

ARTICLES

DEREGULATORY TAKINGS, BREACH OF THE REGULATORY CONTRACT, AND THE TELECOMMUNICATIONS ACT OF 1996

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Professors Baumol and Merrill reply to Deregulatory Takings and Breach of the Regulatory Contract, published last year in this Review, which argued that the price incumbents may charge potential competitors for bottleneck facilities under the Telecommunications Act of 1996 should be based not on forward-looking costs but on historical costs. Professors Baumol and Merrill contend that pricing with reference to historical costs would depart from the principles called for by economic analysis for efficient pricing, and they further argue that neither the Takings Clause nor the regulatory contract precludes the use of forward-looking costs in setting prices. If a taking or regulatory breach does occur, they suggest that the proper remedy is not to interfere with the pricing decisions reached by regulators but to make the appropriate compensation, if any, after those decisions have been put into effect. Support for these legal observations is reinforced with the economic contentions that the competition introduced by the Act will have minimal effect upon incumbents which will generally receive a very valuable quid pro quo for any damage to their legitimate interests. Finally, they argue that compensating any firm for the loss of monopolistic prices threatens to undermine the most basic purpose of the Act, which is to bring the benefits of competition and competitive pricing to all electronic communications markets.

INTRODUCTION

In a recent article, Gregory Sidak and Daniel Spulber raise a number of constitutional and economic objections to the introduction of competition into industries formerly served by regulated monopolies.¹ Focusing on both the electricity and local telephone industries, they argue that the opening of a monopolized market to competition may result in capture by new entrants of the incumbent monopoly's

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¹ See J. Gregory Sidak & Daniel F. Spulber, Deregulatory Takings and Breach of the Regulatory Contract, 71 N.Y.U. L. Rev. 851 (1996).

most profitable customers.² The result, at least in the short term, may be that the incumbents are left with revenues insufficient to recover the costs of investments they made when it was assumed that they would continue to operate as monopolists.³ Sidak and Spulber argue that both the Takings Clause of the Fifth Amendment⁴ and general principles of contract law⁵ impose significant constraints on governmental efforts to deregulate public utility monopolies when the introduction of competition creates such a "stranded investment" problem.⁶

The Sidak and Spulber thesis has moved very rapidly from the pages of academic journals to regulatory tribunals and courtrooms. The appearance of the article coincided with efforts by the Federal Communications Commission (FCC) and state public utility commissions (PUCs) to carry out key provisions of the Telecommunications Act of 1996⁷ (Act) designed to bring competition to local telephony. Their article has been relied upon in these proceedings by incumbent local exchange carriers (LECs) to support the proposition that the prices they may charge potential competitors for access to critical bottleneck facilities (like the copper wire loops that connect individual homes and businesses with the local network) must be set at levels high enough to permit them to recover all the revenues they expected to earn from their local exchange network before the coming of competition.⁸

In particular, Sidak and Spulber have been enlisted in support of the proposition that prices for local bottleneck facilities should not be set solely on the basis of *forward-looking costs*, that is, the costs of replicating or replacing the inputs used to provide discrete network elements or services.⁹ Most economists, joined by the FCC and the majority of state PUCs, believe that rational decisions on the pricing of unbundled network elements and access to local networks must be based on forward-looking costs. Sidak and Spulber, in contrast, argue

² See *id.* at 875-79.

³ See *id.* at 878-83.

⁴ This clause provides: "nor shall private property be taken for public use, without just compensation." U.S. Const. amend. V.

⁵ See Sidak & Spulber, *supra* note 1, at 931-33 (including principles of promissory estoppel and formal contract law).

⁶ See *id.* at 918-26, 938-68.

⁷ Pub. L. No. 104-104, 110 Stat. 56 (codified as amended in scattered sections of 47 U.S.C.).

⁸ See Sidak & Spulber, *supra* note 1, at 876-79 (noting argument that open access provisions transfer income from incumbent's investors and captive customers to entrant's investors and customers).

⁹ See generally Affidavit of J. Gregory Sidak and Daniel F. Spulber, CC Dkt. No. 96-262 (Jan. 9, 1997) [hereinafter Sidak-Spulber Affidavit].

that once constitutional and regulatory contract considerations are factored in, a vital component of a legitimate pricing method is attention to the *historical costs* of the assets of the firm whose prices are in question. In so arguing, they are saying that the law requires a fundamental departure from the principles called for by economic analysis for efficient pricing.

This Article comments, both from a legal and an economic viewpoint, on the Sidak and Spulber contentions as they apply to the local competition provisions of the Act. In Part I, we make two central legal observations. The first is that neither the Takings Clause nor the regulatory contract precludes the use of forward-looking costs in setting prices for network elements or access to local exchange service. Thus, if regulators decide on economic policy grounds to adopt forward-looking prices, no one can claim that this is unconstitutional on its face. Of course, forward-looking pricing, like any method for establishing prices by regulation, may be applied in individual cases in a way that introduces an unconstitutional taking. But it cannot be maintained that this method inevitably or always will produce such a result as a matter of law.

Our second legal observation concerns remedies. Sidak and Spulber maintain in effect that takings and regulatory contract concerns must be addressed in the opening round of the implementation of the Act. The task of regulators and courts, they implicitly assert, is to prevent any taking or breach of contract from ever happening, even if this means compromising on the pricing principles required by economic efficiency. Ordinarily, however, the Takings Clause and the law of contracts are not thought to give rise to what amounts to an injunctive remedy. Instead, they are thought to guarantee only a right to just compensation after a taking or breach occurs. This suggests that the proper remedy is not to interfere with the pricing decisions reached by regulators on economic policy grounds, but to allow those decisions to be put into effect and then, after the Act is fully implemented, to determine whether there is any taking of property or breach of contract that remains uncompensated.

Our support for these legal observations is reinforced in Part II by economic considerations. First, we show that there is good reason to expect that if there is any stranded investment created by the Act, it will be relatively modest. We cannot predict the exact magnitude of the potential stranded investment problem, but we are able to contrast instructively the cases of telecommunications and electricity.

For example, whereas the introduction of competition into the electric industry is likely to produce enormous redundancy of plant and equipment for incumbent utilities in the short run, such redun-

dancy will be minimal for incumbent LECs. This is because entry into the local telecommunications industry, at least initially, will largely occur through leasing by competing LECs of portions of the facilities owned by incumbent LECs, rather than by competitors' construction of new facilities. As long as the rental prices for existent facilities are compensatory, as appropriately determined forward-looking cost based prices are, these facilities will remain fully employed and hence cannot be said to represent stranded investment.

In addition, electric generating plants have basically only one use, and thus easily can be made redundant if competitors emerge with cheaper sources of power. The physical plant used in local telecommunications, in contrast, is readily adaptable to other uses besides placement or receipt of telephone calls. This has already been demonstrated by the introduction of facsimile transmissions and the Internet; many believe cable television transmission and remote video transmission to be just around the corner. Thus, if incumbent LECs lose part of the local exchange market to competitors, they nevertheless may be able to redeploy their plant to serve emerging markets, thereby further minimizing or preventing redundancy.

Perhaps most important, the electric utilities will receive no automatic quid pro quo for any losses from stranded investment that they sustain as a result of competitive entry. In contrast, under the Telecommunications Act the LECs are expected to receive extremely valuable compensation in exchange for the advent of local competition, in the form of permission to embark on interexchange (long distance) telecommunications service. The adequacy of this compensation is at least arguably demonstrated by the LECs' own role in pushing for the enactment of the Telecommunications Act, for their attempt to obtain permission to enter these other markets (in full awareness that it was likely to entail the introduction of competition into the local arena) was a key element in the support of the legislation.¹⁰

In short, there is reason to believe that the local competition introduced by the Act will have minimal, if any, effect upon the LECs in the form of stranding of investment, and that they can expect to receive a very valuable quid pro quo for any damage to their legitimate interests. These considerations powerfully reinforce the legal conclusion that there is no legitimate basis to enjoin the use of economically efficient pricing principles in the initial stages of execution of the Act.

¹⁰ See Thomas W. Hazlett, *Explaining the Telecommunications Act of 1996: Comment on Thomas G. Krattenmaker*, 29 Conn. L. Rev. 217, 223-25 (1996) (distinguishing local exchange companies and interexchange companies).

The second economic consideration we address in Part II involves the serious distortions that an uncritical use of the Sidak and Spulber thesis could introduce in the local competition required by the Act. Their approach appears to call for compensating the LECs for the loss of supercompetitive prices for their services. We believe that neither economics nor law entitles any firm to compensation for the loss of monopolistic prices, that is, the loss of earnings or prices made possible only as a result of the current and past monopoly power of the firm in question. The Sidak and Spulber thesis therefore threatens to undermine the most basic purpose of the Telecommunications Act, which is to bring the benefits of competition and competitive pricing to all electronic communications markets. This is yet another reason to permit pricing to be determined on economic principles and to leave questions of just compensation to be resolved after the Act has been fully carried out.

I

THE LEGAL CONTENTIONS

In their article, Sidak and Spulber identify two principal legal constraints on the adoption of a competitive access scheme such as that reflected in the Telecommunications Act. The first is based on the Supreme Court's decisions applying the Takings Clause to public utility ratemaking.¹¹ The Court has held that rates may not be set at "confiscatory" levels, meaning that regulated utilities must be given an opportunity to earn a reasonable return on their investment.¹² Sidak and Spulber argue that the introduction of competition into local exchange service will result in the stranding of a significant portion of the LECs' fixed plant investment, and unless the prices charged for access to the LECs' bottleneck facilities are adjusted so as to permit recovery of these stranded costs, the LECs will have been denied the opportunity to earn the fair return on investment that the Takings Clause requires.¹³

The second constraint identified by Sidak and Spulber is that the local competition provisions may constitute a breach of what they call "the regulatory contract" between the LECs and the government.¹⁴

¹¹ See Sidak & Spulber, *supra* note 1, at 953-59.

¹² See *Duquesne Light Co. v. Barasch*, 488 U.S. 299 (1989) (holding that if rates do not provide sufficient compensation, utility's investment will be taken without just compensation, contravening Fifth and Fourteenth Amendments); *FPC v. Hope Natural Gas Co.*, 320 U.S. 591, 605 (1944) (same).

¹³ See Sidak & Spulber, *supra* note 1, at 878-79.

¹⁴ See *id.* at 879-83 (providing general summation of regulatory contract and its development as legal concept, as well as potential remedies for its breach). The more conven-

They argue that investors have been induced to provide financing to the LECs for the acquisition of costly assets in reliance on certain critical promises by regulators, including the promise that the LECs will enjoy a monopoly in the provision of local exchange service within their service areas and the promise that they will be allowed to recover the full cost of all of their past investments that regulators have determined to be prudent.¹⁵ Sidak and Spulber contend that the introduction of competition is inconsistent with these alleged promises.¹⁶ They believe that these abrogations of the regulatory contract should be regarded either as an unconstitutional taking of property rights—the property rights here being the contractual obligations associated with the regulatory contract—or simply as a breach of contract.¹⁷

We will not attempt a point by point response to each of the arguments and authorities Sidak and Spulber adduce in support of these contentions in their lengthy article. Instead, we will confine our legal discussion to two central observations. First, neither the Supreme Court's confiscation decisions nor the idea of a regulatory contract supports the contention that regulators must consider historical costs in setting prices for unbundled network elements or access to local networks. All they require is that regulators permit utilities to earn a risk adjusted competitive return on their investment. Second, the most important issue here is probably one of remedy: should courts enjoin the use of forward-looking prices by the FCC and the state commissions if courts think that approach may cause a taking or breach of contract, or should courts allow forward-looking prices to take effect and remit the LECs to what amounts to a damages remedy if it turns out, after the Act is fully implemented, that a taking or breach of contract has occurred? We submit that in the pursuit of the far reaching goals of the Act, compensation after the fact makes far more sense.

*A. Established Constitutional Doctrine
Does Not Require Recovery of Historical Costs*

1. The Takings Clause

It cannot be claimed that the Supreme Court has interpreted the Takings Clause to require that regulators consider the *historical costs*

tional terminology is "regulatory compact," but to avoid confusion we adopt Sidak and Spulber's phrase here.

¹⁵ See *id.* at 879-83, 954-59.

¹⁶ See *id.* at 883-87 (describing receipt of protected franchise as form of consideration that introduction of competition would destroy).

¹⁷ See *id.* at 918-26, 938-68.

of investments in setting rates for regulated public utilities. Ever since its 1944 decision in *Federal Power Commission v. Hope Natural Gas Co.*,¹⁸ the Court consistently has maintained that regulators are "not bound to the use of any single formula or combination of formulae in determining rates."¹⁹ Thus, in effect, the Constitution is neutral as between different rate setting methods, such as the "prudent investment" approach based on historical costs or the "fair value" method based on replacement costs. In a more recent decision, *Duquesne Light Co. v. Barasch*,²⁰ the Court reaffirmed this neutrality.²¹ Indeed, the Court specifically rejected the suggestion that it adopt the prudent investment approach as the constitutional standard, noting that this would "foreclose a return to some form of the fair value rule just as its practical problems may be diminishing."²²

What then is the constitutional measure of whether a rate order is confiscatory? In both *Hope* and *Duquesne* the Court indicated that the key question is whether the rate of return on investment is "commensurate with returns on investments in other enterprises having corresponding risks."²³ Thus, the constitutional inquiry entails determining (1) the risk of the regulated enterprise; (2) the competitive rate of return available in capital markets on other investments having comparable risks; (3) a projection of the total effect of the rate order on the actual rate of return of the regulated enterprise; and (4) a de-

¹⁸ 320 U.S. 591 (1944).

¹⁹ *Id.* at 602; see also *FPC v. Texaco, Inc.*, 417 U.S. 380, 390-91 (1974) (acknowledging permissibility of multiple methods of calculating rate structures); *Permian Basin Area Rate Cases*, 390 U.S. 747, 770 (1968) (noting that "any rate selected by the [regulator] from the broad zone of reasonableness permitted by the [Natural Gas] Act cannot properly be attacked as confiscatory"); *Market St. Ry. Co. v. Railroad Comm'n*, 324 U.S. 548, 567 (1945) (acknowledging appropriate use of multiple methods of valuation in various circumstances); *FPC v. Natural Gas Pipeline Co.*, 315 U.S. 575, 586 (1942) (noting that courts lack authority to set aside any "reasonable rate" adopted by Commission that is consistent with constitutional requirements).

²⁰ 488 U.S. 299 (1989).

²¹ See *id.* at 316 ("The adoption of a single theory of valuation as a constitutional requirement would be inconsistent with the view of the Constitution this Court has taken since *Hope Natural Gas* . . .").

²² *Id.* at 316 n.10.

²³ *Hope*, 320 U.S. at 603; see also *Duquesne*, 488 U.S. at 314 ("One of the elements always relevant to setting the rate under *Hope* is the return investors expect given the risk of the enterprise."); *Bluefield Water Works & Improvement Co. v. Public Serv. Comm'n*, 262 U.S. 679, 692 (1923) ("A public utility is entitled to such rates as will permit it to earn a return . . . equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties."). See generally Stephen F. Williams, *Fixing the Rate of Return After Duquesne*, 8 *Yale J. Reg.* 159 (1991) (advocating fixing rate of return as expected rate of return on alternative investments of equivalent risk).

termination of whether the projected rate of return deviates materially from the competitively required rate of return.

It has been suggested, most prominently by Justice Scalia in his concurring opinion in *Duquesne*, that even if regulators are not required to consider historical costs directly, courts may be required to consider them indirectly insofar as they must decide what "rate base" counts for purposes of computing the projected rate of return.²⁴ Justice Scalia is right that some conception of the rate base is required for this purpose. But he was wrong to suggest that the benchmark must be a prudent investment or historical cost rate base. As the majority recognized in *Duquesne*, although the prudent investment method has traditionally looked to historical costs in establishing the rate base, the equally venerable "fair value" method²⁵ looks to the investment that is "used and useful" to the public in fixing the allowable rate base.²⁶ The used and useful test does not ask what investment was historically determined to be prudent, but rather what investment currently is being used to provide service to the public. In other words, it is forward-looking rather than backward-looking.

For purposes of determining the projected rate of return, there is no reason why a reviewing court cannot simply employ whatever measure of the rate base that has been adopted by regulators. Of course, some methods of defining the rate base entail greater risks for utilities, and switching "back and forth between methodologies" in defining the rate base must enhance risk.²⁷ But as long as the court remembers that the competitive return must be established by examining investments of comparable risk, and recognizes that risk is in part a function of the chosen rate base (and of the consistency with which the definition of the rate base is applied), the Takings Clause analysis can be carried out using as a benchmark whatever the regulatory jurisdiction itself deems to be the proper rate base.²⁸

²⁴ See *Duquesne*, 488 U.S. at 377 (Scalia, J., concurring).

²⁵ The Court's decision in *Smyth v. Ames*, 169 U.S. 466 (1898), is regarded as having ruled that the fair value method is constitutionally compelled. See *Duquesne*, 488 U.S. at 308. In at least three subsequent decisions, the Court required that telephone property be valued at current fair value, rather than at historical cost, for purposes of establishing local telephone rates. See *West v. Chesapeake & Potomac Tel. Co.*, 295 U.S. 662, 671-72 (1935); *Missouri ex rel. S.W. Bell Tel. Co. v. Public Serv. Comm'n*, 262 U.S. 276, 287-88 (1923); *City of Houston v. Southwestern Bell Tel. Co.*, 259 U.S. 318, 324 (1922).

²⁶ See *Duquesne*, 488 U.S. at 308-09.

²⁷ See *id.* at 315; see also *id.* at 310-12 n.7 (discussing need for "risk premium" in allowed rate of return if jurisdiction adopts unusual or hybrid definition of rate base).

²⁸ For example, suppose a jurisdiction decided to disallow from the rate base all investments over \$1 million. Such a method would impose severe inefficiencies on utilities and would present very large risks. But as long as these risks could be quantified, it would still be possible to determine whether the projected revenues under a rate order would trans-

In short, the confiscation cases provide no basis to declare unconstitutional *on its face* an access pricing standard that adopts a forward-looking rather than historical standard for cost determination. The only significant constraint imposed by these cases is that a utility must be allowed an opportunity to earn a competitive return on its investment, with competitive return understood to mean the return that would be demanded by investors for investments of comparable risk. Thus, a method based on forward-looking costs, including the current cost of replacement of the physical plant that is used and useful in serving the public, is unquestionably a constitutionally permissible option. One element of risk, of course, is the risk that particular investments will be excluded from the rate base—will be “stranded” either by operation of law or the forces of competition. But as long as the rate of return is set at a level that provides adequate compensation for the risk of stranded plant, there is no reason in principle why a system that sets access prices on the basis of forward-looking costs cannot satisfy the confiscation standard.²⁹

2. *The Regulatory Contract*

Turning to Sidak and Spulber’s regulatory contract contention, we also find no basis for the claim that regulators must provide for recovery of historical costs. The critical legal variable that Sidak and Spulber overlook is what the Court has recently called the “unmistakability doctrine.”³⁰ This doctrine asserts that promises by the government to forbear from certain types of future regulatory action—in other words, promises of the sort said to be included in the regulatory contract—will be enforced by the courts only if they are set forth in “unmistakable” language. Viewed through this lens, we find that the

late into a rate of return that would be constitutionally adequate, given the risks associated with the use of this rate base. Thus, if the under \$1 million rate base was determined to be so risky that comparable investments would command a 50% annual return, the question would be whether the allowed revenues would translate into a 50% return or better on this particular rate base.

²⁹ The FCC has indicated that the question of what rate of return should be adopted in setting prices for unbundled network elements should be left to the determination of individual state public utility commissions (PUCs). See Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Dkt. Nos. 96-98, 95-185, 11 F.C.C.R. 15,499 (1996) [hereinafter Local Competition Order], vacated in part sub nom. Iowa Utils. Bd. v. FCC, 1997 U.S. App. LEXIS 18183 (8th Cir. July 18, 1997).

³⁰ See *United States v. Winstar Corp.*, 116 S.Ct. 2432, 2453 (1996) (stating that waivers of sovereign power generally must be surrendered in unmistakable terms); *United States v. Cherokee Nation*, 480 U.S. 700, 707 (1987) (same); *Bowen v. Public Agencies Opposed to Soc. Sec. Entrapment*, 477 U.S. 41, 52 (1986) (same). The doctrine is of considerable antiquity and can be traced in this country to the decision in *Charles River Bridge v. Warren Bridge*, 36 U.S. (11 Pet.) 419, 458 (1837) (holding that public grants are to be construed strictly, or else government would be disarmed of necessary powers).

scope of the regulatory contract that would be regarded as enforceable by courts is considerably less sweeping than urged by Sidak and Spulber.

In testimony filed after the publication of their article, Sidak and Spulber have argued that the Court's recent decision in *United States v. Winstar*,³¹ which discusses the unmistakability doctrine at length, supports their regulatory contract contention.³² An examination of *Winstar*, however, indicates that the Court in fact reaffirmed the doctrine in its traditional form. At the height of the savings and loan crisis, federal regulators promised certain healthy savings and loans (S&Ls) that they would receive a favorable accounting treatment if they acquired failing S&Ls. Later, as part of a comprehensive effort to reform the industry, Congress passed legislation that proscribed the use of this accounting treatment. At issue in the case was whether the federal government could be sued for breach of contract by the acquiring S&Ls.

Four Justices joined in Justice Souter's plurality opinion, which would have recognized an exception to the unmistakability doctrine for government "indemnification" agreements holding entities harmless in the event of future changes in regulation.³³ However, a majority of five Justices rejected such an exception. Justice Scalia, joined by two other Justices, saw no need to create the exception, because in his view the contracts in question unmistakably promised the acquiring S&Ls they would receive favorable accounting treatment.³⁴ Chief Justice Rehnquist, joined by one other Justice, also rejected the exception, but found that the doctrine was not satisfied.³⁵ Thus, by a vote of five to four, *Winstar* reaffirmed the unmistakability doctrine and rejected Justice Souter's proposed exception. The Court disagreed about the application of the doctrine in the specific context presented, but did not call into question the doctrine's continued validity.³⁶

In applying the unmistakability doctrine to the regulatory contract claims advanced by Sidak and Spulber, it is useful to distinguish among three possible versions of the Sidak and Spulber regulatory contract argument. First, in return for agreeing to shoulder onerous

³¹ 116 S. Ct. 2432 (1996).

³² See Sidak-Spulber Affidavit, *supra* note 9, at 37-40.

³³ See *Winstar*, 116 S. Ct. at 2463-69.

³⁴ See *id.* at 2477 (Scalia, J., concurring).

³⁵ See *id.* at 2480 (Rehnquist, C.J., dissenting).

³⁶ The only contractual obligation covered by Justice Souter's exception for indemnification contracts that would be relevant in the present context would be a promise to shield utilities against the effects of future regulation, i.e., to guarantee them just compensation for the public use of their investment over its expected life. This is equivalent to the protection independently provided by the Takings Clause.

common carrier obligations, such as the duty to provide universal service within a given area, regulators could be said to have promised that the LECs will have the right to operate as monopolies within their service areas. Second, in return for accepting a ceiling on what they can charge consumers, i.e., maximum rate regulation, regulators could be said to have promised LECs that they will be allowed to recover fully the *historical* cost of specific past investments, at least when these investments were reviewed and approved as prudent by regulators when they were made. Third, again in return for accepting maximum rate regulation, regulators could be said to have promised the LECs that they will be given an opportunity to earn a competitive return on their investment over its expected useful life. Such a promise, of course, would be substantially identical to the protection afforded utilities under the Court's confiscation decisions.³⁷

To show in "unmistakable" terms that any of these promises was made, it will almost certainly be necessary to point to specific language in a corporate charter, franchise agreement, or public utility statute, or a longstanding judicial doctrine, that expressly reflects these understandings.³⁸ Implied understandings based on a long course of dealing, or action taken in reliance on apparently settled practices, might plausibly be thought to give rise to a contract between the government and the LECs. But it will be much harder to show that these practices reflect an *unmistakable* contractual agreement.

a. *Monopoly Service Areas.* The LECs will have an uphill struggle to show that they are the beneficiaries of a regulatory contract that includes an unmistakable promise by the government that they are entitled to maintain monopoly service territories. The most logical place to look for such language is in franchise agreements permitting LECs to operate in specific communities or areas. But most such franchise agreements do no more than permit LECs to use public streets, alleys, and other public rights of way for purposes of constructing and maintaining local networks to serve the public.³⁹ This type of permissive authorization is obviously a far cry from a grant of monopoly privileges, and is unlikely to be construed as carrying a necessary implication of exclusivity.

³⁷ See *supra* text accompanying notes 18-29.

³⁸ See *National R.R. Passenger Corp. v. Atchison Topeka & Santa Fe Ry. Co.*, 470 U.S. 451, 466 (1985) (stating presumption that general language of statutes "is not intended to create private contractual or vested rights but merely declares a policy to be pursued until the legislature shall ordain otherwise" (quoting *Dodge v. Board of Educ.*, 302 U.S. 74, 79 (1937))).

³⁹ See George L. Priest, *The Origins of Utility Regulation and the "Theories of Regulation" Debate*, 36 J.L. & Econ. 289, 303 (1993).

Whether utility franchise agreements confer monopoly rights was a much litigated issue in the late nineteenth and early twentieth centuries. Numerous Supreme Court decisions from that era applied the unmistakability doctrine to deny a claim that monopoly service rights should be found by implication on the basis of franchise agreements that do not expressly address the issue.⁴⁰ As stated in one such case, "an exclusive right to enjoy a certain franchise is never presumed, and unless the charter contain words of exclusion, it is no impairment of the grant to permit another to do the same thing, although the value of the franchise to the first grantee may be wholly destroyed."⁴¹ Even where state law has included general provisions reflecting a policy limiting each service area to a single utility, the Court has refused to recognize any "vested right" in the maintenance of such a policy if the state subsequently decides to endorse a policy of competition.⁴² And even if there is specific language of exclusivity in the franchise agreement or the public utility act, the Court has usually permitted the introduction of competition if the franchise agreement or other source of authority also includes language reserving the right "to repeal, alter, or amend" the grant.⁴³

Finally, even in the rare case where a LEC can show that it has a franchise agreement or other contract that promises in unmistakable terms a monopoly service territory, there would be no reason to infer from this agreement an additional promise to allow the LEC to charge

⁴⁰ For decisions reaching this conclusion with respect to a variety of local public utilities, see, e.g., *Piedmont Power & Light Co. v. Town of Graham*, 253 U.S. 193, 195 (1920); *City of Mitchell v. Dakota Cent. Tel. Co.*, 246 U.S. 396 (1918); *Ramapo Water Co. v. City of New York*, 236 U.S. 579 (1915); *City of Joplin v. Southeast Mo. Light Co.*, 191 U.S. 150 (1903); *Capital City Light & Fuel Co. v. Tallahassee*, 186 U.S. 401 (1902); *Skaneateles Water Works Co. v. Skaneateles*, 184 U.S. 354, 363 (1902); *Bienville Water Supply Co. v. Mobile*, 175 U.S. 109 (1899); *Hamilton Gas Light & Coke Co. v. Hamilton City*, 146 U.S. 258 (1892).

⁴¹ *Pearsall v. Great N. Ry. Co.*, 161 U.S. 646, 664 (1896).

⁴² See *Tennessee Elec. Power Co. v. Tennessee Valley Auth.*, 306 U.S. 118, 139 (1939).

⁴³ See, e.g., *Fort Smith Light & Traction Co. v. Board of Improvement*, 274 U.S. 387, 390 (1927) (noting that Arkansas Constitution "reserved to the legislature the power to alter any corporate charter"); *Sears v. City of Akron*, 246 U.S. 242, 249 (1918) (noting that "the contract inhering in the charter . . . was subject to the State's reserved power to amend or repeal" as provided by Ohio Constitution); *Ramapo*, 236 U.S. at 583 (noting that right to repeal company charter was reserved in state constitution); *Calder v. Michigan*, 218 U.S. 591, 598-99 (1910) (noting that Grand Rapid Hydraulic Company's charter reserved to Michigan legislature right to repeal it); *Hamilton Gas Light*, 146 U.S. at 270 (noting that "reservation of power to alter or revoke a grant of special privileges necessarily became a part of the charter of every corporation formed under the general statute providing for the formation of corporations"); *Greenwood v. Freight Co.*, 105 U.S. 13, 21-22 (1881) (holding that, given Massachusetts legislature's right to amend, alter, or repeal corporate charters, it could grant another corporation "authority to operate a street-railroad through the same streets and over the same ground previously occupied by the Marginal Company").

monopoly rates. Where utilities have been permitted to operate as monopolists, they invariably have been subject to rate regulation designed to eliminate monopoly pricing.⁴⁴ Thus, so long as a LEC is given an opportunity to earn a competitive return after the advent of competition, there would be in any event no damages associated with the breach of any promise to operate as a monopolist.

b. Recovery of All Historical Costs. The second claimed promise, that LECs are entitled to recover fully all investments (or at least all investments found to be prudent) *at their historical costs*, is also one that we believe cannot be established in most cases in unmistakable language. One serious impediment here is the backdrop of the confiscation case law which, as we have discussed, has insisted for over fifty years that regulators are “not bound to the use of any single formula or combination of formulae in determining rates.”⁴⁵ During this period, several courts have held that public utilities, including LECs, are not guaranteed the right to recover the full historical costs of their investments.⁴⁶ Nor do the statutes that govern rate proceedings, such as the Federal Communications Act, provide any textual basis for establishing an unmistakable right to recover all prudent historical costs. These statutes typically speak in much broader generalities about the right to “just and reasonable” rates.⁴⁷

It is also pertinent to note that the stated rationale of these statutes is to eliminate earnings that represent either a monopoly profit or excessive costs incurred because of inefficiency.⁴⁸ Admittedly, these statutes have not consistently realized these goals. But Sidak and Spulber’s construction of the regulatory contract as protecting incumbent utilities’ entitlement to any and all forgone earnings of which they are deprived by the advent of competition—even if those earnings reflect monopoly profits or inefficiencies—is incompatible with

⁴⁴ The Court has applied the unmistakability doctrine in this context to prevent any implication of freedom from rate regulation. See, e.g., *Covington & Lexington Turnpike Rd. Co. v. Sandford*, 164 U.S. 578, 587-88 (1896) (stating that state statute granting turnpike road immunity from rate regulation should be narrowly construed).

⁴⁵ *FPC v. Hope Natural Gas Co.*, 320 U.S. 591, 602 (1944).

⁴⁶ See, e.g., *Market St. Ry. Co. v. Railroad Comm’n*, 324 U.S. 548, 567 (1945) (noting that Due Process Clause “cannot be applied to insure values or to restore values that have been lost by the operation of economic forces”); *Los Angeles Dep’t of Airports v. United States Dep’t of Transp.*, 103 F.3d 1027, 1034 (D.C. Cir. 1997) (stating that computing actual cost does not always require using historical cost); *Illinois Bell Tel. Co. v. FCC*, 988 F.2d 1254, 1263 (D.C. Cir. 1993) (noting that “FCC has no obligation . . . to include in the rate base all actual costs for investments”).

⁴⁷ See, e.g., *Communications Act of 1934*, 47 U.S.C.A. § 201(b) (West Supp. 1997) (stating that all federally regulated charges “shall be just and reasonable”).

⁴⁸ See, e.g., *id.* § 151 (stating that goal is to make available efficient wire and radio communication service).

the stated purpose (if not the practical effect) of the regulatory regimes.⁴⁹

Perhaps even more damaging from a regulatory contract viewpoint is the fact that the FCC and most state commissions have turned away in recent years from traditional prudent investment or rate of return methods for setting maximum rates, and instead have adopted incentive regulations such as price caps.⁵⁰ These new methods of regulation do not entail any review or approval of the historical costs of specific investments. Sidak and Spulber argue that this development does not negate the regulatory contract.⁵¹ But the emergence of widespread incentive regulation is, at the very least, incompatible with the assertion that the LECs and their investors have acted in reliance on a contractual promise entitling them to recover the full historical costs of all prudent investments.

c. Opportunity to Earn a Competitive Return. With respect to promise three—that LECs will be given an opportunity to earn a reasonable return on their total investment over its expected useful life—there is no need to search for an unmistakable promise, because if one exists, it merely restates the confiscation protection provided by *Hope* and *Duquesne*. Both constitutional sources, such as *Hope* and *Duquesne*, and statutory mandates which require that utilities be allowed to charge “just and reasonable” rates or earn “a fair rate of return,” have been consistently interpreted to mean that investors can expect an opportunity to earn a normal competitive return on their overall investment.⁵² In effect, investors have been promised that they will be allowed a reasonable opportunity—one that fairly balances investor and consumer interests—to earn over the lifetime of their investment as much as they would earn, on average, from investing in a competitive, unregulated industry of equivalent risk. This

⁴⁹ See Stephen F. Williams, *Deregulatory Takings and Breach of the Regulatory Contract: A Comment*, 71 N.Y.U. L. Rev. 1000 (1996); Oliver E. Williamson, *Deregulatory Takings and Breach of the Regulatory Contract: Some Precautions*, 71 N.Y.U. L. Rev. 1007 (1996).

⁵⁰ The FCC moved to price cap regulation for the interstate services of Bell and GTE local exchange carriers in 1990. See *National Rural Telecomm. Ass'n v. FCC*, 988 F.2d 174, 178-79 (D.C. Cir. 1993). Regulatory reform at the state level began in the late 1980s, with different combinations of deregulation, price caps, and revenue sharing being adopted in different states, in each case to provide greater incentives for innovation and cost savings than were thought to be supplied by traditional rate of return regulation.

⁵¹ See Sidak & Spulber, *supra* note 1, at 926-28.

⁵² See *FPC v. Hope Natural Gas Co.*, 320 U.S. 591, 603 (1944) (noting that “the return to the equity owner should be commensurate with returns on investments in other enterprises involving corresponding risks”); see also *Duquesne Light Co. v. Barasch*, 488 U.S. 299, 314 (1989) (stating that “[o]ne of the elements always relevant to setting the rate . . . is the return investors expect given the risk of the enterprise”).

means they have been promised recoupment of the replacement costs of their investments along with a current competitive rate of return. A competitive return, however, already incorporates full compensation for the risk of possible innovation that could drive replacement cost below the value of historical cost. Thus, the promise of a competitive return does not entail a promise of full recovery of historical costs.

If the regulatory contract includes no more than promise three, then the scope of judicial protection under the regulatory contract is at most coextensive with that provided by the confiscation cases. As we have shown, the confiscation cases provide no basis for concluding that regulators must permit LECs to recover all their historical costs, or that forward-looking prices are unconstitutional on their face. That being the case, the regulatory contract provides no basis for reaching these conclusions either.

B. The Appropriate Remedy for Any Constitutional Violation

Perhaps more important than any question about the scope of protection afforded by the Takings Clause and the regulatory contract are questions about the form and timing of the remedies for violation of these rights. Here there are two different lines of authority. On the one hand, some of the confiscation cases (but not all) could be read to suggest that a public utility company is entitled to a determination of whether a rate order is confiscatory before the rates are put into effect.⁵³ These decisions may assume that the "just compensation" required by the Takings Clause must be supplied by the revenues generated by the order itself. Under this approach, if a public utility company persuades a court that the order will deprive it of constitutionally adequate revenues, the court should set aside the order and require the public utility commission to enter a new order.

On the other hand, there is a broad line of authority asserting that "[e]quitable relief is not available to enjoin an alleged taking of private property for a public use, duly authorized by law, when a suit for compensation can be brought against the sovereign subsequent to the taking."⁵⁴ According to this authority, "the Fifth Amendment

⁵³ See, e.g., *Duquesne*, 488 U.S. at 302-05; *Bluefield Water Works & Improvement Co. v. Public Serv. Comm'n*, 262 U.S. 679, 683 (1923); *Covington & Lexington Turnpike Rd. Co. v. Sandford*, 164 U.S. 578, 579-80 (1896); *Jersey Cent. Power & Light Co. v. FERC*, 810 F.2d 1168, 1169-70 (D.C. Cir. 1987). But see *FPC v. Texaco, Inc.*, 417 U.S. 380, 392 (1974) (holding that where impact of regulatory scheme cannot be determined until it has been applied in individual cases over period of time, "broadside assertion" that regulation will be confiscatory was premature).

⁵⁴ *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1016 (1984); see *Bell Atl. Tel. Cos. v. FCC*, 24 F.3d 1441, 1444 n.1 (D.C. Cir. 1994).

does not require that just compensation be paid in advance of or even contemporaneously with the taking. All that is required is the existence of a "reasonable, certain and adequate provision for obtaining compensation" at the time of the taking."⁵⁵ Thus, if some mechanism exists for securing monetary relief after the fact—for example through a suit for damages against the government under the Tucker Act—courts should not enjoin a regulatory action alleged to result in a taking. Instead, they should dismiss such an action as premature and remit the complaining party to its *ex post* remedy for damages.⁵⁶

It is clear that the second line of authority reflects the general rule about remedies for violation of the Takings Clause, and the first line is at best an unarticulated exception to that rule. This follows from the modern Court's understanding of the nature of the right established by the Fifth Amendment, which, the Court has explained, "does not prohibit the taking of private property, but instead places a condition on the exercise of that power."⁵⁷

That condition, moreover, does not "limit the governmental interference with property rights *per se*,"⁵⁸ rather, it imposes a requirement of "*compensation* in the event of otherwise proper interference amounting to a taking."⁵⁹ Given this conception of the right, if the government regulates private property but leaves open avenues whereby the owner of the property may obtain just compensation for any taking that may be caused by the regulation, then the Takings Clause has not been violated.

Because the Court has never explained the apparent exception to this understanding arguably reflected in some of the confiscation cases, the underlying rationale for this exception remains a matter of speculation. There are a number of possibilities. We will confine the discussion in the text to two that appear to be especially germane to the question of the proper remedy for any constitutional violation presented by the local competition provisions of the Telecommunications Act.⁶⁰

⁵⁵ *Preseault v. ICC*, 494 U.S. 1, 11 (1990) (citations omitted) (quoting *Regional Rail Reorg. Act Cases*, 419 U.S. 102, 124-25 (1974) (quoting *Cherokee Nation v. Southern Kansas Ry. Co.*, 135 U.S. 641, 659 (1890))).

⁵⁶ This conclusion is supported both by the so-called Tucker Act cases involving takings by the federal government, see, e.g., *id.* at 17; *Regional Rail*, 419 U.S. at 124-25, and by ripeness cases involving takings by state and local governments, see, e.g., *Williamson County Planning Reg'l Comm'n v. Hamilton Bank*, 473 U.S. 172, 194 (1985).

⁵⁷ *First English Evangelical Lutheran Church v. County of Los Angeles*, 482 U.S. 304, 314 (1987).

⁵⁸ *Id.* at 315.

⁵⁹ *Id.*

⁶⁰ Two other possibilities merit mention. First, the confiscation cases typically involve orders requiring rate reductions, and, under the statutory schemes governing these orders,

1. *The Finality of Rate Orders*

On the one hand, the confiscation cases may rest on the assumption that the responsible administrative tribunal has determined with finality all issues pertaining to whether there has been an uncompensated taking,⁶¹ together with the assumption that the rate order itself

utilities would have no way to recoup lost revenues if the reductions were allowed to go into effect while the confiscation challenge was being adjudicated. See *Burlington N. Inc. v. United States*, 459 U.S. 131, 141-42 (1982) (noting that "where there is a dispute about the appropriate rate the equities favor allowing the carrier's rate to control pending decision by the Commission, since . . . the shipper may receive reparations for overpayment while the carrier can never be made whole after underpayment"); *Arizona Grocery Co. v. Atchison, Topeka & Santa Fe Ry. Co.*, 284 U.S. 370, 387-88 (1932) (noting that since carrier must conform to rate order, its only remedy is prospective).

This concern does not appear to apply to the introduction of local competition under the Telecommunications Act, however, because the LECs do have means of being made whole. The FCC has specifically ruled that it will entertain petitions to adjust prices for particular LECs if they can show they will have confiscatory effects. See *Local Competition Order*, supra note 29, ¶ 739. Also, as discussed below, LECs that can show that the FCC and the PUCs have implemented the Telecommunications Act in such a way as to create a taking or breach of contract should be able to sue the United States for damages under the Tucker Act.

Second, the cases implicitly holding that confiscatory rate orders can be enjoined may rest on an unstated concern that such orders may visit irreparable harm on the public. If a rate order were truly confiscatory, it would at the very least jeopardize the utility's ability to raise needed capital and could even drive it into bankruptcy. In a world where all utilities are assumed to be natural monopolies, a capital-starved utility or a utility undergoing reorganization could deprive the public of adequate services.

This explanation, too, has no relevance to the pricing controversies under the Telecommunications Act. Those controversies arise out of a statutory scheme designed to create competition among utilities. In this new world of local exchange service competition, if prices for network elements and access are set at arguably confiscatory levels, then some LECs may suffer—indeed, some may go out of business. But if this happens, others should immediately step in to take their place. Any constitutional infirmities in pricing levels can be rectified by an action for damages after the fact without jeopardizing public services.

⁶¹ The earliest confiscation cases suggest that the only issue before the courts was one of the adequacy of compensation. Those decisions were based on an analogy to eminent domain. See, e.g., *Smyth v. Ames*, 169 U.S. 466, 546 (1898) ("The corporation may not be required to use its property for the benefit of the public without receiving just compensation for the services rendered by it."); *Reagan v. Farmers' Loan & Trust Co.*, 154 U.S. 362, 410 (1894) (stating that use of private property for public use at less than market value is no less unjust than taking title); *Railroad Comm'n Cases*, 116 U.S. 307, 331 (1886) ("[T]he State cannot require a railroad corporation to carry persons or property without reward; neither can it do that which in law amounts to a taking of private property for public use without just compensation . . ."). See generally John N. Drobak, *From Turnpike to Nuclear Power: The Constitutional Limits on Utility Rate Regulation*, 65 B.U. L. Rev. 65, 70-81 (1985) (discussing takings as foundation of constitutional limits on utility rate regulation).

The "taking" occurred when a utility, such as a railroad, was subjected to common carrier obligations. Its property in effect had been seized by the state and dedicated to public use. The only issue before the court, therefore, was whether the rates that the railroad was permitted to charge satisfied the "just compensation" requirement that would prevail in any physical takings case.

is the only scheme for securing just compensation. On these assumptions, the response of a court concluding that a rate order constitutes an uncompensated taking arguably should be to set it aside (enjoin it) and direct the administrative tribunal to come up with a constitutional order. This explanation gains support from the fact that when the Supreme Court has been confronted with price setting or rate setting schemes that involve two stages—the imposition of general or area rate orders, followed by some procedure for seeking individual waivers or variances from these orders—it has followed the general rule and has refused to permit the scheme to be enjoined at the first stage.⁶²

Assuming this explanation adequately accounts for the apparent exception reflected in the confiscation cases, it has little application to the controversy over local access prices under the Telecommunications Act. As discussed in the next Part, it cannot be said that the question whether the Telecommunications Act works a taking or breach of contract has been settled with any finality. On the contrary, the pricing controversies under the Act involve multiple and significant uncertainties about whether there is any taking or breach of contract at all. In this sense, the pricing issues under the Telecommunications Act resemble much more closely the two-stage rate cases than the one-stage cases. Moreover, it cannot be said that the carrier-to-carrier prices established under the Act are the only available mechanism for securing just compensation in the event of a taking or breach of contract. As the next Part illustrates, several different sources of potential compensation remain untapped. And if all else fails, a LEC can bring an action against the United States for money damages under the Tucker Act.⁶³

⁶² See *FPC v. Texaco, Inc.*, 417 U.S. 380, 386-93 (1974) (holding that pipelines' challenge to deregulation of small producer prices was premature since effect on individual carriers was unknown); *Permian Basin Area Rate Cases*, 390 U.S. 747, 769-72 (1968) (sustaining natural gas rate structure which set area maximum rates with broad guarantees of special relief); *Bowles v. Willingham*, 321 U.S. 503, 515-16 (1944) (sustaining system of maximum rent setting for housing in defense area, which included provision for filing of protest with Administrator); *Yakus v. United States*, 321 U.S. 414, 428-31 (1944) (sustaining maximum price fixing system for commodities, which included provision for filing of protest with Price Administrator).

⁶³ A Tucker Act remedy remains available as long as the governmental action said to create a taking has been authorized "expressly or by necessary implication" by an act of Congress. *Regional Rail Reorg. Act Cases*, 419 U.S. 102, 127 n.16 (1974) (quoting *Hooe v. United States*, 218 U.S. 332, 336 (1910)); see also *id.* at 136 (holding that Tucker Act remedies were available for takings affected by Rail Act). The Court of Claims has construed this to mean that the governmental action must flow from "the good faith implementation of a Congressional Act." *Southern Cal. Fin. Corp. v. United States*, 634 F.2d 521, 523-25 (Ct. Cl. 1980).

2. *Rate Orders as Private Redistribution*

Alternatively, the confiscation cases that appear to sanction injunctions of rate orders may rest on the assumption that little more is at stake in these controversies than a private dispute between two economic interests over the division of economic rents. A dispute between a monopoly railroad and a group of politically influential shippers would fit this conception. If all that is at stake is shifting the private distribution of income from one private interest to another, then perhaps it is not appropriate to postpone the takings inquiry. Indeed, if the consequence of postponement is to externalize the cost of the redistribution to the taxpayers through a subsequent suit against the government for money damages, then the incentives to seek these private redistributions may be accentuated. This interpretation gains some support from the fact that most of the cases that have articulated the general rule (no injunction) have not involved transfers from A to B, but rather have been challenges brought against some sort of general land use planning or environmental regulation designed to provide external benefits or public goods to a wide cross section of society.⁶⁴

Again, whatever the validity of the private redistribution interpretation of the confiscation cases, this is not a complete or accurate characterization of what is at stake in the access pricing disputes under the Telecommunications Act. Whether the FCC and the state commissions adopt forward-looking or backward-looking pricing methods will of course have some short-run effect on the distribution of income between investors in different industries. But as we explain in Part III, most economists, joined by the FCC and most state PUCs, believe that much more rides on the outcome of this dispute. Adoption of

There can be no question that the adoption of forward-looking pricing for network elements and access charges reflects a "good faith implementation" of the Telecommunications Act. Indeed, as the FCC has found, some such standard is essential to the successful implementation of the Act. See Local Competition Order, *supra* note 29, ¶ 620. Thus, it would appear that a Tucker Act remedy exists for any taking or breach of contract created by the pricing decisions of the FCC and the PUCs.

⁶⁴ See, e.g., *Preseault v. ICC*, 494 U.S. 1, 4-5 (1990) (rejecting as premature claim that statute that allowed ICC to convert unused railroad rights of way into recreational trails, notwithstanding reversionary property interests, was unconstitutional); *MacDonald, Sommer & Frates v. Yolo County*, 477 U.S. 340 (1986) (rejecting as unripe claim that Planning Commission determination regarding land use constituted taking); *Williamson County Reg'l Planning Comm'n v. Hamilton Bank*, 473 U.S. 172, 186 (1985) (same); *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1019-20 (1984) (rejecting as premature claim that arbitration and compensation scheme of Federal Insecticide, Fungicide, and Rodenticide Act was unconstitutional); *Hodel v. Virginia Surface Mining & Reclamation Ass'n*, 452 U.S. 264, 294-96 (1981) (rejecting facial challenge to constitutionality of Surface Mining Control and Reclamation Act of 1977).

forward-looking prices for unbundled network elements and access is regarded as critical for achievement of the goals of the Act. In effect, such pricing is considered a necessary step toward realization of the public purposes embodied in the Act of Congress (the "public use" if it turns out there is a taking).⁶⁵ This suggests that the general rule (no injunction) is the correct one to apply here, in order to ensure that the public policy Congress adopts is not frustrated. If realization of that policy entails a taking, then the proper remedy is to enforce the policy, including any steps deemed necessary by those charged with its administration, and to require those that suffer any taking of property as a consequence of the policy to seek appropriate compensation after the fact.

If we are correct that any taking or breach of contract caused by the Act should be remedied by ex post compensation, then this also has important implications for other constitutional claims of Sidak and Spulber and the LECs. Sidak and Spulber argue that the introduction of competition into the local telephone industry may also be challenged as a regulatory taking under the three-part *Penn Central* test,⁶⁶ and may be characterized as a permanent physical occupation of LEC property under the *Loretto* decision.⁶⁷ Some incumbent LECs have advanced similar arguments and also have argued, with greater plausibility, that the physical collocation requirements of the Telecommunications Act represent a permanent physical occupation of their property.⁶⁸ Without addressing the merits of these arguments, it should be enough to note that as long as the Act includes mechanisms which can provide just compensation for any takings claims found to have merit, these claims, too, should provide no basis to halt the implementation of the Act in the manner deemed most appropriate by regulators to achieve its purposes.

⁶⁵ See *Hawaii Hous. Auth. v. Midriff*, 467 U.S. 224, 241 (1984) ("[T]he Court's cases have repeatedly stated that 'one person's property may not be taken for the benefit of another private person without a justifying public purpose, even though compensation be paid.'" (quoting *Thompson v. Consolidated Gas Corp.*, 320 U.S. 55, 80 (1937))).

⁶⁶ See *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 124 (1978) (identifying three significant factors in takings inquiry); see also Sidak & Spulber, *supra* note 1, at 941-46 (applying three-part *Penn Central* test in regulatory context).

⁶⁷ See *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 434-35 (1982) (holding that permanent physical occupation is taking without regard to public benefit or economic impact); see also Sidak & Spulber, *supra* note 1, at 946-53 (applying *Loretto* test to mandatory interconnection or unbundling).

⁶⁸ See 47 U.S.C.A. § 251(c)(6) (West Supp. 1997) (expressly authorizing physical collocation, and overruling *Bell Atl. Tel. Cos. v. FCC*, 24 F.3d 1441 (D.C. Cir. 1994)).

II ECONOMICS OF THE ISSUES

A. On the Probable Magnitude of Stranded Investment: Pertinent Differences Between Local Telecommunications and Electricity

We have argued that two considerations may be legally significant in determining the remedies for a taking or breach of regulatory contract. The first is the finality with which the responsible administrators have resolved all elements that must be determined to conclude there has been an uncompensated taking or breach of contract. The second is whether other avenues of relief exist to obtain compensation. Whether or not these factors are legally significant, they certainly make common sense. Both bear strongly on the probable magnitude of stranded investment, a practical consideration which regulators and courts should be anxious to ascertain.

Unfortunately, it is impossible at this stage in the implementation of the Act to predict with any precision exactly what the magnitude of stranded investment, if any, will be. That amount will depend on a number of variables: (1) whether and how quickly other firms will construct new facilities to compete against incumbent LECs; (2) how many consumers will switch to the new facilities of the competing LECs; and (3) how much revenue incumbent LECs will lose as a result of this stranded plant after netting out their lost market share against overall market growth.

Rather than venture any guesses about these variables, we will proceed in a more qualitative and comparative fashion, offering some observations about the differences between local telephony and electricity in terms of the probable magnitude of stranded plant that will result from the introduction of competition.

As should be evident, the magnitude of stranded costs created by the introduction of competition into markets previously served by regulated monopolies will differ significantly from one industry to the next and from one competitive access scheme to the next. The underlying principles are the same, but the pertinent variables may yield very different results, depending on the nature of the technology in the industry and the specific provisions of the competitive access scheme.

It is plausible that the introduction of competition into the retail electric power industry through a regime of unrestricted retail wheeling of power would have enormous stranded plant problems for utilities and regulators who adopted what proved to be high-cost sources

of power such as nuclear plants.⁶⁹ On the other hand, we doubt very much that the regime of local telephone competition established by the Act will give rise to similar concerns regarding stranded investment.

There are at least five reasons why the introduction of local competition under the Act is likely to present a relatively small stranded plant problem, at least relative to what might happen if unrestricted retail wheeling were introduced into the electric industry. First, competition in the early years is likely to be based on leasing rather than building duplicate systems, and if lease prices are compensatory, this will result in no stranded plant. Second, technological change renders some telecommunications plant and equipment obsolete at a rate more rapid than that in many industries. Third, local telephone plant has proven to be highly adaptable to multiple uses, suggesting that a loss in traditional local telephone service can be offset by the growth in demand for alternative services. Fourth, the prospect of entry into the long distance market offers a huge new source of revenue that must be attributed in part to the local plant of the LECs. And finally, the Act provides another offset by requiring that the FCC adopt competitively neutral universal service fees to cover the costs of incumbency burdens. We will elaborate briefly on each of these considerations.

1. Facilities-Based Competition Will Be Delayed

Unlike the electric power industry, the incumbent suppliers of the bulk of local telecommunications services do not constitute a set of high-cost producers burdened by critical decisions taken in the past committing them to technology that proved afterwards to be far more costly than reasonably foreseeable. With respect to the key components of local telephone technology—switching, transmission lines, and data processing—little difference exists among the different carriers. Thus, there is little opportunity for entrants into local activity to make immediate and dramatic inroads on incumbent monopolists through facilities-based competition, i.e., by building a duplicate system using alternative (cheaper) technology. The absence of immediate opportunities for exploitation of alternative technology means, in turn, that access to local markets in the early years under the Act will

⁶⁹ See Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, Notice of Proposed Rulemaking, Federal Energy Regulatory Commission, 59 Fed. Reg. 35,274, 35,278 (proposed June 29, 1994) (stating that electric utilities could face \$200 billion or more in stranded costs due to wholesale and retail wheeling).

primarily take place through the leasing of considerable portions of the incumbent LEC's physical plant.⁷⁰

Leasing rather than building has extremely significant consequences in terms of stranded plant. If the leased portion of the local system is priced properly, then there will be no stranded investment problem. The LEC will either use its local plant for its own purposes or will lease its facilities to competing carriers, presumably at compensatory prices. All portions of the physical plant are likely to be deployed fully and will earn a competitive return; there will be no violation of the Takings Clause or the regulatory contract.

2. The Useful Life of Telephone Technology Is Comparatively Short

It is also important that telephone technology is changing rapidly, particularly as analog equipment is extensively replaced by digital equipment. Consequently, the useful life of much modern telephone plant is short, at least relative to that of the electric industry.⁷¹ Equipment scheduled to be replaced or abandoned because of technological change clearly cannot be considered stranded investment.

3. Telephone Technology Is Adaptable to Multiple Uses

Another feature of telephone technology that reduces or precludes the stranded cost problem is its high adaptability to multiple uses. Because of technological advances in switching, transmission, and data processing, a system originally designed to transmit voice messages can now also send pictures (faxes) and computer files (e-mail), and soon will likely be able to transmit cable television and remote video signals. Hence, if and when the incumbent LEC's share of the local exchange market declines because of facilities-based competition, demand for the system resulting from new technological uses and services may grow to the point where existing plant is still fully or largely deployed. In sharp contrast, a nuclear generating plant has only one economical use—the generation of electricity. If new sources of power like gas turbines emerge that can produce the same power at much lower prices, then the introduction of competition is

⁷⁰ The Act and the FCC's implementing regulations expressly permit competing exchange carriers to purchase unbundled network elements from incumbents or to lease entire local exchange services at wholesale prices. See 47 U.S.C.A. § 251(c)(3), (c)(4) (West Supp. 1997).

⁷¹ It has been estimated that 60% of local Bell Operating Company plant was acquired after January 1, 1990, and that newer vintage plant replaces older plant at the rate of about 5% to 10% per year. See Lee L. Selwyn & Patricia D. Kravtin, *Analysis of Incumbent LEC Embedded Investment: An Empirical Perspective on the "Gap" between Historic Costs and Forward-looking TSLRIC 4*, CC Dkt. No. 96-98 (May 30, 1996).

likely to result in severe redundancy for the ill-fated owners of nuclear plants.

4. *Offsetting Interexchange Revenues*

Another critical consideration—this one stemming from the structure of the Act—is the presence of a quid pro quo for loss of LEC earnings. It is artificial and inappropriate to consider the potential loss of local market share by incumbent LECs without weighing it against the other momentous changes affecting the LECs which are made possible by the Act. In particular, the opening of markets required by the Telecommunications Act is a two-way street. Incumbent LECs must give up their monopoly positions in the market for local exchange service, but in return they can expect to gain access to interexchange (long distance) markets.⁷² The additional revenues from long distance services must be regarded as an offset against the local revenue losses that may occur. The LECs obviously regarded the prospect of tapping into this new source of revenue as substantial compensation for the loss of their local monopolies, since they pushed hard for the adoption of the Telecommunications Act for this very reason.⁷³

Traditionally, analysis of confiscation claims has been separated along jurisdictional lines, with the adequacy of revenues from FCC regulated activities considered separately from the adequacy of revenues from state regulated activities.⁷⁴ This may suggest, for example, that the state PUCs (which have traditionally regulated local exchange service) should not consider offsetting revenues from the interexchange market (traditionally regulated by the FCC) in determining whether introducing competition into the local market is a taking. But a fundamental purpose of the Act is to tear down these artificial jurisdictional lines and create a single electronic communications market.⁷⁵ Therefore, proper constitutional analysis should look to the total revenues a LEC derives from all telecommunications services causally attributable to its fixed plant investment. If the same statute that takes away local revenues with one hand returns new interstate revenues with the other, it makes no sense to slice up the same asset

⁷² See 47 U.S.C.A. § 271 (West Supp. 1997).

⁷³ See Hazlett, *supra* note 10, at 223-34 (discussing motivations behind LEC lobby).

⁷⁴ See *Smith v. Illinois Bell Tel. Co.*, 282 U.S. 133, 148-49 (1930) (stating that distinguishing between telephone company's interstate and intrastate property, revenues, and expenses was "essential to the appropriate recognition of the competent governmental authority in each field of regulation").

⁷⁵ See 47 U.S.C.A. § 151 (West Supp. 1997) (stating that one purpose of Act was to create efficient and accessible worldwide wire and radio communications service).

(the LEC's network) into different jurisdictional components and then declare a taking in the part that is losing revenue while ignoring the other side of the equation. Furthermore, even if courts retain the old jurisdictional distinctions in assessing confiscation claims, the courts should disregard them in deciding whether forward-looking pricing is unfair to LEC investors.

5. *Universal Service Fees*

Finally, the Telecommunications Act contains important provisions designed to ensure that incumbency burdens do not fall exclusively on the shoulders of the incumbent LECs. The principal incumbency burden is the actual or perceived requirement that the incumbent LEC serve as the carrier of last resort for all potential customers. In some cases this could entail providing service to rural and residential customers at nonremunerative rates. Here, the Act requires that all cross subsidies designed to maintain universal service be made explicit,⁷⁶ and that "[a]ll providers of telecommunications services should make an equitable and nondiscriminatory contribution to the preservation and advancement of universal service."⁷⁷ The FCC was required to adopt rules carrying out these provisions by the summer of 1997.⁷⁸ The revenues that LECs will receive from these charges surely must also be taken into account before deciding whether any losses associated with stranded plant violate the Takings Clause or are a breach of the regulatory contract.

It is too early to say that the foregoing features of the local competition scheme introduced by the Telecommunications Act mean that LECs will experience no stranded investment. Indeed, that is part of the point: the effect of each of these influences cannot be assessed until the Act is carried out fully. At the very least, however, it is inappropriate to assume that these industry and statutory influences are not present, or that the stranded plant problem will be so severe that a taking or breach of contract will inevitably occur unless access prices are adjusted to permit full recovery of all historical costs. Again, it appears that the wiser course is to permit forward-looking pricing to go into effect and to put off as premature any inquiry into the need for additional compensation.

⁷⁶ See 47 U.S.C.A. § 254(e) (West Supp. 1997).

⁷⁷ Id. § 254(b)(4).

⁷⁸ See id. § 254(a)(2) (stating that FCC must complete proceeding to implement provision within 15 months of February 8, 1996).

*B. On the Economics of Public Interest Pricing:
The Key Role of the Competitive-Market Model*

We also suggested in Part I.B. that the selection of legal remedies may turn on whether the regulatory action that produces these effects is considered to serve broad and important public purposes. Hence, it is important to review briefly why the features of the pricing rules, which have been endorsed by most economists and adopted by the FCC, are essential to achieving the Act's objectives.

The Telecommunications Act is designed to do nothing less than open all electronic communications markets to effective competition in order to serve the public interest.⁷⁹ If it achieves this goal, it should stimulate technological innovation, improve the convenience and quality of service, and result in reductions in real prices. The simplest way to attain this goal would be to introduce competition throughout the industry at once. But that is not possible, at least in the short run, given the high cost of replication of the LECs' critical bottleneck facilities such as copper wire local loops. Consequently, it is necessary to substitute regulation for competition in the pricing of these bottleneck facilities until effective competition is established securely. Only regulation based on competitive-market behavior can smooth the transition to the competitive regime, which is the basic goal of the Act.

1. The Role of Forward-Looking Costs and Monopoly Profits

For regulation to provide consumers the benefits of competition, the regulatory rules must replicate the behavior in competitive markets.⁸⁰ Prices that incorporate supercompetitive or monopoly profits constitute a clear violation of the rules of behavior of the competitive-market model. Such high prices invite rivals to undercut the incumbent and take its customers away. Thus, any pricing rule that is consistent with the competitive model must, at a minimum, rule out supercompetitive prices and monopoly profits.

Competitive-market forces also require firms to base their prices on forward-looking costs—the current and future costs that the firm will incur in providing goods and services to consumers. If prices do not cover those costs, they clearly cannot be compensatory. And since

⁷⁹ The Conference Report indicated that the purpose of the Act is "to provide for a pro-competitive, de-regulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all Americans by opening all telecommunications markets to competition." H.R. Rep. No. 104-458, at 1 (1996).

⁸⁰ For a more complete treatment of the points in this subsection, see William J. Baumol & J. Gregory Sidak, *Toward Competition in Local Telephony* 93-116 (1994) (analyzing efficient component-pricing rule for pricing of inputs used by competitors).

competition also prevents cross subsidies, the firm whose prices fail to cover forward-looking costs can expect financial difficulties. On the other hand, if the firm adopts prices far above its forward-looking costs, that will permit rivals to take its customers away. Therefore, competitive markets force firms to adapt their prices to forward-looking costs. Economic efficiency demands such pricing behavior because only prices based on forward-looking costs send the right signals to purchasers, requiring them to pay for their purchases an amount that corresponds to the costs actually caused by their purchases.

For similar reasons, the competitive-market model requires that the firm's assets be valued for pricing purposes on the basis of the costs of replicating those assets today (their replacement cost), not based on the cost originally incurred to construct them, as recorded in the books of the LEC. That is how assets are valued in any truly competitive market, because any firm which seeks to collect a price more than sufficient to recoup this amount makes itself vulnerable to the competition of a new and efficient rival that can offer the product at a lower price. Thus, the pertinent costs of assets are also forward-looking, not historical.

Prices based on historical cost are also a source of economic inefficiency and are therefore harmful to the public. Such prices will, for example, distort entry decisions by making it possible for *inefficient* entrants to succeed if the incumbent's final-product prices are inflated by historical asset-cost figures that exceed replacement costs. Alternatively, if historical costs happen to fall short of current replacement costs, they will distort the process by preventing the entry of *efficient* potential competitors.

For all these reasons, it is clear that the competitive model, as implicit in the goals of the Act, requires that prices be based on forward-looking costs and precludes supercompetitive prices and monopoly profits. The economic analysis that calls for the use of forward-looking costs is consistent with the language of the Act governing access-pricing standards⁸¹ and has been endorsed by the FCC and by most of the state PUCs that have faced the issue.⁸² It should carry a

⁸¹ See 47 U.S.C.A. § 252(d)(1) (West Supp. 1997) (setting forth standards for determining fair rates).

⁸² See Local Competition Order, *supra* note 29, ¶¶ 673, 682-740 (describing "forward-looking, cost based pricing standard"); see also *In re AT&T Communications*, Op. No. 97-2, No. 95-C-0657 (N.Y. Pub. Serv. Comm'n Apr. 1, 1997); *In re AT&T Communications*, Dkt. No. 1662 (Tex. P.U.C. Dec. 19, 1996); *In re AT&T Communications*, No. 96-752-TP-ARB (Ohio P.U.C. Dec. 5, 1996); *In re AT&T Communications*, Op. No. 96-31, No. 96-C-0723 (N.Y. Pub. Serv. Comm'n Nov. 29, 1996).

strong presumption of validity in the courts that review regulators' pricing decisions.

2. *Misunderstandings That the Sidak-Spulber Discussion Can Produce*

Sidak and Spulber undoubtedly accept the conclusions that in competitive markets the costs relevant for pricing are forward-looking, that the pertinent asset costs in such markets are their replacement costs, and that the competitive-market model also rules out supercompetitive prices and monopoly profits. However, in their discussion of the economics of access-pricing rules, they emphasize two additional criteria. First, they stress that economic efficiency requires access prices to be competitively neutral, in the sense that they must entail the same price for access to unbundled local network elements both to incumbents and to new entrants.⁸³ Second, they urge that access prices not abrogate regulatory commitments that served to elicit funding by investors in the past, because abrogation can lead to difficulties for the firm in raising needed capital in the future.⁸⁴

Most economists, including those who have appeared as witnesses on both sides in contested proceedings involving competitive access, would endorse these additional criteria in principle. Yet the Sidak-Spulber discussion can lead to misunderstanding because of three positions they appear to take. Starting with a legitimate concern with protecting investor expectations, they appear to suggest that: (1) competitive neutrality requires access prices to include a substantial contribution to the costs imposed on the LECs by their universal-service obligations;⁸⁵ (2) the regulatory contract requires investors to recoup the historical cost of the assets in which they invested, even if this exceeds the current replacement cost of those assets;⁸⁶ and (3) even if the regulated firm previously had been earning monopoly profits, deprivation of those profits without full compensation constitutes an impermissible taking.⁸⁷ The modifications of the pricing rules apparently required by these observations clearly conflict with the requirements of the competitive-market model for regulation and could lead to substantial distortions and inefficiencies.

⁸³ See Sidak & Spulber, *supra* note 1, at 973 (discussing efficient component-pricing rule as mechanism for determining access charges).

⁸⁴ See *id.* at 886-87, 989-90 (arguing that investors may hesitate to guarantee funding to utility if regulatory policies prevented it from recovering stranded costs).

⁸⁵ See *id.* at 869-74 (noting that incumbent firms may otherwise be disadvantaged by regulation).

⁸⁶ See *id.* at 958-59.

⁸⁷ See *id.* at 968-71.

a. *Competitive Neutrality and Universal Service.* The first additional requirement stressed by Sidak and Spulber is that access prices must be *competitively neutral*, in the sense that they should impose no differential handicap on either incumbent or entrant. A special pricing formula for achievement of this objective, called the efficient component-pricing rule (ECPR) or "parity pricing," has been devised.⁸⁸

The rationale for competitive neutrality is not too difficult to explain intuitively. The incumbent owner of a bottleneck or essential facility may well have the incentive to overcharge for access to the facility in order to minimize effective competition from entrants. Competitive neutrality requires that the price the owner of the bottleneck facility charges to its competitors for access to the facility be the same as the amount the bottleneck owner must itself forgo when it uses the facility. If the bottleneck owner charges a higher access price to rivals than it charges to itself, it will be able to outcompete those rivals, even if they are the more efficient providers of the final products in question. The reverse will be true if rivals pay less for access than the bottleneck owner does, because an inefficient competitor may be able to take the final-product business away from an efficient bottleneck owner. In either case, the business may go to an inefficient supplier forcing the consuming public to bear the unnecessary costs.

The issue arises in the context of local telephone competition primarily because regulators have imposed universal-service obligations upon the LECs in the past. That is, they have required the LECs to provide local service to household customers at prices that do not cover the pertinent incremental costs in order to make telephone subscription as widespread as possible.⁸⁹ If the LECs were forced to bear the entire cost of the shortfall in serving these customers with no contribution from entrants, then competitive neutrality indeed would be violated.

But clearly this is not what the Act requires. Rather, the Act mandates that a universal service fund be established to which all entrants will have to contribute suitable amounts.⁹⁰ If these amounts are determined appropriately, then competitive neutrality will be preserved without any need to manipulate access charges for that purpose.

⁸⁸ The rule was formulated by Robert D. Willig, and one of the present authors has been substantially involved in its propagation. See Baumol & Sidak, *supra* note 80, at 95-97 (explaining efficient component-pricing rule).

⁸⁹ See Milton Mueller, *Universal Service in Telephone History: A Reconstruction*, 18 *Telecomm. Pol'y* 352 (1993).

⁹⁰ See *supra* Part II.A.5.

b. The Regulatory Contract and Historical Costs of Assets. Sidak and Spulber also suggest that implied regulatory commitments require that investors be allowed to recoup the full historical costs of their investments, but not the replacement cost of their assets. Yet, as discussed above,⁹¹ all that investors can legitimately expect is that they will be permitted to earn a rate of return on their investments (including recoupment through depreciation) that is consistent with the competitive-market standard. In effect, investors have been protected from the losses that a failed competitive enterprise would suffer, but they also have been precluded from enjoying the high earnings of a very successful competitive firm. Instead, they have been promised the opportunity to earn returns that one could expect from investment in an average competitive firm of comparable risk and average profitability. The implication is that the regulatory contract promises no more than the recoupment of asset values that competitive markets provide on the average—the replacement cost of those assets, not their historical cost. We see no reason to believe that the regulatory contract requires compensation greater than this.⁹²

c. Deprivation of the Opportunity to Charge Supercompetitive Prices or Prices That Include Some Monopoly Profit. Numerous passages in the Sidak and Spulber article appear to imply that depriving an investor of *any* expected earnings by a new law or a revised regulation is an indefensible act, damaging to economic efficiency and in violation of the Constitution.⁹³ Surely, they do not mean that. Deprivation of the right to charge supercompetitive prices or to charge prices that contain monopoly elements can be likened to the deprivation of future loot suffered by a burglar when a new law facilitates his arrest and conviction. Moreover, we cannot conceive of any regulator suggesting that such pricing practices are entitlements subject to regulatory protection. Sidak and Spulber are well aware that such pricing practices are inconsistent with the competitive-pricing model. They are also well aware that such pricing undermines economic efficiency in general and, in particular, the efficiency properties of competitive neutrality in access pricing.⁹⁴

⁹¹ See *supra* Parts I.A.2.b. & I.A.2.c.

⁹² Certainly, one of the authors, William Baumol, and Robert Willig have addressed repeatedly the proper valuation of assets in railroad regulation and consistently have taken the position that replacement cost is the proper test, even when they were testifying on behalf of a railroad that was to be the recipient of access charges.

⁹³ See, e.g., Sidak & Spulber, *supra* note 1, at 919-20, 925, 958.

⁹⁴ This is clearly spelled out in the two Baumol-Sidak books on telephone and electricity regulation. See Baumol & Sidak, *supra* note 80, at 108-09 (arguing that allowing utilities to charge monopoly rates, not optimal input-pricing rule, causes inefficiency). See

The implication that follows for the pricing of unbundled network elements and access to the LECs' local networks is profound. The methods for determining those prices should preclude any opportunity to set them at supercompetitive levels. The rules proposed by the FCC to carry out the Telecommunications Act do this, and that is one of their major benefits. To block adoption of those rules before their full implications for the Act's future have been realized would be a profound disservice to consumers.

III

CONCLUDING COMMENT

We have found no reason to conclude, on the basis of either law or economic analysis, that the pricing rules accompanying the introduction of competition into the local telephone exchange market must provide for the recovery of the historical costs that incumbent LECs incurred while operating as monopolies. Recovery of historical costs is not required by the Takings Clause or the regulatory contract. And providing for recovery of historical costs would violate the precepts of the competitive-market model, which must be observed if the Act's public interest purposes are to be realized.

We have also concluded that the constitutional day of reckoning can and should be postponed until the Act is in full operation. Given the nature of the telecommunications industry and the mitigating provisions of the Act, there is substantial reason to think that the introduction of local competition will produce only minimal stranded investment, and perhaps none at all. This is not to say that isolated cases that entail the need for special adjustment will not arise. But it does suggest that the forward-looking pricing standards for competitive access, which economists and many regulators have endorsed, need not be abandoned out of fear that, without substantial alteration, they will inevitably give rise to violations of the Constitution.

Sidak and Spulber have made a considerable contribution to our understanding of an important and complex subject, primarily by reminding us of the importance of protecting investors' legitimate reliance interests. But their discussion is also likely to lead to important misapprehensions, because it does not recognize the special attributes of the telecommunications industry, because it does not take into account competitive neutrality provisions such as the universal service fund, and because it does not take note of the critical role of forward-looking costs and forward-looking valuation of assets.

generally William J. Baumol & J. Gregory Sidak, *Transmission Pricing and Stranded Costs in the Electric Power Industry* (1995).