



## *Study Reviews:*

### **The Effects of Bargain Wholesale Prices on Local Telephone Competition: Does Helping Competitors Help Consumers? by Stephen B. Pociask, TeleNomic Research, LLC**

Report released by the Competitive Enterprise Institute ([cei.org](http://cei.org)) and the New Millennium Research Council ([newmillenniumresearch.org](http://newmillenniumresearch.org)).

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*Key Points:* Trade press picked up on the report's estimate of a \$101 loss in GDP per household caused by UNE-P. This estimate is based on numerous unsupported assumptions and a botched calculation. Assuming all assumptions are valid but correcting the calculation error, the estimated loss is \$10.87 annually.

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In June 2003, the Competitive Enterprise Institute and the New Millennium Research Council released a report by Stephen Pociask claiming that UNE-P costs each American household \$101 per year in lost economic activity. This tendentious report is replete with errors and falsities, and it would take far too much time to discuss them all. Rather, I will limit my attention to the larger themes of the report of which there are three.

*First*, Pociask states "[a]s a direct result of low wholesale prices, industry-wide telecommunications investment has fallen 40% over the last two years (p. 1)." Importantly, Pociask provides not one iota of evidence or analysis to support this claim. Note that I am not complaining about methodology or quality of analysis; there is simply no analysis or evidence presented to support this statement either in reference to Pociask's own or someone else's work. Nevertheless, the Bell's will quote no doubt this statement frequently hoping that lazy telecommunications policy wonks won't bother to evaluate the quality of the source.<sup>1</sup> The Pociask report is full of similarly unsupported statements and assumptions. Further, the 40% figure is for wireline communications firm only, so the investment reduction is not "industry-wide" as he claims.

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<sup>1</sup> SBC already has. See *Comments of SBC Communications, Petition for Forbearance From The Current Pricing Rules for The Unbundled Network Element Platform*, WC Docket No. 03-157, August 18, 2002, at 12.



*Second*, Pociask claims that UNE-P prices are “too low” and constitute a “subsidy” to competitors (CLECs) from the incumbent local exchange carriers (ILECs). By “subsidy,” Pociask means “a redistribution of income between competitors (p. 8).” This definition of “subsidy” allows Pociask to base his claims on the relationship of UNE-P prices to the retail prices of the ILEC rather than comparing UNE-P prices to costs, the latter comparison being the more meaningful relationship. Pociask is explicit, noting “[i]f UNE-P revenues fall considerably short of retail revenues ... [t]hat represents a redistribution of income from ILECs to CLECs (p. 12, 14).” Pociask’s definition of subsidy is empty. In fact, every regulation leads to a redistribution of some sort between competitors or buyers and sellers, as would competition itself. So, using Pociask’s definition, the term “subsidy” is synonymous with “regulation,” and perhaps synonymous with “competition.” Further, a dollar reduction in a loop rate is not a redistribution of income between competitors. For sure, the ILEC’s profits may be reduced and CLEC profits may be increased (if competition does not compete it away), but consumers stand to gain as well. Because of its effect on competition, the reduction in the loop rate increases the size of the pie, so the reduction is not merely a redistribution -- what is given up by the ILECs is less than what is gained by CLECs and consumers. Finally, the fact that wholesale prices are below retail prices in no way constitutes a subsidy. Wholesale prices are nearly ubiquitously lower than retail prices (at least, in competitive markets). Perhaps the most important flaw in Pociask’s “subsidy” analysis is the fact that the 1996 Act requires UNE rates to be based on cost, not revenues.<sup>2</sup> This fact renders Pociask’s analysis moot. For a thorough analysis of the relationship between UNE-P rates and costs, see Beard, Ford, and Klein (2003) and Beard and Ford (2002).<sup>3</sup>

*Third*, Pociask claims to compute that Gross Domestic Product (“GDP”) is \$101 less per household because of UNE-P. This claim is based on the hypothesis that IT investment (information technology) positively affects productivity, which then positively affects economic activity (GDP). Using this hypothesis, Pociask then traces recent declines in investment by wireline telecommunications firms to GDP. The calculations are as follows:

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<sup>2</sup> Note that the Act requires rates to be “based” on costs, not to “equal” costs.

<sup>3</sup> T.R. Beard, G. S. Ford, and C. C. Klein, “The Financial Implications of the UNE-Platform: A Review of the Evidence,” forthcoming in *CommLaw Conspectus* (Fall 2003): [www.telepolicy.com](http://www.telepolicy.com); .R. Beard, G. S. Ford, What Determines Wholesale Prices for Network Elements in Telephony? An Econometric Evaluation, Phoenix Center Policy Paper No. 16, September 2002: [www.telepolicy.com](http://www.telepolicy.com) and [www.phoenix-center.org](http://www.phoenix-center.org) (also see below for direct link).



1. Productivity has risen, on average, by 1.2% per year over the last five years;
2. IT investment is responsible for 45% of productivity growth;
3. IT investment, therefore, is responsible for about \$56 billion in GDP (=  $0.012 \times 0.045 \times \$10,445\text{BB}$  in GDP);
4. Wireline telecommunications investment declined by 40%;
5. UNE-P is assumed to cause 50% of that decline;
6. So, UNE-P reduced GDP by about \$11B (=  $0.40 \times 0.50 \times \$56\text{B}$ ), or \$101 per household (about 110M households).

Sources for his assumptions are typically unstated, but my attempt to replicate suggests the following. The assumption in Step 1 is based on the average growth in multifactor productivity as measured by the Bureau of Labor Statistics ([www.bls.gov](http://www.bls.gov)), though Pociask appears to round up 1.14 to 1.2. The assumption in Step 2 is based on two studies (Oliner and Sichel 2002; Stiroh 2001).<sup>4</sup> Both studies, however, discuss the relationship between IT investment and *labor* productivity, not *multifactor* productivity. So, Pociask begins his calculations with an inconsistency. The GDP value in Step 3 is from the Bureau of Economic Analysis ([www.bea.gov](http://www.bea.gov)), and presumably for year 2002. For present purposes, let's ignore these errors and inconsistencies and let the \$56B computed in Step 3 stand for the moment (as you will see, there are easier targets forthcoming).

In the next step, Pociask claims that wireline telecommunications investment declined 40%, which is based on estimates by Credit Suisse/First Boston.<sup>5</sup> Step 5 includes the assumption that UNE-P is responsible for 50% of this decline. This latter assumption is *entirely* unsupported, and conflicts with econometric analysis on the effects of UNE-P on ILEC investment.<sup>6</sup> If Pociask had assumed that UNE-

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<sup>4</sup> Stephen D. Oliner and Daniel E. Sichel, "The Resurgence of Growth in the Late 1990s: Is Information Technology the Story?" *Journal of Economic Perspectives*, 14:4, Fall 2000, pp. 3-22 and Kevin J. Stiroh, "Investing in Information Technology: Productivity Payoffs for U.S. Industries," *Current Issues in Economics and Finance*, Federal Reserve Bank of New York, 7:6, June 2001.

<sup>5</sup> Pociask cites another study for this number, but the original source is "Telecom Equipment - Wireline Update," Credit Suisse/First Boston, September 26, 2002.

<sup>6</sup> *Competition and Bell Company Investment in Telecommunications Plant: The Effects of UNE-P*, Phoenix Center Policy Bulletin No. 5 (2003): [www.phoenix-center.org](http://www.phoenix-center.org). Pociask claims "[t]his



P caused SARS, he'd have more support.<sup>7</sup> Nevertheless, let's maintain the unsupported assumption (that conflicts with the only econometric evidence on the issue) because there is even a more severe error in Step 6.

In Step 6 Pociask multiplies the 40% decline in investment by 50% (assumed share caused by UNE-P), and then multiplies this product (20%) by the \$56 billion of GDP "caused" by IT investment. This \$56 billion, however, is the economy wide contribution of IT investment and not just IT investment by telecommunications firms. In this calculation, Pociask assumes that all IT investment - economy wide -- is reduced by 40%, and UNE-P causes 50% of this decline. In fact, government statistics indicate that IT investment by wireline telecommunications firm is only 10.7% of aggregate IT investment.<sup>8</sup> Thus, Pociask's \$101 figure, boldly assuming all the assumptions and calculations discussed above are valid and that telecommunications IT investment alone has the same causal relationship as all IT investment, is really only \$10.85 per household annually ( $=0.107 \times 0.40 \times 0.50 \times \$56B$ ). To cover this "loss," consumers need only an easily obtainable \$0.90 monthly price break on local phone service.

While it is clear that Pociask botched the calculations, the real problem with his report is that there is no evidence that UNE-P or low UNE prices have reduced investment by either ILECs or CLECs. There exist considerable evidence to the contrary, however. Examples of credible research on the topic of unbundling in telecommunications include the following:

[Competition and Bell Company Investment in Telecommunications Plant: The Effects of UNE-P](#), Phoenix Center Policy Bulletin No. 5 (July 8, 2003).

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percentage decline is roughly equal to the one-year (2001) decline for the communications," but does not go so far as to state this is the source of the assumption. If he had, then he would provide an excellent example of circular reasoning (since communications equipment is generally considered a component of IT investment).

<sup>7</sup> I borrow this from an amusing spoof of the Pociask study by (an apparently fictional author) Stephen P. Arody, *The Consequences of Below Monopoly Prices for Unbundled Elements on Health in the United States* (2003). The paper has been posted for download at [www.telepolicy.com](http://www.telepolicy.com).

<sup>8</sup> Data is provided by Pociask and the Bureau of Economic Analysis, Fixed Asset Tables. Telecommunications IT investment (including communications equipment) is 13.4% of total IT investment and wireline firms account for 80% of total telecommunications investment.



[The Truth About Telecommunications Investment After the Telecom Act](#), Phoenix Center Policy Bulletin No. 4 (June 24, 2003).

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[The Myth of Below-Cost UNE-P Prices](#), G.S. Ford (February 2003).

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[What Determines Wholesale Prices for Network Elements in Telephony? An Econometric Evaluation](#), T. R. Beard and G.S. Ford, Phoenix Center Policy Paper No. 16, September 2002.

[Mandated Access and the Make-or-Buy Decision: The Case of Local Telecommunications Competition](#), T. R. Beard, G. S. Ford, and T.M. Koutsky, December 2002.

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[Innovation, Investment, and Unbundling: An Empirical Update](#), R. B. Ekelund, Jr. and G. S. Ford, June 2002. See update by Ekelund and Ford, [Mandatory Unbundling, UNE-P, and the Cost of Equity: A Rejoinder](#) (July 2003).

[Why ADCO? Why Now? An Economic Exploration of Industry Structure for the "Last Mile" in Local Telecommunications Markets](#), T. R. Beard, G.S. Ford, and L. J. Spiwak, May 2002.

[A Fox in the Hen House: An Evaluation of Bell Company Proposals to Eliminate Their Monopoly Positions in Local Telecommunications](#), G. S. Ford, PHOENIX CENTER POLICY PAPER NO. 15 (September 2002).