

The Court's Divide

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Abstract

The Supreme Court decision in *Verizon et al v. FCC et al* has finally settled the legality of the FCC's methodology for setting prices for wholesale services that are "based on cost", as required by the Telecommunications Act of 1996. The Court's decision reveals unanimous agreement that forward-looking costs may be used as the measure of cost. It also reveals agreement that the FCC's leeway in establishing a methodology for measuring these costs is limited by the need for the methodology to bear a "rational connection" to the goals of the Act. The majority and Justice Breyer differ in whether this limitation was binding in this case. This paper examines the theoretical and empirical evidence that could have shed light on the Court's disagreement – evidence that was not part of the case presented to the Court. While the evidence casts considerable doubt on the wisdom of the public policy approach adopted by the FCC, it does not lead to the conclusion that the Court should have ruled differently.

1 Introduction

The Supreme Court took a long time reaching its decision in *Verizon et al v. FCC et al*. The ruling was a 7-1 decision but could have been closer than that vote indicates. Justice Breyer's dissent and the majority opinion reveal that their disagreement hinged on one factor: did the FCC's interpretation of the Act's requirements, embodied in the Total Element Long-Run Incremental Cost (TELRIC) methodology, conflict with a principal goal of the Act – to facilitate competitive entry into the local exchange? The majority decided it did not while Justice Breyer believed it did. Their disagreement surrounds one theoretical issue and one empirical fact. No evidence was considered on either of these but both are amenable to some analysis. This paper examines this evidence.

The evidence does not flatter either side of the debate. To be sure, the Court could have been presented with evidence that the FCC methodology led to prices that were "too low" and might have been presented with evidence that this either harmed, or at least did not help, competitive entry. These facts, however, should not have altered the Court's decision. The FCC used the broad discretion provided by the Act and the Chevron Doctrine to specify TELRIC as the methodology with which to establish prices "based upon cost." As

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former FCC Chair Reed Hundt (2000: 154) reveals, the FCC was well aware of what it was doing:

The conference committee compromises had produced a mountain of ambiguity that was generally tilted towards the local phone companies' advantage. But under principles of statutory interpretation, we had broad authority to exercise our discretion in writing the implementing regulations. Indeed, like the modern engineers trying to straighten the Leaning Tower of Pisa, we could aspire to provide new entrants to the local telephone markets a fairer chance to compete than they might find in any explicit provision of the law.

The result may have been poor policy but this paper will argue that the Court was correct to uphold the FCC TELRIC methodology.

2 The agreements

The Justices had two major agreements. First, they rejected the takings claims based on the FCC's TELRIC methodology that ignores historical costs. Justice Breyer commenting on the majority view:

I agree with the majority that the Telecommunications Act of 1996 (Act or Telecommunications Act), 47 U. S. C. §251 et seq. (1994 ed. and Supp. V), does not require a historical cost pricing system. I also agree that, at the present time, no taking of the incumbent firms property in violation of the Fifth Amendment has occurred.

This agreement is not the subject of this paper. The second agreement is less well appreciated and directly relevant to Justice Breyer's Dissent. Justice Breyer could find no "rational connection" between the statute's intent and the FCC implementation via TELRIC. The Act's goal is to substitute regulation with competition, a goal that Justice Breyer finds is inconsistent with the application of TELRIC. TELRIC attempts to mimic the efficient cost level thereby eliminating (according to Verizon et al and Justice Breyer) the incentive for competitive entry:

[t]he 1996 Act is not a typical regulatory statute asking regulators simply to seek low prices, perhaps by trying to replicate those of a hypothetical competitive market. Rather, this statute is a deregulatory statute, and it asks regulators to create prices that will induce appropriate new entry.

The majority appear to agree that TELRIC would be a problem if they believed that it thwarted the objective of facilitating competitive entry.

The incumbents' (and JUSTICE BREYER's) basic critique of TELRIC is that by setting rates for leased network elements on the assumption of perfect competition, TELRIC perversely creates incentives against competition in fact. See *post*, at 11.14. The incumbents say that in purporting to set incumbents' wholesale prices at the level that would exist in a perfectly competitive market (in order to make retail prices similarly competitive), TELRIC sets rates so low that entrants will always lease and never build network elements. See *post*, at 12.

This is an agreement that TELRIC might be inconsistent with the goals of the Act, if it really accomplished the setting of perfectly competitive rates. The disagreements between the majority and Justice Breyer surround the matter of whether TELRIC does or does not do this.

3 Dispute I: Theory

The majority's theoretical response to Justice Breyer is that TELRIC does not really attempt to measure the efficient level of costs that would exist in a perfectly competitive market. They cite the following factors:

- The FCC does not assume conditions of perfect competition.
- TELRIC requires that costs be based on existing wire center locations, even if other locations are more efficient.
- Adjustment lags (in state regulatory proceedings) mean that cost-reducing technologies or innovations will not be reflected immediately in TELRIC rates.
- New technologies of incumbents will not be reflected in costs until competitors become aware of them – and this may take some time.
- Competitors may have new technologies that permit lower costs but are not yet “currently available” technology in the market place.

The majority acknowledge that the empirical relevance of these factors is unknown but finds that their existence adequately defeats the claim that TELRIC costs reflect efficient cost levels thus making entry unlikely.

What is missing is any sense of how TELRIC rates are actually set by state commissions. Adjustment lags were common in rate of return proceedings. In unbundled network element (UNE) proceedings,¹ the adjustment lag appears to be *negative*. That is, expected cost efficiencies are included in TELRIC estimations regardless of whether they have yet occurred. How else can one reconcile the fact that the average UNE rate set by state commissions (initially, many rates have subsequently been lowered, considerably at times) was around \$5/month lower than embedded cost? The average X-factor adopted by the same state commissions (presumably to represent the average industry productivity gains) was 2.5%. At this average annual rate of cost reduction, it would take at least 28 years to achieve the cost reductions embodied in the UNE rates set by the states.²

It is hard to reconcile the assumption that competitors may not know about technological advances until well after the incumbent adopts them with the view that competitors may have superior technologies that are not yet currently available in the market place. Certainly both are possible but they are hardly compelling arguments. Neither is the constraint of existing wire center locations. Such a constraint cannot lead to

¹ These are state proceedings in which prices are set for the unbundled network pieces that competitive entrant may lease from the incumbent. The FCC established the minimal set of these UNEs and established the TELRIC methodology as guidelines that states must use in setting UNE prices.

² The initial state-set UNE loop rates averaged \$17.24/month while embedded costs averaged \$22.44/month. The 28 years is based on an inflation rate of 1.5%/year and the average X-factor (in year 2000) of 2.5%/year. At higher inflation rates it would take even longer to achieve the implied cost reductions of these state regulatory decisions. Further, the gap between UNE rates and embedded costs was significantly larger in price cap jurisdictions than in rate of return jurisdictions. This is perverse given that price cap regulation possesses superior cost-reduction incentives so efficient forward-looking costs and embedded costs *should* be similar. See Lehman and Weisman (2000: chapter 7).

cost reductions but the extent to which the constraint is binding is unknown. There have been no demonstrations that alternative wire center locations would be cheaper.

The Court did not consider any evidence on the actual UNE rates set by the states under the FCC's TELRIC methodology (and the incumbents did not present that case to the Court). Forward-looking costs are *not* completely different from embedded costs: they are both cost studies conducted at an instant in time (the present). One looks forward and the other looks backwards. If technology is generally progressing, the embedded costs will decline over time and the forward-looking costs will generally be lower than embedded costs at each point in time. I have conducted extensive simulations that show that the difference between the two cost concepts is on the order of 10% or less.³ Larger differences *require* not only a shift from a backwards focus to a forward-looking one, but also the assumption that the incumbents embedded costs reflect inefficiencies in either network deployment or operations. Simulated differences between forward-looking and embedded costs of 10% or less can result from: differences between prescribed depreciation lives and economic (forward-looking) depreciation, changes in investment costs over time (primarily due to changing technology), and alternative assumptions about operating costs and the cost of capital.

Not included in the simulations are speculative efficiencies that might occur in the future. The term "speculative" is meant to represent efficiency gains that come about without specifying their source. It is to be expected that increases in competitive pressure will cause incumbents to become more efficient.⁴ To the extent that this is true, it is useful to compare these unspecified efficiency gains with those embodied in the "productivity offsets" (X-factors) chosen by regulators in price cap regulation. The average state price cap plan allows retail prices to change by the rate of inflation minus 2.5% per year. My simulations show expected differences between forward-looking and embedded costs (deriving from the same factors) of 10% or less.⁵ The average state UNE loop rate, however, was set \$5/month below embedded cost (around 25% below embedded cost). Yet I am not aware of a single finding in a state UNE proceeding that the incumbent has operated inefficiently.

Despite the unconvincing assertions that TELRIC does not undermine incentives for entry, the majority did not point to more obvious considerations. New entrants need not serve all customers. They could choose to serve niche markets, possibly with different wire center locations (though not necessarily so), and possibly at lower cost. In fact, since entrants do not have carrier of last resort obligations it is almost certain that they can achieve lower costs than incumbents, at least for serving some customers.⁶

³ See Lehman and Weisman (2000, chapter 6) and Lehman (1998).

⁴ It must be noted, however, that most large incumbents have operated under price cap regulation in most of their jurisdictions, so their incentives already mimic (arguably) those of a competitive firm.

⁵ It is tempting, but misleading, to think of the X-factor as a flow variable and the simulated difference between forward-looking and embedded cost as a stock variable (sort of the capitalized value of the flows). However, the decline in investment cost is already modelled in the simulation. The simulation is dynamic – it models what forward-looking and embedded costs look like at each point in time, in the presence of the declining investment costs. Also, the setting of UNE rates based on forward-looking costs is a repeated exercise although at more discrete intervals than the effect of the X-factor on retail rates. Thus, the simulation results and the X-factors are more alike than different in their theoretical underpinnings.

⁶ Given that revenue tends to be concentrated in business customers and that these tend to be clustered closer to switches and in more dense locations than residential customers, it should be expected that entrants will

It is difficult to argue that TELRIC, on methodological grounds, does not provide for facilities-based entry incentives. Even if TELRIC were guilty as charged, entry could be profitable to some extent. The FCC decision not to distinguish between business and residential loops (while realizing that most states make this distinction and price business service considerably higher than residential service) in setting UNE prices provides further entry incentives.⁷

Given that the average price for a platform of UNEs⁸ has been set around \$25/month and average retail business rates are approximately \$50/month, it is impossible to argue that the FCC rules preclude competitive entry. It might be argued that these rates preclude *meaningful* entry but the Act provides little guidance with which to distinguish between meaningful and meaningless entry. Even residential customers, with retail monthly prices of around \$21 are profitable to serve if they subscribe to a number of vertical features and/or make a large number of long-distance calls.

It is equally difficult to imagine that setting prices \$5/month lower than current embedded cost would not have an adverse effect on facilities-based entry. It is also difficult to believe that regulators could find that the actual embedded cost of the regulated incumbents average 25% more than an efficient level of costs. After all, these are the same regulators that conduct prudency reviews under rate of return regulation, the same regulators that found current retail rates an acceptable starting point for establishing price cap regulation, and the same regulators that were not able to cite any specific inefficient practice on the part of incumbents. What inefficient decisions by the incumbents led to such excess? It cannot simply be the availability of new technology – that is already included in the simulated cost levels that are within 10% of embedded cost.

The extent of the price/cost deficiency, however, was not presented to the Court. If it had been presented, would it have mattered? Probably not. For the Court to say that the discrepancy is excessive would require the Court to establish an acceptable range for forward-looking costs to fall in. On what basis could the Court draw a bright line between acceptable and unacceptable speculation in cost estimation? After all, long-run cost studies are inherently speculative – they must speculate on what costs would result if a firm is able to vary all of its inputs. Given that this is a hypothetical situation, the result is somewhat speculative. Clearly, the use of TELRIC that results in 25% reduction in achievable cost levels suggests something more than just the ability to vary the quantities of all inputs. State and federal regulators did not point to any specific factors that drive these potential cost reductions (other than changing technology, which cannot account for reductions of that magnitude). So, regulators may have been unaccountable for their actions, but this was not the case before the Court.

have lower average cost profiles than incumbents. This provides plenty of incentive for competitive entry even if the TELRIC cost measure truly reflects the most efficient cost level.

⁷ Similarly, the FCC rejection of the ECPR prevented these retail price anomalies from impacting wholesale rates.

⁸ The UNE platform, or UNEP, consists of the local loop, switching, and transport required to provide local service. When the platform is leased a CLEC essentially is reselling the ILEC service, but at a different price than if it uses total service resale (TSR). The Act allowed for TSR and UNE-based entry. The FCC's interpretation permits the use of UNEP which is just resale under a different name and at a different price.

4 Dispute II: Evidence

The majority cite \$55 billion of facilities investment by competitive entrants as evidence that entry has not been foreclosed by the application of TELRIC. Justice Breyer correctly points out that

We do not know how much of this investment represents facilities, say broadband, for which an incumbent's historical network offers no substitute. Nor do we know whether this number is small or large compared with what might have been.

Indeed, much appears to have hinged on the size of this competitive investment, as the majority claim:

it suffices to say that a regulatory scheme that can boast such substantial competitive capital spending over a 4-year period is not easily described as an unreasonable way to promote competitive investment in facilities.

What is missing is any assessment of the causative link between TELRIC and competitive investment or competitive entry. While the data is limited, an initial assessment is in order. The argument over TELRIC concerns the belief by incumbents and Justice Breyer that TELRIC produces UNE prices that are too low. The majority cite the large investment by entrants as evidence that the UNE prices are not so low as to preclude significant investment and entry. Given that application of TELRIC by the states resulted in widely varying UNE rates, it should be asked how this variation in UNE prices is or is not related to the degree of competitive entry.

The FCC reports data on competitive entry by state jurisdiction. The reported data does not include states that have less than two competitive providers so data is only available for 36 jurisdictions.⁹ While this is not a random selection of states and is not the complete set of states, it may be a reasonable set of states to analyze. The omitted states are all small states and mostly rural (hence, the limited competitive entry). Thus, the publicly reported data covers all of the more populous states. I will explore some simple, stylized models to see if there is any apparent link between UNE prices and competitive entry.

The latest data reported by the FCC is for June 2001. The dependent variables considered were either total CLEC lines or total CLEC lines serving small business and residential customers. It is expected that either measure of competitive entry would be directly affected by a scale variable – I use the total state lines as the measure of scale. It is expected that lower UNE prices should lead to enhanced entry – the form of entry might shift from facilities-based to UNE resale, but total entry should be greater when UNE prices are lower. It is also expected that regulated residential rates in a state would impact entry incentives – lower prices for residential service are expected to lead to decreased entry. Table 1 provides the descriptive data used in the analysis.

The model just described leads to the following estimated equation:

⁹ The complete data was analyzed in an unpublished manuscript (Eisner and Lehman, 2001). Those results were generally similar to those in this paper but relied on data that is not publicly available. The FCC does not report data for states with less than two CLECs to protect the proprietary nature of the data. It should also be noted that some of the data used in that paper were subject to subsequent revision in the data sources. That paper did find statistically significant evidence that lower UNE rates were associated with less facilities-based entry. The remaining results were mostly insignificant, although the UNE rate variable consistently had a positive sign, indicating that lower UNE rates were associated with less competitive entry.

$$\text{CLEC lines} = -643,221 + 0.107 \text{ Total State Lines} + 32,293 \text{ Residential Rates} - 4391 \text{ UNEP}$$

$$R^2 = 0.69 \quad (<0.0001) \quad (0.09) \quad (0.69)$$

The numbers in parentheses give the p-values (so values less than 0.1 or 0.05 may be considered statistically significant). The scale effect is evident. The residential rate variable suggests that lower residential rates lead to less CLEC entry. The UNEP variable reflects the average price for leasing a platform of UNEs (unbundled loop, switching, and transport as a package). It has the expected sign but is not significant. The model was run alternatively with just the UNE loop price or the lowest UNE loop zone price (since most entry is in urban areas where the UNE rates are lowest). The results vary very little. Scale continues to be significant and residential rates are marginally significant. The UNE price measure varies in sign and is far from significant in all models. The results for CLEC small business and residential lines are also similar, except that the overall fit is somewhat lower.

Variable	Mean (unweighted, 36 states)
Total State Lines	4,924,835
Total CLEC Lines	461,267
Number of CLECs	9.47
Total high speed lines	185,981
Average Residential Retail Rate	\$21.36/month
Average Incumbent Embedded Cost	\$19.27/month
Average forward-looking cost from the FCC cost	\$20.36/month
Average UNE loop price	\$15.08/month
Average UNE loop price in the urban zone	\$11.74/month
Average UNE platform price	\$25.28

Table 1: CLEC Entry and Regulated Price Variables¹⁰

Entry incentives should be affected by *margins* rather than the raw price levels. I included two margins in place of the prices: the Build Margin, defined as the difference between the average residential rate in the state and the FCC estimate of the forward looking cost of building loops in the state¹¹; and the Lease Margin, defined as the difference between residential rates and the UNE platform price. It would be expected that CLEC entry would be directly related to each of these margins. The estimated model is:

¹⁰ Sources: FCC (2002), Gregg (2001), NECA (2000), FCC HCPM model results, and industry sources.

¹¹ This comes from the FCC Hybrid Cost Proxy Model (HCPM) developed for universal service cost purposes. It attempts to measure the forward-looking costs for an efficient entrant, using existing wire center locations (i.e., TELRIC).

$$\text{CLEC lines} = -46,694 + 0.1 \text{ Total State Lines} + 27,460 \text{ Build Margin} + 2364 \text{ Lease Margin}$$

$$R^2 = 0.69 \quad (<0.0001) \quad (0.09) \quad (0.83)$$

These results are almost identical to the prior model. The residential rates appear to matter (indirectly through the Build Margin) but the UNE rates are not significant (entering through the Lease Margin). Furthermore, the size of the estimated effect is an order of magnitude larger for the Build Margin than for the Lease Margin (or, alternatively, for the residential rates than for the UNE rates in the prior model).

Many other models were run with similar results. There is no evidence that the UNE rates matter for competitive entry. The effect is positive in some models and negative in others, but always far from statistical significance. The size of the effect is an order of magnitude less than the effect of retail residential prices. It is worth noting that there is some evidence that UNE rates have impacted the rate of competitive entry, measured by the number of competitors. The same basic model as above, run with number of CLECs as the dependent variable, yields:

$$\text{CLECs} = 5.02 + 0.0000008 \text{ Total State Lines} + 0.32 \text{ Residential Rates} - 0.25 \text{ UNEP}$$

$$R^2 = 0.62 \quad (<0.0001) \quad (0.09) \quad (0.03)$$

Here, the price for leasing a UNE platform appears to bear a significant inverse relationship with the number of CLECs (and is of a similar magnitude as the effect of retail residential rates on entry). This is one plausible reason for the anomalous result that UNE rates do not seem to have a significant effect on UNE lines in a state. Profitable CLEC entry depends (to an extent) on scale¹² so too many CLECs in a market may make successful entry more difficult. This is particularly true if the CLECs are chasing the same customers, which makes intuitive sense. So, it is possible that low UNE rates encourage CLECs to enter a market, but excessive entry in terms of numbers of entrants then makes the extent of entry (in terms of number of lines) more difficult.

There is little other empirical work to shed light on the effects of UNE prices on competitive entry. Two studies (Jamison, 2001, Ros and McDermott, 2000) examine the same questions as this section does. Jamison uses a different data set. Ros and McDermott use an earlier version of the FCC data but focus on a different dependent variable – the number of CLECs. They both find that lower UNE prices facilitate entry. As noted above, the results for number of CLECs and the extent of their entry may well differ. Further, these studies include data from both RBOC and GTE jurisdictions whereas my analysis

¹² For example, see *Telecommunications Reports*, May 6, 2002 interview with Ronald Duncan, president of GCI, the most successful CLEC in the US. Mr. Duncan states “In our markets it takes probably about a 15% share of the local service market to achieve break-even. By focusing exclusively on one market, we were able not only to get to that break-even share, but to get beyond it... Most of the rest of the industry was rewarded for having a 1% share in 200 cities, not a 20% share in 20 cities.”

focuses only on RBOC jurisdictions.¹³ Inclusion of GTE UNE rates imparts a potentially serious bias to the results. GTE's UNE rates have been set relatively high (both in absolute terms and relative to embedded costs). Since entry has been relatively lower in GTE territory, this may account for the inverse relationship found in these other studies. It is also possible that entry strategies will systematically differ in GTE and RBOC territories. The incumbent carriers differ in terms of size, brand recognition, and their abilities to offer interLATA long-distance services.¹⁴ Ros and McDermott also find evidence that lower retail residential rates have a significant negative impact on CLEC entry.

Explanations for why lower UNE rates may not facilitate entry are worth considering, given that this would be a counterintuitive finding. These include:

- Excessive numbers of competitive entrants so that sufficient scale is not achieved.
- Potential non-price discrimination by incumbents when UNE prices are set "below cost".
- Impediments to financing for CLECs that depend on low UNE rates that may not be sustainable (upon legal challenges).
- UNE rates may set the ultimate price floor for retail business services, so lower wholesale rates may mean less ultimate potential profit margin.

Considerations such as these suggest that competitive entry is complex and multidimensional. For example, Crandall (2001) concluded that CLECs without a facilities-based entry strategy were more likely to experience bankruptcy than facilities-based entrants. Now, one year later, it would appear the opposite is true. Facilities investment has saddled entrants with debt and the rare success stories are those largely based on use of UNEs (and, increasingly, UNE platforms).

Given that the level of UNE rates might or might not facilitate competitive entry, it is difficult to see how the Court could find sufficient methodological argument to find that TELRIC was incompatible with the purposes of the Act. Notwithstanding Justice Breyer's lucid attempt to explain the disconnect between TELRIC and the Act, the methodological arguments are just too ambiguous. The empirical evidence on the effects of TELRIC were not considered. If they had been part of the record they would have also been ambiguous. We can imagine that the empirical results might have been stronger. Perhaps a preponderance of evidence that TELRIC (in the form of lower UNE rates) in fact inhibited competitive entry might have led the majority to side with Justice Breyer. In deference to the Chevron Doctrine, the burden would clearly have been on the incumbents to produce such strong evidence, and the above analysis suggests they could not have met this burden. It is sad for public policy, however, that the evidence that lower UNE rates help competitive entry is so weak. For all the resources that have been devoted to the

¹³ This is not entirely true – the FCC competition data is reported at the state level, not by incumbent carriers. Most CLEC entry has been in RBOC territory (Zolnierek et al, 2001) so this error should be small – at least small relative to the potential bias of including GTE UNE prices in the analysis.

¹⁴ GTE was immediately allowed to offer such services upon passage of the Act; the RBOCs have needed to go through a lengthy process of application for permission (the 14 point checklist) to enter these markets. It was 5 years after the passage of the Act before the first RBOC was granted entry in the first state (New York).

establishment of these rates, there is no evidence to point to that competition has been furthered as a result.

For all of the litigation and regulatory cost involved with TELRIC one might well ask whether the benefit was worth the cost. It would be hard to justify TELRIC on the basis of the tiny or nonexistent effect it has had on competitive entry. Such a cost benefit analysis would be difficult, however, for the Court to conduct. To see this, consider the impact of UNE rates on high speed internet access, a subject of intense legislative and regulatory interest. The FCC reports the number of high speed lines by state.¹⁵ The model for high speed lines in a state is

$$\text{High Speed Lines} = -201,764 + 0.05 \text{ Total State Lines} + 527 \text{ Residential Rates} + 5048 \text{ UNEP}$$

$$R^2 = 0.93 \qquad (<0.0001) \qquad (0.88) \qquad (0.02)$$

Here, UNE rates appear to be directly related to high speed lines: lower UNE rates are associated with less high speed lines, *ceteris paribus*.¹⁶ Whether it is less digital subscriber lines (DSL) or less high speed lines using other technologies (e.g., cable modems) is not known but should not matter.¹⁷ The argument that TELRIC adversely impacts high speed deployment is the same. Either TELRIC, and associated low UNE rates, reduces the incumbents incentive to deploy DSL or it reduces the incentive for competing facilities-based entrants. In this case, the statistical results appear to strongly suggest that low UNE rates have had an adverse impact on deployment of advanced services, a main goal of the Act.¹⁸ The preamble of the Act states its purpose is:

To promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies.

Would or should such evidence have led the Court to conclude, with Justice Breyer, that TELRIC was inconsistent with the goals of the Act. I think not. The fact that TELRIC may have thwarted (some of) the goals of the Act makes TELRIC poor policy, not unlawful policy. It could plausibly be argued that lower UNE rates would enhance the ability for CLECs to offer DSL service. Alternatively, CLEC DSL offerings could stimulate cable modem offerings by putting competitive pressure on cable operators. The fact that these arguments may not have proven true does not render TELRIC inconsistent with the goals of the Act. We also do not know whether such arguments will survive as market conditions

¹⁵ The FCC reports high speed lines by mode of access: DSL, cable modems, and “other.” The data for the disaggregated modes is far from complete, however, so I only consider the total high speed lines above.

¹⁶ Note also that retail residential rates have a weak association with high speed lines. This would be expected given that the price of high speed access to the network is not tied to basic residential rates in a state.

¹⁷ The same model was run for DSL lines and cable modems. In both cases the UNE variable had a positive coefficient – significant ($p=0.01$) for DSL but not for cable modems ($p=0.24$). The sample sizes, however, are smaller (32 and 22, respectively) given that this disaggregated data is less completely reported by the FCC.

¹⁸ It is possible to see that the limitation of the analysis to 36 states does not bias the results. Total high speed lines are reported for every state, so the model can be run for 48 states if we replace Total State Lines with Total ILEC lines. This model gives:

$$\text{Total High Speed Lines} = -192,418 + 0.055 \text{ ILEC Lines} + 2305 \text{ Residential Rates} + 3390 \text{ UNEP}$$

$$R^2 = 0.94 \qquad (<0.0001) \qquad (0.36) \qquad (0.01)$$

As before, UNE rates have a significant direct effect on high speed deployment.

change. It might still turn out that lower UNE rates lead to more broadband deployment when there is more legal certainty, technological changes, and/or capital market conditions change. Simply put: the Court could not have found sufficient reason to disallow TELRIC. The FCC may have abused their privilege under *Chevron*, it may be poor public policy, but it was legal.

We do know that the United States has embraced unbundling as a strategy to enhance competition while other nations have not (OECD, 2001). Most of the problems of unbundling can be traced to the prices set for the UNEs. If price levels for UNEs made their sale profitable, then incumbent carriers should have been happy to sell such services. Their incentive would be to provide quality wholesale services. Negotiation between carriers would be the norm for resolving disputes (as envisioned by the Act). Years of litigation and regulatory cost may have been avoided. And, arguably, unbundling as a competition policy might have worked.

Instead, the FCC, through application of TELRIC, has made UNE leases unprofitable for incumbents. Rational firms would attempt to thwart competitors' use of loss-forcing services. Rational firms would litigate rather than market. The hearing room would be the primary location for competitive battles. And, after more than six years of such experience, legislators and regulators would have second doubts about the wisdom of unbundling. Several bills are pending in Congress to limit or remove unbundling requirements for broadband services. The FCC has several proceedings to consider limiting unbundling requirements. These are the natural results of the unnatural TELRIC experiment. Poor public policy perhaps, but is it unlawful?

5 Conclusions

Justifying TELRIC on economic grounds is not what the Court was asked to do, nor is it what the Court's should do. The Court addressed a narrower question: was the FCC adoption of TELRIC inconsistent with the goals of the Act? It could be argued that TELRIC could either further the Act's goals or thwart them. It is difficult to see how the empirical determination of which arguments predominated could provide a basis for declaring TELRIC unlawful. After all, it could have turned out differently. Nor is this an issue of the strength of the empirical evidence. Many of the relevant coefficients (for the UNE rate variables) are not statistically significant – some are. Even if the statistical results consistently showed that lower UNE rates were associated with less competitive entry, it is difficult to see how the Court could have used this information. It would only mean that TELRIC turned out to work poorly, not that it could not have furthered the goals of the Act. The Court cannot decide on the capability of TELRIC to stimulate competition on the basis of whether it, in fact, did. Nor can the Court assess the likelihood of TELRIC to enhance, rather than thwart, competitive entry.

Unfortunately, this means that economic determinations of whether regulatory rules lead to good public policy are not matters for the Courts. The Telecommunications Act and *Chevron* gave the FCC sufficient leeway to choose TELRIC. The FCC TELRIC rules provide sufficient leeway for state commissions to set UNE rates too low. The effect may have been to thwart competitive entry – at a minimum, it does not appear to have helped entry or advanced services deployment. It certainly did not reduce regulation, given the lengthy detailed multiple proceedings before state and federal regulators and their

subsequent litigation. *Verizon v. FCC* permits regulatory agencies to adopt these rules. It would have been necessary to show that TELRIC must lead to the Act's failure, not merely that it might have had that effect. This is an impossible burden of proof. And, that is how it should be – legislators should write policy, not the courts. If legislators fail to write good laws, then it is left to regulatory agencies to do as they will – even if this means adopting the wrong policy approach.

6 References

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