Other commenters that want sharing retained, and further want sharing adjusted to reflect interest rates, offer various solutions that amount to returning to rate of return regulation. ICA (at 14-15) wants the LECs' cumulative earnings over the price cap period indexed based on changes in interest rates reflected by U.S. treasury bonds. OCCO (at 9) suggests a recalculation of the formula that produced the 11.25 percent rate of return with realignment of sharing and the low-end adjustment mechanism based on this recalculation. Essentially, those commenters arguing the trigger points for sharing should be reset based on new costs of capital are advocating a return to rate of return regulation rather than price cap regulation.[34] WilTel (at 25) maintains that sharing should be retained as long as LECs retain market power for any service, not just access. This position is inconsistent, for two reasons:

1. The purpose of price caps is to control market power. If there is no market power, then price caps themselves -- not just sharing -- should be eliminated.
2. The Commission has established price cap plans to control rates for AT&T, and for cable firms, where they are believed to retain market power. These plans do not include sharing. Therefore, the Commission has determined that sharing is not essential to controlling market power.

Those parties supporting the retention of sharing have not provided any credible evidence that the LECs' earnings are excessive compared to these parties' own earnings or the earnings of other non-regulated firms. Nor have these parties provided

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[34] GSA (at 9) also advocates an adjustment whenever a new rate of return is prescribed.

credible evidence that sharing has not diluted the efficiency incentives of price cap LECs.

Some parties advocate the retention of sharing and the elimination of the low-end adjustment mechanism.[35] Sharing and the low-end adjustment mechanism are linked and should not be separated. *Harris* explains this linkage: "The worst possible risk-reward function, from an investors' perspective, would be sharing or capping profits upward, but leaving shareholders at risk in the downward direction."[36] Parties recommending the retention of sharing but the elimination of the low-end adjustment mechanism want the LECs to assume all the risks and forego the rewards of incentive regulation.

MCI's (at 33) accusation that the LECs book large expenses in the fourth quarter in "an attempt to manipulate the sharing rules" is totally without merit. MCI implies that inappropriate bookings are being made by the price cap LECs in an effort to mitigate sharing amounts. This would suggest that the price cap LECs have been successful in deceiving their external auditors by booking expenses which are not in conformance with Generally Accepted Accounting Principles ("GAAP"), Securities and Exchange Commission ("SEC") financial reporting rules, and the Commission's rules (*i.e.*, Part 32, Uniform System of Accounts).

MCI is correct in its observation that lower fourth quarter rates of return are "not merely a statistical aberration." However, MCI draws the wrong conclusion from this observation. As the accounting period draws to a close, it is a common practice for

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[35] *See*, AT&T at 30; MCI at 32; ICA at 15.

[36] *See*, *Harris* at 19 n.17.

companies (including MCI) to ensure that all financial transactions are properly reflected within the accounting period. In the fourth quarter, companies typically perform standard accounting activities; *e.g.*, true-up accruals; ensuring that invoices received late in the year are recorded in that year; recording liabilities that were not relieved within the year; and ensuring that clearing-account balances are cleared. It is important that the entire accounting period be properly stated. Legitimate quarter-to-quarter fluctuations should not be misinterpreted.

Further, an examination of MCI's annual reports for the last few years indicates that MCI's fourth quarter expenses are consistently the highest of any quarter in the year. This indicates that the way LECs book fourth quarter expenses is no different from common industry practice.

If MCI's assertion were valid, LECs would have to depress total company earnings (both intrastate and interstate) by accruing questionable expenses in order to achieve a marginal reduction in interstate sharing. Furthermore, the benefit would be short-lived as sharing would come into play the following year when the questionable accrual would be reversed. Finally, MCI seems to ignore the reality that sharing is based on an annual, not a quarterly, basis.

MCI (*id.*) also proposes that the LECs declare all fourth quarter accounting adjustments by September 15 of each year. The filings would be placed on public notice, with a comment cycle, and a requirement for affirmative Commission approval before the expenses could be booked. This absurd suggestion would raise countless problems. It assumes that all fourth quarter bookings will be known in advance; it creates an unnecessary administrative burden; it requires the potential release of proprietary information; it removes financial accountability from the firm; it would raise

problems of non-conformance with GAAP; and it would create intrusive regulation by making the Commission a party to individual decisions on accounting entries rather than establishing rules and policy under which such entries would be made.

In summary: Sharing should not be a part of LEC price cap regulation, just as it is not a part of AT&T's or the cable industry's pricing plans. Sharing significantly dilutes efficiency incentives and tilts the balance of risk versus reward at the heart of any incentive regulation plan. The continuation of sharing would also be incompatible with any plan to adjust price caps over time to accommodate increasing access competition. The Commission should eliminate both sharing and the low-end adjustment mechanism and allow the market to control LEC earnings.

D. Analyses attempting to prove that an increase in the productivity factor is warranted are badly flawed.

Parties recommending an increase in the productivity factor do not present valid evidence that supports their contention.[37] As *Schankerman* observes: "[T]he offset in the price cap formula reflects the differential between the rate of growth in Total Factor Productivity ('TFP') in the selected 'yardstick' industry and the aggregate economy."[38] And, "the appropriate productivity offset should be based on an appropriate 'yardstick' index of TFP growth and **not** be calibrated to match the actual performance of individual local exchange companies."[39] TFP is the appropriate measure of productivity because it provides a more comprehensive and accurate measure than any other method. TFP encompasses the entire set of the firm's outputs and inputs. Studies that employ partial productivity measures do not reflect changes in the overall unit cost of production.

GSA (at 8-10) and AT&T (at 23-24) do not perform a TFP analysis. Rather, they recommend an increase in the productivity factor based on indirect computations; *i.e.*, an *ex post* estimate of the productivity factor that would have yielded an 11.25 percent rate of return. Based on these indirect computations, GSA produces a productivity factor of 4.9/5.9 percent and AT&T a factor of 5.97 percent. GSA's study differs from AT&T's in that GSA's rates of return are lower than AT&T's; GSA uses a higher factor to convert rate of return to productivity changes; and AT&T does not use the end-of-

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[37] *See, NERA Reply Comments* for more detail.

[38] *See, Schankerman* at 23.

[39] *Id.*

period return. In making this last calculation, AT&T does not recognize that the average rate of return reflects the cumulative impact of productivity gains over several years and not just one year's effect. These analyses also implicitly assume that output does not change (zero elasticity of demand) -- which is clearly an incorrect assumption.

In addition, AT&T's analysis erroneously raises earnings to the cap if prices were below, and includes only the RBOCs. An analysis of the RBOCs, contrary to AT&T's assumption (at 24), is not a valid proxy for all LECs. If GTE were included, along with the other non-RBOC price-cap LECs, AT&T's analysis would have produced a lower result. Finally, there is simply no reason for the Commission to place any weight on AT&T's indirect, short-term calculations when a reliable estimate of long-run TFP is available from the *Christensen* study.

AT&T's approach seeks to estimate the underlying long-term rate of change in productivity by examining the earnings actually realized during a three-year period.[40] Even if AT&T's technique for estimating productivity were appropriate, the observation of such a short period would not permit an accurate estimate. As *Schankerman* explains (at footnote 30): "Annual movements in TFP do not represent long-run changes in unit production cost, but rather changing utilization rates over the business cycle due to quasi-fixed inputs like capital and skilled labor." As NERA demonstrates, while TFP has varied considerably from year to year, the long-term trend rate of growth

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[40] This means that only two year-to-year changes are observed. Further, as noted *supra*, AT&T confuses the overall rate of change over the three-year period with the annual rate of change.

of TFP has remained relatively constant over a long period, at a level consistent with the results of the *Christensen* study presented by USTA.[41]

Perhaps most importantly, AT&T assumes that any efficiency gains realized during the review period would have been realized had the plan been structured differently. By doing so, AT&T is attempting to recapture the benefits made possible by incentive regulation, while withdrawing the incentives. If the Commission sets the productivity offset for the new plan on this basis, it will have lost its ability to make the credible commitment that is essential to the success of any plan of incentive regulation. If LECs believe that future productivity offsets will be set in a similar way, they will have no incentive to invest in productivity enhancements during the next review period.

While AT&T ignores information on LEC productivity prior to 1990, MCI, in contrast, ignores the experience of the review period since 1990. Indeed, MCI offers no new information concerning productivity. MCI (at 21-22) merely resuscitates an argument thoroughly debated in the original price cap proceeding and settled: the inclusion of the 1984 data point.[42] As NERA explains, the results of three different models conclude that the 1984 data point is not a statistical outlier.[43] Further, elimination of actual data within a study period distorts the results. Inconvenient data points cannot simply be excluded.

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[41] *See, NERA Reply Comments* at 14-15.

[42] *See, Policy and Rules Concerning Rates for Dominant Carriers*, CC Docket No. 87-313 ("*D.87-313*"), Supplemental Notice of Proposed Rulemaking, 5 FCC Rcd 2176, 2219 (1990); Second Report and Order, 5 FCC Rcd 6786, Appendix C, ¶28 (1990) (*all subsequent citations omitted*)

[43] *See, NERA Reply Comments* at 11-12.

MCI argues that the productivity offset should be reduced because LEC earnings were excessive. This claim is similar to AT&T's and GSA's, and is wrong for the same reasons. First, as GTE has shown *supra*, LEC earnings have been, if anything, lower than comparable firms in competitive markets, and therefore cannot be considered unreasonable.[44] In fact, in this respect, the price cap plan has met the objective of replicating a competitive market result. Therefore, MCI's premise is simply wrong. Second, even in a competitive market, realized earnings vary over time and across firms. The experience of a three year period does not provide a basis for estimating long-run productivity. Third, there is no need to infer LEC productivity from MCI's characterizations of LEC earnings when a proper long -run TFP study is available.[45] Fourth, setting each period's productivity offset to recapture earnings from the previous period would largely eliminate the efficiency incentives price caps were intended to produce.[46]

ARINC and the Pennsylvania consumer advocate use state proceedings that suggested inflation offsets as examples of what the productivity factor for price cap

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[44] Certainly, LEC earnings were lower than MCI's. Further, the LEC earnings levels are overstated because of the artificial depreciation rates applied to LEC investments. If LEC earnings for the period are restated using depreciation rates comparable to those used by other firms, they would have been significantly lower.

[45] As NERA shows, the results of the Christensen study are consistent with the trend level of about two percent observed in other studies over a long period of time. *See, NERA Reply Comments* at 14-15.

[46] MCI (at 26-27) even suggests that rates should be adjusted downward in the next review period to make up for a "too low" productivity offset in the previous one. Aside from the effect of this on LEC incentive during the next period, this raises the question of retroactive ratemaking.

LECs at the federal level should be. The Pennsylvania consumer advocate (at 7) also states: "[T]he three Administrative Law Judges [ALJs] have recommended to the Pennsylvania Public Utility Commission the use of a price cap formula of GDP-PI - 5.29%"; and (*id.*) also refers to California, where Administrative Law Judge Reed determined the inflation offset should be 6.0 percent. ARINC (at 3) cites Pennsylvania where there is a 5.29 percent recommendation and urges the Commission to establish a factor in the range of 5 to 6 percent.

The Commission appropriately determined that state proceedings should have no bearing on federal price cap plans since not only do the plans differ but the productivity of one state "cannot be assumed to apply to the Nation as a whole."[47] Further evidence that these offsets are not valid is the fact that, just this month, the Pennsylvania commission adopted a 2.9 percent inflation offset which is significantly lower than that recommended by the ALJs.[48] And the California commission, ignoring Administrative Law Judge Reed's recommended 6.0, chose 5.0 percent as an appropriate offset for the state of California.[49]

Finally, Ad Hoc (at 18) submits that the 3.3 "X" factor is unreasonably low and unnecessarily generous resulting in access rate levels far exceeding those produced by

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[47] *See, Policy and Rules Concerning Rates for Dominant Carriers,* Supplemental Notice of Proposed Rulemaking, CC Docket No. 87-313, March 12, 1990, at n.191.

[48] On June 23, 1994, the Pennsylvania commission , approved an alternative form of regulation for Bell Atlantic that contains a 2.93 percent inflation offset. *See,* "Pa. PUC approved Bell Atlantic-Pa. (BA-Pa.)," *Communications Daily,* Vol. 14, No. 123, Monday, June 27, 1994, at 7.

[49] *California Decision* at page 42.

a "'competitive result' economic model." Ad Hoc relies on a TFP analysis by ETI.[50] ETI's estimate of a 5.8 percent productivity factor is obtained by adding its estimated 3.8 percent LEC TFP growth (based on its seven-state study) to a 1.0 percent alleged difference between LEC input price growth and GNP-PI growth and then adding an additional 1.0 percent for a Consumer Productivity Dividend ("CPD").[51] The arguments presented by Ad Hoc and ETI are thoroughly rebutted by NERA.[52] GTE will point out some of the easily observable weaknesses.

First, ETI (at 52) finally acknowledges that TFP is the appropriate measure of productivity[53] and presents TFP estimates for seven states (CA, NY, PA, DE, IL, IN, OH). The productivity offset implied by the average of these state studies is 3.8 percent.[54] In fact, ETI uses *Christensen's* studies for three of these states (IL, IN, OH). ETI therefore accepts the validity of *Christensen's* methodology for measuring TFP. Assuming, for the moment, that the other four studies cited by ETI are as correct in their approach as *Christensen*, it would appear that the difference between the 3.8

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[50] *See*, Ad Hoc Comments, Attachment A, Lee L. Selwyn, David J. Roddy, Susan M. Gately, Scott C. Lundquist and Sonia N. Jorge, *LEC Price Cap Regulation: Fixing the Problems and Fulfilling the Promise - Analysis of Issues: FCC Price Cap Performance Review for Local Exchange Carriers* ("*ETI*").

[51] *ETI* at 58 n.105.

[52] *See, NERA Reply Comments.*

[53] *See*, The Public Utilities Commission of the State of California, Decision 89-10-031, Conclusion of Law 52, at 383. ETI had argued for a productivity factor limited to labor only.

[54] In fact, after correcting for a transcription error by ETI, the figure is 3.5 percent. *See, NERA Reply Comments* at 21.

percent offset indicated by ETI and the 1.7 percent result arrived at by *Christensen* is attributable entirely to sample selection error.[55]

The states selected by ETI represent only one-third of the nation's population and have considerably larger population densities with more major metropolitan areas than the nation as a whole. They exclude entirely the operating areas of several very large LECs; *e.g.*, US WEST, BellSouth, SWBT, and SNET. *Christensen's* study applies the same TFP methodology -- which ETI has accepted -- to forty-eight states. Clearly, the *Christensen* result is more representative of the nation as a whole, and any difference between ETI's result and *Christensen's* must be resolved in favor of *Christensen.*[56] Therefore, ETI's seven state analysis provides no basis for questioning *Christensen's* estimate, which implies an aggregate productivity offset of 1.7 percent.[57]

Second, the other four state studies cited by ETI do indeed contain methodological errors which bias their estimates. For example, these studies fail to disaggregate labor, as *Christensen* does. Some of the efficiency gains realized by the LECs during the study period were the result of significant downsizing. This shifted the composition of the work force, increasing the percentage of management employees, and thereby increasing the

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[55] *Id.* at ii.

[56] This would be the case even if the other four studies cited by ETI were as accurate as those performed by Christensen. As discussed *infra*, these studies actually overstate TFP growth in those states.

[57] Further evidence that the current productivity offset is too high is provided by NERA. NERA shows that an updated indirect study, similar to the one the Commission used in establishing the current plan, results in a productivity offset of 2.4 percent. (*See, NERA Reply Comments* at 2.) While GTE believes that a TFP estimate is a more reasonable basis for setting the offset than the combination of studies used to develop the current offset, the NERA study is proof that the offset should be reduced.

average compensation per employee. By ignoring this shift, the studies cited by ETI overstate the decline in labor input over this period, and thus overstate the growth in TFP.

Third, Ad Hoc and ETI argue that the productivity offset should be adjusted upward by one percent to capture a claimed difference between the rate of change in LEC input prices and the rate of change in GNP-PI. As NERA demonstrates, there has been no statistically significant difference over time between the growth of LEC input prices and the growth of GNP-PI.[58] There is therefore no reason to make the adjustment Ad Hoc proposes.

Ad Hoc (at 19) claims that the California and Pennsylvania commissions have recognized the need to adjust for differences in input price growth. In fact, both the California and Pennsylvania commissions have recently adopted plans which did not include the input price differential proposed by Ad Hoc.[59]

Fourth, the Commission has already addressed Ad Hoc's argument that productivity will grow more rapidly in the future. The Commission concluded: "[N]o data have been presented that refute the well established fact that the communications industry, since its inception, has been marked by technological innovation. This being the case, our

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[58] *See, NERA Reply Comments* at 22-30. ETI's estimates of LEC input price growth are based on an incorrect use of input data prepared for TFP analyses. As NERA shows, these numbers exhibit great volatility in their year-over-year growth.

[59] *See, California Decision* at 12-14. *See*, also, "Pa. PUC approved Bell Atlantic-PA (BA-PA)", *Communications Daily*, Monday, June 27, 1994, Vol. 14, No. 123, at 7. Ad Hoc also submits that no party in California refuted ETI's evidence that LEC input prices grew more slowly than GNP-PI. In fact, Taylor and Tardiff did refute ETI's claims. *See*, Taylor, William E., and Timothy J. Tardiff, *Economic Evaluation of the NRF Review: Reply Comments*, prepared for Pacific Bell, Application 92-05-004 before the California PUC, May 7, 1993, at 7.

productivity factor, based on the long-run historical experience of the industry, already reflects this characteristic."[60] Neither Ad Hoc, nor any other party, provides empirical evidence that the technological changes of the future in telecommunications are likely to increase productivity as compared to the past. Other parties suggest that technological change is relatively constant over time.[61]

Fifth, ETI (at 55) proposes an increase in the CPD from .5 to 1.0 percent. Although ETI adds this one percent to its proposed productivity offset, there is no support for this CPD proposal in ETI's study. GTE does not believe that there is any reasonable basis for continuing the CPD in the new price cap plan, much less for increasing it. The CPD was added to the productivity offset in the current plan to capture for consumers the gains produced by shifting from rate-of-return regulation to price caps. Now that price caps have been in place for three years, these effects have been embedded in the current PCIs. There is no additional productivity gain stemming from this review that should be shared through a continuation of the CPD.[62]

In summary: Total Factor Productivity is the appropriate measure of productivity as recognized by Ad Hoc. Ad Hoc bases its suggested productivity factor on ETI's TFP analysis which fails to support any conclusion different from Christensen's. AT&T and GSA recommend an increase in the productivity factor based on an *ex post* estimate

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[60] *See, D.87-313,* Supplemental Notice of Rulemaking, March 12, 1990, at ¶107.

[61] *See, NERA Reply Comments* at 14-15. *See* also *Schankerman* at 24: "New technologies have in the past and will continue to offer the prospect of very substantial efficiency gains.... However, trend TFP (which is the basis of the offset) grows at smoother and more moderate rates than the underlying technological developments themselves."

[62] See, NERA Reply Comments at 30-31.

that would have yielded an 11.25 percent rate of return. Ignoring the flaws in their calculations, the important point is that neither party has submitted a direct computation of TFP using industry recognized methodologies. Both parties have totally misstated the purpose of price cap regulation -- incentives to achieve increased efficiencies with the reward being increased earnings. If the LECs expect to lose ground every time they increase efficiency there will be little if any incentive to do so. MCI does not present any new information -- just a reassembly of old data adjusted to suit its purpose. The Pennsylvania consumer advocate and ARINC rely on state proceedings which the Commission has already determined to be inappropriate at the federal level. The productivity factor should be based on *Christensen*'s TFP analysis supporting 1.7 percent.

E. The 50/50 Common Line formula adjustment should be not be changed to a per-line basis but eliminated.

As GTE (at 75-76) stated, it is neither necessary nor appropriate to retain the common line formula adjustment. A productivity offset based on TFP includes the effects on overall productivity of all productive inputs and any adjustment for demand growth in common line usage would result in double counting.[63]

Several Interexchange Carriers ("IXCs") suggest the 50/50 Common Line formula be changed to a per-line calculation.[64] AT&T (at 27) cites a decline in common line minute growth per line from 4.56 percent annually to 3.24 percent as evidence that

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[63] *See*, BellSouth at 53.

[64] *See*, AT&T at 27, MCI at 37, WilTel at 26. ICA (at 15) also supports a per-line formula.

LECs do not contribute to demand growth. AT&T's observed growth rate during the period does not provide justification for retaining the "50/50" formula adjustment much less changing it to a per-line basis. To the extent that the productivity offset has been at least as high as the best available estimate of TFP, it has captured all of the effects of demand growth for all LEC services -- common line as well as others.[65] Because of this, IXCs have already received the full benefits of expected demand growth through the productivity offset -- quite apart from the effect of the "50/50" adjustment. This is true no matter what caused the level of common line demand growth observed during the review period.[66] To the extent that the "50/50" formula has obliged LECs to make further reductions, IXCs have benefited a second time from growth which had already been accounted for in the offset.[67]

In addition, as the Commission notes (at ¶25), the LECs have reduced access rates sharply during the review period. This action on the part of the LECs should have stimulated growth if the IXCs had, in turn, decreased their rates to consumers in full proportion. The decline in growth provides no basis on which to conclude that the

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[65] The productivity offset of 3.3 percent is higher than the best available estimate of long-run TFP. Therefore, the offset has fully captured any efficiency improvements the LECs could have captured even if they had maintained common line growth at its long-run trend during the period.

[66] In fact, if the common line demand growth observed during the period is less than the long term growth rate for the period over which TFP was estimated, it is the LECs, not the IXCs, which would suffer. The productivity offset would require the LECs to make common line reductions as if the trend growth had been achieved even though the LECs would not have experienced the actual benefit of the lost growth on their achieved productivity.

[67] Of course, GTE's common line rates are already substantially below the cap in many study areas.

exchange carriers have no effect on demand growth. These IXC arguments are inconsistent and self serving -- they claim that the IXCs, not the LECs, determine demand growth and then assign responsibility to the LECs for a decline in growth.

Clearly, the demand for LEC switched access is dependent on several factors. Many are the result of actions taken by the LEC, such as the access price reductions discussed *supra*. As MCI (at 36) acknowledges, LECs contribute to common line usage through their foreign exchange and interexchange intraLATA usage. The introduction of LEC services which facilitate interstate call completion, such as call waiting and voice mail services, also stimulate common line demand.[88]

Other factors affecting demand are the result of actions taken by the IXC, such as reductions in interexchange prices (which generally have been made possible by LEC access price reductions) and the introduction of new interexchange services (many of which are also made possible by new LEC access capabilities). IXCs also can substitute alternative forms of access for LEC common line services. As alternatives have become more widely available, this has become an increasingly important determinant of LEC access demand.[89]

Finally, access demand depends in part on factors not under the control of either the IXCs or LECs, such as the overall level of economic activity. Demand for all services,

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[88] *See*, Ameritech at 18.

[89] Many of these substitution decisions are made by the end user, rather than the IXC, and in many cases the end user purchases the access directly, rather than through the IXC. Regardless of who makes the decision to purchase access from alternative suppliers, as *Christensen* (at 24-26) explains, the growth of competitive supply has made it more difficult for LECs to improve productivity through demand growth.

including telecommunications, has been dampened by the recession which occurred during the review period.

Clearly, therefore, LECs play a significant role in the determination of common line demand. This is done by direct LEC activity to stimulate usage or by indirect activity which allows the IXCs to stimulate usage.[70] However, GTE does not believe that the determination of the correct common line formula should turn on a debate over which party has done, or could do, the most to stimulate demand. All of the factors which determine common line demand apply equally to traffic sensitive access services, such as local switching, which have substantially the same demand units as common line. Further, these traffic-sensitive services are marked by economies of scale, so that increased growth generates productivity gains, just as it does for common line. Yet the Commission does not adjust the price cap formula for these services. Nor does it adjust any other price cap basket to account for factors which might affect productivity. Productivity growth as a result of these factors is accounted for through the productivity offset.

If the Commission sets the productivity offset at the correct level, it will ensure that all of the benefits of expected demand growth at the long-term trend level – for all services

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[70] It should be noted that the Commission's rate structure rules limit the ability of either LECs or IXCs to stimulate switched access demand to efficient levels. By requiring common line and traffic-sensitive services to be priced on a uniform basis, the rules prevent LECs from offering volume discounts, term plans, and other non-linear pricing options which would send customers more efficient price signals and stimulate demand. These pricing options are commonly used by IXCs for their switched services. Even for IXCs, however, the access rules impose inefficiency. The uniform access price sets an artificial cost floor – well above incremental cost – for the IXC on any interexchange service that uses LEC switched access. The IXC must limit its own discounts to remain above that floor. To offer a deeper discount, the IXC must use another form of access, such as special access or an alternative provider's service, thus further reducing the growth of common line demand.

including common line -- will be passed on to access customers. This will occur regardless of whether common line demand actually grows at its previous trend level, and regardless of the relative contributions different entities may make to that growth. The correct level for the productivity offset should be calculated from the best available estimate of TFP, which will incorporate the effect of input growth for all services. Any further adjustment -- whether on a "50/50" basis or a per-line basis -- will simply double-count effects which are already captured in the productivity offset. Therefore, no such adjustment should be made to the common line formula.

In summary: While LECs do in fact contribute significantly to growth in common line demand, the common line formula should not be set on the basis of which party contributes to growth. The Commission should instead focus on choosing an appropriate productivity offset which will ensure that customers benefit from common line growth in the same way they benefit from the growth in other services. A productivity offset based on TFP will capture all relevant growth effects. The Commission should eliminate the "50/50" growth adjustment in the common line formula.

F. The treatment of exogenous costs under the Commission's rules should not be changed.

GTE, opposing the suggestions of some parties,[71] does not believe it is appropriate to narrow the scope of costs allowed exogenous treatment under the Commission's rules. The treatment of exogenous costs or the "z" factor in the price cap formula was designed to recognize that there are events beyond the LECs' control which trigger costs that are not reflected in the GNP-PI. GTE maintains that events outside the company's **reasonable** control that trigger costs not reflected in the GNP-PI should still be afforded exogenous treatment.[72]

Those parties, such as WilTel (at 27) and Ad Hoc (at 25), seeking to have the Commission eliminate all accounting costs ignore the reality that the LECs are still regulated on the basis of accounting costs, and that price cap rates were initialized based on accounting costs. Subsequent corrections to accounting costs must be reflected in the PCIs; otherwise the LECs could not recover true economic costs.[73] As Sprint (at 19) notes, the Commission's proposal to eliminate all accounting cost changes is too broad a brush. Such a move might be appropriate once all LECs are operating under price caps in both their state and interstate jurisdictions. However, as

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[71] *See*, MCI at 42-46; WilTel at 27; ICA at 16-17; Ad Hoc at 25; OCCO at 10.

[72] In the case of GTE, the net of all exogenous costs under price caps is approximately $136 million for the GTOCs and $(11.5) million for GTE Systems Telephone Companies ("GSTC" formerly Contel). Excluding the low-end adjustment mechanism for the GTOCs in the 1994 annual filing of $135 million, the GTOCs exogenous cost change is basically zero. In addition, several of the items allowed for exogenous treatment, such as the Subscriber Plant Factor ("SPF") and Dial Equipment Minutes ("DEMs"), are transition costs.

[73] *See*, BellSouth at 55.

long as LECs operate in any regulatory jurisdiction where price setting is based in full or in part on accounting costs, the Commission's proposal to eliminate exogenous treatment for changes in accounting methods is premature. Sprint (at 18-19) recognizes that some accounting changes, such as Part 36 and Part 69 changes, have nothing to do with the LECs' economic cost and, if these rules are revised, the LECs should be allowed exogenous treatment the same as was allowed for changes in General Support Facilities ("GSF") costs.

Ad Hoc (at 26) wants the Commission to compare any cost changes to the impact of such changes on non-regulated firms to decide if exogenous treatment is warranted. Ad Hoc (at 27) states: "Successful firms protect against such contingencies [beyond their control] through insurance, reserve funds, effective forecasting and planning, and prudent management." OCCO (at 10) puts forth the same reasoning: "In a competitive market, all cost changes are 'endogenous'" and the Commission should "abandon this conceptually inconsistent LEC assistance mechanism." Further, OCCO adds a qualifier – if exogenous treatment is retained, limit it to "material factors impacting only the LEC, and not the rest of the industry or the economy." This test is already part of the Commission's exogenous rule.

Nothing would be more conceptually inconsistent than regulation that (i) imposes real costs by, for example, requiring accounting transactions having a real impact on carrier rates; (ii) at the same time, controls in detail (*e.g.*, Part 69) the pricing and shaping of a carrier's offerings; and (iii) then refuses to make allowance for the resulting variation from the environment contemplated when the PCI was established.

Recognizing these changes through the "z" factor adjustment effectively places the LEC in the same position as an unregulated firm. Ceiling prices are adjusted for

such cost changes, but the LEC can price below the ceiling in order to meet competitive pressures.

Ad Hoc and OCCO show a basic misunderstanding of the "z" factor -- which allows adjustments **only** if the change in costs is material, is beyond the control of management, and is not captured through the GNP-PI. Exchange carriers are required to make a showing not only of eligibility but of magnitude and the extent to which any change is not reflected in the GNP-PI. In establishing this last item, a LEC must determine the change in cost incurred by the "average" firm in the economy and the degree to which that impact affects the GNP-PI.[74]

Therefore, only costs that are not included in the GNP-PI -- which represents the overall economy -- are allowed exogenous treatment. Contrary to OCCO's "endogenous only" argument, regulated utilities are subject to costs outside their control that unregulated firms are not subject to. And, contrary to Ad Hoc's allegation, techniques such as insurance, reserve funds, effective forecasting and planning, and prudent management do not provide a firm with the ability to anticipate, or make provisions for, significant cost changes mandated by the legislature or regulators. These techniques can spread the effect of a cost change over time, but they do not affect its magnitude.

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[74] *See*, Testimony and Reply Testimony of Mark Schankerman, California A.92-05-002, May 1, 1992, and May 7, 1993.

MCI (at 43) wants the Commission to delete industry specific taxes in GNP-PI. MCI already has made this argument before the Commission and lost; the Commission made a determination concerning the treatment of industry specific taxes.[75]

MCI (at 47) also thinks that costs associated with Telecommunications Relay Services and 800 database should not have been allowed exogenous treatment. MCI sees no reason why the LECs should have "special treatment" when other industry participants are affected by similar costs. MCI incorrectly asserts that a firm in a competitive market would not be able to pass through the effects of cost changes. In fact, if such a cost change affects firms broadly throughout the industry -- as most exogenous changes do -- then a competitive firm will pass through the increase.[76] The critical difference is that MCI has the legal power to change its rates in response to industry-affecting cost changes while the LECs cannot.

Finally, exchange carriers are subject, to a much greater degree than most firms, to requirements established by the Commission or by law that cause them to provide services or make investments in a manner a competitive firm would not choose. When such a mandate is created, it may impose on exchange carriers a change in cost which is out of the control of the carrier itself. It is reasonable for the exogenous adjustment mechanism to recognize these externally determined changes in cost. This may be of particular importance during the next price cap review period, when major new

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[75] *See*, Bell Atlantic Telephone Companies Tariff F.C.C. No., Transmittal Nos. 492 and 501, 7 FCC Rcd 2165 (1992). The Commission, in response to a petition to reject by MCI, allowed Bell Atlantic to flow through the effect of an increase in the Public Utility Realty tax passed by the Pennsylvania General Assembly.

[76] Such a cost change would shift the supply curve for the industry, and a new equilibrium price would be determined.

initiatives in national telecommunications policy, such as universal service funding obligations, are likely to occur.[77]

In summary: The "z" factor operates symmetrically in that both increases and decreases in the LECs' exogenous costs are reflected in the price cap formula. This symmetry must be recognized. The exogenous treatment of certain costs does not always benefit the LECs as is implied by those parties wanting to narrow or eliminate the treatment. In addition, as regulated utilities, LECs operate under different rules than unregulated firms and incur costs based on legislative or regulatory mandates that affect their operations in ways that do not affect unregulated firms. Until the LECs' prices are no longer constrained by regulation in this way, the LECs require exogenous treatment for costs beyond their control that are not reflected in the GNP-PI.

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[77] Of course, GTE believes that any new universal service obligations should be funded through a competitively neutral mechanism, and not through LEC access rates.

II. THE COMMISSION SHOULD ESTABLISH A PRICE CAP FRAMEWORK THAT WILL PROMOTE EFFECTIVE COMPETITION, EFFICIENT INVESTMENT, AND NEW SERVICE OPTIONS FOR CUSTOMERS.

In its comments, GTE (at 14) argued that the Commission should establish a price cap plan that would most effectively replicate the result a competitive market would produce. This would be done by reliance on the market itself wherever possible and, where market power was still present, by price cap constraints which minimized market distortions.

GTE's proposals (at 57-60) were designed to establish the greatest practical degree of regulatory symmetry among the different firms that will be competing to provide parts of the new National Information Infrastructure ("NII"). Only through such symmetry can the Commission ensure that investment in the NII is made efficiently, by the right firms using the right technology.

In part, establishing this symmetry requires that reasonable parameters be chosen for the price cap plan. GTE has discussed *supra* how the productivity offset and other plan parameters should be set. However, as GTE (at 20) also showed, it is essential that reasonable ground rules are established in advance to determine how firms that choose to invest in the NII will compete with one another. This is because firms -- LECs as well as their competitors -- will base their entry and investment decisions on their expectations concerning how the competitive game will be played.

If rules concerning new services and pricing flexibility prevent LECs from competing effectively, then LECs will be discouraged from making investments that may be socially desirable, and competitors will be encouraged to make investments that may be inefficient. In order for the Commission to meet its objectives for this

proceeding, it is necessary to address the issues termed "transitional" in the NPRM together with the "baseline" price cap issues.

To establish the necessary ground rules for competition, GTE has proposed a price cap framework which incorporates the following elements:

1) A more adaptable rate structure that codifies only those elements necessary to carry out specific public policy programs.[78]

2) A framework of rules that adjusts the price cap rules governing pricing, new service justification, and tariff review, on the basis of the degree of competition in each access market. To establish this framework, the Commission should:

   - Define the relevant access market;
   - Establish reasonable criteria to determine the degree of competition;
   - Adopt more streamlined rules for tariff review in markets that satisfy the competitive criteria.

3) Modifications to the existing structure of baskets to group rate elements more logically by function. Within baskets, the banding constraints would depend upon the competitive classification of the market.[79]

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[78] This reform would be necessary even if there were no expectation of any access competition. As shown *infra*, the current rate structure is incompatible with the timely introduction of new services. Greater ability to accommodate new services is in the public interest, regardless of whether competition is present or likely.

[79] For a more complete description of this framework, *See,* GTE at 57-60. *See* also, USTA at 52-78. Proposed rules for implementing this framework were submitted as part of USTA's Petition for Rulemaking, *Reform of the Interstate Access Charge Rules*, RM-8356, filed September 17, 1993 ("*USTA's Petition*").