



Vanderbilt Journal of Entertainment and Technology Law



Articles

Addressing the Incoherency of the Preemption
Provision of the Copyright Act of 1976 *Joseph P. Bauer*

Hit and Miss: Leverage, Sacrifice, and Refusal to
Deal in the Supreme Court Decision in *Trinko* *Nicholas Economides*

Patently Wrong: The U.S. Supreme Court Punts
in the Case of *LabCorp v. Metabolite* *John G. New*

Notes

From Safe Harbor to Choppy Waters: YouTube, the
Digital Millennium Copyright Act, and a Much Needed
Change of Course *Lauren Brittain Patten*

All In, But Left Out: How the Unlawful Internet
Gambling Enforcement Act Seeks to Eradicate Online
Gambling in the United States *Benjamin C. Wickert*

Calling All Angles: Perspectives on Regulating
Internet Telephony *Melissa Winberg*

Hit and Miss: Leverage, Sacrifice, and Refusal to Deal in the Supreme Court Decision in *Trinko*

*Nicholas Economides**

ABSTRACT

Under the rules of the Telecommunications Act of 1996, incumbent local exchange carriers, including Verizon, were obligated to lease parts of their local telecommunications network to any firm, at “cost plus a reasonable profit” prices, that could combine them at will, add retailing services, and sell local telecommunication service as a rival to the incumbent. AT&T, an entrant into the local telecommunications market, leased parts of Verizon’s network. Curtis Trinko, a local telecommunications services customer of AT&T, sued Verizon, alleging various anti-competitive actions of Verizon against AT&T, including that Verizon raised the costs of AT&T, its downstream retail rival. The Supreme Court held that Trinko’s complaint failed to state a claim under section 2 of the Sherman Act and dismissed the complaint. I argue that Verizon had two monopolies in local telecommunications a monopoly of the local telecommunications network, as well as a monopoly in retail local telecommunications services. The Telecommunications Act of 1996 allowed for competition in retail services and imposed cost-based pricing on leases of Verizon’s network. Verizon, unable to increase the lease price on its network, reverted to raising-rivals-costs strategies against its retail competitors. Thus, Verizon used its monopoly of the network infrastructure to disadvantage entrants in retail. In doing so, Verizon lost short-term profits that it would have earned from leasing

* Professor of Economics, Stern School of Business, New York University. Ph.D. University of California, Berkeley 1981; M.A. University of California, Berkeley 1979; B.Sc. London School of Economics 1976. Prof. Economides is also Executive Director of the NET Institute, <http://www.NETinst.org/> visiting UC Berkeley. I thank Brian J. Baltz, Harry First, Eleanor Fox, Joshua Green, Luciano Racco, and Jonathan Rubin for comments on an earlier draft.

its network to entrants, since the Telecommunications Act of 1996 had set the lease price at “cost plus a reasonable profit.” According to the sacrifice principle, a defendant is liable if its conduct “involves a sacrifice of short-term profits or goodwill that makes sense only insofar as it helps the defendant maintain or obtain monopoly power.” Thus, if the “sacrifice principle” is applied, Verizon is liable.

TABLE OF CONTENTS

I.	THE <i>TRINKO</i> CASE IN THE CONTEXT OF TELECOMMUNICATIONS DEREGULATION	125
	A. <i>Vertical Price Squeeze and Raising Rivals’ Costs Leading to Foreclosure</i>	128
	B. <i>The Telecommunications Act of 1996 and its Implementation</i>	130
II.	THE SUPREME COURT DECISION IN <i>TRINKO</i>	136
III.	THE PROFIT SACRIFICE PRINCIPLE AND ITS APPLICATION IN <i>TRINKO</i>	144
IV.	CONCLUSION.....	146

The Law Offices of Curtis V. Trinko, a law partnership in Brooklyn, New York, bought local telecommunications services from American Telephone & Telegraph Company (AT&T). AT&T was providing these services by combining leased parts of the Verizon local telecommunications network (unbundled network elements, or UNEs) and adding retail services of its own, such as billing and marketing.¹ Trinko sued Verizon for raising the costs of its retail rival AT&T (who had entered the market as a competitive local exchange carrier) and otherwise disadvantaging AT&T through anti-competitive conduct (including discrimination in fulfilling customer transfer orders to entrants) under section 2 of the Sherman Act.²

The district court dismissed all the claims brought by Trinko and accepted the defendant’s view that a breach of the interconnection agreement between Verizon and a competitive local exchange carrier

1. See generally Nicholas Economides, *The Telecommunications Act of 1996 and its Impact*, 11 JAPAN & WORLD ECON. 456-67 (1999) (providing an overview of the Telecommunications Act of 1996 and its provisions requiring the leasing of UNEs).

2. Verizon Commc’ns Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 404-05 (2004). Trinko originally sued NYNEX, which was later bought by Bell Atlantic. *Id.* at 402. A second Bell Atlantic merger created Verizon. *Id.*

(LEC) should be remedied through an administrative process.³ The district court also noted that antitrust litigation would disrupt the regulatory process of implementing the Telecommunications Act of 1996 (the 1996 Act).⁴ The Court of Appeals for the Second Circuit reversed, stating that it was “unlikely that allowing antitrust suits would substantially disrupt the regulatory proceedings mandated by the Telecommunications Act.”⁵ The Second Circuit observed:

While ideally, the regulatory process alone would be enough to bring competition to the local phone service markets, it is possible that the antitrust laws will be needed to supplement the regulatory scheme, especially with respect to injury caused to consumers.⁶

The decision of the Second Circuit to allow the antitrust claim to continue to trial implies that Verizon’s failure to lease parts of its local network to rivals according to the rules of the 1996 Act could result in liability for monopolization if all the facts were proven at trial. The Supreme Court, however, decided that *Trinko* failed to state a claim under section 2 of the Sherman Act and dismissed the complaint.⁷

The Supreme Court gave no weight to the key vertical issue in *Trinko*. Verizon had two monopolies in local telecommunications: a monopoly of the local telecommunications network infrastructure (NET), as well as a monopoly in retail services.⁸ These two monopolies were vertically related. That is, to provide local telecommunications services, a firm needed to combine the use of the local NET with retail

3. See *Law Offices of Curtis V. Trinko, L.L.P. v. Bell Atl. Corp.*, 305 F.3d 89, 93 (2d Cir. 2002) (citing *Law Offices of Curtis V. Trinko, LLP v. Bell Atl. Corp.*, 123 F. Supp. 2d 738, 741 (S.D.N.Y. 2000)).

4. See *id.*

5. *Id.* at 111.

6. *Id.* at 112.

7. *Verizon Commc'ns, Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 416 (2004). See section 2 of the Sherman Act, defining “monopolization” and “attempting to monopolize”:

Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony, and, on conviction thereof, shall be punished by fine not exceeding \$10,000,000 if a corporation, or, if any other person, \$350,000, or by imprisonment not exceeding three years, or by both said punishments, in the discretion of the court.

15 U.S.C. § 2 (2000) (amended 2004).

8. See generally Nicholas Economides et al., *Quantifying the Benefits of Entry into Local Phone Service* (NET Inst., Working Paper No. 05-08, 2006), available at http://www.stern.nyu.edu/networks/Local_Telecommunications.pdf (discussing the 1996 Act’s effect on incumbent monopolist Verizon and consumer welfare).

services.⁹ Moreover, retail services alone had no value unless combined with the use of the local NET.

The 1996 Act allowed entrants to lease any part of the incumbent's (Verizon's) local NET at "cost plus a reasonable profit."¹⁰ AT&T and a number of other companies leased parts of its local NET from Verizon, and became Verizon's competitors in providing retail services to customers like Trinko.¹¹ As we will see, Verizon leveraged its monopoly of the local NET by raising the costs or decreasing the quality of services of rival local telecommunications services providers so that such rivals were disadvantaged.¹² Verizon's incentive to raise the costs of its retail rivals was to preserve its monopoly in the retail part of local telecommunications services.

By raising the costs of retail rivals, Verizon lowered the number of leases of unbundled network elements bought by retail rivals, thus incurring a revenue sacrifice because Verizon's lease prices were guaranteed by regulation to be above cost.¹³ The fact that Verizon incurred a short-term revenue sacrifice as a direct effect of its actions (in raising the costs or decreasing the quality of services of rival local telecommunications retailers) is an indication that the actions must have benefited Verizon in the long run by foreclosing competition. Thus, it may be inferred that Verizon's actions, resulting in the sacrifice of short-term profits, were anti-competitive.

The fundamental problem occurs when a multi-product monopolist has an obligation to sell to companies a product or service that the buyer may combine with products of their own to sell as substitutes to other products that the monopolist sells. Thus, the crucial issue is about compelling a monopolist to sell outputs that are used as inputs by rivals of the monopolist in other markets.

A number of observations are in order. First, such a situation is not uncommon; multi-product monopolists are prevalent in many industries.¹⁴ Buyers are often companies that combine the

9. See Nicholas Economides, *The Economics of Networks*, 14 INT'L J. OF INDUS. ORG. 673, 675 (1996).

10. See Nicholas Economides et al., *supra* note 8, at 1.

11. See *Trinko*, 540 U.S. at 402.

12. See *infra* Part II.

13. See *infra* Part II.

14. Telecommunications companies typically produce a large number of products, such as local phone calls, long-distance phone calls, international phone calls, call waiting, call forwarding, and many other services. Many of these services are complementary to each other, such as local access and long-distance. Multiproduct firms are also common in other industries. In computer software, Microsoft is a dominant firm in operating systems for personal computers and also provides a variety of complementary goods, such as software applications and computer languages that help programmers produce software.

monopolist's outputs and sell related products. Second, in the absence of price discrimination, bundling considerations, or competition with the monopolist in some other market, the monopolist would prefer to sell at a monopoly price than not sell at all. Third, under the same conditions, the monopolist prefers to sell at a price that exceeds unit cost rather than not sell at all.¹⁵ It follows that a monopolist that refuses to sell, and therefore, sacrifices short-term profits, must be guided by a long-run benefit that it would receive if, through its actions, competitors are foreclosed or otherwise disadvantaged. These actions would be anti-competitive. Additionally, strategies by the multi-product monopolist that raise rivals' costs can have the same effect on competition as a refusal to deal in the required input. A regulated multi-product monopolist may have a greater incentive to resort to raising rivals' costs strategies when regulation prevents it from setting monopoly prices.

Part I of this article puts the *Trinko* case in the context of the continuing deregulation in the telecommunications sector. I discuss the breakup of AT&T in 1981 and the wisdom of the imposition of line-of-business restrictions on the local monopolists coming out of the old AT&T so that they would not foreclose long-distance competitors. Additionally, I discuss the major provisions of the 1996 Act and how they apply to *Trinko*. Part II discusses the Supreme Court's decision in *Trinko* and various problems that arise after close examination of the decision. Part III discusses the profit "sacrifice principle" and its application in *Trinko*. Part IV has concluding remarks.

I. THE *TRINKO* CASE IN THE CONTEXT OF TELECOMMUNICATIONS DEREGULATION

The *Trinko* case is best understood in the context of the evolution of telecommunications markets in the United States. After

See Richard A. D'Aveni, *Business Insight (A Special Report)—Leaders of the Pack: A Look at Strategies for Securing Market Domination—and Keeping It*, WALL ST. J., Mar. 3, 2007, at R9. Google, a dominant firm in computer search, also provides word-processing and spreadsheet software, among others. See Vauhini Vara & Kevin J. Delaney, *Google, Salesforce.com Weigh Alliance to Battle Microsoft*, WALL ST. J., May 21, 2007, at B4. Apple, a dominant firm in online music sales, is also a monopolist in the portable player (iPod) where the music it sells can be played. See Siobhan Hughes, *Apple Gets Vote of Confidence for iTunes from Antitrust Chief*, WALL ST. J., Sep. 14, 2006, at B5.

15. A firm makes a positive profit when selling above its unit cost (average cost). Therefore, in the absence of considerations stated in the text, it is not profit-maximizing to refuse to sell at a price that is above average cost.

a multi-year suit by the U.S. Department of Justice,¹⁶ AT&T agreed to be broken into eight pieces: AT&T itself, which retained the long-distance lines, the Western Electric equipment division, and most of Bell Laboratories; and seven Regional Bell Operating Companies (RBOCs), each of which retained a monopoly in its region for local telecommunications services.¹⁷ The logic of the 1981 AT&T breakup was that, given the technology at that time, competition was economically feasible in long-distance telecommunications services but uneconomic in local telecommunications service.¹⁸ The local NET was considered to have been too expensive to replicate compared to the revenues that it could create, especially from residential and small business customers. Thus, under the assumption that local telecommunications was a natural monopoly, the Department of Justice allowed each RBOC to remain a monopolist in local telecommunications in its geographic region.¹⁹

The Modification of Final Judgment that finalized the AT&T breakup imposed line-of-business restrictions that prevented RBOCs from entering the long-distance market.²⁰ This was because of the key vertical concern that is also the crucial issue in the *Trinko* case. Long-distance calls require local access origination and local access termination.²¹ These two services were under the control of a legal monopolist RBOC in the period from 1981-1996. If an RBOC was allowed to provide long-distance service as well, it could implement a

16. See generally *United States v. Am. Tel. & Tel. Co.*, 642 F.2d 1285, 1288-90 (D.C. Cir. 1980) (detailing the background and procedural history of the Government's civil antitrust suit against AT&T).

17. The RBOCs were Ameritech, Bell Atlantic, Bell South, NYNEX, Pacific Telesis, Southwestern Bell, and U.S. West. Richard A. Epstein, *Takings, Commons, and Associations: Why the Telecommunications Act of 1996 Misfired*, 22 YALE J. ON REG. 315, 343 n.84 (2005).

18. Interviews with William F. Baxter, former Assistant Attorney Gen., Antitrust Div. of the U.S. Dep't of Justice at Stanford University, January 1989.

19. See *id.* (discussing the belief that, at the time of the breakup, local telecommunications companies were natural monopolies); see also Roger G. Noll & Bruce M. Owen, *The Anticompetitive Uses of Regulation: United States v. AT&T*, in *THE ANTITRUST REVOLUTION* 290, 313-15 (John E. Kwoka, Jr. & Lawrence J. White eds., 1989) (detailing the factors considered by the Government when deciding to create the seven regional companies).

20. See *United States v. Am. Tel. & Tel. Co.*, 552 F. Supp. 131, 188 (D.D.C. 1982) ("The proposed decree prohibits the divested Operating Companies from providing interexchange services. This restriction is clearly necessary to preserve free competition in the interexchange market."), *aff'd sub nom.* *Maryland v. United States*, 460 U.S. 1001 (1983). "Interexchange carriers" are also known as long-distance carriers. See *Verizon Tel. Cos. v. F.C.C.*, 269 F.3d 1098, 1101 (D.C. Cir. 2001).

21. See Nicholas Economides, *Telecommunications Regulation: An Introduction*, in *THE LIMITS OF MARKET ORGANIZATION* 56-57 (Richard R. Nelson ed., 2005).

“vertical price squeeze” against its pure long-distance rivals, to be discussed in detail below.²² In a vertical price squeeze, a firm, say *Firm 1*, produces two goods *A* and *B*. Good *B* requires *A* to be of value. *Firm 1* is a monopolist in *A*, but faces competition in good *B*. A vertical price squeeze occurs when, by manipulating the price of *A* and possibly the price of *B*, the monopolist (*Firm 1*) reduces the revenues of independent producers of *B*, so that they are driven out of business or marginalized.

As a result of the vertical price squeeze, the profits of a pure long-distance carrier can be diminished to the point that it is foreclosed from the market.²³ In other words, in 1981 it was understood that allowing RBOCs in long-distance would result in them leveraging their monopoly power from local markets into the long-distance market. This, in turn, would foreclose long-distance competitors and diminish competition in the long-distance services market.²⁴ To preserve and enhance competition in long-distance, the district court imposed restrictions that prevented RBOCs from providing long-distance service.²⁵

22. See *infra* Part I.A.

23. See Economides, *supra* note 21, at 57.

24. As the Modification of Final Judgment notes, in the presence of line of business restrictions there will be no incentive or ability for AT&T or the RBOCs to engage in the anticompetitive conduct alleged:

[T]he ability of AT&T to engage in anticompetitive conduct stems largely from its control of the local Operating Companies. Absent such control, AT&T will not have the ability to disadvantage competitors in the interexchange and equipment markets.

For example, with the divestiture of the Operating Companies AT&T will not be able to discriminate against intercity competitors, either by subsidizing its own intercity services with revenues from the monopoly local exchange services, or by obstructing its competitors' access to the local exchange network. The local Operating Companies will not be providing interexchange services, and they will therefore have no incentive to discriminate. Moreover, AT&T's competitors will be guaranteed access that is equal to that provided to AT&T, and intercity carriers therefore will no longer be presented with the problems that confronted them in that area.

Am. Tel. & Tel. Co., 552 F. Supp. at 165. The court further noted:

AT&T will no longer have the opportunity to provide discriminatory interconnection to competitors. The Operating Companies will own the local exchange facilities. Since these companies will not be providing interexchange services, they will lack AT&T's incentive to discriminate. Moreover, they will be required to provide all interexchange carriers with exchange access that is “equal in type, quality, and price to that provided to AT&T and its affiliates.”

Id. at 171-72.

25. See *id.* at 188.

A. Vertical Price Squeeze and Raising Rivals' Costs Leading to Foreclosure

To understand the usefulness of line-of-business restrictions in preventing anti-competitive behavior, consider a good that is comprised of two complementary parts: *AB* and *BC*. Assume that both parts are necessary for the good to have value. Further, assume that *AB* is monopolized while *BC* is competitive. This example replicates the 1981 AT&T breakup, if *AB* represents local originating access for a phone call and *BC* represents long-distance transmission.²⁶ Two industry structures will be compared. In the first industry structure—with line of business restrictions—the monopolist of *AB* is not allowed to participate in the *BC* market. In the second industry structure—without line-of-business restrictions—the monopolist of *AB* is allowed to enter the *BC* market.

When there are line of business restrictions, *AB*, representing originating access (*O.ACCESS*), is provided by the local monopolist, and *BC*, representing the long-distance transmission (*LD.TRANSMISSION*), is provided by the competitive long-distance sector. The price (P_{ABC}) of the good *ABC*, the long-distance call, is the sum of the price of originating access and long-distance transmission:

$$P_{ABC} = P_{O.ACCESS} + P_{LD.TRANSMISSION}.$$

When there are no line-of-business restrictions on the local monopolist of *AB*, it will also provide *BC* in competition with other long-distance companies providing *BC*. Now, the local monopolist can control both the price of the composite good *ABC*, as well as the price of *AB*—originating access—when sold to its *BC* rival. As such, a pure long-distance company that produces only *BC* would receive as revenue for its long-distance transmission:

$$P_{ABC} - P_{O.ACCESS}.$$

Thus, the *AB* monopolist can “squeeze” the revenue of a pure long-distance carrier to a very small amount.

Setting any price for originating access above its cost would disadvantage the long-distance rival.²⁷ Since the local monopolist

26. A full analysis would require an additional service *CD*, also monopolized, which in the telecommunications context would be termination access. Because *AB* and *CD* play the same role, it is sufficient to analyze the model disregarding *CD*.

27. Access fees have been typically set at very high prices compared to cost with the regulatory objective of subsidizing basic service. See Economides, *supra* note 1, at 457; see

charges itself its own cost for originating access, even a small deviation of the price of originating access above its cost will result in foreclosure of an equally efficient long-distance rival when the final products are homogeneous. This is called a “vertical price squeeze.” The wisdom of the line-of-business restrictions is that they avoid this result.

The previous example depended on the assumption that the *AB* monopolist could set $P_{O.ACCESS}$ above cost. Perfect regulation would set this price at cost. Even then, in the absence of line of business restrictions, the local monopolist can foreclose pure long-distance rivals if it can implement raising rivals’ costs (RRC) strategies, such as delays and quality decreases, against its rivals. To show this, suppose that the local monopolist (*LOCAL MONOPOLIST*) can implement RRC strategies that increase the effective cost (C) of access by its rivals above the costs for such services.

$$LOCAL.MONOPOLIST.P.RRC.C.O.ACCESS > LOCAL.MONOPOLIST.C.O.ACCESS.$$

The price when an opponent raises rivals’ costs ($P.RRC$) represents the effective price of the monopolized input to a downstream rival when the upstream monopolist uses a strategy that raises the costs of rivals or reduces their quality. $LOCAL.MONOPOLIST.P.RRC.C.O.ACCESS$ is the effective cost of access origination faced by long-distance service rivals as a result of the local monopolist’s RRC actions.

Assume that a long-distance company, like AT&T, has the same cost of long-distance transmission as the local monopolist because the two are equally efficient:

$$AT\&T.P.LD.TRANSMISSION = LOCAL.MONOPOLIST.P.LD.TRANSMISSION.$$

Faced with higher effective cost for access origination, equally efficient long-distance rivals will have to charge a higher price ($AT\&T.P_{ABC}$) for the final service than the local monopolist’s price ($LOCAL.MONOPOLIST.P_{ABC}$) and will therefore be foreclosed from the long-distance market:

also United States v. W. Elec. Co., 846 F.2d 1422, 1425 (D.C. Cir. 1988) (noting that since divestiture, the FCC has used high access charges to “compel[] interexchange service users to pay more than the cost . . . and thus to subsidize local telephone service users”).

$$\begin{aligned}
 AT\&T P_{ABC} &= LOCAL.MONOPOLIST P.RRCo.ACCESS + AT\&T P_{LD.TRANSMISSION} = \\
 &LOCAL.MONOPOLIST P.RRCo.ACCESS + LOCAL.MONOPOLIST P_{LD.TRANSMISSION} \\
 &> \\
 &LOCAL.MONOPOLIST Co.ACCESS + LOCAL.MONOPOLIST P_{LD.TRANSMISSION} = \\
 &LOCAL.MONOPOLIST P_{ABC}.
 \end{aligned}$$

Therefore, when the local monopolist implements RRC strategies, AT&T is forced to sell its long-distance service above the price at which the vertically integrated local monopolist sells it:

$$AT\&T P_{ABC} > LOCAL.MONOPOLIST P_{ABC}.$$

Thus, in the absence of line-of-business restrictions, even under perfect price regulation, a local monopolist can implement RRC strategies that disadvantage, and even foreclose, downstream rivals.

In summary, understanding that a vertical price squeeze and RRC strategies can diminish competition in long-distance, the government in 1981 required that RBOCs not be allowed to offer long-distance service. Without line-of-business restrictions, a monopolist that sells an input required by his downstream competitors can diminish competition in a downstream market by using price discrimination and RRC strategies. This applies directly to Verizon's alleged behavior in *Trinko*.

B. The Telecommunications Act of 1996 and its Implementation

The Telecommunications Act of 1996 was a brave attempt to introduce competition in all telecommunications markets.²⁸ Congress understood that it was uneconomic for firms to enter into local telecommunications by replicating the local network infrastructure of the incumbents.²⁹ Thus, the 1996 Act set up two additional

28. See *Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 402 (2004); Economides, *supra* note 21, at 60.

29. See *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, 11 F.C.C.R. 15,499, 15,508-09 (1996) [hereinafter *Local Competition Order*], *vacated in part sub nom. California v. F.C.C.*, 124 F.3d 934 (8th Cir. 1997), *rev'd in part sub nom. AT & T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366 (1999), and *aff'd in part, rev'd in part sub nom. Verizon Commc'ns Inc. v. F.C.C.*, 535 U.S. 467 (2002). The FCC pointed out:

Because an incumbent LEC currently serves virtually all subscribers in its local serving area, an incumbent LEC has little economic incentive to assist new entrants in their efforts to secure a greater share of that market. An incumbent LEC also has the ability to act on its incentive to discourage entry and robust competition by not interconnecting its network with the new entrant's network or by insisting on supracompetitive prices or other unreasonable conditions for

possibilities for entrants (besides entering with their own facilities): (i) to enter by leasing parts of the incumbents' local NET, known as unbundled network elements (UNEs)³⁰ and (ii) to enter by buying in wholesale the incumbents' services and reselling them.³¹ The most important avenue to entry was leasing all the UNEs (known collectively as UNE-platform, or UNE-P), combining the UNE-P with the entrant's retail services (such as marketing and billing), and then selling local service to final consumers.³² To facilitate entry, the 1996 Act set the price for UNEs at "cost plus a reasonable profit."³³ The 1996 Act further mandated that unbundled network elements be sold at "rates, terms, and conditions that are just, reasonable, and nondiscriminatory."³⁴ In an additional effort to facilitate entry, the 1996 Act also imposed the requirement on an incumbent to allow for physical collocation of equipment at its premises,³⁵ and on all companies the duty to provide number portability so that consumers could keep their phone numbers if they changed local service providers.³⁶

The Federal Communications Commission (FCC) adopted the long-run, forward-looking economic cost as the measure of appropriate costs, or Total Element Long Run Incremental Costs (TELRIC).³⁷ TELRIC is the sum of the costs for all economically efficient inputs required to supply to the UNEs,³⁸ and has the following features: (1) it

terminating calls from the entrant's customers to the incumbent LEC's subscribers.

Congress addressed these problems in the 1996 Act by mandating that the most significant economic impediments to efficient entry into the monopolized local market must be removed. The incumbent LECs have economies of density, connectivity, and scale; traditionally, these have been viewed as creating a natural monopoly. As we pointed out in our NPRM, the local competition provisions of the Act require that these economies be shared with entrants.

Id.

30. See 47 U.S.C. §§ 251(c)(3), 251(c)(6) (2000); Local Competition Order, *supra* note 29, at 16,209-13 (defining key UNEs such as "local loop," "local switching," and "interoffice transmission facilities"); see also *id.* at 15,509 ("The Act contemplates three paths of entry into the local market—the construction of new networks, the use of unbundled elements of the incumbent's network, and resale.").

31. See 47 U.S.C. § 251(c)(4)(A); Local Competition Order, *supra* note 29, at 15,516-17.

32. See 47 U.S.C. § 251(c)(6).

33. *Id.* § 252(d)(1).

34. *Id.* § 251(c)(3).

35. Local Competition Order, *supra* note 29, at 15,515; see 47 U.S.C. § 251(c)(6).

36. Local Competition Order, *supra* note 29, at 15,511 n.11; see 47 U.S.C. § 251(b)(2).

37. Local Competition Order, *supra* note 29, at 15,844; see also *id.* at 15,844-56 (describing the TELRIC methodology).

38. *Id.* at 16,218.

is a forward-looking economic cost; (2) it is the least cost to provide the service; (3) it is a long-run cost; (4) it is an incremental cost; (5) it includes a competitive return on capital; (6) it excludes monopoly rents; (7) it excludes cross subsidies of any kind; and (8) it reflects cost differences among geographic regions.³⁹

Prices based on TELRIC plus a reasonable profit, as mandated by the 1996 Act, for leasing of UNEs, are clearly above the present cost of the local NET.⁴⁰ The present cost of the local NET reflects the cost of present-day resources that would be necessary to construct such a network.⁴¹ Thus, from an economic point of view, it is the appropriate cost measure and it was correctly adopted by the FCC.⁴²

The incumbent LECs had argued that the appropriate cost measure would be the historic or "embedded" cost of the network; that is, the historic cost of the network whenever it was constructed.⁴³ However, the historic construction cost of the network does not generally correspond to the cost of present-day resources to construct such a network.⁴⁴ There could be many reasons for this, and I will highlight two that show how inappropriate it would be to use historic costs as the standard, especially in the case of local telecommunications.

First, technological change implies very significant cost reductions in the provision of telecommunications services.⁴⁵ For example, a key function in telecommunications is "switching" and "routing" calls.⁴⁶ Since the 1950s, this has been done by computers, where technological progress has been tremendous. To say that the appropriate cost today of a present-day personal computer is billions of dollars because producing a computer with the corresponding computing power would cost that much in 1960 is totally absurd. The

39. See *id.* at 16,218-19.

40. See *id.* at 15,813.

41. See *id.* at 16,218.

42. The FCC did not calculate the cost of the most efficient current network. Instead, it allowed for the locations of switches and central offices of the incumbents to be fixed and calculated the cost of creating a present-day network given these locations. Since these locations could also be optimized in the most efficient network, the cost of the network as calculated by the FCC was in fact higher than that of the most efficient network. Because it kept the old locations of switches and central offices fixed, the network design approved by the FCC has been called a "scorched node" network design. See *id.*

43. See *id.* at 15,835-36.

44. See *id.* at 15,821.

45. See Economides, *supra* note 21, at 48.

46. A call originating from a customer *A* intended for customer *B* is typically routed to a switching center at the offices of a local telephone company where a "switch" (these days a large computer) directs it to its destination *B*.

incumbents' proposal of using historic costs in the face of fast technological change is equally absurd.

Second, telecommunications companies were regulated for a significant period according to "rate of return regulation."⁴⁷ Under such regulation, a company was guaranteed to recover its network infrastructure investments.⁴⁸ The rate of return was set by the regulator, and the company adjusted its capital base and prices so that its profits would not exceed the capital base times the rate of return.⁴⁹ An expansion of the capital base by even one dollar increased the allowed profits. Since this regulation guarantees recovery of investment and allows for expansion of profits when the capital base is increased, it is clear that regulated telecommunications companies had incentives to keep their capital bases high. Thus, the incumbent LECs have historically kept their capital bases high. The key element of their capital base is the local network infrastructure.⁵⁰ Therefore, even if historical costs were the appropriate measure of costs (which they are not), the historical costs of the incumbents would have to be adjusted significantly downward because of the distortions caused by the rate of return regulation.⁵¹

The 1996 Act also allowed entry of RBOCs in the long-distance market, once they fulfilled various requirements related to opening their local markets to competition.⁵² From the point of view of an RBOC, long-distance entry was supposed to be the reward for allowing competition in the local exchange and losing its local exchange monopoly.⁵³ The 1996 Act was based on the assumption that the individual private incentives of the RBOCs would be sufficient to lead them to open local markets to competition. However, the 1996 Act did not impose penalties for delays in implementation or non-compliance. The lack of penalties has proved to be a very serious deficiency of the

47. See Harvey Averch & Leland L. Johnson, *Behavior of the Firm Under Regulatory Constraint*, 52 AM. ECON. REV. 1052, 1053-69 (1962); see also Noll & Owen, *supra* note 19, at 299-301 (outlining the steps regulators take to establish rates of return).

47. See Harvey Averch & Leland L. Johnson, *Behavior of the Firm Under Regulatory Constraint*, 52 AM. ECON. REV. 1052, 1053-69 (1962); see also Noll & Owen, *supra* note 19, at 299-301 (outlining the steps regulators take to establish rates of return).

48. See *id.*

49. See *id.*

50. AT&T long-distance repeatedly adjusted its book value downward after competition developed in the long-distance market to eliminate the distortion caused by the rate of return regulation to the book value it inherited. The RBOCs and General Telephone and Electronics (GTE) have not adequately done so.

51. Moreover, it is likely that incumbent LECs have already recovered the original cost of the vast majority of the physical plant that was in place by 1996.

52. See *Verizon Commc'ns, Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 412 (2004); see also 47 U.S.C. § 271 (2000) (detailing the necessary prerequisites for entry into the long-distance market).

53. See *Trinko*, 540 U.S. at 412. ("To be allowed to enter the long-distance market in the first place, an incumbent LEC must be on good behavior in its local market.").

1996 Act.⁵⁴ Congress thought that the "carrot" of entry in long-distance would be a sufficient reward for RBOCs to open their local network. Recent history has shown, however, that Congress erred in this assumption. The RBOCs' behavior showed that they preferred not to open their local network and would rather pay the price of staying out of long-distance for a while.

Implementation of the 1996 Act was very slow because of a variety of legal challenges and long delays in the creation of electronic and other systems that would allow large numbers of accounts to be moved across local telecommunications carriers in a way similar to the practice in long-distance.⁵⁵ There were also significant allegations of various acts by incumbent monopolists to either raise the costs of their rivals or lower the quality of services.⁵⁶ These acts included disconnection of service for a few days for customers who were switching telecommunications companies.⁵⁷

Besides litigation resulting from the implementation of the 1996 Act, the FCC rules were challenged by the RBOCs and GTE. The Supreme Court invalidated a portion of the FCC's first set of rules in *AT&T Corp. v. Iowa Utilities Board*.⁵⁸ The Court of Appeals for the D.C. Circuit invalidated much of the second set of FCC rules in *United States Telecom Ass'n v. Federal Communications Commission*.⁵⁹ The

54. See Economides, *supra* note 21, at 60 (arguing that Congress's "carrot" of entry into long-distance was insufficient to induce the RBOCs to "open their local networks").

55. See *id.* at 66.

56. See, e.g., Re Commissions Own Motion into Monitoring Performance of Operations Support Systems, No. 01-05-087, 2001 WL 1033406, at *1-2 (Cal. P.U.C. May 24, 2001) (detailing a Joint Partial Settlement Agreement adopted to establish reasonable standards and mechanisms to ensure compliance with the Telecommunications Act of 1996); *MCI Telecomms. Corp. v. Pac. Bell*, No. 96-02-014, 1997 WL 868373, at § 2 (Cal. P.U.C. Sept. 24, 1997) (dismissing a complaint alleging that Pacific Bell refused to disclose information necessary to change customers' local exchange service from Pacific Bell to MCI). Additionally, the *Trinko* case itself was based on facts emerging from an earlier New York Public Service Commission investigation of violations by Verizon's predecessor NYNEX of its interconnection agreement with AT&T. See *Trinko*, 540 U.S. at 402-03. NYNEX paid \$10 million to AT&T and other competitors for losses arising from violations of its interconnection agreement. *Id.* at 404.

57. See *MCI Telecomms. Corp.*, 1997 WL 868373, at § 7.2.2.

58. 525 U.S. 366, 397 (1999). The Court invalidated FCC Rule 319, which was the "primary unbundling rule [setting] forth a minimum number of network elements that incumbents must make available to requesting carriers." *Id.* at 376.

59. 290 F.3d 415, 430 (D.C. Cir. 2002) (rejecting the FCC's "Line Sharing Order" and "Local Competition Order" in light of the "Commission's naked disregard of the competitive context").

FCC consolidated the remand with its second triennial review of the rules implementing the 1996 Act.⁶⁰

Subsequent litigation focused on the issue of “impairment,” as described in § 251(d)(2)(B) of the 1996 Act.⁶¹ Section 251(d)(2) reads:

(2) In determining what network elements should be made available for purposes of subsection (c)(3) of this section, the Commission shall consider, at a minimum, whether—

(A) access to such network elements as are proprietary in nature is necessary; and

(B) the failure to provide access to such network elements would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer.

After losing its first appeal, the FCC defined impairment as follows: an entrant competitive LEC would “be impaired when lack of access to an incumbent [LEC] network element poses a barrier or barriers to entry, including operational and economic barriers, that are likely to make entry into a market uneconomic.”⁶² In the appeal of the second triennial review of the FCC, referred to generally as the *USTA II* decision, the D.C. Circuit struck down the FCC’s findings that entrants would be impaired nationwide with respect to mass market switching.⁶³ As a result of this decision and the FCC’s subsequent order on remand,⁶⁴ RBOCs do not have to set up new leases of the “local switching” unbundled network element at prices that reflect cost plus a reasonable profit.

As an immediate consequence of *USTA II*, AT&T, the largest long-distance carrier, stopped marketing both local and long-distance service to residential customers.⁶⁵ MCI, the second-largest long-distance carrier, acted similarly without a formal announcement.⁶⁶

60. See *In the Matter of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, 18 F.C.C.R. 16,978 (2003) [hereinafter *Triennial Review Order*].

60. See *In the Matter of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, 18 F.C.C.R. 16,978 (2003) [hereinafter *Triennial Review Order*] (noting the Commission’s decision that, “in light of the rapid changes in technology and competition, it would reexamine the national list of UNEs in three years, thereby establishing the Triennial Review process reflected in this Order”), *errata* 18 F.C.C.R. 19,020 (2003), *vacated in part, dismissed in part sub nom.* *U.S. Telecom Ass’n v. F.C.C.* 359 F.3d 554 (D.C. Cir. 2004).

61. 47 U.S.C. § 251(d)(2) (2000).

62. *Triennial Review Order*, *supra* note 60, at 17,035.

63. See *U.S. Telecom Ass’n v. FCC*, 359 F.3d 554, 594 (D.C. Cir. 2004).

64. See *In the Matter of Unbundled Access to Network Elements*, 20 F.C.C.R. 2533, 2641 (2005) (modifying the FCC’s regulatory approach so as to eliminate § 251’s “unbundling requirement[s] for mass market local circuit switching nationwide”).

65. See Ken Belson, *The Diminishing Bell: The Overview; AT&T Won’t Seek New Residential Customers*, N.Y. TIMES, July 23, 2004, at A1.

66. See Catherine Yang et al., *Will Unleashing the Baby Bells Serve to Heighten Competition—or Stifle It?*, BUS. WK., June 28, 2004, at 98.

Since then, SBC, the largest local telecommunications services company, has acquired AT&T, and Verizon, the second-largest local telecommunications services company, has acquired MCI.⁶⁷ These mergers represent a significant reduction in the number and capabilities of independent long-distance competitors, which may even result in price increases in long-distance service.

On balance, the 1996 Act failed in its main objectives. It failed to create competition in local telecommunications. It also failed to guard against the RBOCs leveraging their monopoly power in the long-distance market. As a result of the 1996 Act's failure to prevent RBOCs from leveraging their monopoly power in the long-distance market, the largest pure long-distance companies were practically driven out of the residential long-distance market, followed by acquisitions of AT&T and MCI by the upstream monopolists.

II. THE SUPREME COURT DECISION IN *TRINKO*

The Supreme Court's *Trinko* decision had four parts. Part I described the complaint and procedural history of the case.⁶⁸ Part II considered "what effect (if any) the 1996 Act has upon the application of traditional antitrust principles,"⁶⁹ and concluded that "the 1996 Act preserves claims that satisfy existing antitrust standards [but] does not create new claims that go beyond existing antitrust standards."⁷⁰ Part III held that "Verizon's alleged insufficient assistance in the provision of service to rivals is not a recognized antitrust claim under [the Supreme] Court's existing refusal-to-deal precedents."⁷¹ Part IV considered whether to extend the Court's existing refusal-to-deal precedents to recognize a claim under section 2 of the Sherman Act for failure to comply with the requirements of the 1996 Act. The Court concluded that such an extension was unwarranted given the existing regulatory structure designed to enforce the requirements of the 1996 Act.⁷²

The Supreme Court majority held and reasoned first, that the 1996 Act did not create a different environment than the customary

67. See Matt Richtel & Andrew Ross Sorkin, *Verizon Agrees to Acquire MCI for \$6.6 Billion, Beating Qwest*, N.Y. TIMES, Feb. 14, 2005, at A1; Shawn Young, *SBC Completes AT&T Purchase, Takes New Name*, WALL ST. J., Nov. 19, 2005, at A8.

68. See *Verizon Commc'ns, Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 402-405 (2004).

69. *Id.* at 405.

70. *Id.* at 407.

71. *Id.* at 410.

72. See *id.* at 411-12.

one in the application of antitrust law, in part because the 1996 Act had an antitrust “saving clause.”⁷³ Second, the Court held that antitrust law only rarely requires cooperation of a monopolist with rivals because it can lead to collusion,⁷⁴ it may retard innovation,⁷⁵ and it may reduce investment.⁷⁶ Third, the Court noted a difference that it considered important in comparing *Trinko* with *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*,⁷⁷ an important earlier Supreme Court decision on refusal to deal.

The Supreme Court compared *Trinko* with *Aspen Skiing*.⁷⁸ The facts in *Aspen Skiing* were as follows: Aspen Skiing Co. controlled three out of four ski slopes in Aspen, Colorado, with the fourth slope controlled by Aspen Highlands.⁷⁹ For many years, Aspen Skiing and Aspen Highlands offered a joint ticket so that a buyer would be able to ski on all four slopes with revenue shared according to use.⁸⁰ Aspen Skiing discontinued the joint ticket in 1978–79 and refused to sell its tickets to Aspen Highlands, even at full retail price, to prevent Aspen Highlands from bundling them with its own tickets and recreating the joint ticket that had formerly been available.⁸¹ The Supreme Court ruled that Aspen Skiing’s refusal to deal was anti-competitive.⁸²

In contrast with *Aspen Skiing*, the monopolist in *Trinko* did not sell or lease the product at issue and then stop selling it or begin

73. See *id.* at 405-07.

74. *Id.* at 408 (“Moreover, compelling negotiation between competitors may facilitate the supreme evil of antitrust: collusion.”).

75. *Id.* at 407. (“To safeguard the incentive to innovate, the possession of monopoly power will not be found unlawful unless it is accompanied by an element of anticompetitive conduct.”).

76. *Id.* at 414 (“Judicial oversight under the Sherman Act would seem destined to distort investment and lead to a new layer of interminable litigation, atop the variety of litigation routes already available to and actively pursued by competitive LECs.”).

77. See generally 472 U.S. 585, 600 (1985) (finding significant exclusionary conduct such as to create an exception to the general “no duty to engage in joint marketing with a

77. See generally 472 U.S. 585, 600 (1985) (finding significant exclusionary conduct such as to create an exception to the general “no duty to engage in joint marketing with a competitor” rule).

78. See *Trinko*, 540 U.S. at 408-10.

79. See *Aspen Skiing*, 472 U.S. at 587-89.

80. See *id.* at 590-91.

81. *Id.* at 592-93.

82. See *id.* at 610. The Court reasoned:

The refusal to accept the Adventure Pack coupons in exchange for daily tickets was apparently motivated entirely by a decision to avoid providing any benefit to Highlands even though accepting the coupons would have entailed no cost to [Aspen Skiing Co.] itself, would have provided it with immediate benefits, and would have satisfied its potential customers. Thus the evidence supports an inference that [Aspen Skiing Co.] was not motivated by efficiency concerns and that it was willing to sacrifice short-run benefits and consumer goodwill in exchange for a perceived long-run impact on its smaller rival.

Id. at 610-11.

discriminating against rivals. Instead, the market for leased parts of the local NET in *Trinko* was created by regulatory fiat. The Court noted that “*Aspen Skiing* is at or near the outer boundary of [section] 2 liability.”⁸³ Finally, the *Trinko* Court declined to apply the “essential facilities” doctrine to the facts in *Trinko*, remarking that there was “no need either to recognize [the doctrine] or to repudiate it.”⁸⁴ Finally, the Court stated that it did not want to get involved in detailed regulatory matters.⁸⁵

There are a number of aspects of the Supreme Court’s decision that are problematic from an economist’s point of view. To start with, the Court was concerned that negotiations between the contracting parties (Verizon and AT&T) would result in collusion.⁸⁶ This should be a general concern, but has no application in this case because, here, the contracting parties were in purely adversarial positions. Verizon was in possession of a local NET while AT&T had no local network. This is the antithesis of the situation faced by sellers of substitutes where the possibility of collusion exists. Instead, the relationship was between a buyer and a seller. The FCC noted:

Congress recognized that, because of the incumbent LEC’s incentives and superior bargaining power, its negotiations with new entrants over the terms of such agreements would be quite different from typical commercial negotiations. As distinct from bilateral commercial negotiation, the new entrant comes to the table with little or nothing the incumbent LEC needs or wants.⁸⁷

Negotiations and contracts between parties in these circumstances do not typically raise antitrust concerns. Additionally, the parties had an obligation to negotiate imposed by the 1996 Act, so the Court’s concern seems misguided.⁸⁸

The *Trinko* Court was also concerned that diminished investment in telecommunications infrastructure would result from the leasing requirement imposed by the 1996 Act.⁸⁹ In principle, there should be no such concern from an antitrust point of view. Often,

83. *Trinko*, 540 U.S. at 409.

84. *Id.* at 411.

85. *See id.* at 412-15 (finding that the high costs of judicial oversight outweighed the “slight benefits of antitrust intervention”).

86. *See id.* at 408 (further noting that “compelling negotiation between competitors may facilitate the supreme evil of antitrust: collusion”).

87. Local Competition Order, *supra* note 29, at 15,510.

88. *See* 47 U.S.C. § 251(c)(1) (2000).

89. *See Trinko*, 540 U.S. at 407-08 (“Firms may acquire monopoly power by establishing an infrastructure that renders them uniquely suited to serve their customers. Compelling such firms to share the source of their advantage is in some tension with the underlying purpose of antitrust law, since it may lessen the incentive for the monopolist, the rival, or both to invest in those economically beneficial facilities.”).

reduced investment can result in higher welfare.⁹⁰ Market processes often help reduce redundant investment to the benefit of society. Moreover, the 1996 Act was written with a clear understanding that replication of the local NET was not only inefficient, but prohibitively uneconomic. Thus, Congress created in the 1996 Act a regulatory framework that allowed entry and increased competition without any necessary increase in investment in local telecommunications infrastructure. In imposing this framework on incumbent LECs leasing at cost plus a reasonable profit, Congress decided against the replication of the local NET because it would have been inefficient. Thus, Congress explicitly chose regulatory rules that would tend to reduce investment in replicating the existing network infrastructure.⁹¹

The Supreme Court noted that the markets for leasing parts of the local NET were created by the 1996 Act and did not previously exist voluntarily.⁹² The Court somehow believed that Verizon's refusal to deal and its related RRC practices were somehow justified because infrastructure leasing prices were based on cost plus a reasonable profit: "Verizon's reluctance to interconnect at the cost-based rate of compensation available under § 251(c)(3) tells us nothing about dreams of monopoly."⁹³ But, Verizon was a monopolist in the network infrastructure and network services markets.⁹⁴ Reluctance to sell leases at above average cost prices is a clear indication that the monopolist in the network infrastructure market is attempting, through this action, to prevent entry of others into the network services market—entry that requires access to the networks infrastructure market.

The fact that Verizon was obligated to lease local telecommunications infrastructure at cost plus a reasonable profit, and did not write such leases at any price earlier, does not imply that Verizon's refusal to deal and RRC strategies create antitrust liability. Markets are defined by demand for a service or a product. The fact that the market for leasing local telecommunications infrastructure Markets are defined by demand for a service or a product. The fact that the market for leasing local telecommunications infrastructure did not exist before the 1996 Act is due to a number of reasons, among

90. For example, society is better off because of resources saved when an investment in infrastructure is not replicated by many firms but undertaken by only one firm or a few firms, and other firms are able to rent or lease the infrastructure.

91. Of course, the enhancement of competition in local telecommunications can lead to increased investment in infrastructure complementary to local telecommunications.

92. See *Trinko*, 540 U.S. at 409 ("The complaint does not allege that Verizon voluntarily engaged in a course of dealing with its rivals, or would ever have done so absent statutory compulsion.").

93. *Id.*

94. See Nicholas Economides et al., *supra* note 8, at 3.

them the fact that competitors likely believed that they would not be profitable if they leased assets at the monopoly price. The fact that there was no demand at monopoly prices for such leases, however, does not imply that there was no demand at any price. The "Law of Demand" states that higher quantities are demanded at lower prices. There was significant demand at the "cost plus a reasonable profit" price imposed by regulation, as evidenced by the entry of AT&T, MCI, and many smaller companies in local telecommunications following the 1996 Act. These companies leased the local telecommunications infrastructure at the "cost plus a reasonable profit" price. It is also most likely that there would be significant demand at prices above the "cost plus a reasonable profit" price but not as high as the monopoly price.⁹⁵ Thus, the *possibility* of a market existed before the 1996 Act. Should we deem that Verizon was justified not to sell or to raise rivals costs simply because it was denied the monopoly price? There is no viable economic argument that a refusal to deal at above-cost prices should *per se* not raise serious antitrust concerns. The Court should have ruled that Verizon's refusal to sell at prices above average cost was anti-competitive.

In comparing *Trinko* to the *Aspen Skiing* decision, the Supreme Court stated: "*Aspen Skiing* is at or near the outer boundary of [section] 2 liability."⁹⁶ Taking that as given, one would expect *Trinko* to fall within this outer boundary set by *Aspen Skiing*. Because Verizon's price was set by regulation at cost plus a reasonable profit, it is reasonable to infer that Verizon's price-to-cost margin was lower than in the duopoly of *Aspen Skiing*. From the point of view of the firm committing the anti-competitive act, the incentive seems stronger for Verizon than for Aspen Skiing. All else being equal, Verizon should be more likely to refuse to sell than Aspen Skiing Co. Therefore, if the Supreme Court deems the refusal to deal by a duopolist in *Aspen Skiing* anti-competitive, it should find the refusal to deal by the monopolist in *Trinko* even more so.

Being forced by regulation to sell below the monopoly price, and unable to discriminate in price by regulatory restraints, the monopolist in *Trinko* had an incentive to raise the costs of its rivals. If regulation were not present, price discrimination and monopoly pricing would have likely made RRC strategies sub-optimal from the

95. UNE prices were determined by regulators in each state and differed from state to state. Often two states with very similar cost characteristics had different UNE lease prices, and there was significant demand by entrants in both states. It is very unlikely that any of these prices were below cost. Thus, there is evidence that there was significant demand not only at cost-based prices but also at higher ones.

96. *Trinko*, 540 U.S. at 409.

monopolist's point of view, and they would not have been used. In the regulatory environment of the 1996 Act, RRC is a natural response of a monopolist to the restraints of regulation.⁹⁷ RRC strategies reduce competition and social welfare associated with the existence of a free market.⁹⁸ In applying an *Aspen Skiing* standard, the *Trinko* Court erred in not considering the significant difference in incentives of the potentially liable party between the unregulated environment in *Aspen Skiing* and the regulated environment of *Trinko*.

The *Trinko* Court stated that it did not want to get involved in regulatory matters,⁹⁹ and that is understandable. However, the Court had already accepted that the savings clause of the 1996 Act allowed for antitrust law to be applied in parallel with telecommunications regulation. Therefore, nothing would prevent the Court from declaring, for example, that Verizon's degradation of service to AT&T was anti-competitive, accepting the antitrust implications and avoiding getting the courts involved in regulatory issues. There is a long tradition of court enforcement of the antitrust laws in telecommunications,¹⁰⁰ despite the fact that the sector has been regulated since the 1930s.

The Court missed the vertical leveraging issue in *Trinko*. That is, the application of the vertical price squeeze and RRC actions of a vertically-integrated monopolist that were addressed earlier in the context of competition in long-distance and the need for line of business restrictions. The same abstract framework applies. The only differences are the relevant markets and the names of the players.

Verizon provides two local telecommunications services: (i) NET services, which it provided to itself and to competitors in local telecommunications; and (ii) retail services. End-users consume a composite service comprised of NET services and retail services. Competitors to Verizon in retail local telecommunications buy only

97. See Nicholas Economides, *The Incentive for Non-Price Discrimination by an Input Monopolist*, 16 INT'L J. OF INDUS. ORG. 271, 273 (1998).

98. See generally Thomas G. Krattenmaker & Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power Over Price*, 96 YALE L.J. 209, 214 (1986) (outlining a "two-step analysis to estimate the likelihood of anticompetitive effects" when assessing claims of exclusions); Steven C. Salop & David T. Scheffman, *Raising Rivals' Cost*, 73 AM. ECON. REV. 267, 268 (1983) (providing diagrammatic and formal analyses of strategies to raise rivals' costs).

99. *Trinko*, 540 U.S. at 402-404.

100. See generally *United States v. Am. Tel. & Tel. Co.*, 552 F. Supp. 131, 224-25 (D.D.C. 1982) (approving an antitrust consent decree, with the modification that the decree "vest authority in the Court to enforce the provisions and principles of that judgment on its own").

NET services from Verizon adding their own retailing services for sale to end users.

When the 1996 Act was initially implemented, Verizon had a monopoly in both NET services and retail services. The conduct of Verizon in *Trinko* can be seen as the result of Verizon leveraging its monopoly in NET services to preserve its monopoly in retail services. This was recognized by the Second Circuit, which noted that *Trinko* “may have a monopoly leveraging claim,” based on the fact that “the defendant ‘(1) possessed monopoly power in one market; (2) used that power to gain a competitive advantage . . . in another distinct market; and (3) caused injury by such anticompetitive conduct.’”¹⁰¹ However, the Supreme Court dismissed the vertical issue using a fallacious, circular argument in footnote four of its decision, stating that, “[i]n any event, leveraging presupposes anticompetitive conduct, which in this case could only be the refusal-to-deal claim we have rejected.”¹⁰² Here, the key anti-competitive conduct was the leveraging from NET services to retailing services, and the Court missed that.

Using the earlier terminology, *AB* is the monopolized good/service (NET services), and *BC* is the downstream good/service where there is competition after the 1996 Act (retail services, or *RETAIL*). Only service *ABC* (local telecommunications services, or *LOCAL*) is demanded by final consumers. All retail service firms, including Verizon, require the use of NET services to produce local telecommunications services. Profit maximization at the corporate level at Verizon implies that NET services are sold within the company at cost (*VERIZONCNET*). Thus, Verizon’s price (*VERIZONPLOCAL*) for local telecommunications services to end users is:

$$VERIZONPLOCAL = VERIZONCNET + VERIZONPRETAIL.$$

When Verizon sells NET services or leases its network to rivals in the retailing services market at an above-cost price, *i.e.*,

$$VERIZONPNET > VERIZONCNET,$$

then an equally efficient competitor in retailing, say AT&T, would be

101. Law Offices of Curtis V. Trinko, L.L.P. v. Bell Atl. Corp., 305 F.3d 89, 108 (2d Cir. 2002) (alteration in original) (quoting Virgin Atl. Airways Ltd. v. British Airways PLC, 257 F.3d 256, 272 (2d Cir. 2001)).

102. Verizon Commc’ns, Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 415 n.4 (2004).

forced out of business since it would have to charge a higher price than Verizon to final customers for local telecommunications service.

To see this, assume that AT&T and Verizon are equally efficient in providing retailing services and charge equal prices for their retail services, *i.e.*,

$$AT\&T P_{RETAIL} = VERIZON P_{RETAIL}.$$

Then, the price that AT&T charges for local telecommunications services will be higher than Verizon's:

$$\begin{aligned} AT\&T P_{LOCAL} &= VERIZON P_{NET} + AT\&T P_{RETAIL} = \\ &VERIZON P_{NET} + VERIZON P_{RETAIL} \\ &> \\ VERIZON C_{NET} + VERIZON P_{RETAIL} &= VERIZON P_{LOCAL}. \end{aligned}$$

Therefore, if AT&T leases UNEs or buys NET services from Verizon at a price above cost, AT&T would be forced to sell local telecommunications services above the price at which Verizon sells them:

$$AT\&T P_{LOCAL} > VERIZON P_{LOCAL}.$$

In this way, AT&T or any other rival in local telecommunications who has to lease UNEs from Verizon can be foreclosed, provided that Verizon can price UNEs above cost.

Alternatively, now assume that Verizon is forced by regulators to lease UNEs and sell NET services at cost. Verizon can use RRC strategies towards its competitors in retailing services, such as delays and quality decreases, so that it increases the effective cost of NET services to them to the level $VERIZON P.RRC_{NET}$,¹⁰³ which is above its cost for such services:
services to them to the level $VERIZON P.RRC_{NET}$,¹⁰³ which is above its cost for such services:

$$VERIZON P.RRC_{NET} > VERIZON C_{NET}.$$

Then, using the same argument as in the AT&T 1981 divestiture, equally efficient retailing competitors, faced with higher effective costs for NET services, will have to charge a higher price than Verizon's $VERIZON P_{LOCAL}$, and will therefore be foreclosed from retail services market.

103. $VERIZON P.RRC_{NET}$ is the effective cost of NET services faced by Verizon local service rivals as a result of Verizon's RRC actions.

That is, a rival that is equally efficient with Verizon in retailing,

$$AT\&T P_{RETAILING} = VERIZON P_{RETAILING},$$

will be forced to sell local telecommunications services at a higher price than Verizon:

$$\begin{aligned} AT\&T P_{LOCAL} &= VERIZON P_{RRCNET} + AT\&T P_{RETAIL} = \\ &VERIZON P_{RRCNET} + VERIZON P_{RETAIL} \\ &> \\ VERIZON C_{NET} + VERIZON P_{RETAIL} &= VERIZON P_{LOCAL}. \end{aligned}$$

It follows that, when Verizon implements RRC strategies, AT&T is forced to sell local telecommunications services to final consumers above the price at which Verizon sells them:

$$AT\&T P_{LOCAL} > VERIZON P_{LOCAL}.$$

In summary, Verizon can use RRC strategies to leverage its monopoly in NET services so that it forecloses its competitors in the local telecommunications services market. Moreover, Verizon has an incentive to do so, since this strategy allows it to maintain its profitable monopoly in local telecommunications services. Also, note that the RRC strategy can be used in addition to yield an increase in the price of NET services and that these two strategies are not in conflict with each other from Verizon's point of view.

III. THE PROFIT SACRIFICE PRINCIPLE AND ITS APPLICATION IN *TRINKO*

The Supreme Court in *Trinko* did not state a rule under which specific conduct will be found to be "willful monopolization." In its brief, the government proposed such a standard be based on the "sacrifice principle."¹⁰⁴ I define the sacrifice principle as follows: *a defendant is liable for anticompetitive behavior if its conduct "involves a sacrifice of short-term profits or goodwill that makes sense only insofar as it helps the defendant maintain or obtain monopoly power."*¹⁰⁵ This definition only partially coincides with the definition

104. Brief for the United States and the FTC as Amici Curiae Supporting Petitioner at 16, *Trinko*, 540 U.S. 398 (No. 02-682).

105. As the Government's brief notes, the sacrifice principle has been used by courts in various versions. *See id.* (citing *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 610-11 (1985) (finding sufficient evidence to infer that the defendant was "willing

of the same principle in the Government's brief in *Trinko*. Specifically, the Government's definition allows *all* behavior that does *not* involve sacrifice of short-term profits to be characterized as not "exclusionary" and not "predatory."¹⁰⁶ I disagree. *Conduct can be exclusionary even without a sacrifice of short-term profits*. However, when such a sacrifice is observed, it indicates directly that this conduct is anti-competitive.

I am not endorsing the sacrifice principle as a single criterion to be used in ascertaining anti-competitive behavior since there can be cases where there is no sacrifice of short-term profits. However, such conduct does not make sense except as a means to attain or retain monopoly power. It is clear that, if an action involving a sacrifice of short-term profits cannot be justified, except to the extent that it helps a company to create, protect, or enhance monopoly power, there is little doubt that such an action is anti-competitive.¹⁰⁷

The vertical leveraging in *Trinko* passes the "sacrifice test." The behavior of Verizon to raise the costs of rivals in local telecommunications services entailed a sacrifice of profits from potential leasing of UNEs. This sacrifice would not have occurred if Verizon were not trying to protect its monopoly in the retail market for local telecommunications services. Thus, in applying the sacrifice principle, Verizon's actions are anti-competitive.

If Verizon did not have a retail division, it would have no incentive to foreclose or disadvantage independent retail firms. Instead, if its strategy were not to preserve its monopoly position in

to sacrifice short-run benefits and consumer goodwill in exchange for a perceived long-run impact on its smaller rival"); *Stearns Airport Equip. Co. v. FMC Corp.*, 170 F.3d 518, 524 n.3 (5th Cir. 1999) (noting exclusionary conduct that "harmed the monopolist and could only be understood when one recognized that competitors suffered more severe harm"); *Advanced Health-Care Servs., Inc. v. Radford Cmty. Hosp.*, 910 F.2d 139, 148 (4th Cir. 1990) (defining predation as conduct that "has harmed consumers and competition by making a short-term sacrifice in order to further its exclusive, anti-competitive objectives"); *Gen. Indus. Corp. v. Hartz Mountain Corp.*, 810 F.2d 795, 803 (8th Cir. 1987) (noting that conduct is anticompetitive if its "anticipated benefits were dependent upon its tendency to discipline or eliminate competition and thereby enhance the firm's long term ability to reap the benefits of monopoly power").

106. See *id.* at 15 ("[C]onduct is not exclusionary or predatory unless it would make no economic sense for the defendant but for its tendency to eliminate or lessen competition.").

107. It should also be noted that changes in total welfare or total surplus realized from a market—the sum of profits of all firms in the market plus consumers' surplus, where consumers' surplus represents the difference between the total willingness to pay for a certain number of units by consumers and the amount they actually pay—do not generally coincide with changes in profits of a dominant firm. Thus, a change in profits by one firm, even a monopolist, does not, in general, correspond to a corresponding equal change in welfare, or even a change in welfare in the same direction as the profit change.

the retail market, Verizon would have had every incentive to sell its NET services to all at prices above cost, as mandated by the 1996 Act. Since Verizon sells its NET services to its retail division at cost, while the price for any NET services sold to third parties includes a reasonable profit, according to the 1996 Act's rules, RRC actions that disadvantage third-party retailing service firms and result in smaller sales of NET services to these firms clearly impose a sacrifice of profits for Verizon. Therefore, the sacrifice principle can be applied in the *Trinko* case, in the same way that the Supreme Court articulated it in *Aspen Skiing*, to conclude that Verizon's RRC actions result in a short-term sacrifice of profits. It follows that these actions by Verizon would not have been taken except to preserve its monopoly.

IV. CONCLUSION

The Supreme Court's economic reasoning in the *Trinko* decision has a number of defects from an economist's point of view. The decision is likely to enhance and preserve the monopoly of Verizon and the other RBOCs who remain near-monopolists in local telecommunications markets. The Supreme Court missed the leveraging of monopoly power—from the NET market to the retail telecommunications market—that Verizon engaged in to foreclose competition in the retail telecommunications market. Additionally, the Supreme Court used the fact that the leasing market for parts of the NET did not exist before being mandated by the 1996 Act to find that Verizon did not have antitrust liability. This is problematic as technological change can create new markets where none existed before, and the earlier non-existence of markets should not be used as an escape from antitrust law.

The Supreme Court decided *Trinko* in the context of *Aspen Skiing*, where regulation was absent. However, the use of non-price strategies to raise rivals' costs is particularly important in *Trinko* because of the price regulation imposed by the 1996 Act. Even in the context of *Aspen Skiing*, the Court erred in not allowing the logic of *Aspen Skiing* to be applied to *Trinko*. The Court had applied the sacrifice principle in *Aspen Skiing*, showing that Aspen Skiing's actions had sacrificed short-term profits. It is clear that Verizon's actions in *Trinko* caused the company to lease less infrastructure at above-cost prices and, therefore, to incur a profits sacrifice in violation of antitrust law. Therefore, the *Trinko* Court improperly failed to apply the same principle from *Aspen Skiing*.