shall have the burden of demonstrating that provision of the new service is inconsistent with the public interest. See 47 USC § 157 (a) (1993).

¹⁸⁹ Examples of innovative services that have been subject to lengthy delays beyond the normal tariff notice period, include Bell Atlantic's Facilities Management Service which was filed on July 20, 1993, to meet a customer request. The service took effect 75 days (and two deferrals) after the initial 45-day notice period. GTE's MetroLAN service was filed on September 30, 1993. As a result of a letter received by the Commission from an interested party after the comment cycle, introduction of this service was delayed 90 days beyond the normal notice period. Pacific Bell filed a Special Access Optional Pricing Plan on December 21, 1993, to become effective on February 4, 1994. The filing has been deferred five times, and now has an effective date of May 20, 1994. If that date holds, the plan would have been delayed 105 days beyond the initial 45-day notice period. Overall, through April 1, 1994, almost 30% of non-ONA new service filings were delayed an average of 45 days beyond the initial notice period, or a total of 90 days from the date of filing.

¹⁹⁰ Some innovative services are simply not filed as interstate offerings where LECs anticipate substantial delay in the tariffing process.

¹⁹¹ NPRM, ¶ 79.

ing rules, the Commission suggests that rules may be necessary due to LEC incentives to price certain new services unreasonably high, such as when LECs face no competition or when LECs are providing interconnection services to competitors.¹⁹²

As an initial matter, USTA notes that the Commission defines "new services" as "services which add to the range of options already available to customers As long as the pre-existing service is still offered, and the range of alternatives available to consumers is increased, we will classify the service as new."¹⁹³ The new service definition itself should mitigate concern over whether a LEC will price a new service unreasonably high. Because a new service extends the range of options available to customers, customers can decide not to purchase the new service and remain as well off as they were before the new service was offered. Thus, the customer purchase decision provides a powerful incentive for LECs to price new services at levels which will stimulate demand.

Further, the Commission need not be concerned with the pricing of new interconnection services under USTA's proposal. Mandated expanded interconnection rate elements,

¹⁹² Id. at ¶¶ 80, 81.

¹⁹³ Policy and Rules Concerning Rates for Dominant Carriers, 5 FCC Rcd at 314.

such as the interconnection charge, would be treated separately under the Public Policy basket,¹⁹⁴ and the Commission could maintain existing initial support requirements for these services.¹⁹⁵

With that perspective, USTA believes that the Commission's concerns over the delay and costs imposed by the new service rules, on the one hand, and the Commission's desire to ensure just and reasonable rates, on the other hand, can be best balanced by streamlining the existing new service requirements and providing a level of supporting detail for new service offerings that is commensurate with the degree of competition in a particular market area. This will allow for a more rapid, and less costly, introduction of new services in the most competitive markets while retaining substantial safeguards in less competitive markets.¹⁹⁶

Under USTA's proposal, a LEC tariff filing that introduces a new service in an IMA would be filed on 45 days' notice and would be accompanied by incremental cost data and

¹⁹⁴ See USTA Petition, p. 51; and discussion above at Section IV.C.2.

¹⁹⁵ See NPRM, ¶ 83, n. 129.

¹⁹⁶ Under no circumstance should the Commission prescribe structural or non-structural separation of new services. See NPRM, ¶ 81. Such requirements are totally unnecessary and would only exacerbate the burdens imposed by the existing new service rules.

a showing sufficient to demonstrate that the prices are reasonable. When the new service is incorporated into the actual price index in a manner similar to that provided by the existing price cap rules,¹⁹⁷ the LEC would submit data sufficient to calculate the new API, PCI and the banding index applicable to the market area (*i.e.*, a market area band index - MABI).

Each new service introduced in a TMA would be filed on 21 days' notice and accompanied by cost data sufficient to establish that the new service will generate a net revenue increase (as measured against revenues generated from all services subject to price cap regulation, and based upon present value) within 24 months after an annual price cap tariff that includes the new service takes effect, or 36 months from the date upon which the new service becomes effective, whichever period is less. At the time that the new service is incorporated into price caps, the LEC would submit data sufficient to calculate the new API, PCI and MABI.

For a new service introduced in a CMA, the LEC would file on 14 days' notice a tariff showing, or accompanied by, the following: (1) the term of the service, including any renewal option; (2) a brief description of the service; (3) minimum volume commitments, if any; (4) the service price at

¹⁹⁷ See 47 CFR § 61.46(b).

each applicable volume commitment level; (5) a general description of any volume discounts built into the rate structure; and (6) a general description of other classifications, practices and regulations affecting the service rate. Because services offered within CMAs are removed from price cap regulation, the LEC would not be required to submit any price cap-related data.

Although still far more restrictive than the rules applicable to CAPs and other LEC competitors, USTA believes that its proposal would maintain reasonable safeguards for new service pricing while permitting increased LEC flexibility tied to actual levels of competition in market areas. Such an approach would help further the Commission's goals of promoting innovation and the introduction of new services and technologies, stimulating economic growth, achieving balanced competition in access markets, discouraging unreasonable discrimination and minimizing regulatory burdens. Moreover, USTA's proposal would support the Commission's universal service goal by ensuring the widest availability of new services among customers in the shortest possible time.

4. Filing Requirements Must Reflect The Level of Competition in a Market.

Under USTA's proposal, in-band price changes for services subject to price cap regulation would continue to be

filed on 14 days' notice by all LECs. Above band changes would be filed on 120 days' notice and below band changes would require 45 days' notice. Annual filings would be filed on 90 days' notice. Filings which restructure existing services would be filed on 21 days' notice.

Price changes in a CMA would be filed on 7 days' notice. As noted above, new services filings would require 45 days' notice in an IMA, 21 days' notice in a TMA and 14 days' notice in a CMA. Contract-based services would be filed on 21 days' notice in a TMA and 14 days' notice in a CMA. Services excluded from price cap management would be filed on 45 days' notice in an IMA, 21 days' notice in a TMA and 14 days' notice in a CMA. All other filings, including filings establishing prices for market areas and segments, would be filed on 21 days' notice.

Finally, as access markets become more competitive, cost and demand information becomes increasingly proprietary. Moreover, the value of this information in the regulatory process diminishes as the market becomes the ultimate "watchdog" over price. For these reasons, USTA proposes that the requirements for cost and demand information be reduced and eventually eliminated as markets transition from IMA to TMA to CMA.¹⁹⁸

¹⁹⁸ USTA also proposes that LEC tariffs be allowed to reference technical publications without having to obtain waiver of Section 61.74. 47 CFR § 61.74.

D. The LEC Productivity Factor Should be Based on a Long-Term Total Factor Productivity Study - Baseline Issues 3a and 3c.

USTA has shown (Section II.B.4 above) that the price cap LECs' earnings levels do not warrant either an increase in the price cap formula's productivity factor, or a one-time reduction in rates. Nor do changes in interest rates,¹⁹⁹ or any other short-term phenomena, justify a change in the productivity factor.²⁰⁰ Besides being a short-term event which could quickly reverse itself, changes in interest rates are already reflected in the price cap formula through the GNP-PI.²⁰¹

Indeed, the only reason to adjust the productivity factor is to reflect changes in the long-term productivity of the LEC industry as a whole.²⁰² If the productivity offset is based on, or affected by, the recent past perfor-

¹⁹⁹ NPRM, ¶ 44.

²⁰⁰ See NERA at 27. ("[T]he temptation to fine-tune the annual price adjustment formula to account for specific factors that might change short-run costs should generally be resisted; otherwise, price cap regulation would degenerate into traditional ROR regulation, and none of the incentive improvements intended by the adoption of price cap regulation would be realized.")

²⁰¹ See NERA at 25-27.

²⁰² USTA defines "long-term" as a period of time during which variations in short-term productivity measurements due to random and non-recurring events, and fluctuations related to expansions and contractions of the business growth cycle, do not have a disproportionate impact on observable results. USTA believes that an 8 to 10 year period would satisfy this definition.

mance of the LEC (in essence, "recapturing" past productivity gains), the incentives for LECs to innovate, invest, and undertake efficiency initiatives, will be substantially reduced or even eliminated.²⁰³

Of course, the productivity factor should be recalculated if, as here, it was not computed correctly at the start of price caps. USTA believes that the proper way to determine LEC industry productivity is to utilize direct and observable measures of industry inputs and outputs.²⁰⁴ This can be accomplished by a total factor productivity (TFP) study which defines the level of productivity as the ratio of output to an aggregation of all relevant factor inputs, all measured in real terms.²⁰⁵ Real outputs are

²⁰³ One way to recapture productivity gains and, thus, undermine price cap incentives, is to undertake too frequent reviews of the productivity target. See discussion at Section IV.J below.

²⁰⁴ The two principal productivity studies - the Frentrup/Uretsky study and the Spavins/Lande study - relied on by the Commission in setting the current LEC productivity factor, were both based on "indirect" measurements, or confirmations, of estimates of LEC productivity. See Second Report and Order, CC Docket No. 87-313, supra, 5 FCC Rcd at 6796, n. 88, and Appendices C and D. These studies produce circular results under circumstances where price caps have already been in effect for some time. This is so because the productivity factor determines the maximum price, yet price is used to determine the productivity offset in the indirect studies.

²⁰⁵ "[T]otal factor productivity (TFP) is the only appropriate measure of productivity growth." NERA at 18. As NERA explains, use of TFP avoids distortion in LEC incentives, and is necessary to set a proper productivity target given the structure of the annual price cap adjustment formula. Id. at 18.

generally measured by firm revenues adjusted for price changes, and real inputs by components of total operating expenses adjusted for inflation and return of capital. Thus, TFP is a measure of quantity of output per unit of "aggregate" input.

USTA commissioned a study by Christensen in order to determine the long-term historical productivity for the LEC industry based on direct TFP measurements, and the appropriate productivity factor for the price cap formula. The study performs a TFP analysis for the price cap LECs for the years since the AT&T divestiture, 1984-1992.²⁰⁶ The Christensen study shows that **the proper productivity offset is 1.7%**, determined as follows: Over the study period, total output for the price cap LECs grew at an average annual rate of 3.5%, while total input grew at an average annual rate of 0.9%.²⁰⁷ This results in a TFP average annual growth rate of 2.6% (3.5% less 0.9%).²⁰⁸

Because the productivity offset in the price cap formula is related to the difference in productivity growth between the price cap LECs and the U.S. economy, Christensen

²⁰⁶ The LECs included in the Christensen study are Ameritech, Bell Atlantic, Bell South, GTE, NYNEX, Pacific Telesis, The Southern New England Telephone Company, Southwestern Bell and US West.

²⁰⁷ Christensen at 10.

²⁰⁸ Id. at 10, 11 (Table 1).

calculated the difference between the price cap LECs' TFP growth rate and the TFP growth rate for the U.S. private business sector (the most comprehensive TFP measure available), that is published by the Bureau of Labor Statistics.²⁰⁹ This TFP differential is 1.7% (2.6% less 0.9%).²¹⁰

USTA urges the Commission to adopt the results of the long-term, industry-wide TFP study summarized above. The Commission should recognize, however, that as access markets become increasingly competitive, it will become correspondingly more difficult for LECs to achieve a given level of

²⁰⁹ The TFP growth rate for the private business sector is for the years 1984 through 1990, the latest figures available.

²¹⁰ Christensen at 12. USTA's proposed offset is slightly less than the 2% productivity offset that the Commission recently proposed for cable systems. See Implementation of Sections of the Cable Television Consumer Protection and Competition Act of 1992: Rate Regulation, MM Docket No. 93-215, Report and Order and Further Notice of Proposed Rulemaking, FCC 94-39, released March 30, 1994, ¶ 320. In formulating its proposal, the Commission noted "that cable operators should reasonably be expected to achieve productivity gains in the future analogous to those historically realized by other communications firms." Id. at ¶ 319. The Commission also stated that "[c]able television networks are similar in many ways to telephone networks," and that both are likely to benefit from the advances in technology "especially as cable and telephone networks converge." Id. Nevertheless, the Commission recommended a cable productivity factor which is significantly lower than the current 3.3% LEC offset, citing the fact that "local telephone companies have benefitted from advances in computerized local switches, which are not in general use by cable systems." Id. Contrary to the Commission's reasoning, USTA submits that cable systems are well positioned to achieve substantial productivity gains as they convert to the digital and other technologies that LECs have already installed.

productivity. This is so because as access competition increases, the LECs' ability to benefit from economies of density diminishes. As explained in the Christensen study, economies of density refer to the "change in average cost when more output is provided over a network of fixed size."²¹¹ Christensen notes that "[p]rior to divestiture, the telephone industry experienced rapid rates of output growth, and econometric studies of the industry showed that this output growth contributed significantly to TFP growth."²¹² Christensen estimates that every 1 percentage point decrease in the rate of growth of LEC output will lead to a reduction in TFP growth of between 0.3% and 0.5%.²¹³ Thus, the 1.7% TFP differential for LECs in the post-divestiture period could fall to the 1.2% to 1.4% range, assuming only a 1 percentage point decline in the rate of growth in LEC output due to competition.²¹⁴

In sum, a properly calculated productivity factor (based on a long-term TFP analysis) demonstrates that the

²¹¹ Christensen at 15.

²¹² Id. at 13. The effect of competition on LECs' output growth is accentuated by the fact that competition is focused in markets with high-price-to-marginal-cost ratios - the markets which contribute most to TFP growth. See id. at 14. See also Harris at 25. (The "Commission should recognize that loss of traffic to competitors may well reduce LEC output growth, which has been a major source of productivity gains in the past.")

²¹³ Christensen at 23.

²¹⁴ See id.

current productivity factor (3.3%) is unreasonably high. The Commission should set the price cap formula's productivity factor at no higher than 1.7%. There is no need to add an explicit consumer productivity dividend. As explained above, the 1.7% factor will overstate actual long-term LEC productivity as competition continues to expand in LEC access markets. Further, the inclusion of a consumer productivity dividend would constitute an unnecessary departure from the investment and efficiency incentives that exist in competitive markets where firms do not usually share the benefits of above-average productivity performance with their customers.²¹⁵

E. A Common Line Adjustment Formula is Not Necessary Under a Revised Price Cap Plan - Baseline Issues 5a, 5b, 5c and 5d.

The Commission asks whether it would be appropriate to reconsider the use of the 50/50 formula for capping the common line basket and suggests a per line formula as a possible replacement.²¹⁶

USTA submits that the issue over what is the appropriate common line adjustment formula becomes moot when the Commission utilizes the direct TFP calculation for determining the productivity offset as discussed in the section

²¹⁵ See Harris at 25. Of course, under the price cap plan, customers will continue to benefit from normal productivity gains. Id.

²¹⁶ See NPRM, ¶¶ 58, 59.