
YOU SAY YOU WANT A REVOLUTION? FACT AND FICTION REGARDING BROADBAND CMRS AND LOCAL COMPETITION

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In a time of universal deceit, telling the truth is a revolutionary act.

—George Orwell

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this article, particularly those with which you disagree, are entirely those of the author and do not represent the views of AirTouch Communications, Inc., or any of its affiliated companies. This article is dedicated to my parents, David and Shirley Cosson.

I. INTRODUCTION: THE REVOLUTION MUST BE TELEVISED

According to some old trade press reports, former Federal Communications Commission ("FCC") Chairman Reed Hundt was at one time going to publish a book, tentatively titled "You Say You Want A Revolution?"¹ Since the title isn't being used at the moment, let's borrow it for a look at the alleged enthusiasm for competition in local telephony and the expectation that broadband commercial mobile radio services ("CMRS"), including cellular, broadband personal communications services ("PCS") and Enhanced Specialized Mobile Radio ("ESMR") providers,² are positioned to bring competition to local telephony in the way that policymakers desire.

A significant number of new carriers, including cable television providers, are investing in local telecommunications facilities and have the potential to bring facilities-based competition to local telephony. But recent events also evidence an interest in the potential of broadband CMRS carriers to bring competition to local telephone service markets.³ Specifically, as the FCC has noted,

¹ See *Reed Hundt: Mr. Chairman* (visited Apr. 5, 1999) <data.com/25years/reed_hundt.html>.

² In this article, I use the term broadband CMRS to refer specifically to those services defined as CMRS services under the Communications Act and identified by the FCC as likely substitutes for traditional wireline telephony. See 47 U.S.C. §332(d)(1); *In re* Implementation of Sections 3(n) and 332 of the Communications Act, *Second Report and Order*, 9 FCC Rcd. 1411, 1435, para. 54–55 (1994) [hereinafter *CMRS Second Report and Order*]. The terms "wireless telephony" or "mobile telephony" are meant to be used interchangeably with broadband CMRS and are distinguished from other CMRS or wireless services such as paging, mobile satellite services or fixed microwave. See *id.*

³ See, e.g., *In re* 1998 Biennial Regulatory Review—Spectrum Aggregation Limits for Wireless Telecommunications Carriers, *Notice of Proposed Rulemaking*, 13 FCC Rcd. 25,132, para. 47 (1998); *Sugrue Named Chief of the Wireless Bureau*, COMM. DAILY, Dec. 7, 1998; *In re* Federal-State Joint Board on Universal Service, *Memorandum Opinion and Order*, 13 FCC Rcd. 21,252, 21,277, para. 44 (1998) ("We seek comment on the extent to which our rules facilitate the provision of services eligible for universal service support by providers, such as wireless . . . that historically have not supplied such services."); *In re* Calling Party Pays Service Option in the Commercial Mobile Radio Services, *Notice of Inquiry*, 12 FCC Rcd. 17,693, 17,693, para. 1 (1997) (stating that the FCC is "committed to taking necessary actions to increase consumer options for local telephone service"); *In re* Amendment of the Commission's Rules to Permit Flexible Service Offerings in the Commercial Mobile Radio Services, 11 FCC Rcd. 8965, 8967, para. 3 (1996) ("by giving CMRS providers greater flexibility . . . we establish a framework that will stimulate wireless competition in the local exchange market"). See also Michele

many analysts believe that CMRS, especially mobile telephony, may become a direct competitor to wireline telephone service. Therefore, as CMRS services become more prominent in the telecommunications marketplace, questions have arisen concerning public policy responsibilities. "The Commission, along with the CMRS industry, is currently addressing issues related to public service obligations for CMRS providers that wireline carriers are required to provide. This process involves crafting regulations that minimize burdens but still act to encourage CMRS providers to enhance their services in ways that serve the public."⁴

This article focuses on issues surrounding the expansion of service by CMRS providers. Unlike interexchange carriers ("IXCs"), cable television or other new entrants, broadband CMRS networks and billing systems are already technically capable of providing telecommunications access to the home or even to a particular individual person for certain mobile broadband services.⁵ Therefore, the acquisition of facilities from the incumbent local exchange carrier ("ILEC") is not

C. Farquhar, *Jump-Starting Wireless Competition in the Local Telecom Market*, Presentation at the National Telecommunications and Information Administration ("NTIA") Wireless Local Loop Forum, Dec. 17, 1997 (describing obstacles to wireless local loop as a competitor to wireline local exchange service); Federal-State Joint Board on Universal Service Announces the Addition of a Wireless Representative to Serve on Rural Task Force, *Public Notice*, 13 FCC Rcd. 20,834 (1998).

⁴ *In re* Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, *Third Report*, 13 FCC Rcd. 19,746, 19,755 (1998) [hereinafter *Third Competition Report*].

⁵ Some believe that wireless could not only serve as an economic substitute for local telephone service, but that fixed wireless technology would eventually replace the twisted pairs of copper wires used as local "loops" connecting homes and businesses to the landline switches. See GEORGE CALHOUN, WIRELESS ACCESS AND THE LOCAL TELEPHONE NETWORK 383–84, 547 (1992); Terrence McGarty, *The Economic Viability of Wireless Local Loop and its Impact on Universal Service*, presented at the Columbia Institute for Tele-Information (Oct. 1996); Paula Bernier, *Waiting for the Wireless Local Loop to Roll*, INTERACTIVE WEEK, Sept. 15, 1997, <www.zdnet.com/intweek/print/970915/inwk0003.html>. Given the FCC's rational inclination to treat fixed wireless services offered by CMRS carriers as CMRS, this article's discussion of "broadband CMRS" services is intended to encompass both fixed and mobile services. See generally *In re* Amendment of the Commission's Rules to Permit Flexible Service Offerings in the Commercial Mobile Radio Services, *First Report and Order and Notice of Proposed Rulemaking*, 11 FCC Rcd. 8965 (1996) [hereinafter *CMRS Flexible Use Notice*].

the same obstacle as it is for other new entrants, although broadband CMRS does require just and reasonable interconnection arrangements with the ILEC and other carriers in order to provide a robust level of service.

Accordingly, policymakers may expect broadband CMRS carriers to enter the local exchange market and compete for customer subscriptions and universal service subsidies, in return for certain obligations. In other words, the assumption is CMRS providers will assume (or duplicate) the "carrier of last resort" role presently occupied by ILECs. Another common assumption is, because broadband CMRS is used by a larger portion of the public, it should be treated identically to other local exchange carriers or subject to similar regulations regardless of whether it is subsidized.

Except for unique circumstances in some niche markets, these assumptions are fundamentally incorrect. For broadband CMRS carriers to put competitive pressure on incumbent wireline local exchange carriers ("LECs"), the policy changes that occur must clearly establish a "pro-competitive, deregulatory" framework and not attempt to develop CMRS firms into wireless LECs. In addition, encouraging CMRS providers to enhance their services in ways that serve the public⁶ involves allowing the public itself to demand price and service innovations and allowing the competitive market forces in the CMRS industry to compel a response, not issuing government mandates on how the public should be served. Government mandates represent a market outcome of a political process, one in which consumer influence is not necessarily proportionately represented. Competitive service markets provide consumers with a far better means to obtain the prices and services they want than the indirect method of seeking government action.

The primary issue affecting the ability of broadband CMRS services to compete with wireline telephony service is price.⁷ On the CMRS side, competition and technological advancements will continue to bring mobile prices down; this is not an area where government action or telecommunications policy is really operative. To encourage mobile telephony to become a better competitor for wireline telephone service, policy changes

should move toward the elimination of subsidies between carriers and the elimination of regulations premised upon the traditional monopoly perspective of wireline common carrier regulation. Regulatory parity may eventually be possible, but only as a consequence of deregulation as wireline carriers' market power is reduced. The revolution we should be trying to achieve is one that will set the regulatory bar lower, not higher, to bring consumers still more benefits of competition.

CMRS carriers have a responsibility to serve consumers well and to develop their businesses based on sound, independent judgment. Expectations that broadband CMRS carriers will function as local competitors within the wireline model or seek universal service eligibility in order to compete via subsidies are misplaced. Competitive businesses want an environment where subsidies are neither given nor received and investment decisions are made using private financial models. This article will show that the traditional wireline LEC business model—exchanging subsidies in return for increased social obligations—is not compatible with a competitive market approach.

The primary determinant of whether CMRS carriers will win access lines away from ILECs, particularly for basic residential and small business users, is whether CMRS services are price-competitive. At the moment, however, wireline LEC services are subsidized at below-cost rates, while the costs of such subsidies are paid for by their competitors. This obviously frustrates competition and deters the growth of wireless services. This article will show that a fully competitive, deregulated approach to basic residential telecommunications pricing is a necessary adjunct to fuller competitive pressure on wireline local services from CMRS carriers.

At present, enthusiasm for a fully competitive, deregulated approach is somewhat reserved. While the 1996 Act's preamble professes support for a pro-competitive, deregulatory approach, the Act is at best "pre-competitive" rather than "pro-competitive." This article argues that the way forward is for policymakers to explore ways to achieve political consensus and support for new

⁶ See *Third Competition Report*, 13 FCC Rcd. at 19,755.

⁷ See *In re Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993*, Annual Report and

Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, *Second Report*, 12 FCC Rcd. 11,266 (1997) [hereinafter *Second Competition Report*].

ways to support universal service without taxes and subsidies between competitors, and to become more comfortable with the competitive business model for infrastructure investment and service pricing. The long-term goal should be to move further away from the regulated monopoly model toward complete deregulation and full competition for all telecommunications services, wireless and wireline.

A. What Will the Revolution Look Like?

Local competition from broadband CMRS providers will likely first evolve not in the form of full "line substitution," consumers abandoning a wireline subscription and using wireless full-time, but competitive pressure from "call substitution" or "minute migration." Most consumers will, for the moment, retain their landline phone service for its cheap local calling option, but will also purchase CMRS for the added advantage of mobility. As CMRS prices come down, CMRS services will be used by more and more individuals, and those individuals will use CMRS services for a higher percentage of telephone calls.

Even now, some form of competitive substitution of wireless for landline is taking place. Calls that formerly would have waited for a landline or public phone to be available are made on mobile phones. In many cases, the CMRS rate for an intra-LATA toll call is already less expensive than the wireline rate. Specifically, Merrill Lynch estimates that wireless will capture 7.3 percent of the total telecommunications minutes of use for the year 2000, up from 1.7 percent in 1993.⁸ 1993 also saw 1.412 trillion total minutes of use, and that is expected to grow to 2.014 trillion in the year 2000.⁹ With regard to revenues, wireless was about 6.3 percent of total telecom revenues in 1993 but is expected to capture 14.7 percent of total revenues by 2000.¹⁰ Even with the advent of the Internet, home faxes and other home office uses, wireless captures over 60 percent of total net access line additions.¹¹

This shows that minutes are migrating to wireless largely because customers are supplementing, not replacing, their landline services with wireless. This has some potential to put competitive pres-

sure on access charges as more and more consumers utilize mobile phones for long-distance and intra-LATA toll calling, bypassing the wireline access charges for origination and termination (although not necessarily bypassing wireline facilities). As consumers migrate minutes from wireline to wireless networks, wireless networks will increase in value, because they will have a larger number of connected users. But minute migration is not, by itself, going to bring the type of competition that policymakers are most interested in. Normally, minute migration would put competitive pressure on wireline companies to reduce prices, but that is impossible because local telephone services are already offered at subsidized, below-cost rates for unlimited usage in the local area.

The competitive impact of wireless will be most significant to the extent that it represents substitution and not simply additional telecommunications traffic. Line substitution of wireless for wireline services would go farther in reducing ILEC market power over local connections, not only giving consumers true choices with respect to local call origination and termination but reducing ILEC market power with respect to network access to those consumers. Where a customer relinquishes a landline LEC subscription exclusively in favor of a broadband CMRS service, the wireline LEC no longer controls access to that customer and can no longer anti-competitively advantage itself with respect to long-distance or other services purchased by that customer.

Eventually all carriers, including the Bell Operating Companies, will offer both local and long-distance calling under a variety of rate plans. The distinctions between "local" and "long-distance" calling areas will become simply yet another variable in the different service offerings of telecommunications competitors, both wireless and wireline. CMRS carriers are most likely to offer service packages that do not recognize "local" and "long-distance" as separate product markets the way traditional wireline service regulation does. Accordingly, many regulations applicable to wireline carriers simply make no sense when applied to broadband CMRS; among these are regulations

⁸ *The Next Generation II*, Merrill Lynch Report (Mar. 10, 1998) at 31-32.

⁹ *See id.*

¹⁰ *See id.*

¹¹ *See id.* at 34.

that assume the existence of a local/long-distance or intrastate/interstate dichotomy.

Accordingly, broadband CMRS carriers are not likely to evolve into the equivalent of wireline LECs in the way that regulators may imagine, nor should they be subject to LEC obligations, particularly those originating in the historical monopoly-based system for ILEC regulation. The "revolution" will look quite different from simply more ILECs without wires. Government-defined service area classifications, such as Local Access and Transport Area ("LATA") boundaries will give way to carrier-defined calling plan options. LEC/IXC interconnection arrangements will simply become carrier-to-carrier interconnection agreements, negotiated on the same basis as other interconnection agreements. Access charges will eventually become a relic of the past. However, for this rosy scenario of competing, facilities-based carriers to develop extensively, further changes in telecommunications pricing and policy will be necessary.

B. What Is To Be Done?

Line substitution requires customers to make a favorable price comparison between their overall monthly bill for wireline service, local *and* long-distance, and the monthly cost of broadband CMRS service, factoring in the additional benefits of mobility. Even factoring in reductions in long-distance service prices through access charge and universal service reform, the fact that local wireline service continues to be subsidized presents a competitive obstacle to line substitution. Eventually, technological development could bring the costs of broadband CMRS to a point where they can be competitive with subsidized wireline service, *i.e.*, below the subsidized price of wireline service. However, to date this has not taken place.

Whether technology will be sufficiently ad-

vanced to provide a mobile telephone service with competitive broadband capabilities at costs below wireline is highly uncertain and not viable as a short-term solution to the local telephone competition issue. With a few select policy changes, competition need not wait for such uncertainties. Moreover, eliminating the market distortions caused by subsidy flows within the local telephone industry will better serve consumers in the long run.

Broadband CMRS services are doing their part to try and become price competitive with wireline; prices are falling due to intense competition for market share among wireless carriers. Broadband CMRS carriers are introducing lower rates and bundled packages of minutes. They offer not only the premium benefit of mobility but all of the advanced vertical features consumers have come to expect, such as caller ID and voice mail, among other things. Wireless services offer larger "local" calling areas or even nationwide calling without extra charges and are price competitive with many interexchange toll services. For example, AT&T has introduced a number of novel plans, one of which offers a single rate of 10 cents a minute for all calls, wireline and wireless, made from a "home" area to anywhere in the country another which offers nationwide calling without long-distance or roaming fees for a monthly fee of around \$90.00.¹²

Few consumers make a sufficient number of long-distance calls to make wireless price-competitive with wireline at this time. Pricing bundles and "one-rate" plans with nationwide service areas will make wireless far more attractive as a replacement for traditional wireline service. AT&T's efforts, in particular the concept of a single home or local area for both wireline and wireless and single billing for both services, will help initiate the psychological changes that enable more and more consumers to visualize using a wireless

¹² See Seth Schiesel, *AT&T to Offer Single Rate for All Users*, N.Y. TIMES, Jan. 28, 1999, at C1. The AT&T "Personal Network" plan costs \$30 per month as a flat fee with a one-year contract commitment required. The AT&T plan also allows for a single bill for all services, including an AT&T Internet Access account where a customer has selected AT&T as their Internet provider. AT&T's Digital One wireless plan, by contrast, offers 600 minutes of wireless service anywhere in the country for a flat monthly fee of \$89.99. The "Personal Network" plan is expected to introduce many more residential consumers to using wireless and wireline interchangeably; here, to obtain them from the same carrier. See *id.* GTE

Wireless has followed suit with a comparable set of offers: the GTE "HomeChoice plan offers 14 cents per minute for long-distance calls originating in the home area, with the opportunity to expand the home area to a larger level for an additional \$15 per month. GTE's "AmericaChoice" plan, similar to the Digital One AT&T plan, eliminates roaming and domestic long-distance charges where customers purchase 650 minutes for \$95 per month. See TELECOMM. REP. DAILY, Jan. 29, 1999. These plans, of course, are still no competition for wireline service, where unlimited local calling is available for as little as \$10 per month. See *id.*

phone exclusively. But if there is to be a revolution, there are a number of steps necessary for even further competition from wireless that require significant policy changes in the direction of greater competition and deregulation, *e.g.*, wireline "rate rebalancing."¹³ Here, the issues are also psychological; they are far more political than economic.¹⁴

The political and policy reasons for the present situation are, ironically, both obvious and ignored. That is, the reasons for the lack of price competition in local services are obvious to most economists but studiously ignored by policymakers. For the moment, local wireline services remain protected from competition through subsidi-

dies that allow those services to be priced below any reasonable measure of their share of costs.¹⁵ Most economists understand that it is unreasonable to expect significant competitive entry into local exchange markets where the prices of local residential wireline services are set at levels below any reasonable measure of an appropriate share of the costs attributable to local service and in fact subsidized through taxes on potential competitors.¹⁶ "Rebalancing" those rates to more accurately reflect the costs of individual services would encourage competition and increase efficiency by sending better price signals to competitors.

In the European Community, rate rebalancing has been considered a necessary and fundamental

¹³ The term "rate rebalancing" generally refers to the process of eliminating the cross-subsidy given to local exchange services from other telecommunications services by raising local exchange rates to reflect a more appropriate share of LEC costs and thus encourage competitive entry and substitution.

¹⁴ Any doubt as to the influence of politics in the present telecommunications policy debate should be put to rest by examining the increase in telecom firms' expenditures for lobbying and campaign contributions in the last few years. Telecommunications political contributions for the 1997-98 election cycle were 52 percent higher than for the last non-presidential election cycle (1993-94). \$2.7 million in contributions were distributed between October 1995 and February 1996, the height of debate on the 1996 Telecommunications Act. "Rate rebalancing" is one of the most politically sensitive issues: the largest recipient of telecommunications donations at the state level went to the Florida Republican Party at a time when that state was considering legislation to rebalance local telephone rates. See Mike Mills, *The Bells (and Others) Are Ringing*, WASH. POST NAT'L WEEKLY ED., Dec. 14, 1998, at 18.

¹⁵ As with many multi-product firms, the facilities used to provide local telephony are also used to provide other services such as access to long-distance, Internet and wireless services. Economic questions regarding the appropriate share of the total costs to be allocated to a given service are, not surprisingly, subject to a number of different answers. There is widespread agreement, however, that local service intentionally bears less than a reasonable share of its costs. See, *e.g.*, *In re Federal-State Joint Board on Universal Service, Report and Order*, 12 FCC Rcd. 8776, 8784, para. 11 (1997) [hereinafter *May 1997 Universal Service Order*]; JERRY HAUSMAN, *TAXATION BY TELECOMMUNICATIONS: THE ECONOMICS OF THE E-RATE*, (AEI Press 1998); Bhaksar Chakravorti and Yosef Spiegel, *The Political Economy of Entry into Local Exchange Markets, QUALITY AND RELIABILITY IN TELECOMMUNICATIONS INFRASTRUCTURE* 43, at 44 (William Lehr ed., 1995) (Chakravorti and Spiegel show that Pacific Bell charged \$8.35 per month for basic local service, while its marginal costs were estimated to be \$22 per month). The total cost of such subsidies has been estimated at approximately \$20 billion per year. See Craig D. Dingwall, *The Last Mile: A Race for Local Telecommunications Competition Policy*, 48 FED. COMM. L.J. 105, 120 (1995); Calvin Monson & Jeff Rohlf, *The \$20 Billion Impact of Local Competition in Telecommunications*, (study pre-

pared for the U.S. Telephone Association July 16, 1993). *But see* HATFIELD ASSOCIATES, *THE COST OF BASIC UNIVERSAL SERVICE* (1994) (suggesting a lower amount). Although an economic measure of the portion of costs to be borne by local service prices could be calculated based on subscriber use data, state regulatory commission decisions about the size of this portion intentionally allocate higher portions of costs to the interstate jurisdiction in order to keep local costs low. See generally *In re American Tel. & Tel. Co., Memorandum Opinion and Order*, 3 F.C.C. 2d 307, 309-11 (1966) (adopting a Separations Manual and stating the historical reasons for its adoption); *In re Prescription of Procedures for Separating and Allocating Plant Investment, Operating Expenses, Taxes, and Reserves Between the Intrastate and Interstate Operations of Telephone Companies, Report and Order*, 16 F.C.C. 2d 317, 330 (1969). The requirement to divide costs among jurisdictions stems from the Supreme Court's decision in *Smith v. Illinois Bell*, 282 U.S. 133, 148 (1930). Recently, Congress and the FCC have begun efforts to make some of the costs of these subsidies more explicit and to recover the costs through taxes on all telecommunications carriers, rather than just interexchange carriers. See, *e.g.*, 47 U.S.C. §254; *May 1997 Universal Service Order*, 12 FCC Rcd. 8776; see also *In re Jurisdictional Separations Reform and Referral to the Federal-State Joint Board, Notice of Proposed Rulemaking*, 12 FCC Rcd. 22,120 (1997) (describing the most recent FCC efforts at separations reform); *In re Access Charge Reform Price Cap Performance Review for Local Exchange Carriers, Notice of Proposed Rulemaking, Third Report and Order and Notice of Inquiry*, 11 FCC Rcd. 21,354 (1996).

¹⁶ See, *e.g.*, Joseph Farrell, *Prospects for Deregulation in Telecommunications*, Remarks to the Federal Communications Commission, May 30, 1997 <www.fcc.gov/Bureaus/OPP/Speeches/jf050997.html> ("In telecommunications, some end-users currently are charged below cost—in some cases much below cost. This kind of entitlement creates competitive problems if those subsidies are funded by implicit cross-subsidies from other users who pay above cost, or if they are funded explicitly but not all competitors are equally able to receive the subsidy"). See also Gail Lawyer, *Rural Retreat*, TELE.COM (visited Apr. 5, 1999) <www.teledotcom.com/0698/features/tdc0698cover1.html> ("There is growing doubt that the free-market approach, in which competition acts as the primary mechanism to drive down prices, is consistent with the universal service goals put forth in the Telecom Act").

aspect of liberalizing telecommunications markets and opening them to competition. The persistence of artificially low tariff prices for local services is considered by European policymakers to be "damaging a dynamic source of overall growth."¹⁷ They have directed that all telecommunications service providers "rebalance" tariffs to align them with costs.¹⁸

But these obvious reasons are largely ignored because any correction to the competitive obstacle is seen as politically untenable. Policymakers expect a popular backlash if wireline local service rates increase and have established maintaining the local service price ceiling as a top priority—even above promoting competition or economic efficiency. Put plainly, the enthusiasm for local competition in theory vastly exceeds the actual effort expended on making necessary changes that will allow it to happen, or at least allow it to happen in the shorter time frames public statements suggest are desired. This tepid enthusiasm for competition is evident in the 1996 Act. Full embrace of a competitive approach will increase the chances that a local competition revolution will occur, particularly one led by broadband CMRS services.

Both the framework of the 1996 Act and the policy decisions made to implement it are not "pro-competitive," they are "pre-competitive." Regulators have simply not yet fully embraced a "pro-competitive, deregulatory" approach to local telephony, while broadband CMRS carriers have grown in and do operate in a fully competitive market and make business decisions according to processes very different than traditional LECs. The present approach to local competition is to

try and license more LECs for a given market area, give them access to the same subsidies, compensate for the ILECs' economies of scale by requiring network unbundling, but generally to keep the same regulatory approach for the competitors as that designed for the incumbents—subsidies in exchange for service obligations and oversight.

Many regulators may therefore imagine that CMRS carriers will create additional local competition either as a fixed wireless "CLEC" or other arrangement whereby a CMRS carrier assumes "LEC" regulatory status. But it is in fact the threat of LEC regulation, including state and local regulation, that is part of the deterrent to CMRS carriers developing both fixed and mobile service offerings that more directly compete in the local exchange market. Wireline and wireless service businesses arose from different origins, subscribe to different values, have different cultures and follow different models for doing business.

Policymakers should begin with the understanding that CMRS carriers operate in a highly competitive market and should remain free of the old monopoly-based systems of regulation and subsidy in order to grow most effectively and create better value for consumers. "Regulatory parity" is not necessary. In one direction, it would simply saddle CMRS carriers with unnecessary regulations intended to address instances of ILEC market power. Rather, the transition toward regulatory parity should take the form of deregulation of CMRS carriers.

Congress, the FCC and state commissions have embraced a competitive, "subsidy-free" zone for the Internet.¹⁹ Policymakers should be equally

¹⁷ Towards a Dynamic Economy—Green Paper on the Development of the Common Market for Telecommunications Services and Equipment, COM 290, at 50 (June 30, 1987).

¹⁸ See European Commission Directive 96/19/EEC of 13 Mar. 1996 amending Directive 90 388 EEC with regard to the implementation of full competition in telecommunications markets (OJ L 74/13, 22.03.96), at para. 20. ("Artificially low prices, however, impede competition because potential competitors have no incentive to enter into the relevant segment of the voice telephony market and are contrary to Article 86 of the Treaty, as long as they are not justified under Article 90 (2) of the Treaty as regards specific identified end-users or groups of end-users. Member States should phase out as rapidly as possible all unjustified restrictions on tariff rebalancing by the telecommunications organizations."); Commission Communication on Assessment Criteria for National Schemes for the Costing and Financing of Universal Service in Telecommunications and Guidelines for the Mem-

ber States, COM (96) 608, at Annex B (Nov. 27, 1996) [hereinafter *European Universal Service Guidelines*] (prohibiting member states from recovering the costs of an access deficit contribution attributable to unbalanced national tariff structures in a national universal service plan).

¹⁹ See *In re Federal-State Joint Board on Universal Service, Report to Congress*, 13 FCC Rcd. 11,501, 11,638 (1998) (dissenting statement of Commissioner Harold Furchtgott-Roth).

For over a year now, the United States has made it a matter of national policy to encourage other nations to eschew [i]nternet regulation and taxation. Ira Magaziner, on behalf of President Clinton, won broad bipartisan support for the report in which he concluded that the Internet should remain free of such burdens. To introduce our own form of Internet regulation and fees at this point would be the height of hypocrisy and would set a terrible precedent for other countries to follow.

careful to preserve the competitive CMRS market and avoid the temptation to initiate broadband CMRS carriers as part of the "club" of local exchange carriers subject to extensive state and federal regulation. A far more preferable approach would be to take steps to encourage competitive entry, reducing the market power of LECs and permitting LECs to evolve into members of a competitive market, rather than agents of government regulation and subsidy.

The reforms required must take cognizance of the different legal "bargains" struck between business and government in the wireline and broadband CMRS industries.²⁰ ILECs long ago entered into a very extensive bargain—a regulatory contract—with government: universal service obligations and regulation of prices and investment decisions in exchange for a protected monopoly and a guaranteed return. The modern approach to competition continues to subsidize these carriers but purports to invite "competition" by making the subsidies explicit and portable to carriers who win customers away from the ILEC.²¹ Of course, in order to receive such subsidies, the competing carrier must also assume the terms and conditions

of the LEC's regulatory contract and adapt their business approach to one much closer to the business model of the regulated wireline LEC.

True, the FCC has wisely not required a CMRS carrier to assume LEC status or to be regulated as a LEC to obtain universal service subsidies.²² But even so, subsidies are subject to changing political fortunes, create uncertainty, require additional lobbying efforts to preserve and come with too many unknown "strings" attached to make them a viable basis for making business decisions in a competitive market.²³ Accordingly, policymakers should not subject CMRS carriers to regulations designed for the LEC model, nor should it be surprising that CMRS carriers are, for the most part, uninterested in obtaining additional revenue through government subsidies.

Building on the assumptions that competitive markets are sought, here are some prospective suggestions for revisions to current telecommunications policy: First, inter-carrier taxation and subsidy must end. To the extent that subsidies are needed where a cost-oriented price for local service connections is unaffordable, those subsidies should be collected from the general tax base and

²⁰ *Id.* The concept of legislation or regulation as a bargained-for contract is common in the academic literature. See, e.g., J. BUCHANAN & G. TULLOCK, *THE CALCULUS OF CONSENT* (1966); George J. Stigler, *The Theory of Economic Regulation*, 2 *BELL J. ECON. & MGMT. SCI.* 3 (1971); Joseph P. Kalt & Mark A. Zupan, *Capture and Ideology in the Economic Theory of Politics*, 74 *AM. ECON. REV.* 279 (1984). See also Jonathan R. Macey, *Promoting Public-Regarding Legislation Through Statutory Interpretation: An Interest Group Model*, 86 *COLUM. L. REV.* 223 (1986) (discussing the role of the judiciary in enforcing legislative bargains). Under the "public choice" theory developed by Buchanan, Stigler and others, law and regulation is developed in response to competitive rent-seeking between interest groups, rather than a disinterested and comprehensive view of the public interest. FCC staff, for example, chose the word "treaty" to refer to the jurisdictional separations rules and pointed out that the 'treaty' "carefully balances a number of conflicting social objectives and competing interests." FCC ACCESS REFORM TASK FORCE, *FEDERAL PERSPECTIVES ON ACCESS CHARGE REFORM: A STAFF ANALYSIS* (Apr. 30, 1993) at 63.

²¹ See, e.g., 47 U.S.C. §254(e) (limiting subsidies to eligible carriers); 47 U.S.C. §214(e) (statutory eligibility criteria); *May 1997 Universal Service Order*, 12 FCC Rcd. at 8933, paras. 286–87 (specifying eligibility criteria and explaining how subsidies are portable among eligible carriers).

²² See *May 1997 Universal Service Order*, 12 FCC Rcd. at 8852, para. 135, 8859, para. 147.

²³ Controversy over the status and viability of the universal service programs, particularly the e-rate programs designed to reimburse carriers who provide discounted services to certain schools, libraries and health care providers, continues to shed doubt on whether and to what extent fund-

ing will be available under these programs. See, e.g., Beth S. Noveck, *Universal Service in the United States: unjust, unreasonable, and unaffordable?*, 1 *INT. J. COMM. L. & POL.* (visited Dec. 16, 1998) <www.digital-law.net/IJCLP/1_1998/ijclp_webdoc_15_1_1998.html>. Despite the inauguration of the schools and libraries program in the Spring of 1997, schools are only now beginning to learn whether or not they qualify for discounted telecommunications services. See *First E-Rate Funds Sent to Schools and Libraries*, *COMM. DAILY*, Nov. 24, 1998. The extent to which schools will receive expected funding for internal Internet connections, one of the most touted aspects of the program, remains uncertain. See *Court Hears Complex Challenge to FCC Universal Service Order*, *COMM. DAILY*, Dec. 2, 1998. For this reason, advocates of the e-rate program have argued that proposals to fund equipment and services for schools and libraries directly through tax receipts and block grants should be opposed because it would "yank the E-Rate out from under the protective rubric of Universal Service and throw it into the normal appropriations process, where it will be subject to the usual horse-trading." Nicholas Confessore, *Boon or Boondoggle*, *SALON* (visited Dec. 16, 1998) <www.salonmagazine.com/21st/feature/1998/12/16feature.html>. The costs to businesses of politically motivated changes in government largesse are, however, beginning to be recognized by the courts, leading to further controversy. Cf. *United States v. Winstar Corp.*, 518 U.S. 839, 116 S. Ct. 2432, 135 L. Ed. 2d 964 (1996) (United States government, as a contracting party, could not exercise its sovereign powers to alter, modify, obstruct or violate a contract into which it had entered with a private party); *Yankee Atomic Elec. Co. v. United States*, 112 F.3d 1569 (Fed. Cir. 1997) (applying Winstar to government's breach of an agreement to aid electric utility cost recovery).

distributed directly to the consumers to the extent possible. Telecommunications may be as essential for economic growth as food is for human growth, but we have seen fit to subsidize farmers through general tax appropriations administered through the Department of Agriculture. We support individuals through food stamps and other programs. But we do not require restaurants to collect a portion of your dinner bill and forward it on to the government for re-distribution to grocery stores. We do not require a sushi bar to support lower prices at Burger King simply because more Americans have traditionally preferred hamburgers. Neither should we perpetuate such systems for telecommunications services.

Second, policymakers should not subject broadband CMRS carriers to regulations that are a vestige of the traditional wireline model. Policymakers may believe that "competitive neutrality" requires imposing equal regulatory burdens on all potential competitors—a least-common-denominator approach to deregulation. For example, in order to avoid "asymmetric competition," regulators may believe it necessary to extend the public service obligations of the LECs' regulatory bargain to all potential competitors. Given the vast differences in market power, as well as differences in the "regulatory bargain," it is hardly neutral to expand any of the extensive local exchange carrier regulations to wireless carriers who were never before subject to such regulation.²⁴ Ironically, the burden of such regulation may fall disproportionately on rural CMRS carriers, harming the very universal service objectives such an approach may be intended to advance.²⁵

Finally, policymakers should become more comfortable with allowing market demand, *i.e.*, consumers, to drive decisions regarding both pricing

and infrastructure investment. One of the characteristics of telecommunications regulation presently applied to ILECs is that decisions about investment in new technologies and facilities are dependent on whether the costs will fit into a business model supported by subsidies. Hesitancy about whether the government will allow the costs of investment to be recovered has been partially responsible for a slow rate of innovation among regulated companies; at the same time, government interests in mandating particular service capabilities are also a continuing feature of wireline local service regulation. The competitive market model as followed by CMRS carriers does not rely on subsidies; investment decisions follow market demand. In fact, the wireless market is a useful model for policymakers to rely on as they measure revolutionary progress toward a competitive local services market.

C. The Wireless Market as Regulatory Utopia

For wireless telecommunications businesses, competition is hardly novel. Historically, government licenses for cellular spectrum were structured to create competing facilities-based carriers in every market; the industry has long been recognized as competitive.²⁶ By 1993, Congress had recognized and codified principles stating that the wireline model of state-by-state regulation of entry, construction, rates, earnings and investment was utterly inappropriate for wireless businesses.²⁷ With the introduction of still more competitors in 1995, market forces now dominate the operation of the wireless market. As documented in the FCC's annual reports, such market forces resulted in the introduction of innovative pricing plans, reductions in rates and further investments

²⁴ Whether it was fair to break the LECs "bargain" by opening the market to competition is again a subject for some other author. One interesting treatment of the subject can be found in J. Gregory Sidak & Daniel F. Spulber, *Deregulatory Takings and Breach of the Regulatory Contract*, 71 N.Y.U. L. REV. 851 (1996). *But see* Oliver E. Williamson, *Response: Deregulatory Takings and Breach of the Regulatory Contract: Some Precautions*, 71 N.Y.U. L. REV. 1007 (1996).

²⁵ *See, e.g., In re Forbearance from Applying Provisions of the Communications Act to Wireless Telecommunications Carriers, Comments and Petition for Further Notice of Proposed Rulemaking of the Rural Telecom. Group*, WT Dkt. No. 98-100, 9-10 (Aug. 3, 1998) ("the cost of government regulation of CMRS carriers falls more heavily on rural wireless providers . . . [who] have neither the economies of scope to absorb such FCC-imposed costs nor a large subscriber base over

which to spread the cost of compliance").

²⁶ *See, e.g.,* Stanford Levin, *Measuring Competition for IntraLATA Services*, TELECOMMUNICATIONS IN A COMPETITIVE ENVIRONMENT, Third Biennial Telecomm. Conf. sponsored by Nat'l Econ. Research Ass'n, at 57 (Apr. 12-15, 1989) (Lewis Perl, NERA, ed.) (citing cellular as an example of effective competition).

²⁷ Omnibus Budget Reconciliation Act of 1993, §6002(b), Pub. L. No. 103-66, 107 Stat. 312, 392 (codified in various sections of 47 U.S.C. §332 (1994)). *See also* Leonard J. Kennedy & Heather A. Purcell, *Section 332 of the Communications Act of 1934: A Federal Regulatory Framework That Is 'Hog Tight, Horse High, and Bull Strong'*, 50 FED. COMM. L.J. 547 (1998) (explaining how Congress amended the Communications Act to prohibit state-by-state regulation of wireless services).

in technology, particularly digital networks.²⁸

The story of the wireless industry is one of rapidly increasing penetration and universal availability of wireless service, even in rural areas, all achieved without government subsidies or government-directed rate design. According to the FCC's *Third Annual CMRS Competition Report*, the mobile telephone industry had 55 million subscribers in 1998, an increase of 25 percent from the previous year; subscribership is now over 60 million.²⁹ Market penetration was over 20 percent of the nation's population,³⁰ and 38 percent of American households, with an additional six percent of households indicating an intention to acquire a mobile telephone by early 1999.³¹ Demand is sufficient to support numerous wireless providers in approximately 273 markets, covering over 219 million people; representing over 87 percent of the national population.³² Broadband CMRS services, as well as other advanced services, are available in rural areas, although rural CMRS providers generally receive no subsidies for those services and rely simply on market demand to produce sufficient revenue.³³

Market forces also operated to weed out market players whose business plans were either poorly prepared or not heeded in the C block PCS auctions. Just as the FCC appropriately was reluctant to intervene to "prop up" "C" block PCS bidders who miscalculated, policymakers should continue to not intervene in market-based decision-making regarding investments, pricing and services of

broadband CMRS carriers.³⁴ Instead, policymakers should be seeking to preserve market-based decision making for wireless companies and to expand the presence of market-based decision making to wireline telephone companies.

Despite the usual public rhetoric, competitive markets are, not a regulatory utopia in the minds of everyone. The reasons for government intervention in competitive markets may vary: as discussed above, competition means that regulators must trust markets to yield value for consumers, an arrangement that may feel to them like an "abdication" of responsibility. Additionally, change in the law often moves at a pace that seems glacial when compared to the rapid time-frames of competitive business decision-making. The law places great weight on precedent, and a competitive local exchange market is a 180-degree reversal from the direction contemplated by history. To remove the disincentives of a subsidy-based local exchange market and a 19th century model for local telephone regulation, the primary steps must be to understand the historical foundations and to develop political consensus in a new direction.

D. So Who Wants A Revolution?

The present moment is ripe for a policy revolution if we really want one. As Crane Brinton (and more recently George Schmitt) recognized, revolutions occur because the populace becomes dissatisfied with the absence of "common sense" in

²⁸ See generally *In re* Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, *First Report*, 10 FCC Rcd. 8844 (1995) [hereinafter *First Competition Report*]; *Second Competition Report*, 12 FCC Rcd. 11,266; *Third Competition Report*, 13 FCC Rcd. 19,746.

²⁹ *Third Competition Report*, 13 FCC Rcd. at 19,750 (citing Appendix B, Table 1, at B-2). CTIA reports are published at <www.wow-com.com>. Subscriber growth has repeatedly outpaced estimates. For example, in 1994, the Personal Communications Industry Association ("PCIA") estimated that total 1998 subscriptions for cellular, PCS and SMR/ESMR services would reach 46.9 million. That figure had already been exceeded by December 1997, the time of the figures shown in the *Third Competition Report*. *Third Competition Report*, 13 FCC Rcd. 19,746, at Appendix B-2.

³⁰ *Third Competition Report*, 13 FCC Rcd. at 19,750. A Yankee Group study indicates that penetration will likely increase to 25 percent by the end of 1998. See PCIA, 1998 WIRELESS MARKET PORTFOLIO YANKEE GROUP STUDY 20.

³¹ PCIA, 1998 WIRELESS MARKET MONITOR 51.

³² *Third Competition Report*, 13 FCC Rcd. at 19,750, Appendix H, Map H-1 (showing U.S. cellular coverage). See also

Thomas J. Lee & Andrew E. Govers, *Mobile Outlook—Summer 1998*, Salomon Smith Barney Equity Research, June 8, 1998 (reporting that 50 percent of the population is served by at least five or six mobile telephone competitors).

³³ See, e.g., Comments of the Rural Telecommunications Group, *In re* Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, CC Dkt. No. 98-146, at 21 (Sept. 14, 1998) (stating that "[r]ural telecommunications companies are deploying advanced services to rural areas"). In addition to broadband CMRS, the Rural Telecommunications Group notes that rural providers are also offering such advanced wireless services as Local Multipoint Distribution Service ("LMDS") and low mobility local service over CMRS spectrum. *Id.* at iv, 2, 12.

³⁴ See, e.g., *In re* Amendment of the Commission's Rules Regarding Installment Payment Financing for Personal Communications Service (PCS) Licensees, *Order on Reconsideration of the Second Report and Order*, 13 FCC Rcd. 8345 (1998) (statement of Commissioner Susan Ness concurring in part, dissenting in part).

government.³⁵ And ever since the FCC elected to allow competition in telecommunications with its *Above 890* decision in 1960, there has been a necessary period of transition from a fully regulated monopoly telephone industry to a robustly competitive telecommunications industry. Because of the irreconcilable nature of these two frameworks, the transition has been—perhaps out of political necessity—fertile ground for equivocation, doublespeak and nonsense. But, in large part because of the American traditions of free speech and open government, common sense tends to force change eventually.

However, the revolution that will create a totally “pro-competitive, deregulatory” telecommunications environment has not yet occurred. The 1996 Telecommunications Act was merely a set of amendments to an existing telecommunications law framework that is, admittedly, nearing the official retirement age of sixty-five. It is ironic that while calling center stage for competition, the legal and regulatory framework for competition in basic residential and small business telephone service is still largely premised on the traditional regulatory contract for the regulated monopoly: a model of regulated providers exchanging public obligations in return for subsidies.

Some may have said that they wanted a telecommunications “revolution,” but the 1996 Act was merely a transitional figure in any such revolution. The present state of affairs—a tenuous netherworld somewhere between the traditional model of regulation and internal cross-subsidy—cannot be the basis of a permanent arrangement any more than Alexander Kerensky in 1917 or Shapour Bakhtiar in the Iranian Revolution of 1979 were politically positioned for long-term leadership.

One important reason for the 1996 Act’s tepid reforms is that policymakers appear to have a certain degree of discomfort for what competition entails, as well as whether it will be welcomed by consumers. This is a far different political situation than when, for example, competition was introduced to the long-distance industry or when the airline industry was deregulated.³⁶ The primary issues appear to be concern for “universal service,” a system subsidizing low wireline local service prices, particularly in rural areas, and a general consumer backlash should local telephone prices increase.

During the debates leading up to the 1996 Act, Senator Kerrey of Nebraska presciently pointed out that there was extensive support for policy revisions from *industry*, but no discernible mandate for change from the population at large. Senator Kerrey cautioned his colleagues that,

it took seven or eight years [after the AT&T divestiture] before the consumers gave you a round of applause. There was a long period of time after 1984 when people, at least in my State, were saying what in the Lord’s name is going on here? All of a sudden I cannot get a phone into my house; I have to go to a different provider; I have competition; I have choice. What the heck is going on?³⁷

So now, even apart from the perceived competitive threat to universal service, there are statements from influential policymakers about how competition must be “managed,” either to ensure “neutrality” or to protect the public from the harms of competition.³⁸ Others may be thoughtfully struggling with these issues or they may simply be caught between politically opposing factions. In any event, their public statements demonstrate that they are not yet fully comfortable with unequivocal support for competition in telecommunications and all that it entails.³⁹

³⁵ See George F. Schmitt, *The Information Revolution and the Regulatory Old Regime*, TELECOMMUNICATIONS IN a Competitive Environment, Third Biennial Telecomm. Conf., sponsored by Nat’l Econ. Research Ass’n, at 213 (Apr. 12–15, 1989) (Lewis Perl, NERA, ed.); CRANE BRINTON, *THE ANATOMY OF REVOLUTION* (1965).

³⁶ Around the time of the Iranian Revolution, the U.S. Congress enacted revolutionary legislation deregulating the airline industry. Unlike the Telecommunications Act of 1996, that legislation disbanded price and entry regulation entirely and can more accurately be said to have adopted a “deregulatory, pro-competitive” national framework. See Airline Deregulation Act, Pub. L. No. 95-504, 92 Stat. 1705 (1978) (codified at 49 U.S.C. §334 et seq. (1978)), sections later repealed, Pub. L. No. 103-272, 108 Stat. 1367 (1994).

³⁷ 141 Cong. Rec. 93 (Daily Ed., June 08, 1995) (state-

ment of Sen. Kerrey).

³⁸ See, e.g., Action in Docket Case—Common Carrier Action; Joint Board Makes Universal Service Recommendations to FCC, Provides Guidance on Issues Concerning Support for Non-Rural Carriers That Serve High Cost Areas, CC Dkt. No. 96-45, at 16 (separate statement of Public Counsel Martha Hogerty) (Nov. 23, 1998) (noting that the universal service provisions of the 1996 Act were not designed to promote competition but rather to protect from competition’s effects).

³⁹ Compare William E. Kennard, *A Broad(band) Vision for America*, Remarks to Federal Communications Bar Association, June 24, 1998 (“competition always beats regulation as the way to bring consumers more services, better quality and the lowest prices”); with Wireless Telecommunications Action—Commission Grants in Part and Denies in Part PCIA’s

Competitive markets do not need to be managed by regulators, but achieving a political consensus in favor of a fully deregulatory, pro-competitive telecommunications environment does. Reluctance to challenge the accepted vision for local telephony is not surprising given the political and economic interests of the parties involved. Where governments rig markets to provide for central government control, price services and dictate investments to favor preferred constituencies and condition consumers to a non-competitive environment, howls are likely to erupt at any sign of actual change. Lenny Bruce's observation that the Soviet Union is like one giant phone company continues to be a valid analogy as both the former Soviet Union and the former Bell System make a painful transition to a free-market environment. In both cases, government and the public must make painful choices, learn to deal with new ways of doing things and, in the short term anyway, face rising prices for formerly subsidized commodities.

In the end, it was the cognitive dissonance between the public propaganda and reality that brought down the Soviet Union. It may well be cognitive dissonance that spells the end of our present policy for local telephone services. On the other hand, a number of recent political events make it clear that cognitive dissonance and dissembling are fairly widespread and widely tolerated. Consequently, it is not enough to argue what *should* be done on the basis of economic efficiency or other consumer benefits to be achieved. Experience suggests that those arguments are not, by themselves, a sufficient basis for revolutionary change. The revolution must be one in which political forces reach a point where the breakdown of the traditional wireline subsidy arrangements is imminent, where frustration with the lack of competition reaches its peak and where a comfort level regarding local pricing and service in rural areas is sufficient to permit full commitment to a "pro-competitive, deregulatory" approach.

E. The Revolution Must Be Televised

Accordingly, this article not only identifies legal and policy dissonance, but attempts to identify where political compromises might be found that would facilitate a more rapid transition to a fully deregulatory, pro-competitive pricing environment for telecommunications services. Contrary to the assessments of a different revolution in a different time, this revolution *must* be televised.

Indeed, the revolutionary message should improve substantially on the usual tone and content of television by being honest and objective about what is involved in embracing full competition for telecommunications, something at which both industry and policymakers have fallen short. If competition and its aspects are treated with more candor, the public is less likely to be let down or concerned when reality does not measure up to dishonest policy pronouncements. Perhaps candor is too much to expect for appointed commissioners and elected representatives, whose time frames of reference may be too small to encompass the transition to competition. But there are likely many policymakers both interested in having broadband CMRS carriers bring competitive pressure to local telephone service markets and willing to build support for moving smartly towards deregulation.

Certain policymakers, notably FCC Commissioner Michael Powell, demonstrate in their public remarks that they understand those things that are right and true about a fully deregulatory, pro-competitive 21st century model for telecommunications regulation.⁴⁰ As Commissioner Powell has written:

One reason that policymakers find it difficult, even after setting appropriate ground rules, to allow the market to run its course is, ironically, their fear of ceding control to the marketplace. The Act commands policymakers and industry to move away from the monopoly-oriented, over-regulatory origins of communications policy and toward a world in which the market, rather than bureaucracy, determines how communications resources should be utilized. Yet, so often, we cannot actually bring ourselves to let go—to jump off our regula-

Petition for Forbearance; Solicits Comment on Further Forbearance, WT Dkt. No. 98-100, GN Dkt. No. 94-33, at 7 (June 23, 1998) (separate statement of Chairman William E. Kennard) ("it would be an abdication of our responsibility to consumers to rely simply on the workings of the market to

ensure that America's consumers receive quality service at fair and reasonable prices").

⁴⁰ See, e.g., Michael K. Powell, *Technology and Regulatory Thinking: Albert Einstein's Warning*, Remarks before the Legg Mason Investor Workshop, Washington, D.C., Mar. 13, 1998.

tory perch. It is true that risks await in free markets: risk that consumers will be harmed by anticompetitive conduct on the part of firms with market power; risk that communications companies may be acquired, downsized, or driven out of business; and risk that some individuals will not vie successfully for the many choice jobs that competition will create . . . Communications leaders must not give in to these fears so lightly, but instead must have the courage to trust the market.⁴¹

So far, this is not a majority view. Few have the true grit to handle the uncertainty that comes with trusting a new frame of reference and the political courage to stand on principles even if they may prove unpopular. But the importance of understanding that competitive businesses need different principles than those used before for local telephony should not be underestimated. The preservation and growth of the investment incentives that have so far sparked the wireless revolution depend on that understanding.

There are, to be sure, some important non-political issues that represent obstacles to the evolution of broadband CMRS as a local substitute; I do not discuss those here in detail. For example, there are technical obstacles to the growth of broadband CMRS, such as the still-young buildout of broadband PCS networks and issues such as the relatively short battery life of some mobile phones and the suitability of wireless signals for data transmissions and other wireline uses. These issues are important but perhaps better left to more technology-oriented authors. Policymakers and regulators can help fulfill a public interest role by adapting policies to these forces of technological change and moving away from the 19th century model for local telephony that still dominates much of our law and our policy approaches to that service market.

II. THEODORE VAIL'S REGULATION REVOLUTION: THE PUBLIC SWITCHED TELEPHONE NETWORK AND THE "PUBLIC UTILITY" BARGAIN

In this section, I recap the origins and outlines of the ILEC model for the provision of local telephone service. Perhaps the most descriptive feature of this model is the concept of the "public switched telephone network" ("PSTN"). One

rarely refers to "the public grocery store network" or the "public tax preparation services network"; goods and services are customarily exchanged between consumers and privately owned businesses. Telephone networks, too, are privately owned, or publicly held only in the sense that private ownership of equity is available to members of the public on stock exchanges. Telephone networks are not "public property" in the same way as highways, streets and bridges. Yet the historical evolution of local telephone service has created an unusually close relationship between government and business, and it is this relationship that continues to exist as the present model for local telephone service into which policymakers imagine (incorrectly) that broadband CMRS carriers may evolve.

Telecommunications technology developments in the last thirty years have created something relatively novel: a network of networks, all privately owned, interconnected on the basis of commercial negotiations, providing service to the same general geographic areas as the incumbent local telephone utility. New companies are, as we speak, constructing competitive access networks, fiber rings, wireless networks and even packet-switched networks to carry local voice, data and even video traffic. True, the evolution of telephone service saw the creation of over 1,000 local exchange carriers who were (and are) legally and financially "independent" from the Bell System (or more recently, the Bell Operating Companies). But those firms operated in areas the Bell System chose not to serve and, for the last 100 years, those companies have been treated in many respects not as private competitors, but as cooperating elements of the PSTN.

The term PSTN is a bit of a misnomer; its strange character is an apt symbol for the curious nature of contemporary telecommunications policy. Although (unlike, until recently, telephone networks in the rest of the world) the U.S. telephone networks are *not* publicly owned, government regulation and antitrust consent decrees ensured that the local telephone network operated very much as if they were public property and as if it were a single network. The term PSTN persists in telecommunications policy today.⁴² The public

⁴¹ Michael K. Powell, *Communications Policy Leadership for the Next Century*, 50 FED. COMM. L.J. 529, 534-35 (1998).

⁴² See, e.g., *In re Federal-State Joint Board on Universal*

Service, AMSC Subsidiary Corporation Request for Waiver, *Memorandum Opinion and Order*, 13 FCC Rcd. 22,426, para. 16 (1998) (noting that AMSC benefits from universal service re-

character of a privately owned network is conceptually related to the term "affected with the public interest," which early on established an antitrust law rationale for regulation of facilities deemed economically essential.⁴³ By virtue of the monopoly granted to wireline LECs, government became involved in the rates charged and the investments made on the public's behalf. Hence, the term "public switched telephone network" came to be used to refer to an entity which is in fact neither public nor a singular network.

The curious relationship of private investment and "public utilities" has its origins in the nature of the bargain struck between the investors in telephone networks and the government. As we shall see, the terms and conditions of this bargain differ substantially as between wireline LECs and broadband CMRS carriers, reflecting different expectations about how business would be conducted and service provided. It is because of these differences that the regulatory framework for one type of carrier cannot easily be imposed on another, and because of these differences that broadband CMRS carriers are not likely to assume the universal service obligations of wireline LECs or otherwise structure their businesses along the lines of the wireline LEC business.

A. The "Public Utility Bargain"

Regulation of public utilities in general represents an agreement between the owners and investors of the utility and the government, as agent for the general population. The economic and political foundations of this contract stretch far back in the common law and history of regula-

quirements from its "use of the PSTN").

⁴³ See generally, *Munn v. Illinois*, 94 U.S. 113 (1876).

⁴⁴ The foundational concepts of utility regulation as a contractual relationship or bargain go back as far as the 19th century to some of the foundational cases of public utility and common carrier regulation. In 1837, the U.S. Supreme Court recognized that the Massachusetts legislature had entered into a contract with the proprietors of the Charles River Bridge (although not one which implied exclusivity with respect to such bridges). *Charles River Bridge v. Warren Bridge*, 36 U.S. 420 (1837). The special common carrier obligations of public utilities stem from the Court's decision in *Munn*, where the Court looked to the common law for the principle that private property "affected with the public interest" ceases to be *juris privati* only and thus requires a bargain between the state and the property owner to govern the property's use by the public. *Munn*, 94 U.S. at 126, citing Lord Chief Justice Hale, *De Portibus Maris*, 1 Hargrave Law

tion.⁴⁴ As Greg Sidak and Prof. Daniel Spulber have explained, the regulatory "contract" was born roughly 180 years ago. At the time, city governments lacked the capital needed to fully exploit new technologies and therefore offered franchises or charters to private entrepreneurs to build utilities and railroads.⁴⁵ As utilities began to grow horizontally, often to take advantage of economies of scale, the existence of multiple municipal or local franchises became burdensome, and state public utility commissions were created for regulatory and pricing matters.⁴⁶

The terms of the regulatory contract were generally those same provisions now widely understood and codified in state statutes and the Communications Act. In the earliest franchises, the city granted access to rights-of-way, while the entrepreneurs accepted the obligation to serve the public on a nondiscriminatory basis at reasonable rates. A city or state commission would also control entry of the potential competitors, regulate rates to ensure that return on investment was sufficient to attract capital and enforce obligations to serve all customers in a given franchise area regardless of cost.

In return, this contractual arrangement also served to address concerns on the part of the utility investors based on the economic nature of telecommunications networks and other utilities. Utilities must incur enormous up-front costs in order to offer service, and must do this before they earn a single dollar of revenue. In so doing, the utility runs the risk not only that demand will not materialize as projected, but, as a regulated utility, it also confronts the risk of confiscation by government action.⁴⁷ Rate regulation therefore

Tracts 45, 78 (Dublin 1787). A useful discussion of these foundations is George Priest, *The Origins of Utility Regulation and the 'Theories of Regulation' Debate*, 36 J.L. & ECON. 289 (1993).

⁴⁵ Sidak & Spulber, *supra* note 24, at 898. See also ELI W. CLEMENS, *ECONOMICS AND PUBLIC UTILITIES* 72-74 (1950); HERBERT B. DORAU, *MATERIALS FOR THE STUDY OF PUBLIC UTILITY ECONOMICS* 2-8, 12-22, 31-49 (1930); JOSEPH ASBURY JOYCE, *A TREATISE ON FRANCHISES* 542-54 (1909).

⁴⁶ Sidak & Spulber, *supra* note 24, at 906.

⁴⁷ See *id.* at 885. These risks are often acute in the international context where constitutional protections against such confiscation are not as strong or as vigorously enforced as in the United States. See, e.g., Martin Domke, *Foreign Nationalizations: Some Aspects of Contemporary International Law*, 55 AM. J. INT'L L. 585 (1961); M. GORDON, *THE CUBAN NATIONALIZATIONS: THE DEMISE OF FOREIGN PRIVATE PROPERTY* 119, 231 (1976).

serves not only to protect the public from abuses of monopoly power, but also to ensure that the states' responsibility to ensure an adequate return is met.⁴⁸ For regulated utilities, the traditional process is relatively straightforward, although new "incentive regulation" processes have been developed. These and other aspects of the regulatory contract are discussed below in the context of the telephone industry.

B. The "Public" Switched Telephone Network

The literature on the historical development of the telephone network as a specific example is both extensive and deep, and I have no desire to re-tell the entire saga here.⁴⁹ The highlights that bear on our current examination are as follows: by 1894, Alexander Graham Bell's patents had expired and a number of local telephone companies arose. These phone companies did not necessarily, however, connect their networks to each other, nor were they necessarily connected to the Bell System's "Long Lines" network that permitted inter-city calling. In fact, the Bell System pursued a systematic policy of denying interconnection to these facilities and leveraging that situation to its advantage, buying up a substantial number of the independent operators. This, unsurprisingly, attracted the attention of antitrust enforcers emboldened by the passage of the Sherman Act only a decade before.⁵⁰

The resulting settlement, known as the "Kings-

bury Commitment," required the Bell System (known by now as AT&T) to cease acquiring independent companies and to provide interconnection to the Long Lines network. But its effect did not last long.⁵¹ Intervening events, particularly the first World War and the Great Depression, would make the horizontal integration of a nationwide phone network an accepted public policy arrangement. The premise for excluding competition was largely the product of an astute businessman, Theodore Vail, who convinced regulators and antitrust authorities that a fully integrated telephone network, subject to state and federal regulation, would more likely yield public benefit than competing networks and the attendant "wasteful duplication." From Vail's perspective, regulatory protection would establish the Bell System as a monopolist while avoiding the uncertainties of antitrust enforcement.⁵²

From the perspective of public authorities, a single telephone system could more easily be held accountable to public purposes and more easily policed—as Caligula had once wished Rome had but one neck. Moreover, a regulated monopolist could more easily be required to set prices in a manner desired by the government and invest in facilities at directed locations. Thus, the policy of excluding competition became synonymous with the term "universal service," a term which continues to be the subject of much discussion.⁵³ Finally, the elimination of competing networks must have been a boon for consumers, who were

⁴⁸ See, e.g., *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944) (requiring regulatory commissions to balance consumer and investor interests in setting rates); *Bluefield Waterworks and Improvement Co. v. Pub. Serv. Comm'n of W. Va.*, 262 U.S. 679 (1923) (rate of return should be comparable to investments in other business undertakings which are attended by corresponding risks); *In re Permian Basin Area Rate Cases*, 390 U.S. 747 (1968) (regulatory commission has discretion as to rate-setting method provided the end result is within a "zone of reasonableness").

⁴⁹ Some historical treatments of the rise of the Bell System are detailed in MILTON MUELLER, *UNIVERSAL SERVICE: COMPETITION, INTERCONNECTION, AND MONOPOLY IN THE MAKING OF THE AMERICAN TELEPHONE SYSTEM* (1996); Warren Lavey, *The Public Policies That Changed the Telephone Industry Into Regulated Monopolies: Lessons From Around 1915*, 39 *FED. COMM. L.J.* 171; Adam Thierer, *Unnatural Monopoly: Critical Moments in the Development of the Bell System Monopoly*, 14 *CATO J.* 2 (1994).

⁵⁰ 26 Stat. 209 (1890), codified at 15 U.S.C. §1–11.

⁵¹ Letter from Nathan C. Kingsbury, AT&T, to James C. McReynolds, Attorney General, Dec. 19, 1913; *United States v. AT&T*, No. 6082 (D. Or. 1914) (Consent Decree). Ironically, the settlement freed the Bell System in part because it

proved too difficult to enforce in light of the economic efficiencies gained by horizontal integration of independents with the Bell System. In 1921, legislation gave the Interstate Commerce Commission permission to exempt AT&T from the antitrust laws for the purpose of acquiring competing companies. *Willis-Graham Act*, ch. 20, 42 Stat. 27 (1921).

⁵² See generally PETER TEMIN & LOUIS GALAMBOS, *THE FALL OF THE BELL SYSTEM* 16 (1987).

⁵³ Although the term "universal service" was apparently coined by Vail, and a general policy direction was included in the 1934 Act, see 47 U.S.C. §151, legislative direction as to what the term meant was not attempted until the 1996 Act. See 47 U.S.C. §254. In the interim, the term was given a number of meanings and used for a variety of purposes, not all of them consistent with each other. Vail intended the term to mean that service would be made "universal" by the creation of a single interconnected network. Much later, the separations process created as a result of *Smith v. Illinois Bell* would yield a concept of "universal service" based on intentional cross-subsidies from interstate toll service to local exchange service. See *supra* note 5; *Illinois Bell*, 282 U.S. at 148 (holding that the price of both local and interstate service must be calculated on a jurisdictionally separate measure of costs).

likely frustrated by the inability to reach parties on other networks and the need for multiple telephones at a single location, not to mention the disruption caused by multiple poles, wires and other equipment.

The Communications Act of 1934 solidified the horizontally integrated arrangement and placed federal telecommunications policy in the hands of a new entity, the FCC.⁵⁴ FCC regulation of intrastate local exchange service was restricted, however; that area of policy was left in the hands of the various state commissions.⁵⁵ The Bell System worked quite well: telephone service became progressively cheaper, more available and more automatic. Quality continued to improve and Bell Labs produced a number of innovations, despite the absence of competitive pressures.⁵⁶ Independent telephone companies functioned as informal (but at times uneasy) partners in the Bell System and were similarly structured as regulated monopolists, protected from competition in exchange for fulfilling public service obligations. But change was literally in the air, in the form of microwave radio transmissions.

C. A Revolutionary Spark: The FCC Opens the Pandora's Box of Competition with the *Above 890* Decision

Competitive pressures started both from an inevitable economic development and from conscious FCC policy. After World War II, some larger local telephone customers wished to set up their own private network systems. These systems would be interconnected with, but not owned by, the local Bell carrier. Because the Bell system was restricted by regulation in its pricing flexibility and utilized a wide variety of internal cross-subsidies to keep basic residential prices low, larger users stood to get a price break by constructing their own networks for communications, for example, between different branch offices. This was particularly true for inter-city communications, because the separations process and other factors required Bell to subsidize local service with revenues from long-distance calling and to maintain

nationwide averaging in prices.⁵⁷

The FCC might not have allowed these private networks, particularly private networks offered by competitive carriers, to develop were it not for a number of political factors. For example, among the larger telephone customers who wished to build private networks were television broadcasters. Broadcasters were heavy users of point-to-point telecommunications services, in part because they needed high-capacity channels to send television signals back and forth before their final transmission to the transmitting tower. The FCC licenses and regulates television broadcasters, and it was particularly interested in promoting their growth in the post-WWII years. Giving these broadcasters a chance to reduce their telecommunications costs was a strong motivator. Additionally, the FCC was interested in promoting a microwave relay system developed by Motorola, in part due to some aggressive lobbying by Motorola itself.⁵⁸

It is here that the long shadows of the present debate concerning competition begin. In the decision authorizing these private networks—named the *Above 890* decision for the microwave frequencies at issue—the monopoly wall was first breached and the FCC's struggle to reconcile fundamentally inconsistent policy positions began. The FCC began to adopt policies explicitly intended to foster competition, both in telecommunications and manufacturing. Among other things, the FCC argued that "one size does not fit all" telecommunications consumers and that its decision would promote the public welfare by expanding consumer choice.⁵⁹

The Bell System argued, to no avail, that this decision would encourage "cream skimming," taking away business from Bell by serving only the low-cost, high-demand customers and undermining the system of cross-subsidies and nationwide averaging. The FCC denied that it was retreating from any of the policies in favor of such arrangements or making broad decisions about competition. In fact, the FCC only dug itself farther into this hole by declining to approve the Bell System's competitive response to the private microwave sys-

⁵⁴ Communications Act of 1934, ch. 652, 48 Stat. 1064, 73rd Cong., 2d Sess. (1934) *codified as amended at* 47 U.S.C. §151 *et seq.* (1937).

⁵⁵ *See, e.g.*, 47 U.S.C. §152(b).

⁵⁶ TEMIN & GALAMBOS, *supra* note 52, at 19.

⁵⁷ *See, e.g., id.* at 24–27.

⁵⁸ *See generally id.* at 28–31. At the time, Western Electric—a Bell subsidiary—was more or less the sole manufacturer of telecommunications equipment.

⁵⁹ *In re Allocation of Frequencies in the Bands Above 890 mc/s, Report and Order*, 27 F.C.C. 359, 403–13 (1959), *recon. denied*, 29 F.C.C. 825 (1960) [hereinafter *Above 890*].

tems' services based on its departure from accepted regulatory pricing practices.⁶⁰ The regulatory schizophrenia in favor of both competition on one hand and regulation (including universal service, rate averaging and local telephone subsidies) on the other would at one stage result in the divestiture of the Bell System's local operating companies. The schizophrenia continues to this day.

D. Incentive Regulation, Investment Mandates and "Universal Service"

"Incentive regulation" is a particularly interesting example of this policy schizophrenia. The subject is indeed complex and was the subject of many lengthy proceedings at both the state and federal level.⁶¹ For our purposes, the important element to remember is that incentive regulation was designed to give ILECs the same efficiency incentives as those faced by businesses in a competitive market, while at the same time maintaining a regulated price and service arrangement. Incentive regulation has, for the most part, only been acceptable for the largest ILECs. Because of their small rate base, smaller LECs are subject to larger swings in costs and are simply unable to produce the kind of efficiency gains needed to maintain profitability. The point of this discussion is to show how government control over LEC investment decisions differs substantially from the competitive market framework used by broadband CMRS carriers.

Under traditional "cost-plus" or "rate-of-return"

regulation, monopoly LECs operated under this basic formula:

1) The regulator required the LEC to provide services at a particular price to all customers, regardless of cost. Regulators could require particular facilities to be built and in fact required that the LEC obtain prior approval before constructing any new facilities.⁶² Prices were set based on extrapolating from historical data to arrive at estimates of future costs and demand;

2) The LEC did so, incurred costs (including the cost of raising investment capital) and recorded those costs under the accounting supervision of the regulator;

3) The LEC's decisions regarding cost expenditures were reviewed, often in highly contested public hearings. On the approved investment, the LEC was guaranteed, through a bargain with the regulator, that it would earn a specified rate of return. If demand estimates proved to be too low to earn the expected "revenue requirement," the regulator permitted the carrier to increase prices for the next year in order to make up the difference.

LECs therefore could only increase their profits by arguing with regulators about the magnitude of their costs, including the "cost of capital," what return on investment they should be allowed to earn to encourage future investment. As is well documented in the literature, they also had an incentive to over-invest in the facilities for traditional services and to operate inefficiently (not unlike other centrally planned business enterprises).⁶³ At the same time, regulations created a

⁶⁰ See, e.g., *In re Investigation of TELPAK Tariff*, Order, (Sept. 7, 1961); *Tentative Decision*, 38 F.C.C. 370, 373 (1964). AT&T's attempts to respond to competition with comparable offerings would similarly attract the attention of antitrust authorities.

⁶¹ The federal proceeding progressed over a number of years, beginning first with AT&T and then expanding to include the largest LECs, specifically the BOCs and GTE. See generally, *In re Policy and Rules Concerning Rates for Dominant Carriers*, Notice of Proposed Rulemaking, 2 FCC Rcd. 5208 (1987) [hereinafter *Policy Notice*]; *Further Notice of Proposed Rulemaking*, 3 FCC Rcd. 3195 (1988); *Report and Order and Second Further Notice of Proposed Rulemaking*, 4 FCC Rcd. 2873 (1989); *Supplemental Notice of Proposed Rulemaking*, 5 FCC Rcd. 2176 (1990); Parties in Price Cap Proceeding Requested To File Draft Rules Implementing Proposed Price Cap Plans, *Public Notice*, 3 FCC Rcd. 262 (1988); *In re Policy and Rules Concerning Rates for Dominant Carriers*, *Second Report and Order*, 5 FCC Rcd. 6786, 6789 para. 22 (1990) [hereinafter *LEC Price Cap Order*]; *Erratum*, 5 FCC Rcd. 7664 (1990), modified on recon., 6 FCC Rcd. 2637 (1991) [hereinafter *LEC Price*

Cap Reconsideration Order], *aff'd sub nom.*, *National Rural Telecom Ass'n v. FCC*, 988 F.2d 174 (D.C. Cir. 1993). State regulatory commissions also examined incentive regulation for the intrastate rates of the largest LECs in their states. See, e.g., *LEC Price Cap Order*, 5 FCC Rcd. at 6792, paras. 41-45. The subject of incentive regulation also has been examined extensively in economic literature. See, e.g., Shane Greenstein et al., *The Effect of Incentive Regulation on Local Exchange Companies' Deployment of Digital Infrastructure*, American Enterprise Institute Telecommunications Summit, Conference Paper (July 7, 1994).

⁶² See, e.g., 47 U.S.C. §214.

⁶³ Harvey Averch & Leland L. Johnson, *Behavior of the Firm Under Regulatory Constraint*, 53 AM. ECON. REV. 1053 (1962); Stanislaw Wellisz, *Regulation of Natural Gas Pipeline Companies: An Economic Analysis*, 55 J. POL. ECON. 30 (1963). A related problem is "gold-plating," where a firm includes unproductive expense inputs in its revenue requirement calculations. See Brooks B. Albery & Mark P. Sievers, *The Averch-Johnson-Wellisz Model and the Telecommunications Industry*, 40 FED. COMM. L.J. 157, 159 n.6 (1988); Harvey Leibenstein, *Al-*

disincentive to invest in new or unproven technologies, because any benefits would be absorbed by public obligations, while any risk of loss was likely to be borne by the firm and its shareholders, and if the new service generated substantial revenues, any increase in their profit margins simply meant refunds to consumers.

As one commentator has noted (apparently unconscious of the contradiction between "public" and "private" networks), because the infrastructure is owned by private entities and the business is not centrally directed, investment in the public network is not automatic.⁶⁴ Incentive regulation reasons that, just as market competition and consumer demand limit a competitive businesses' prices, capping prices would require carriers to increase their profits not through increasing the size of their regulated rate base but by providing the required services more efficiently. To the extent that they did so, LECs would be allowed to earn whatever rate of return they could.

locative Efficiency vs. "X-Efficiency," 56 AM. ECON. REV. 392, 392-415 (1966). For example, unconfirmed rumors abound in the industry that certain telephone companies went so far as to purchase Rolls-Royce automobiles or even Lear jets for service vehicles.

⁶⁴ Harry M. Shooshan, *Reforming Regulation of Local Exchange Carriers or It Is Broke, So Let's Fix It*, TELECOMMUNICATIONS IN A COMPETITIVE ENVIRONMENT, Third Biennial Telecommunications Conference (Apr. 1989) (Lewis Perl, NERA, ed.), at 181.

⁶⁵ For example, the FCC in 1997 elected to retain a consumer productivity dividend ("CPD") in the price cap plan. The CPD was originally intended to allocate some of the benefits of the transition from rate of return to price caps directly to consumers in the form of reduced access charges, so that LECs did not excessively benefit from past inefficiencies. More explicitly, the Commission enacted a detailed policy decision to force LEC rates down under price caps, perhaps in part to blunt the criticisms from state commissions and others that price caps would lead to excessive revenues for the LECs. See *In re Policy and Rules Concerning Rates for Dominant Carriers*, *Further Notice*, 3 FCC Rcd. 3195, 3263, 3408 (1988)

([W]e propose to insure [sic] that consumers benefit from price cap regulation by extracting from carriers real rate decreases that reasonably can be expected to exceed those which would have resulted if rate-of-return regulation were applied. . . . [T]he half a percentage point premium [the consumer productivity dividend] that we are placing on the productivity factor ensures that, on an ongoing basis, ratepayers will be better off under price caps than they would have been under rate-of-return regulation.").

The Commission's election to retain it four years later, however, can only be explained as an additional redistributive mechanism, because it is unrelated to any economically meaningful measure of inflation or other changes that would affect the price cap indexes. Because any efficiency gains

Not surprisingly, incentive regulation was seen as favorable by most of the larger LECs, who had a significant amount of inefficiencies that could be squeezed out relatively painlessly. Incentive regulation was vigorously opposed by many in Congress, labor unions and even some state regulators. The idea of allowing the regulated incumbents to attain potentially limitless profit margins was, to say the least, politically sensitive for institutions highly accustomed to controlling those profit margins. However, state regulators came around to incentive regulation. One important element of this perspective was the decision that incentive regulation would not preclude regulators from continuing to extract some of the value of the LECs' possible profits for public purposes, including investment in advanced infrastructure.⁶⁵ Incentive regulation would still permit regulatory control over price and investment decisions. It is in part the regulatory zeal for such control that makes the prospect of LEC regula-

due to the initial transition would already have been captured for ratepayers, the Commission's decision to retain the CPD is simply to add extra pressure on rates not justified by increased LEC productivity. As the Commission explains, the CPD will continue to act as "a mechanism to ensure that price cap LECs flow-through a reasonable portion of the benefits of productivity growth to ratepayers." *In re Price Cap Performance Review for Local Exchange Carriers*, *Fourth Report and Order*, 12 FCC Rcd. 16,642, 16,690, para. 123 (1997). See *In re Price Cap Performance Review*, *Fourth Further Notice of Proposed Rulemaking*, 10 FCC Rcd. 13,664, 13,668 (1995); *In re Price Cap Performance Review for Local Exchange Carriers*, *First Report and Order*, 10 FCC Rcd. 8961 (1995), *aff'd sub. nom.* *Bell Atlantic Tel. Cos. v. FCC*, 79 F.3d 1195 (D.C. Cir. 1996). But see *Judges Question Validity of FCC's Price Cap Order*, TELECOMM. REP. DAILY, Jan. 20, 1999. On May 21, 1999, the D.C. Circuit reversed and remanded the FCC's decision to continue the CPD—as well as the agency's choice of a productivity offset—for further explanation. See *United States Tel. Ass'n v. FCC*, No. 97-1649 (D.C. Cir. May 21, 1999) <<http://www.cadc.uscourts.gov/common/opinions/199905.htm>>.

This distributive aspect of incentive regulation is also present in state proceedings. For example, the FCC noted that the network improvements or investments required by state regulators have been developed as part of a negotiated agreement with the LEC in question. *LEC Price Cap Order*, 5 FCC Rcd. at 6831, para. 363 n.500 ("for example, SWB in New Mexico will develop a network connecting all of that state's universities and community colleges; Pacific Bell in California will invest \$404 million to digitize its network by 1992"). This practice continues today: in the most recent Colorado incentive regulation plan, US WEST agreed to a new five-year incentive regulation plan that would (1) cap residential and business rates at current levels for five years; (2) reduce intrastate access charges by \$12 million; (3) eliminate a planned rate increase to cover the costs for expanding local calling areas; (4) reduce intrastate toll rates by \$12 million; (5) invest \$40 million to improve services; (6) absorb up to \$8 mil-

tion of CMRS business decisions particularly unattractive. Operating in a competitive market, CMRS carriers respond to consumers, not government, in making decisions to invest in advanced infrastructure.

At the time that LEC incentive regulation was being adopted, the U.S. government was acutely concerned about a telecommunications infrastructure equivalent of the space race.⁶⁶ Japan had announced significant investments in integrated services digital networks ("ISDN") and anticipated that it would have an ubiquitous broadband network connection in every home by the year 2015. The United States had fallen behind a number of European and Asian countries in deploying advanced technology. Policymakers responded with a flurry of activity, including some astute legislative proposals that would start then-Senator Al Gore, Jr., down the road to prominence as a proponent of further investment in broadband telecommunications and computer technology.⁶⁷

Incentive regulation was seen as an important element of this strategy, because it enabled firms to undertake some of the investments that they would not have in a rate-of-return environment. Thus, the state regulators reluctantly introduced an additional feature of the competitive market into local telephony and gradually allowed the ILECs themselves to start thinking like competitive businesses. But they did so only on the condition that they be permitted to retain the ability to

dictate increased investment without regard to whether a competitive market would provide an effective return.

The prospect that competition will return investment decisions to the marketplace is perhaps one of the reasons legislators and regulators are reluctant to embrace a truly deregulatory approach to local telephony. Local competition may result in *greater* investment, to the extent that firms must make such investments in order to compete with innovative competitors, and to provide new services in response to demand and to the extent that a competitive market permits an opportunity to earn higher returns. But competition may also not yield investment at the pace and of the types desired by regulators as a matter of social policy.⁶⁸ Moreover, when services are deregulated in response to competition, government will lose some of its ability to direct investment in what it sees as socially useful ways.

CMRS carriers operating in a competitive market make investments in advanced digital switching, intelligent network features and other items based on a business case analysis showing that the investment will yield a positive return. Of course, even competitive businesses find room in the budgets for charitable investments to schools and the like. But investment decisions of the magnitude contemplated by regulators cannot simply be mandated in the same way that they can in a monopoly environment where the firm's rate of re-

lion in local number portability costs; and (7) offer \$22 million in credits to residential and business customers to offset an anticipated 4.23 percent universal service fund charge. A service quality assurance plan would require the carrier to pay up to \$15 million in annual penalties for failing to meet certain service standards. See TELECOMM. REP. DAILY, Oct. 30, 1998.

⁶⁶ *LEC Price Cap Order*, 5 FCC Rcd. at 6790, para. 28. ("We are aware of the extensive debate currently in progress over the relative competitiveness of U.S. industries in comparison to those of Western Europe and the Far East."). See, e.g., W.J. BAUMOL ET AL., *PRODUCTIVITY AND AMERICAN LEADERSHIP: THE LONG VIEW* (1989); Clemens P. Work, *Wiring the Global Village*, U.S. NEWS & WORLD REP., Feb. 26, 1990; Calvin Sims, *The Baby Bells Scramble for Europe*, N.Y. TIMES, Dec. 10, 1989, at section 3, pg. 1; Steven Prokesch, *Western Europe Moves to Expand Free-Trade Links*, N.Y. TIMES, Dec. 8, 1989, at A1; Jack Robertson, *US Losing in Gear, Materials*, ELEC. NEWS, July 16, 1990, at 5.

⁶⁷ Vice President (then Senator) Gore proved particularly astute when he recommended measures to increase research into expanding the Defense Department's ARPAnet into a more robust network, contributing significantly to the development of the Internet. See H.R. 2639, 103d Cong., 1st

Sess. (1993) (proposing to appropriate funds for NII pilot projects); "National Information Infrastructure: Agenda for Action, Administration Policy Statement," 58 Fed. Reg. 49,025 at 49,028-29 (1993). Vice President Gore also established a place in history by coining the term "information highway," which was ubiquitous at the time, although as Rep. Ed Markey noted, "[t]he good news from Washington is that every single person in Congress supports the concept of an information superhighway. The bad news is that no one has any idea what that means." See Jonathan D. Blake & Lee J. Tiedrich, *The National Information Infrastructure Initiative and the Emergence of the Electronic Superhighway*, 46 Fed. Comm. L.J. 397 (June 1994) [hereinafter *NII Initiative*]. The subject was of such prominence that it was even given mention in President Clinton's first Inaugural Address. See William J. Clinton, *This Is Our Time, Let Us Embrace It*, WASH. POST, Jan. 21, 1993, at A26.

⁶⁸ Social policy goals such as Internet access for schools could, of course, be met in the traditional way through expenditures of general tax revenues, but these measures require Congressional consensus which may be more difficult to achieve than an appeal-proof rulemaking decision by a regulatory commission and less susceptible to control by the Executive Branch. See HAUSMAN, *supra* note 15, at 2 n.7.

turn is both regulated and guaranteed by state and federal commissions.

The desire of regulators to "drive" industry in particular directions is, ironically, one of the reasons for the more deregulatory approach adopted for CMRS. This was certainly more or less true when cellular telephony, newly auctioned personal communications services ("PCS") and new enhanced specialized mobile radio services were combined into a new deregulated category of broadband CMRS. The historical accidents behind the development of CMRS may provide some explanation for the difference between government's attitude toward competition in wireline and wireless services.

III. THE CELLULAR REVOLUTION: A HISTORY OF BROADBAND CMRS

The use of radio technology for mobile telephone purposes extends back to Guglielmo Marconi's original concept: the use of mobile radio transmitters and receivers on seagoing ships. Radio was in fact used in the 1920s for land telephone service by the Detroit police department and evolved into a service interconnected with the wireline telephone network during World War II.⁶⁹ But mobile telephones were bulky and inconvenient; among the inconveniences was the limited number of channels available. The invention of "cellular" technology permitted channel re-use: when a mobile handset left a given cell's

coverage area, the signal would be "handed off" to a new cell, thereby freeing up the channel at the original cell site for use by another subscriber.⁷⁰

The invention of cellular technology permitted much more extensive use of mobile telephones and paved the way for wireless technologies that are competitive economic substitutes for landline telephony.

After many years of debate and delay, the FCC elected to license cellular services in 1982, providing for two licenses per city with one allocated to the incumbent local telephone company. The extensive delay was largely caused by the FCC's inability (or refusal) to decide between direct allocation of cellular spectrum only to local telephone companies or a more open, competitive process with more than once license per market.⁷¹ In 1949, the FCC first allocated separate blocks of "land mobile" spectrum to wireline LECs and to "miscellaneous" common carriers.⁷² In 1963 and again in 1968, the FCC reaffirmed this approach of separate licenses for wireline and non-wireline licensees,⁷³ but it continued to face arguments from the Bell System that private capital would be insufficient to fully develop the technology, and that without being able to leverage the Bell System's existing assets and abilities, the spectrum might lay idle.

The FCC agreed with this conclusion for a brief time but then backed away, opting to continue its dual licensing scheme of one wireline and one non-wireline.⁷⁴ This landmark decision forever

⁶⁹ Peter W. Huber et al., THE GEODESIC NETWORK II: 1993 REPORT ON COMPETITION IN THE TELEPHONE INDUSTRY, ch. 4. See generally *In re* Allocation of Frequencies to the Various Classes of Non-Governmental Services in the Radio Spectrum from 10 Kilocycles to 30,000,000 Kilocycles, *Report*, 39 F.C.C. 68 (1945).

⁷⁰ See, e.g., P. McGuigan et al., *Cellular Mobile Radio Telecommunications: Regulating an Emerging Industry*, 1983 B.Y.U. L. REV. 305, 309-11 (1983).

⁷¹ The economic costs of this delay have been estimated to be perhaps \$100 billion. HAUSMAN, *supra* note 15, at 22. See also Jeff Rohlf et al., *Estimate of the Loss to the United States Caused by the FCC's Delay in Licensing Cellular Telecommunications*, National Economic Research Associates, Inc. (1991); FCC, OPP WORKING PAPER 16, USING AUCTIONS TO SELECT FCC LICENSEES (authored by Evan Kwerel & Alex D. Felker) (1985) (recommending improvements in the process of awarding licenses).

⁷² These would also come to be known as radio common carriers ("RCCs") or other common carriers ("OCCs"). *In re* General Mobile Radio Service Allocation of Frequencies Between 25 and 30 Megacycles, *Report and Order*, 13 F.C.C. 1190, 1228 (1949).

⁷³ *In re* Applications of ITT Mobile Telephone, Inc.,

Memorandum Opinion and Order, 1 Rad. Reg. 2d (P&F) 957, 963 (1964) [hereinafter *ITT Mobile Telephone*]; *In re* Amendment of Part 21 of the Commission's Rules With Respect to the 150.8-162 mc/s Band to Allocate Presently Unassignable Spectrum to the Domestic Public Land Mobile Radio Service by Adjustment of Certain of the Band Edges, *Report and Order*, 12 F.C.C. 2d 841, *recon. denied*, 14 F.C.C. 2d 269, 271 (1968), *aff'd sub nom.*, *Radio Relay Corp. v. FCC*, 409 F.2d 322 (2d Cir. 1969).

⁷⁴ See *In re* An Inquiry Relative to the Future Use of the Frequency Band 806-960 MHz, 46 F.C.C. 2d 752, 760 (1974) (favoring allocation solely to wireline telephone companies); *In re* An Inquiry Relative to the Future Use of the Frequency Band 806-960 MHz, 51 F.C.C. 2d 945, 946, 953-54 (1975) (only one per market, but non-wirelines might also be eligible); *In re* An Inquiry Into the Use of Bands 825-845 MHz & 870-890 MHz for Cellular Communications Sys., 86 F.C.C. 2d 469, 478 (1981) (FCC to license two cellular licensees per market, Block A (non-wireline) and Block B (wireline)). Cellular service was considered to be "exchange telecommunications services," and on this basis their provision by the BOCs within LATA boundaries did not require special approval under the 1982 antitrust consent decree. See *United States v. Western Elec. Co.*, Civil Action No. 82-0192, Misc. No. 82-0025

separated the wireless business from its landline counterpart and resulted in foundational differences between mobile wireless and wireline local telephone service. Part of the basis for the FCC's conclusion was that radio technology does not lend itself to the argument that telecommunications is a natural monopoly in the same way that wireline service does. Radio channels could be utilized on an as-needed basis, while fixed wireline plant required much greater levels of up-front sunk costs. Competition was also the model for broadcast radio.⁷⁵ Accordingly, the FCC began in 1949 with one of its first procompetitive policies and competition has been the watchword in mobile telephony ever since, with "salutary" results.⁷⁶

The wireless telephony roadmap, at least up to this point, has consistently pointed in the direction of competition and deregulation. When the FCC elected to forbear from regulating prices charged by cellular carriers, many states similarly declined to do so.⁷⁷ Over time, different technical standards, business strategies and network arrangements arose, driven by competitive market decisions. Regulation was, of course, necessary to ensure reasonable and non-discriminatory inter-

connection with the ILEC, particularly for "non-wireline" cellular carriers who competed with the ILEC's affiliated cellular carrier.⁷⁸

Congress preempted state regulation of cellular prices, rates and entry in 1993 and gave the FCC jurisdiction over LEC-CMRS interconnection.⁷⁹ This action was based in part on Congress's intent "to establish a Federal regulatory framework to govern the offering of all commercial mobile radio services."⁸⁰ The Congressional goal was two-fold: 1) to eliminate the jurisdictionally separate framework imposed on landline companies through section 2(b) of the Act and 2) to regulate all commercial mobile radio services alike, including new PCS services, which were about to be auctioned. In order to rationalize the regulatory framework and encourage higher levels of bidding, Congress essentially freed all broadband CMRS services from the traditional rate and entry burdens of intrastate local exchange regulation.⁸¹ Congress recognized that market conditions might warrant different regulatory treatment of CMRS as compared to other telecommunications carriers, so it explicitly granted the FCC authority to forbear from applying certain provisions of the Act.⁸²

(PI), *Memorandum*, 55 Rad. Reg. 2d (P&F) 1031 (D.D.C. 1983).

⁷⁵ See G. CALHOUN, DIGITAL CELLULAR RADIO 35 (1988); see REPORT OF THE BELL COMPANIES ON COMPETITION IN WIRELESS TELECOMMUNICATIONS SERVICES (1991) (copy on file with the author); HUBER, *supra* note 69, at section 4.2. The *Geodesic Network's* analysis of the economic differences may have changed somewhat with changes in technology. Digital wireless services are able to accommodate a much larger number of additional users on a given bandwidth, and new PCS networks may have more than ample extra capacity. Even so, the general principle remains true: long-run average costs decline with increases in volume much more extensively for wireline than for wireless.

⁷⁶ See *ITT Mobile Telephone*, 1 Rad. Reg. 2d (P&F) at 963.

⁷⁷ See *In re An Inquiry into the Use of the Bands 825-845 MHz & 870-890 MHz for Cellular Communications System*, *Memorandum Opinion and Order and Further Order on Reconsideration*, 90 F.C.C. 2d 571, 576-77 (1982); *In re the Need to Promote Competition & Efficient Use of Spectrum for Radio Common Carrier Services*, *Declaratory Ruling*, 2 FCC Rcd. 2910 (1987); *In re the Need to Promote Competition & Efficient Use of Spectrum for Radio Common Carrier Services*, *Memorandum Opinion and Order on Reconsideration*, 4 FCC Rcd. 2369 (1989).

⁷⁸ See *United States v. Western Elec. Co.*, 578 F. Supp. 643, 651 (D.D.C. 1983) (BOCs required to offer all mobile carriers access to the landline network on equal terms).

⁷⁹ See Conference Agreement on the Omnibus Budget Reconciliation Act of 1993, H.R. Conf. Rep. No. 103-213, at 490, *reprinted in* U.S.S.C.A.N. at 1088 (1993) [hereinafter *1993 OBRA Conference Report*]; 47 U.S.C. §§332(c)(1)(B) and

(c)(3)(A) (1995); see Federal Communications Commission Common Carrier Service, 47 C.F.R. §§51.701, 51.703, 51.709(b), 51.711(a), 51.715(d) and 51.717 (1998).

⁸⁰ See *1993 OBRA Conference Report*, H.R. Conf. Rep. No. 103-213, at 490.

⁸¹ For the new PCS carriers who acquired their licenses through auctions and made substantial payments to the government in return, the regulatory "contract" between the government and the carrier is arguably more explicit than for cellular carriers and contains more easily quantifiable damages in case of breach. For example, when the government advertises that licenses up for bidding will be subject to particular regulatory conditions, one might make a plausible claim for damages if the government changes the regulatory conditions substantially after the auction price is paid. This sort of "opportunism" is precisely what regulatory "bargains" are supposed to preclude. See Sidak & Spulber, *supra* note 24, at 883. The use of auctions to award licenses has also sparked debate concerning property rights. See, e.g., *In re Amendment of the Commission's Rules Regarding Installment Payment Financing for Personal Communications Services (PCS) Licensees*, 63 Fed. Reg. 50,791 (Aug. 19, 1998).

⁸² Section 332(c)(1)(A) provides that the Commission may determine that any provision of Title II may be specified as "inapplicable to [any] service or person" otherwise treated as a common carrier. 47 U.S.C. §332(c)(1)(A). Congress enacted more expansive authority in the 1996 Telecommunications Act, permitting the FCC to forbear from applying any regulation or any provision of the Act to any carrier or service. See Pub. L. No. 104-104, 110 Stat. 56 (to be codified at 47 U.S.C. §151 *et seq.*).

As to the first goal, the Communications Act provides in section 2(b) that "Except as provided in . . . section 332 . . . nothing in this [Act] shall be construed to apply or to give the Commission jurisdiction with respect to (1) charges, classifications, practices, services, facilities, or regulations for or in connection with intrastate communication service by wire or radio of any carrier."⁸³ Congress determined that because mobile services operate "without regard to state lines," it would be administratively burdensome and unproductive to separate CMRS into interstate and intrastate aspects in the same way that landline service—provided with fixed network terminals—was separated.⁸⁴ Nevertheless, their legislative task was only half completed: section 332 provides an exception to 2(b) only to the extent that it preempts state regulation of the "entry of or the rates charged by" any commercial mobile service; this left states with the authority to regulate the "other terms and conditions" of commercial mo-

bile services.⁸⁵

Importantly, the FCC declined to permit any state to continue regulating prices for broadband CMRS services.⁸⁶ Some states had regulated cellular services and requested permission to continue doing so under the provisions of section 332 allowing those states to petition for a continuation of state regulation subject to FCC approval.⁸⁷ The FCC, correctly following Congressional intent, declined to grant permission in every case.⁸⁸ The FCC also elected to exercise section 332's new grant of forbearance authority to remove many common carrier regulations inapplicable to mobile carriers or in a competitive context.⁸⁹ The FCC's decisions in this area followed a long line of FCC precedent based on the principle that unnecessary regulations create efficiency losses and harm consumers.⁹⁰ The FCC correctly continues to examine forbearance from traditional common carrier regulations for CMRS,⁹¹ although many point out that the FCC has not been sufficiently

⁸³ 47 U.S.C. §152(b).

⁸⁴ H.R. Rep. No. 103-111, at 260 (1993), reprinted in U.S.C.C.A.N. 378, 587 (1993).

⁸⁵ See 47 U.S.C. §332(c)(3)(A). See also Part IV.A. *infra* (discussion of the meaning and ambiguity of the "other terms and conditions" language).

⁸⁶ See, e.g., *Second CMRS Report and Order*, 9 FCC Rcd. at 1478, para. 175, and 1480-81, paras. 180-82.

⁸⁷ 47 U.S.C. §332(c)(3)(B).

⁸⁸ See, e.g., *In re* Petition of the People of the State of California and the Public Utility Commission of the State of California to Retain Reg. Authority over Intrastate Cellular Service Rates, *Order on Reconsideration*, 11 FCC Rcd. 796 (1995); *In re* Petition on Behalf of the Louisiana Public Service Commission for Authority to Retain Existing Jurisdiction over Commercial Mobile Radio Services Offered Within the State of Louisiana, *Report and Order*, 10 FCC Rcd. 7898 (1995); *In re* Petition of New York State Public Service Commission to Extend Rate Regulation, *Report and Order*, 10 FCC Rcd. 8187 (1995); *In re* Petition of Arizona Corporation Commission, *Report and Order and Order on Reconsideration*, 10 FCC Rcd. 7824 (1995); *In re* Petition on Behalf of the State of Hawaii, Public Utility Commission, for Authority to Extend its Rate Regulation of Commercial Mobile Radio Services in the State of Hawaii, *Report and Order*, 10 FCC Rcd. 7872 (1995); *In re* Petition of the State of Ohio for Authority to Continue to Regulate Commercial Mobile Radio Services, *Report and Order*, 10 FCC Rcd. 7842 (1995); *In re* Petition of the Connecticut Department Public Utility Control to Retain Regulatory Control of the Rates of Wholesale Cellular Service Providers in the State of Connecticut, *Report and Order*, 10 FCC Rcd. 7025 (1995), *aff'd sub nom.*, *Connecticut Dep. Pub. Util. Control v. FCC*, 78 F.3d 842 (2d Cir. 1996).

⁸⁹ See *Second CMRS Report and Order*, 9 FCC Rcd. at 1475-85, paras. 164-198; *In re* Further Forbearance from Title II Regulation for Certain Types of CMRS Providers, *Notice of Proposed Rulemaking*, 9 FCC Rcd. 2164 (1994). The 1994 *Further Forbearance NPRM* proceeding was terminated in light

of the enhanced forbearance authority in the 1996 Act, which utilized different criteria for regulatory forbearance. See *In re* Personal Communications Industry Association's Broadband Personal Communications Services Alliance's Petition for Forbearance For Broadband Personal Communications Services, *Memorandum Opinion and Order and Notice of Proposed Rulemaking*, 13 FCC Rcd. 16,857, 16,860, para. 6 (1998) [hereinafter *PCIA Forbearance Order*]. The FCC also denied a petition filed by GTE seeking forbearance from certain operator service requirements of the Telephone Operator Consumer Services Improvement Act (TOCSIA). See *In re* Petition for a Declaratory Ruling that GTE Airfone, GTE Railfone, and GTE Mobilnet are not subject to the Telephone Operator Consumer Services Improvement Act of 1990, *Declaratory Ruling*, 8 FCC Rcd. 6171 (1993); *PCIA Forbearance Order*, 13 FCC Rcd. at 16,860, para. 5.

⁹⁰ See, e.g., *In re* Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Authorizations Therefor, *First Report and Order*, 85 F.C.C. 2d 1, 5 (1980) (citing C.W. NEEDY, REGULATION-INDUCED DISTORTIONS (1978)); *Second Report and Order*, 91 F.C.C. 2d 59, 60-61 (1982).

⁹¹ See, e.g., *In re* Federal Communications Bar Association's Petition for Forbearance from Section 310(d) of the Communications Act Regarding Non-Substantial Assignments of Wireless Licenses and Transfers of Control Involving Telecommunications Carriers, *Memorandum Opinion and Order*, 13 FCC Rcd. 6293 (1998) (forbearance granted from rule requiring FCC pre-approval of non-substantial or *pro forma* license transfers); *PCIA Forbearance Order*, 13 FCC Rcd. 16,857 (FCC grants partial forbearance from the requirement to file tariffs for international services and limited forbearance from certain operator services regulations, but declines to forbear from the international authorization requirements of section 214 of the Act as well as the FCC's resale rules); *In re* Interconnection and Resale Obligations Pertaining to CMRS, *First Report and Order*, 11 FCC Rcd. 18,455 (1996) (temporarily extending cellular resale obliga-

pro-competitive and deregulatory in this area.⁹²

As to the second goal, harmonization of regulatory treatment, certain services such as cellular previously had been regulated as common carriage while others that were nonetheless potential competitive substitutes were regulated as private carriage. Eliminating this disparity in regulatory treatment and ensuring similar treatment for similar services was a major impetus for the 1993 revisions; Congress adopted a new category of services known as "commercial mobile radio services," or CMRS.⁹³

There was a third aspect to the 1993 revisions to the Act as well; a revision related to CMRS's status as a substitute for local exchange service. In the 1993 revisions, Congress exempted CMRS from "requirements imposed by a State Commission on all providers of telecommunications services necessary to ensure the continued availability of telephone exchange service at affordable rates," except where CMRS became a substitute for landline telephone exchange service for a sub-

stantial portion of the communications within such State.⁹⁴ At the time, local competition had not yet been authorized, even at the state level. The proliferation of cellular (and soon to be PCS) services was seen as a threat to the local exchange carriers and to the existing system of subsidies supporting "universal service." PCS in particular, was advertised as any number of things—a low-priced, go-anywhere, single-number, voice/data/messaging service—and popularly understood as a service likely to "explode" on the public with enormous and far-reaching consequences for telecommunications.⁹⁵

The proliferation of such an attractive substitute for local exchange services was thought to be able to harm universal service.⁹⁶ By substituting for LEC services, PCS customers could also bypass the LEC to reach traditional long-distance carriers, thus bypassing the system of access charges and threatening the LEC revenue streams that made up universal service.⁹⁷ Remember, at that time local competition had not yet been author-

tions but providing for the resale rule to sunset after five years because competition will render it unnecessary); Commencement of Five-Year Period Preceding Termination of Resale Rule Applicable to Certain Covered Commercial Mobile Radio Service Providers, *Public Notice*, 13 FCC Rcd. 17,427 (1998) (noting that the resale rule sunset date would be tolled as of Nov. 25, 1997, the date on which the Commission completed its award of the last group of initial PCS licenses, yielding a sunset date of Nov. 25, 2002).

⁹² See *PCIA Forebearance Order*, 13 FCC Rcd. at 16,934 (dissenting statement of Commissioner Harold Furchtgott-Roth).

The majority decision [in the forbearance order] denies most of the subject request to forbear based on speculative fears and outdated rationales that raise the bar so high that future and pending forbearance petitions—even in the most competitive segment of the telecommunications industry and in geographic markets that are fully competitive—do not seem to stand a chance.

Id. (separate statement of Commissioner Michael K. Powell, dissenting in part).

⁹³ See 1993 OBRA Conference Report, H.R. Conf. Rep. No. 103-213, at 494; 47 U.S.C. §332(d).

⁹⁴ 1993 OBRA Conference Report, H.R. Conf. Rep. No. 103-213, at 492.

⁹⁵ See, e.g., David J. Roddy, *Economic Analysis of the Cost Structure of the PCS/Wireless Telecommunications Industry and the Implied Value of Broadband PCS Spectrum*, Economics and Technology, Inc., Sept. 1994; HUBER, *supra* note 69, at 1.

⁹⁶ See, e.g., *In re* Petition of Arizona Corporation Commission to Extend State Authority Over Rate and Entry Regulation of All Commercial Mobile Radio Services; Implementation of Sections 3(n) and 332 of the Communications Act—Regulatory Treatment of Mobile Services, *Report and Order and Order on Reconsideration*, 10 FCC Rcd. 7824, 7834, para. 39-41 (1995). Arizona had attempted to justify its request

for continued regulation of cellular on the basis that cellular substitution was reducing LEC revenues, thereby harming universal service. The FCC responded that Arizona's request was unnecessary because section 332(c)(3) permits any state—even without rate regulation authority—to require CMRS carriers to contribute to universal service funds "where such [CMRS] services are a substitute for land line telephone exchange service for a substantial portion of the communications within such State." See also 47 U.S.C. §332(c)(3). The "substantial substitute" precondition of section 332 has, of course, effectively been read out of the Act by operation of section 254(f) ("Every telecommunications carrier that provides intrastate telecommunications service shall contribute, on an equitable and nondiscriminatory basis, in a manner determined by the State to the preservation and advancement of universal service in that State").

⁹⁷ See HUBER, *supra* note 69, at 1, figure 1.1 (citing Request of AT&T for a Pioneer's Preference, No. 91-314, at 6-8 (May 4 1992)) (noting that AT&T's "ultimate goal" is the provision of "affordable, nationwide" radio-based personal communications service, with "[f]eatures and quality comparable with the wireline network"); *In re* Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers, 11 FCC Rcd. 5020, 5056, para. 77 (1996) [hereinafter *LEC-CMRS Interconnection Notice*]; Comments of LDDS WorldCom to the *LEC-CMRS Interconnection Notice*, CC Docket 95-185, at 12 (Mar. 4, 1996); Reply Comments of United States Telephone Association to the *LEC-CMRS Interconnection Notice*, at 14 (Mar. 25, 1996) (discussing arbitrage and bypass opportunities created by the fact that CMRS carriers do not pay interstate access charges). See also *CMRS Second Report and Order*, 9 FCC Rcd. at 1497, para. 228 (discussion of LEC-CMRS interconnection arrangements prior to 1996 Act); *In re* Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, *First Report and Order*, 11 FCC Rcd. 15,499, 16,005 (1996) [hereinafter *Local Competition Order*]; *Iowa Utils. Bd. v. FCC*, 120 F.3d

ized and regulators were expressing significant concerns about "bypass" of LEC access arrangements by competitive providers.⁹⁸

PCS was thought to be so attractive—full mobility at prices comparable to existing landline telephone rates—that it would effectively replace traditional landline service and potentially drive the LEC out of business (or if the PCS was provided by a LEC, shift the LEC's focus away from its wireline network). But as a federally licensed wireless provider, CMRS would not be subject to the same "regulatory contract" with the state commissions, *e.g.*, the requirement to provide service throughout a given geographic area, that ensured "universal service." Thus Congress provided that the FCC should permit states to regulate CMRS where subscribers have no alternative means of obtaining basic telephone service.⁹⁹

Admittedly, much of the concern about the potential of PCS and wireless services to harm universal service was a bit overblown; the growth of wireless has so far been extensive, but has not presented that degree of a threat to wireline carriers or to universal service cross-subsidies. Nevertheless, in this case, given a choice between the regulated monopoly model and a deregulated, competitive wireless model, Congressional action established the competitive model as the framework for the "bargain" between government and broadband CMRS carriers. Further, such Con-

gressional action might very well be necessary as wireless businesses evolve, or as regulatory "creep" threatens to intrude on the functioning of the competitive market. For example, the statutory and regulatory approach to CMRS universal service "requirements" was changed substantially by further revisions to the Communications Act in 1996 and subsequent implementation.¹⁰⁰

However, Congress did not follow the traditional wireline model to create a relationship of protection and control between government and the private capital needed to build wireless networks; instead, Congress created something very different. The Communications Act's original universal service mandate extends to a "wire and radio communication service," not merely wireline local telephone service. But when it came to cellular, PCS and other broadband mobile wireless services, the government created opportunities for private capital to obtain licenses and then left it to the workings of the market to produce investments in infrastructure, quality services and affordable prices in all areas of the country. And that approach has been at least as successful as the monopoly/subsidy approach selected for wireline local telephone service.

Even bearing in mind the fact that wireline telephone has had government protection and subsidy and at least a 100-year head start, wireless service is also available in nearly all areas of the

753 (8th Cir. 1997), *cert. granted sub nom., AT&T v. Iowa Utils. Bd.*, 118 S. Ct. 879 (1998) (LEC-CMRS interconnection framework under the 1996 Act).

⁹⁸ See, *e.g.*, *NII Initiative*, *supra* note 67, at 428.

Competitive access providers now are beginning to offer local telephone service in competition with the BOCs. They primarily serve the highly profitable business markets and are not concerned about subsidizing service in less profitable markets. Additionally, unlike BOCs, competitive access providers do not have a substantial base of installed equipment, with high capital depreciation costs that must be included in their rate bases. If companies like MCI continued to invest billions of dollars in developing competitive access services, BOCs could potentially lose significant shares in the markets that they rely upon to subsidize universal service. In turn, telephone service may become more expensive in rural and poor areas.

See id. The *NII Initiative* is particularly interesting and, one can hope, anachronistic in suggesting that a single-wire, non-competitive arrangement is the ideal method for promoting access to advanced telecommunications capabilities.

⁹⁹ 47 U.S.C. §332(c)(3)(A).

¹⁰⁰ The *Universal Service Order* adopted by the FCC observed, among other things, that states could require CMRS carriers to contribute to state universal service funds, as well

as requiring CMRS carriers to contribute to a federal fund pursuant to new 47 U.S.C. §254. Worse, the FCC required CMRS carriers to do so based on measurement of their interstate (as opposed to intrastate) revenues, thus re-imposing the obligation to divide traffic according to the intra/interstate distinction Congress had sought to eliminate for CMRS. *See May 1997 Universal Service Order*, 12 FCC Rcd. 8776. All this "notwithstanding" language in section 332(c)(3)(A) was intended to provide that states may only subject CMRS carriers to universal service requirements where they are a substitute for a substantial portion of the traffic within that state. *See* 47 U.S.C. §332(c)(3)(A). *See also In re* Petition of Pittencrief Communications, Inc. for Declaratory Ruling Regarding Preemption of the Texas Pub. Util. Reg. Act of 1995, *Memorandum Opinion and Order*, 13 FCC Rcd. 1735 (1997). Although debate on this point is beyond the scope of this article, the FCC's decision to permit states to subject CMRS carriers to new obligations to contribute to universal service is open to question, given the language of section 332(c)(3)(A), which was not affected or amended by the 1996 amendments. Even if one accepts the FCC's view of the legal and policy validity of the universal service contribution mandate of section 254, the absence of any Congressional amendment to section 332(c)(3)(A) leaves the meaning of the latter section in doubt; the FCC has left that issue unexplained.

country; a choice of at least three competitive providers is available to 87 percent of the nation's population.¹⁰¹ Moreover, new investment in wireless networks has been significant. Market forces, not regulatory mandates, stimulated an upgrade of mobile networks from analog to digital technology. Competition is also expected to drive further investment in mobile networks for the provision of "third generation" services.

The competitive market model is considerably more modern than the 19th century arrangements governing wireline carriers. Yet, when envisioning wireless carriers as competitors with wireline carriers for local telephone services it is not the competitive model but often the wireline model that policymakers expect broadband CMRS carriers to follow. Perhaps the reason for this odd result is that policymakers have not yet fully reconciled their understanding of the competitive market with their expectations for how basic local telephone service will be provided. For a variety of reasons, that service market is somehow sacrosanct, and regulators feel a special obligation to protect consumers of those services from market forces. Understanding better the competitive market will be a necessary prerequisite to convincing policymakers to feel more comfortable with a competitive approach to affordable, ubiquitous local telephone service.

IV. THE INVISIBLE HAND OF REVOLUTION: THE COMPETITIVE MARKET

The tools used by competitive businesses to set prices, invest in infrastructure and decide whether to enter new markets are the standard tools of business analysis: deriving estimates of capital expenditures, projected demand and projected revenues, using the time-value of money to determine the present value of the proposed investment and comparing that value to company business plans and strategies. These tools may also be used by policymakers to evaluate prices and encourage investment and entry into new markets. However, the more obvious process is to estimate the likely success of various political strategies and to evaluate decisions based on whether

they favor, disfavor or balance outcomes among competing interest groups and industry segments.

This approach also differs by design from the regulated monopoly environment in which the ILECs operate. Indeed, the process of a competitive market even looks quite different from that which regulators' theoretical approaches predict a competitive (or a perfectly regulated) cost and pricing structure would be. Regulators generally assume that competition yields prices for all competitive services at long-run incremental cost; the outcome of a hypothetical "perfectly competitive" market. But competitive firms' behavior is much more complex than that, particularly in the telecommunications industry, where significant economies of scale are present.

As former FCC Chief Economist Joseph Farrell has explained:

Unregulated competition does subtler things on prices than bring price levels to cost in the long run. It allows firms to cover common costs in creative and flexible ways. More generally, it lets firms experiment to find how customers prefer to pay the costs they incur. (Regulators can use economic principles to predict what pricing structures should be efficient, but in the end efficiency should be measured by what customers actually want, not what we predict they will want.)

And it lets prices—both as consumption signals and as investment signals—move at least somewhat in tandem with the first-best ideal, which, to oversimplify somewhat, is *short-run* marginal cost when there is plenty of capacity, and *capacity-filling* price, perhaps well above cost, when there is not. (Peak-load pricing is an example of this kind of pricing.)

This is much subtler pricing behavior than "keep prices near long-run cost", [sic] which is probably the best that regulators can realistically do (trying to implement the first-best ideal would likely be terribly demanding in terms of information and extremely subject to manipulation). The two coincide in long-run equilibrium, but transitory differences are likely to be important in industries in which investment and capacity costs are important and demand is somewhat unpredictable.

Pricing at long-run cost *pays for* investment, but doesn't give the sharp signals "invest all-out in capacity" or "don't invest in capacity," with their high-powered incentives, that the unregulated market can give.¹⁰²

Accordingly, expectations are misplaced that broadband CMRS carriers competing for local telephone service minutes—from both wireless and wireline competitors—will develop prices strictly in relation to costs. Rather, prices are set, unsurprisingly, in response to "what the market will

¹⁰¹ See *Third Competition Report*, 13 FCC Rcd. at 19,768, Appendix H.

¹⁰² Farrell, *supra* note 16, at 3-4.

bear"; businesses design different pricing plans in order to "segment" the market into discrete customer categories. By segmenting customers, businesses can both serve customers better with more tailored service offerings and maximize earnings by ensuring that prices carefully track demand.

Of course, this is precisely the type of pricing with which regulators have long felt uncomfortable. Different prices based on different demand elasticities means that some customers get "better" prices than others; regulators often mistakenly assume that this is the result of either discrimination or abuse of market power.¹⁰³ Even in competitive markets, however, there will be different demand elasticities for different services or service elements. Competitive prices will respond accordingly; policymakers will have to learn to grit their teeth and allow the market to do so if they are serious about favoring market competition as the best way to obtain benefits for consumers and maximize overall economic efficiency.

Infrastructure investment decisions are also handled differently than in the traditional regulated wireline model. In a competitive market, a firm would decline to invest in a particular strategy, *i.e.*, introduce a new product or service, construct new facilities, or introduce new pricing plans, when the marginal cost of that particular investment exceeds the private marginal benefit, adjusted for the time value of money. In other words, a competitive business looks to see whether the net present value ("NPV") of a particular course of action is positive or negative.

Decisions are based in part on a standard business case analysis something like the following:

- An initial proposition to add value for the customer or obtain additional revenue is developed and described. Advantages and disadvantages are listed.

- Demand estimates are compiled and multiplied by a particular price figure to arrive at expected total revenues. Of course, the interrelationship between price and demand must be taken into account.

- Estimates of expenses are derived. These include both any up-front capital expenses as well as operating expenses, *i.e.*, expenses incurred throughout the course of providing the new product, service or price plan. Such operating ex-

penses might include technical and equipment costs, marketing costs and overhead, customer care and billing systems expenses. Depreciation expenses are also involved.

- Revenues and expenses are compared to arrive at a preliminary calculation of earnings before taxes. After taxes are figured in, the firm has some estimate of how much revenue (or expense) is involved to arrive at a cash flow estimate.

- This process is then projected out over a number of years to determine at what point the process will reach a "break-even" point where demand has increased so as to yield sufficient revenues to both recover an appropriate share of capital expenses and cover operating costs.

This analysis then incorporates the time-value of money, *i.e.*, consideration of prevailing interest rates and inflation, to determine whether allocating funds in the proposed manner will yield a positive return over the number of years estimated to be necessary to reach the "break-even" point. Essentially, the process compares the present value of the expected future benefits of a project to the present value of the expected costs. If this calculation demonstrates that funds spent in this manner would not recover the cost of acquiring the capital in the first place, the strategy is said to be "net present value—negative" and would be rejected.

The firm will also calculate an internal rate of return ("IRR"), an estimate of what the company believes it will cost to obtain the capital needed for that given expenditure. If this internal rate of return is met exactly, the project is said to have an NPV of zero. Effectively, then, the firm is neutral as to whether it engages in the project or not. The firm may also calculate a "hurdle rate," which may be equal to or above the IRR and which represents the minimum return the firm will accept before engaging in the investment project.

The competitive firm must also consider whether funds might be better off spent elsewhere, thus comparing the value of this particular strategy to others, including consideration that a competing firm might in fact elect to pursue that strategy and thereby gain a long-term advantage in the marketplace.¹⁰⁴

Regulated firms, of course, engage in similar

¹⁰³ See, *e.g.*, *In re American Tel. and Tel. Co.*, the Associated Bell System Companies, *Charges for Interstate Telephone*

Service, 64 F.C.C. 2d 131, 469-70 (1976).

¹⁰⁴ See WILLIAM G. DROMS, *FINANCE AND ACCOUNTING FOR*

business calculations, but the decisions they make may differ substantially based on a number of factors unique to the environment of cost/price regulation. For a regulated firm, the question is perhaps as much whether market demand and expected returns justify the investment as it is whether the regulators will allow the investment and ensure that the firm meets its "revenue requirement" by allowing the carrier to adjust prices (and/or depreciation rates) as needed.

Thus, a LEC might choose to invest in certain projects that a competitive firm may not. In the worst case, the LEC will make certain investments without ensuring that they will earn an adequate return, on the assumption that the regulator will either mistakenly approve the investment or be forced somehow to protect the LEC from bankruptcy. On the other hand, a LEC may well be required to invest in certain projects as part of its "bargain" with the regulator. The universal service obligation is one example of this; subsidies are the regulator's way of meeting the LEC revenue requirement in cases where competitive returns are insufficient.

Regulated firms might also choose not to invest in advanced infrastructure if they feel that regulators will not approve the expenditure or impose conditions on its use that change the net present value analysis. From a regulator's perspective, even if there may be competitive returns to be earned from the investment, any short term cost increases—much less periods where operating cash flow is negative—might undermine the ability of a regulated wireline LEC to offer cheap basic services. And it might tempt the LEC into subsidizing that new investment with revenues earned

from the basic services, effectively further increasing the costs of basic service in a manner that is not only competitively unfair, but which regulators would find "unnecessary" to the provision of basic service. Caught betwixt and between, carriers with universal service obligations and other government controls cannot make independent business judgments on investments.

The key difference is that regulators seek to maximize *social* welfare as *they* see it, which may or may not reflect consumer welfare as expressed by marketplace choices, nor will it necessarily reflect investor welfare as it is calculated using the usual analysis. In the case of a regulated firm, it is much easier for regulators to compel investments up to the point where, in effect, they believe social marginal costs equal social marginal benefits. With a regulated firm, then, the regulators can choose whether to award rate increases (possible only in a monopoly or near-monopoly environment) or collect subsidies to make up the difference in revenue.

This approach is leading to increasing costs of doing business for all competitive firms.¹⁰⁵ Too often, the traditional monopoly-based approach to service mandates is being applied not only to regulated wireline carriers but to wireless carriers as well. To its credit, the FCC has recognized that "all regulation . . . necessarily implicates costs, including administrative costs, which should not be imposed unless clearly warranted."¹⁰⁶ But recent policy decisions to compel the deployment of advanced location technology,¹⁰⁷ advanced wiretap capability¹⁰⁸ and local number portability technology¹⁰⁹ were made with little if any record evidence as to expected consumer demand, revenues, oper-

NONFINANCIAL MANAGERS (3d ed. 1992). See generally E. BRIGHAM, FUNDAMENTALS OF FINANCIAL MANAGEMENT (6th ed. 1992); R. BREALY & S. MYERS, PRINCIPLES OF CORPORATE FINANCE (4th ed. 1991).

¹⁰⁵ Among these are also the increasing burdens of state, local and federal taxes, including universal service taxes, higher-than-cost interconnection rates and regulatory mandates for technological investment in advanced location capabilities, wiretap capacity and number portability. See Farquhar, *supra* note 3.

¹⁰⁶ *In re* Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services, *First Report and Order*, 11 FCC Rcd. 18,455, 18,463, para. 14 (1996).

¹⁰⁷ See *In re* Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, *Report and Order and Further Notice of Proposed Rulemaking*, 11 FCC Rcd. 18,676 (1996); *Memorandum Opinion and Order*, 12 FCC Rcd. 22,665 (1997); *Order*, 13 FCC Rcd. 21,746 (1998).

¹⁰⁸ See *In re* Communications Assistance for Law Enforcement, *Notice of Proposed Rulemaking*, 13 FCC Rcd. 3149 (1997). See also Communications Assistance for Law Enforcement Act, Pub. L. No. 103-414, 108 Stat. 4279 (1994) (codified as amended at 18 U.S.C. §2522, and 47 U.S.C. §§229, 1001-10).

¹⁰⁹ See Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996) (codified at 47 U.S.C. §251(b)(2)). For wireless carriers, moreover, the requirement to deploy local number portability was not a statutory requirement but was imposed by the FCC on the speculative basis that it would "aid competition in the wireless industry." *In re* Telephone Number Portability, *First Report and Order and Further Notice of Proposed Rulemaking*, 11 FCC Rcd. 8352 (1996); *First Memorandum Opinion and Order on Reconsideration*, 12 FCC Rcd. 7236, 7283, para. 78 and Appendix E (1997). The FCC's Wireless Bureau has elected to extend the deployment deadline for this functionality until March 31, 2000. See *In re* Petition for Extension of Implementation Deadlines of the Cellular Telecommunications Industry Association, *Memorandum Opinion*

ating expenses, capital expenses or net present value. Admittedly, legal requirements and policy decisions to foster the abilities of emergency access services or access to the disabled or preserve law enforcement capabilities are not goals necessarily pursued for profit. But at the same time, applying such mandates to competitive business necessarily interferes with the more efficient and more democratic process of allowing wireless customers (and potential customers) to determine what qualities and capabilities they want from service.

Effective law enforcement, access to emergency services and services suited to the needs of the disabled are all appropriate goals for telecommunications policy. But equating one particular investment activity or another with those goals begs the question of whether particular investments are required. There are a number of existing, alternative methods of providing emergency services and wiretap capabilities. Carriers have proven that competitive market forces are sufficient to cause them to respond to unique needs, for example, in the case of a potential customer who is physically disabled.

But regulatory proceedings too often did not consider or give sufficient weight to business case analysis, minimizing cost burdens and the ability of market demand to meet particular goals. Moreover, in some cases, such as number portability, record evidence regarding the costs and benefits was considered, but such other considerations as number conservation drive the decision-making process.

The competitive market better serves consumers for at least one reason, a reason which is not only economic but fundamentally democratic. Social goals inevitably involve trade-offs between costs and benefits, revenues and expenses. Admittedly, some social goals may be simply too important to leave unfunded or unmet. If that is the case, it is unlikely that carriers will succeed in reaching as many customers as possible if important features desired by the public are not a part

of their service offering. When government undertakes to speak for the public, it runs the risk that its decisions will not truly reflect the interests of the public at large, but merely those of a particular segment which happens to have influential friends in Congress or at a regulatory commission.

In order for regulatory mandates to be fully accountable, there must be some objective basis for assessing their relative costs and benefits. For investments in advanced technologies, decisions to tax certain services to subsidize others or in any case where carriers (and their shareholders) are required to make investments not supported by ordinary business planning, regulators' public interest obligations to consumers strongly suggest that regulators must conduct some calculation as to the present value of a projected decision and explain to the public why it has elected to impose these costs.

In the regulated monopoly world, it was possible for regulators to compel particular investments or service offerings and then adjust prices or other factors such as depreciation rates so as to minimize the impact on subscribers. In a competitive market, firms such as wireless carriers cannot simply "absorb" costs imposed by regulators because competition for capital investment does not permit carriers to "absorb" costs and thereby reduce their margins or returns to shareholders. This is true for both types of government mandates: new capital investments and new tax expenditures such as universal service contribution obligations.

Even if a tax is nominally levied only on carriers, the burden of the tax is borne by consumers in addition to the owners and employees of the carriers themselves.¹¹⁰ And even if consumer rates do not rise, the effect of increased taxes is that the consumer enjoys a smaller reduction in prices than would otherwise be the case in a competitive market.¹¹¹ Competitive businesses understand that certain social goals require taxation or investment mandates, but regulators must understand that they have an obligation to measure the

and Order, 13 FCC Rcd. 16,315 (1998). Additionally, the FCC has before it a pending CTIA petition for forbearance from the number portability requirements. See Wireless Telecommunications Bureau Seeks Comment on CTIA Petition Requesting Forbearance From CMRS Number Portability Requirements, *Public Notice*, 13 FCC Rcd. 955 (1998).

¹¹⁰ See, e.g., *In re Federal-State Joint Board on Universal Service*, *Report and Order*, 12 FCC Rcd. 87 (1996) (separate

statement of Commissioner Rachelle B. Chong) (noting that the ultimate cost of any universal service obligations will be with consumers); *In re Report in Response to Senate Bill 1768 and Conference Report on H.R. 3579, Report to Congress*, 12 FCC Rcd. 11,810, 11,866 (1998) (dissenting statement of Commissioner Michael K. Powell).

¹¹¹ See, e.g., *id.* at 11862 (dissenting statement of Commissioner Harold Furchtgott-Roth).

costs and benefits of such programs to ensure they comport with the public interest, because the competitive market does not permit price adjustments and cost recovery in the same way possible in a regulated market.

Finally, as much as policymakers may claim to favor competition, they are primarily political actors and recognize that there is uncertainty about how a competitive market will play politically. Competition is often an economic castor oil: it is good for the economy but politically unpopular, particularly when the industry is used to the comfortable predictability of a regulated market. As one example, when the airlines were deregulated in the late 1970s, some of the immediate symptoms were bankrupt airlines, confused customers and economic uncertainty.

Other results of airline deregulation, of course, have been lower overall fares, service innovations such as frequent flier clubs, greater market segmentation (for example, "business class" service) and larger volumes of traffic. The larger volume and lower fares are indications that the "universal service" goals of affordability and accessibility were somewhat enhanced by airline deregulation. But airline deregulation has also reduced the number of direct flights into a number of smaller markets. Some aspects of service quality, such as the size of the seats, have declined (at least according to anecdotal evidence). Until enough time passed for consumers to forget about how the old system worked and a new generation of consumers to arise, the general reaction of the public to a "pro-competitive, deregulated" airline market was not positive.¹¹²

Long-distance telecommunications operate in a competitive market, although there are some notable disagreements with that premise.¹¹³ But

there should be little disagreement that long-distance services are notoriously hard to compare on the basis of price and are perhaps even more difficult to compare on the basis of quality.¹¹⁴ Long-distance services, far from being the single AT&T Long Lines choice of prices from long ago, are now available in a wide variety of price plans and custom calling plans (factoring in time-of-day discounts, calling circles or "Friends and Family" programs), not to mention hundreds of "dial-around" companies who compete solely for minutes, not for subscriptions, based on price and advertising. Long distance companies have even begun advertising on the basis that choosing their firm will in fact *end* the possibility of confusing choices, in that they offer "one rate—all the time." As the humorist Dave Barry has quipped, "Don't tell me any more about my long-distance options. The more I know about my long-distance options, the more I feel like an idiot."¹¹⁵

Customers of wireless services see many of the same developments in response to new competition. As the FCC's thorough reports on competition indicate, wireless firms offer bundled minute packages, "home-zone" pricing, special long-distance and "roaming" rates and pre-paid service. Some have even begun advertising "one rate" plans similar to those of long-distance companies, in response to the bewildering array of choices.¹¹⁶ In both cases, this "bewildering array" of choices is a positive development for consumers, who are now far more likely to be offered a service package tailored to their needs and are less likely to overpay for unwanted services or features. And in both cases, the bewildering array would very likely not have arisen were these businesses operating in a regulated pricing arrangement.¹¹⁷

¹¹² See *supra* note 36. See also W.J. BAUMOL & J. GREGORY SIDAK, TOWARD COMPETITION IN LOCAL TELEPHONY 2 (1994) (noting the "largely unmerited unpopularity" of passenger airline deregulation).

¹¹³ See, e.g., PAUL W. MACAVOY, THE FAILURE OF ANTI-TRUST AND REGULATION TO ESTABLISH COMPETITION IN LONG-DISTANCE TELEPHONE SERVICES (1996). Another fact to bear in mind is that while long-distance service may be competitive, a major cost input to that product (LEC access services) is often not supplied under competitive market conditions.

¹¹⁴ Long-distance carriers once advertised based on the quality of their networks, e.g., Sprint's famous "pin-drop" ads. But consumers are less able to track, itemize and compare the quality of individual calls in the same way that they can compare prices, i.e., by comparing individual bills. Moreover, because many of the major carriers lease capacity from

their competitors and use alternative, least-cost routing, and because transmission of a long-distance call involves at least two local exchange carriers at either end, the quality of individual networks is particularly difficult to measure. See generally *New Network: Sprint Unveils Revolutionary Network*, EDGE, June 8, 1998.

¹¹⁵ Quote from the Dave Barry Calendar, 1996 version.

¹¹⁶ See, e.g., *Third Competition Report*, 13 FCC Rcd. at 19,768-75.

¹¹⁷ Some economists and policymakers have in fact argued for deregulation as a precedent to rather than a reward for increased competition. See, e.g., Farrell, *supra* note 16, at sec. 3. See also Michael K. Powell, *Communications Policy Leadership for the Next Century*, 50 FED. COMM. L.J. 529 (1998) (advocating enforcement rather than prospective regulation).

V. SO YOU SAY YOU WANT A
REVOLUTION: NEXT STEPS FOR
ENCOURAGING LOCAL COMPETITION
FROM BROADBAND CMRS CARRIERS

A. A Pricing Revolution: End Pricing Subsidies
and Allow for LEC Pricing Flexibility
Regarding Local Telephone Services

As former FCC economist Joseph Farrell explained above, "unregulated competition does subtler things on prices than bring price levels to cost in the long run. It allows firms to cover common costs in creative and flexible ways. More generally, it lets firms experiment to find how customers prefer to pay the costs they incur."¹¹⁸ If the optimal pricing system is one based on unregulated competition, or which at least mimics the outcomes of unregulated competition, then the existing rigid pricing structure for local telephone services is less than optimal.

Taking into account concerns of efficiency and affordability, there is absolutely no reason that residential telecommunications services are best priced as a package of below-cost local calling and above-cost non-local calling, particularly when both services are offered by the same firm. Moreover, that arrangement has significant drawbacks with respect to encouraging competition. Moving toward an arrangement where wireless and wireline services compete on price requires that both wireless and wireline prices respond to normal economic signals regarding costs and demand. Presently, that condition is impossible to achieve because of the system of subsidy and regulation which permits regulators to enforce artificially low prices for local telephone service.

In Europe, mobile phone usage is much higher than in the United States; the extent to which mobile phones are used has even created cultural differences. For example, in Europe, it is perfectly appropriate for a business group to sit down to lunch and set their mobile phone, turned on,

next to their lunch plate for the duration of the meal. Not surprisingly, the ratio of wireless to landline prices in Europe is about 4:1, while in the United States, the ratio is about 8:1.¹¹⁹ Europe's smaller disparity in prices leads to greater substitution of wireless usage for wireline usage. Greater usage, in turn, leads to greater network capacity and investment and to further progress toward wireless systems that operate as competitive substitutes for landline telephones.¹²⁰

The pricing disparity in the United States is due to a structure for local telephone prices that distorts pricing signals and is heavily biased towards wireline local exchange services—again, a legacy of the 19th century monopoly approach. In both wireless and wireline services, network costs are incurred when the subscriber either initiates or receives a call.¹²¹ In CMRS, a usage-sensitive charge is assessed in both situations, on a per-call basis. However, many wireline telephone subscribers pay a flat rate for unlimited local calling and do not pay any additional charges for calls received, regardless of the calling party's location.¹²² Reform of pricing practices for residential wireline local exchange services is necessary to reduce this wireline-wireless price disparity. Absent reform, policymakers are simply protecting wireline competitors at the expense of competition, particularly competition from broadband CMRS.

Perhaps an equally problematic aspect of the United States arrangement is the fact that the subsidies for low local telephone service rates are raised through taxes and implicit contributions charged to other potential local telephone service competitors. Even apart from the deleterious effects on competition, this arrangement creates significant economic inefficiencies. Considering the effects on consumer welfare as a top priority, studies have shown that raising the rates of long distance and wireless services significantly depresses demand for those services,¹²³ not only

¹¹⁸ Farrell, *supra* note 16, at sec. 2.

¹¹⁹ Low wireless premiums have also aided penetration increases in other markets with CPP, such as Australia, Japan and Israel. See SEPTEMBER 1997 YANKEE GROUP REPORT at 20 (citing YANKEE GROUP, WIRELESS PRICING: A GLOBAL COMPARATIVE ASSESSMENT (Nov. 1996)).

¹²⁰ In 1999, the European Commission commissioned a study to examine consumer demand and the implications of the convergence of fixed and mobile networks on its existing regulations. The Commission will be considering many of the issues discussed herein, such as whether regulatory obli-

gations currently imposed on wireline carriers are appropriate for mobile wireless carriers. See, e.g., 1999 Review of the Telecommunications Regulatory Framework, ONP Committee discussion document, ONPCOM98-42, Directorate General XIII (Sept. 11, 1998).

¹²¹ In fact, the costs of call termination are greater in mobile carrier's networks, due to the additional functions of locating the proper mobile subscriber to whom the call is to be delivered.

¹²² See Policy Notice, 2 FCC Rcd. at 5210, para. 15.

¹²³ See generally ROBERT W. CRANDALL & LEONARD

retarding the growth of telecommunications services but creating substantial deadweight losses in efficiency.¹²⁴ One study estimates the benefits of rate rebalancing conforming more closely with economic principles to be an annual welfare gain of almost \$8 billion for the U.S. economy.¹²⁵

Essentially, what we have in U.S. telecommunications policy is an arrangement referred to in European regulatory parlance as an "access deficit contribution scheme." As the European Commission has noted,

In principle, access deficit schemes take the retail price structure (or the profitability of the various business areas) of the incumbent as the starting point for calculating the interconnection price and allow a discount on these prices to give the price for interconnect for a particular type of call or service. The calculation is therefore top down, rather than a bottom up approach based on the actual costs incurred.

As a result, any access deficit scheme will prevent effective competition from becoming established as competitors (entrants) will be forced to charge higher prices for those services, which contribute to the incumbent's access deficit. This type of interconnection pricing regime undermines the incentives for the incumbent to orient its prices towards cost. These effects distort investments within the industry and can only be considered as a temporary exception to the Treaty competition rules.¹²⁶

In the interests of competition, the European Commission has ruled that such "access deficit schemes" may be implemented on only a temporary basis until January 1, 2000.¹²⁷

From the perspective of a U.S. broadband CMRS carrier or other potential local competitors, rate rebalancing would yield better information about how and whether to price services so as to compete with local residential service. Even accounting for the difficulty of allocating joint and

common costs across the multiple services provided by an ILEC, the incumbent service provider provides services at levels below any reasonable allocation of the costs associated with that service. Therefore, it is not surprising that little competition has arisen in these circumstances, even from other facilities-based carriers.¹²⁸ Similarly, inefficient entry into access markets would be forestalled by rate rebalancing, because it would eliminate artificially high prices for those services that may encourage such inefficient entry.¹²⁹

Rate rebalancing is particularly important to facilitating competition from broadband CMRS carriers. Absent rate rebalancing, capturing local telephone subscriptions from the wireline carrier requires CMRS carriers to make either uneconomic price reductions or to apply for eligibility to receive subsidies. Building a business case on government subsidies, of course, conflicts with the broadband CMRS carriers' deregulatory, pro-competitive business approach. With the prospect of subsidies comes both the susceptibility of the business plan to changes in government policy and the prospect of extensive regulatory obligations in return. Devolving into the regulatory status of a LEC, subject to state commission regulation of rates, services and investments, is equally untenable for wireless carriers.

Many broadband CMRS offer consumers the option of purchasing large bundled packages of minutes in an range designed to be affordable for a broad base of customers. Although these services cannot compete with the \$10-15 a month unlimited local usage packages made possible by wireline subsidies, they are proving to be popular

WAVERMAN, TALK IS CHEAP: THE PROMISE OF REGULATORY REFORM IN NORTH AMERICAN TELECOMMUNICATIONS (1995); LESTER D. TAYLOR, TELECOMMUNICATIONS DEMAND IN THEORY AND PRACTICE (1994).

¹²⁴ Jerry Hausman notes that for each additional dollar of tax, the additional burden on the economy is \$2.25, yielding a deadweight loss greater than the revenue raises. HAUSMAN, *supra* note 15, at 14. See also *In re Federal-State Joint Board on Universal Service, Report to Congress*, 13 FCC Rcd. 24,744 (1998) (dissenting statement of Commissioner Harold Furchtgott-Roth).

¹²⁵ See CRANDALL & WAVERMAN, *supra* note 123, at 93.

¹²⁶ *Assessment Criteria for National Schemes for the Costing and Financing of Universal Service in Telecommunications and Guidelines for the Member States on Operation of such Schemes*, European Commission Communication COM (96) 608, (Nov. 27, 1996) (visited Mar. 24, 1999) <www.ispo.cec.be/infosoc/legreg/com96608.html#annexb> [hereinafter *European Universal Service Guidelines*].

¹²⁷ See *id.*

¹²⁸ Seen from another competitive perspective, if telephone services were fully deregulated and an ILEC elected to price local residential service as it presently does under state regulation—subsidized by access services provided to competitors—it might well face antitrust claims. See *supra* note 17 (European Commission considers that artificially low prices are contrary to Article 86 of the Treaty). Article 86 of the Treaty of Rome prohibits "abuse of a dominant position." See Treaty to Establish the European Economic Community, Mar. 25, 1957, art. 86, 298 U.N.T.S. 3 (popularly known as "Treaty of Rome").

¹²⁹ See, e.g., *In re Access Charge Reform; Price Cap Performance Review for Local Exchange Carriers; Transport Rate Structure and Pricing Usage of the Public Switched Network by Information Service and Internet Access Providers*, 11 FCC Rcd. 21,354, 21,376, para. 42 (1996) ("Current access charges distort competition in the markets for local exchange access").

among consumers. More importantly, a wireless carrier's \$70/month package for 500 minutes of calling anywhere in the nation *can* compete for subscriptions from customers who spend a combined \$70/month or more on both local and long-distance calling. At the present moment, however, few customers incur a sufficient amount of monthly long-distance charges to make such a wireless package competitive. Mass-market substitution of wireless for wireline is therefore unlikely until rate rebalancing brings greater parity between the costs of wireline local and wireless local calling.¹³⁰

1. *The Heart of the Revolution: Universal Service Reform*

Nothing about "rate rebalancing" proposals suggests changes that would yield monthly local wireline prices above a reasonable measure of affordability. For example, subsidies remain necessary, in rural areas where costs are very different, there can be non-distorting ways to provide for that. Among policymakers, there are innumerable statements about how local phone prices must not rise, but the only economic explanation given—falling penetration—has not been proven in scientific studies to have any merit. Moreover, none of these arguments explain why *any* increase is economically harmful.¹³¹ It is perhaps true to say that present rates are affordable, but quite another thing to make the statement that any price above that rate is *per se* unaffordable.

Granting that universal service and affordability are an essential element of the consumer welfare calculus, telecommunications policy should rec-

ognize that unaffordable long-distance charges are the primary cause of disconnections.¹³² Moreover, other economic studies have shown that local service rates have relatively little impact on consumer decisions on whether to purchase telephone service. A 1993 study by three noted economists found, moreover, that a mild form of rate rebalancing—the introduction of the \$3.50 subscriber line charge—in fact *increased* telephone penetration, because of offsetting decreases in long-distance prices.¹³³ And yet another found no significant effects on subscription levels from rate rebalancing.¹³⁴

Competition is likely dealt a blow when the subsidies for wireline local telephone service rates are raised through taxes and implicit contributions charged to potential local telephone service competitors. This situation does not have to persist, although full reform may require legislative action.¹³⁵ A system of support for consumers for whom basic telecommunications services would otherwise be unaffordable can be developed through payments to consumers, paid for from general tax revenues. The payments could be made in the form of vouchers entitling the consumer to a discounted service rate; the discount can be as large as necessary. This system has much in common with a number of other social programs, but it has the beneficial aspect of not distorting consumer's choices between telecommunications service providers nor giving one competitor a government-created cost advantage.

Investment incentives for those carriers who risk capital to bring services to otherwise uneconomically advantageous areas will not change: they will still be somewhat dependent on

¹³⁰ As another point of comparison, unlimited monthly local telephone service is far below the monthly cost of cable television, even though, for cable television, the operator must not only build a local network but must also pay for the content.

¹³¹ Moreover, broadband CMRS in many cases functions as a second line; certainly no one believes we need below-cost universal subsidies for a *second* line. Regardless of one's position on universal service, there is absolutely no good reason why broadband CMRS and ILECs cannot compete on a purely unsubsidized basis for *additional* telephone services above and beyond basic connectivity.

¹³² See, e.g., Milton L. Mueller & Jorge R. Schement, *Six Myths of Telephone Penetration: Universal Service From the Bottom Up*, RUTGERS U. PROJECT ON INFO. POL'Y at 9 (1994).

¹³³ See Jerry Hausman et al., *The Effects of the Breakup of AT&T on Telephone Penetration in the United States*, 83 AM. ECON. ASS'N PAPERS & PROC. 178-84 (1993). These economists also found that the efficiency losses of increasing the

SLC to subsidize "universal service" (really the joint and common costs of LEC networks) was extraordinarily smaller than the losses created by new taxes on wireless and long-distance service. See also Hausman, *supra* note 15, at 18.

¹³⁴ See Peter K. Pitsch & David P. Teolis, *Price Reform and Universal Service: Not Mutually Exclusive*, PUB. UTIL. REP., Mar. 15, 1996, at 29 (restructuring in Illinois resulted in no significant drop in household penetration rates).

¹³⁵ It is not certain that reform of the Communications Act is necessary. Section 254 of the Communications Act presently requires every telecommunications carrier to contribute in an equitable and nondiscriminatory manner. See 47 U.S.C. §254(d). This condition can still be met, however, where the costs of any needed subsidies are paid for out of general tax revenues, because most carriers (with the exception of certain cooperatively organized phone companies) pay the usual generally applicable income and sales taxes. See LEONARD S. HYMAN ET AL., *THE NEW TELECOMMUNICATIONS INDUSTRY* 210-12 (1987).

political support of subsidy programs, and they will still have to consider the potential impact of competitive entry into their markets. Provided they continue to retain the same level of customers, they should see no change in revenues or in their cost of capital. Indeed, many rural telephone companies can and should continue to benefit from other subsidy programs paid for out of general tax revenues that facilitate their access to capital, such as those provided by the Rural Utilities Service.¹³⁶

One interesting paper on this subject contends that “there is no reason to believe that a system based on general tax revenues would be better.”¹³⁷ But, as noted above, there are at least three reasons why such a system would be better: 1) it would raise the needed revenues more efficiently and at less overall cost to the U.S. economy; 2) it would avoid stifling competition by taxing one set of competitors to subsidize the rates of another, and 3) it would allow the costs of the program to be identified and measured to be sure that sufficient, but not excessive, amounts of revenue are available for this purpose. It is the last criteria, however, that many—including the author of this article—identify as a negative. For example, the paper argues that, if raised through general tax revenues, “universal service funds would be subject to the vagaries of periodic budget battles, which would not lend the system the certainty that is conducive to efficient investment in infrastructure. Appropriations for universal service would be, like highway appropriations, essentially just another ‘pork-barrel’ project.”¹³⁸

Indeed, federal appropriations for universal service would be subject to the harsh light of public debate and the democratic process among the public at large, rather than within only the small collective of unelected telecommunications regulators. This fundamentally anti-democratic objection to a general tax revenue approach to funding ascribes to universal service a status as a policy goal above and beyond competing policy goals which is by no means justified. Universal service

has an important status, to be sure; one attested to by Congress. But it is by no means self-evident that Congress intended the FCC and the states to structure the universal service program so as to hide its costs from the general public and set it beyond debate.¹³⁹ This type of dictatorial action—declaring one policy goal to be “more equal than others”—is precisely the type of action democratic revolutions are intended to redress.

Moreover, the argument simply does not withstand examination, for two reasons. First, as the argument presumes, telecommunications infrastructure requires substantial up-front investments, requiring some anticipated level of demand or other investment incentive in return. Advanced telecommunications facilities are, in economists’ parlance, “sunk costs.” But if the money is appropriated by Congress for such investments, and the money is then spent on such infrastructure, the infrastructure is already there for use in rural areas, and uncertainty about future appropriations is irrelevant. Once a highway is built, the concrete stays in the ground regardless of the temperature of Congressional debate over “pork barrel” projects. Moreover, Congress could provide that the money, once appropriated and loaned to rural investors, *e.g.*, through the Rural Utilities Service, could be “off the table” for future appropriations debates.

Second, The only reason, of course, to stifle Congressional debate would be because Congressional support of such goals is not as strong as universal service advocates presume. But if Congress really has found universal service to be so important with respect to competing policy goals as to be beyond debate, then it is absurd to then argue that Congress will, left to the appropriations process, fail to sufficiently provide for universal service. My argument perhaps ascribes to Congress more rationality and consistency than experience would warrant, but the competing “Congress can’t be trusted” argument, as it is used here, is inconsistent in its cynicism. In other words, there is no objective reason to ascribe greater confidence that the FCC and state commissions - rather

¹³⁶ See 7 U.S.C. §6942; 7 C.F.R. §§1610.1–1610.11 (1999) (establishing the Rural Telephone Bank under the aegis of the Department of Agriculture’s Rural Utilities Service).

¹³⁷ Kathleen Wallman, *The Telecommunications Act of 1996: Congress’ Vision for Universal Service for Rural America*, at 11 (visited June 8, 1999) <www.opastco.org>.

¹³⁸ *Id.*

¹³⁹ In a recent statement, FCC Commissioner Harold Furchtgott-Roth compiled a substantial body of evidence to show that the FCC was, in fact, attempting to hide the facts of the program from the public. See *In re Truth-in-Billing and Billing Format, First Report and Order and Further Notice of Proposed Rulemaking*, CC Docket 98-170 (May 11, 1999) (dissenting statement of Commissioner Harold Furchtgott-Roth).

than Congress - will adequately provide for universal service. The argument smells of both partisanship and an even deeper cynicism, *i.e.*, that a Democratic FCC will be both more generous and better able than Congress to stifle public debate over universal service taxes.

Consumers would likely benefit from such reform, even in ways unrelated to increased competition and choice. The present system of distributing subsidies directly to local telephone carriers is a scattershot approach to distribution. It subsidizes many customers who need no such subsidies, but fails to provide sufficient support to those who most need it. FCC data demonstrates that low income, unemployed and minority individuals have far lower penetration rates for basic service than do other households.¹⁴⁰ Indeed, the present un-targeted system subsidizes many people's second and third telephone lines without providing sufficiently targeted support to those who need assistance to afford a single basic connection.¹⁴¹

Moreover, FCC studies show little or no correlation between telephone penetration and whether the service area is "rural" or "urban." The District of Columbia, entirely urban, has a penetration rate of 91.0 percent, while a rural state such as Utah has a penetration rate of 97.0 percent.¹⁴² It would be beneficial to increase, if not ensure, affordability for low-income, minority individuals. A more targeted subsidy arrangement is far more likely to accomplish that goal and permit the added benefit of increasing the chances that these individuals will have the opportunity to select

from a choice of competing providers, wireless and wireline.

The only obstacles appear to be political.¹⁴³ There are several possible explanations for this. First, most phone calls are still local. Local phone prices, under the control of state regulatory commissions, are prime targets for politicians looking for issues upon which to gain popular support. Thus state commissions feel significant pressure to maintain low basic local phone rates and, for the most part, to leave the high cost of interstate phone service to federal authorities. Second, the FCC, although an independent agency, is both a creation of Congress and led by Commissioners appointed by the Executive Branch. The ability of the Commissioners to make decisions independent from political considerations is tenuous at best. There is a strong perception among politicians that local price increases, even coupled with significant decreases in long-distance rates or the availability of competitive choices, will be met with a substantial outcry from both the public and industry, who have long been accustomed to the present pricing arrangements, and will be treated as an "abdication" of public responsibility.

Here is where telecommunications policy leadership must act. The industry as a whole—incumbent local exchange carriers, new competitive LECs, long-distance companies and wireless carriers—has advocated some form of rate rebalancing and pricing flexibility for local exchange services. As but one example, in his separate statement to the 1997 *Universal Service Order*, Chairman Reed Hundt announced that the Commission's deci-

¹⁴⁰ See FCC, *Telephone Penetration By Income By State*, at 26 (Feb. 2, 1999). The average telephone penetration rate is 94.1 percent, which is unchanged from the prior reporting period. Penetration rates for Hispanic and African-American households, however, are below 90 percent. See *id.*

¹⁴¹ It is also worth noting that the Federal-State Joint Board agreed that support for a second connection is not necessary. See *May 1997 Universal Service Order*, 12 FCC Rcd. at 8829, para. 94. Instead, the usual objection to subsidizing only a single line per household is the administrative difficulty involved: it would require the providing carrier to gather data on the living arrangements of the individuals in the household, etc. A targeted voucher system would be administratively simple by contrast: the only data points required would be to measure reported household income just as many other targeted social programs do and to develop a reasonable measure of telephone service costs, using the wireline incumbent's costs (not prices) as a benchmark. The FCC has already undertaken to model such costs for non-rural carriers; rural carriers' costs can be approximated

through the cost data already used by the National Exchange Carrier Association to develop an "average schedule" tariff for rural LECs. The difference between the cost measure and an affordability benchmark (formulated as a sliding scale based on household income) could be provided directly to the consumer.

¹⁴² See FCC, *Trends in Telephone Service*, 17-1, 17-4 (Feb. 19, 1999). Of course, to some extent high penetration rates in rural areas reflect the workings of existing subsidy policies. But with a targeted approach, the costs of universal service programs could be reduced while *increasing* their effectiveness at maintaining penetration levels in all areas of the country, urban and rural.

¹⁴³ According to one set of commentators, the rule of thumb among state regulators is said to be the "pizza test": the monthly fee for basic residential phone service must not exceed the price of a medium size pizza with two ingredients. See MICHAEL K. KELLOGG ET AL., *FEDERAL TELECOMMUNICATIONS LAW* 4 n.2 (1992).

sion assured no increases in local basic residential telephone service "by any action of the Commission or Congress, although industry achieved consensus in urging us specifically to increase local service prices by raising the residential subscriber line charge."¹⁴⁴

The FCC itself has observed that its present system of local telephone pricing and regulation is not sustainable over the long run.¹⁴⁵ Even considering the wireline local exchange/access services market, the present regulatory system is breaking down and must be reformed in significant ways. Common sense dictates that a government-regulated system of subsidized prices cannot co-exist with competition and is unfair to both the ILECs and potential competitors alike. However, common sense is being ignored, paving the way for further revolution.

Recent universal service decisions, including the provisions of the 1996 Telecommunications Act, suggest that policymakers are interested in two contradictory goals. First, there is an interest in preserving subsidized and averaged local telephone prices, government influence on investment decisions and consumer "protection" functions for regulatory commissions. Yet at the same time, policymakers want to introduce competition, with its attendant unregulated and de-averaged prices, business-model control of investment decisions and consumer protection, achieved only through market forces and antitrust enforcement. Needless to say, the two approaches may not exist harmoniously.¹⁴⁶

But of course, this impossible arrangement has been tried by Congress, the FCC and the state commissions alike since the days of the *Above 890* decision,¹⁴⁷ with competition so far getting the worse end of the deal. There has been no polit-

ical consensus yet in favor of a fully competitive market for local telecommunications. If competition is what policymakers truly desire, the fact that competition fares poorly in a forced-hybrid arrangement is all the more reason to explore ways in which a competitive model can be imposed on the wireline LECs rather than trying to impose the wireline LECs' traditional regulatory model on competitive businesses such as wireless.

2. *Revolutionary Ideas from Europe: Calling Party Pays*

In the early 1980s, when Bell System managers and engineers were figuring out how to operate a cellular business, a decision was made to have the cellular subscriber incur the charges for both incoming and outgoing calls.¹⁴⁸ Like many other decisions, it was an attempt to solve problems embedded in the existing wireline rate structure and was a product of the time in which it was developed.¹⁴⁹ In the modern mobile communications marketplace, charges for possibly unwanted incoming calls encourage mobile subscribers to keep their phones turned off, discourage distribution of the mobile number and generally detract from the interest in using a wireless phone as a full substitute for landline.¹⁵⁰ In Europe, mobile phone usage is significantly higher than in the United States—the ratio is as high as five to one—and the fact that the "calling party pays" in Europe likely has a significant role to play in this situation.¹⁵¹

Indeed, the Chairman of the FCC agrees that calling party pays would increase the number of minutes carried on wireless phones.¹⁵² But even with the support of the FCC Chairman, changing the present arrangement in the United States is

¹⁴⁴ *May 1997 Universal Service Order*, 12 FCC Rcd. at 9263 (separate statement of Chairman Reed Hundt).

¹⁴⁵ *In re Access Charge Reform, First Report and Order*, 12 FCC Rcd. 15,982, 15,996–97, para. 32 (1997) [hereinafter *Access Charge Reform Order*].

¹⁴⁶ This is not to say that some system of support cannot be created for high-cost or low-income subscribers that is less harmful to the competitive market. One arrangement discussed in the universal service record involves broad-based taxes, such as income taxes, and targeted subsidies. See Comments of AirTouch Communications, Inc., to *In re Federal-State Joint Board on Universal Service, Report to Congress*, CC Dkt. No. 96-45, at 21–27, 31–33 (Jan. 26, 1998).

¹⁴⁷ See NAKIL SUNG, *COMPETITION AND TECHNICAL CHANGE IN THE U.S. TELEPHONE INDUSTRY* 56 (1997); KELLOGG, *supra* note 143, at 591–97 (1992) (discussing *Above 890*,

27 F.C.C. 359).

¹⁴⁸ See Henry M. Lucas, *Who Pays for Incoming Calls?*, *CELLULAR BUS. MAG.*, Nov. 1991, at 48.

¹⁴⁹ See DR. JOSEPH N. PELTON, *WIRELESS AND SATELLITE TELECOMMUNICATIONS: THE TECHNOLOGY, THE MARKET & THE REGULATIONS* 181–84 (1995).

¹⁵⁰ See Pradnya Joshi, *Cellular Dialers: It's Your Dime/AT&T to Test 'Calling Party Pays' Plan*, *NEWSDAY*, Jan. 28, 1998, at A46.

¹⁵¹ See Comments of AirTouch Communications, Inc., to *In re Calling Party Pays Service Option in the Commercial Mobile Radio Services, Inc.*, WT Dkt. No. 97-207, at 9–11 (Dec. 16, 1997).

¹⁵² See William E. Kennard, *Crossing Into The Wireless Century*, Remarks to the CTIA Convention, Feb. 9, 1999.

likely to be difficult. Accordingly, one might ask why the U.S. "called-party-pays" system was adopted in the first place. There were a number of reasons for this decision. First, cellular system managers sought to develop a rate structure that recovers traffic-sensitive costs without relying on averages and assumptions about usage patterns.¹⁵³ Telephone company executives learned that usage assumptions proved less reliable than desired for purposes of revenue planning and network engineering.¹⁵⁴ The industry was also undergoing a great deal of turmoil associated with the introduction of long-distance competition, which raised a number of difficult questions concerning such jointly provided services as revenue distribution, where one carrier is expected to bill or collect revenue for another carrier's costs.¹⁵⁵

Charging for both incoming and outgoing calling required much less effort in terms of estimating demand levels for the functions that create traffic-sensitive costs.¹⁵⁶ It avoided some of the problems of negotiating revenue sharing arrangements with other network carriers. It was also simple and easy for customers to understand.¹⁵⁷ The early cellular customer was likely to be an individual or business that had some experience with mobile communications; most paging systems and two-way radio systems charged for incoming calls.¹⁵⁸ These customers also saw cellular in terms of the additional benefit of near-universal accessibility, a very attractive capability reflecting a business orientation in which a subscriber would

pick up the costs of calls from clients and colleagues.

Today's mobile communications market is quite different. As a result of competition, technical innovation and investments based on expected future growth, demand has exploded and prices have fallen. Mobile telephony is being marketed less as a premium, supplemental service and more as a mass market telecommunications service. Continued growth of the industry coupled with reform of wireline prices could make mobile services a competitive alternative to wireline local exchange service. If regulators are truly interested in encouraging such a trend, calling party pays is worth looking into.

A calling-party-pays arrangement in the United States would have three parts:

(1) A CMRS carrier offers its wireless subscribers a calling-party-pays billing option as part of its service contract. Perhaps for a small monthly fee, the carrier agrees that the wireless subscriber will not be billed for incoming calls. This is a CMRS billing arrangement within the "other terms and conditions" language of section 332;¹⁵⁹

(2) The CMRS carrier purchases standard third-party billing services from the major wireline LECs. The CMRS carrier may also contract with a clearinghouse services firm who in turn obtains billing services from the major wireline LECs. These LEC billing services may or may not be tariffed; they are generally not considered common carrier services;¹⁶⁰

¹⁵³ See Lucas, *supra* note 148, at 48.

¹⁵⁴ See *id.*

¹⁵⁵ See *id.*; *Access Charge Reform Order*, 12 FCC Rcd. at 15,991, paras. 20-21. See generally *In re Investigation of Access and Divestiture Related Tariffs, MTS and WATS Market Structure, Memorandum Opinion and Order*, 98 F.C.C. 2d 730 (1984); *In re MTS and WATS Market Structure, Memorandum Opinion and Order*, 3 FCC Rcd. 830 (1988); *In re MTS and WATS Market Structure, Memorandum Opinion and Order*, 59 Rad. Reg. 2d (P&F) 1127 (1986); *In re Investigation of Access and Divestiture Related Tariffs, Order*, 1 FCC Rcd. 84 (1986).

¹⁵⁶ See Lucas, *supra* note 148, at 48.

¹⁵⁷ See *id.* at 50.

¹⁵⁸ See *id.*

¹⁵⁹ States retain authority to regulate the "other terms and conditions" of CMRS service, such as CMRS billing arrangements. See 47 U.S.C. §332(c)(3).

¹⁶⁰ See, e.g., *In re Detariffing of Billing and Collection Services, Report and Order*, 102 F.C.C. 2d 1150 (1986) [hereinafter *Detariffing Order*] (ruling that LEC billing and collection provided to IXCs is an administrative, not a communications service). The *Detariffing Order*, however, only addressed bill-

ing and collection services provided by LECs to unaffiliated IXCs. The FCC has never addressed the far different situation of billing and collection for CMRS carriers who are offering CPP billing arrangements to enhance local competition with incumbent wireline carriers. The Commission has overruled the *Detariffing Order* in part, finding that LEC billing and collection is in fact properly considered a communications service. See *In re Policies and Rules Concerning Local Exchange Carrier Validation and Billing Information for Joint Use Calling Cards, Report and Order*, 7 FCC Rcd. 3528, 3533 n.50 (1992). The Commission also has recently reiterated that billing and collection services are not common carriage. See *In re Access Charge Reform, Third Report and Order*, 12 FCC Rcd. 22,430, 22,430, para. 1 n.2 (1997). However, the Federal-State Joint Board, when considering truth in billing matters, recently concluded otherwise. See *In re Federal-State Joint Board on Universal Service, Second Recommended Decision*, 13 FCC Rcd. 24,744, para. 70 (1998) ("We believe that a carrier's billing and collection practices for communications services are subject to regulation as common carrier services under Title II of the Act").

(3) The party originating a call to a CMRS subscriber who has elected calling party pays hears a preamble message informing them of the charges and asking them to take a specific action, *e.g.*, press "1" to complete the call. The originating party is a purchaser of CMRS telecommunications services on a "casual calling" basis, similar to 10-10-XXX "casual calling" long-distance services.

A calling-party-pays arrangement is likely to be more economically efficient overall, in that consumers can better control what they spend for both incoming and outgoing telecommunications. Presently, wireless customers can control what they spend only indirectly, by not using their services for incoming calls to the extent they otherwise would. The consequence is that wireline customers are not obtaining the full benefits of calling a mobile subscriber who would otherwise be reached more often. One of the unique features of mobile is that the calling party generally expects to get the individual called, rather than a receptionist or voice mail, a feature that would make it more attractive for outbound calling to many consumers.¹⁶¹

Neither party—the call originator or the call receiver—is getting as much as they could from wireless as they otherwise would demand if pricing signals were correct. This distortion in consumer choices is referred to by economists as a welfare loss.¹⁶² Calling party pays addresses this problem by removing some of the incentives for wireless customers to discourage incoming calls, as well as encouraging them to use the wireless services they would otherwise select. It also benefits calling parties, who are more likely to reach the desired party on the first call.

The present environment also fails to link the costs of a call with the party valuing whether to make the call or not. This produces additional welfare losses because it artificially discourages the use of CMRS and favors the use of wireline services for certain calls. Calling party pays sends

more accurate price signals to the wireline customer. This places CMRS on a more equal footing with wireline services and makes it more likely that consumers will see the benefits of competitive substitutes for local exchange services: lower prices and more innovative services.

So far, this is fine in theory, but the results with calling party pays in practice have been mixed. In many states, such as California, ILECs and regulators have effectively blocked introduction of a calling-party-pays option by refusing to bill originating callers a separate charge for calling a wireless phone. At one point, the issue was whether the originating caller would have sufficient notice; that has been largely overcome by voice prompts that inform the originating caller of the charges and the reasons for them.¹⁶³ Rather, regulators and ILECs are particularly opposed to calling party pays because of its implications for wireline service prices. ILECs oppose having to include separate wireless charges on their bills because it reduces their ability to sell their own vertical services on the same bill and, like the regulators, they would prefer not to deal with educating consumers about the change in convention. Also, the jury is still out on what consumers might actually prefer. Where cheap local calling is the expected norm, calling party pays may well discourage calls to wireless phones and prove of only marginal value to wireless customers with large bundles of use. In order to ascertain whether this is the case, there is therefore every reason to push ahead with market trials of calling-party-pays arrangements, where LEC cooperation permits.

It is not beyond the realm of possibility to think that the ILECs also are concerned about the ability of calling party pays to affect their competitive position vis-à-vis wireless services. In Europe, there is evidence that the fixed operators are interested in maintaining high prices to call mobile phones in order to discourage substitution of mobile for fixed for incoming calls.¹⁶⁴ In the United

¹⁶¹ As Jerry Seinfeld quipped about dialing someone's car phone and letting it ring nine to ten times: "What, are they in the back seat and can't get to the phone?"

¹⁶² See generally DONALD STEVENSON WATSON, *PRICE THEORY AND ITS USES* 7-8 (1963).

¹⁶³ In Europe, notice is usually provided by the fact that a wireless number has a separate, distinct area code. In the United States, the 1+ dialing convention could similarly be used, because the 1+ is customarily used to indicate a "toll" call, for which separate charges apply.

¹⁶⁴ See Salomon Smith Barney, *Wireless Quarterly*, Dec. 9,

1998, at 43. European regulators have, in fact, been investigating wireline-to-mobile call prices to determine whether they are "excessive" and therefore a violation of European antitrust law. The European Commission's antitrust wing, the Directorate General IV, collected data from all European Community operators and elected to investigate further in only two cases: Germany and Italy. The investigation never fully established a competition law case, but it did prompt operators into voluntary price decreases, after which the Commission closed the investigation. See *Commission successfully closes investigation into mobile and fixed telephony prices fol-*

States, where we have a called-party-pays arrangement, ILECs would have the opposite incentive: keep the price of calling a fixed phone low relative to the price of calling a mobile phone to discourage substitution of mobile for fixed for incoming calls. And as noted before, regulators are adamantly opposed to any changes in local telephone service prices regardless of whether the change would enhance competition.¹⁶⁵

Again, ILEC and regulatory opposition are not the only problems with introducing a calling-party-pays arrangement; they are merely the main legal and political issues. Wireless carriers have plenty of responsibility for developing calling-party-pays arrangements that work. Here too, technical issues such as the ability to identify the originating party and properly bill them—"leakage" in industry parlance—will play an enormous role in determining whether calling-party-pays arrangements will effectively boost wireless as an effective competitor for wireline services. Wireless calling-party-pays arrangements are presently available in a number of states, but their success has been mixed. In some cases, the attractiveness of the product is significantly diminished because the wireless carrier must bill any uncollectible charges back to the wireless subscriber.

But technical issues have one distinguishing characteristic that makes them much easier to deal with than legal and policy issues: they are, for better or worse, within the control of the carrier. Carriers who are not meeting consumer needs will be punished in the marketplace for not offering services made available by other, more technically advanced competitors. Moreover, calling party pays, like rate rebalancing and elimination of anti-competitive subsidies, addresses the factor CMRS consumers value most: the price of service. Other factors are likely both to be less important and to be addressed by carriers in response to consumer demand. They do not require action by regulators to accelerate the likelihood that

broadband CMRS will be a viable substitute for traditional wireline local telephone service.

For example, to the extent there are consumers who would leave their phones on at all times but for battery life issues, there will be many more such consumers where they have the option of not paying for incoming calls. Carriers are more likely to speed deployment of digital service and develop other solutions to battery life issues where calling party pays is available and consumers no longer have a price disincentive to restrict incoming calls. Calling party pays has a number of complicated aspects, but if the question is what policy changes would encourage wireless to be a more robust competitor with wireline, calling party pays is one policy issue that ought to be addressed.

B. End the Jurisdictional Anarchy

Improving the environment for wireless to become a full substitute for wireline service involves, in large part, addressing wireless concerns that their growth as a telecommunications competitor will not cause them to be subject to the traditional rubric of wireline regulation. As recent events have shown, jurisdictional questions have a key role to play in the local competition debate generally. Wireless is not entirely removed from these jurisdictional questions. The question is not who will regulate wireless; as long as the regulation is modest and sensible, it does not matter whether federal or state commissions have the authority. Rather, the question is whether jurisdictional issues created by distinctions that do not fit wireless well cause such uncertainty as to deter wireless from pursuing business strategies that put them in a better position to capture access lines from wireline competitors. Ending the jurisdictional anarchy will help encourage competition and also help in the progress toward a competitive, deregulated telecommunications market in general.

Telecommunications is inherently a service per-

lowing significant reductions throughout the EU, May 4, 1999 <<http://europa.eu.int/comm/dg04/pressre.htm>>. In the U.K., the Monopolies and Mergers Commission (MMC) found that there was insufficient competition so far and imposed a price regulation scheme. However, the MMC predicted that effective competition could arise in as soon as three years. The MMC rejected the somewhat radical view that call termination was inherently a bottleneck source of market power. See Monopolies and Mergers Commission, *Reports on references under section 13 of the Telecommunications Act*

1984 on the charges made by Cellnet and Vodafone for terminating calls from fixed-line networks (visited Dec. 1, 1998) <www.oftel.gov.uk/pricing/cmmc1298.html>. The MMC's prediction is even more likely to come true if mobile becomes an effective substitute for wireline in the market for call origination. As a general matter, facilitating substitution of mobile for wireline services should permit greater deregulation of wireline carriers and should not require new regulation of mobile.

¹⁶⁵ See *supra* note 144.

mitting two persons in geographically distinct areas to communicate as if they were near. Broadband CMRS takes this concept a step further, tying the communications ability to the person themselves, rather than to a fixed point. This “anytime, anywhere” mobile communications, although especially well-suited to our more active 21st century lifestyle, is unfortunately still likely to be subject to a 19th century jurisdictional framework. As noted above, in 1993, Congress began with the correct jurisdictional premise concerning broadband CMRS: it operates “without regard to state lines.”¹⁶⁶ Nevertheless, Congress, facing significant political pressure, was unable to enact legislation that recognizes this principle in full.

Congress preempted only state regulation of “rates and entry” while preserving state authority over “other terms and conditions”—phrases as subject to creative interpretation as any in the Communications Act.¹⁶⁷ Ambiguity as to what these regulations permit state regulatory commissions to do has created confusion for states and broadband CMRS carriers alike. Even well-meaning state regulators have struggled to discern the scope of their jurisdiction under the “other terms and conditions” language.

The phrase “other terms and conditions” was indicated by the legislative history to mean “such matters as customer billing information and practices and billing disputes and other consumer protection matters; facilities siting issues (*e.g.*, zoning); transfers of control; the bundling of services and equipment; and the requirement that carriers make capacity available on a wholesale basis,”¹⁶⁸ but this description of the scope of “other terms and conditions” cannot be taken as conclusive. Among other things, it is extremely difficult to see how a state could require carriers to make capacity available on a “wholesale” basis without regulating rates. For one, the term “wholesale” is not defined, and any definition would require a spe-

cific discount from “retail.” In practice, states have concluded that they have little or no authority to require a specific wholesale margin or otherwise regulate the resale offerings of CMRS carriers.¹⁶⁹

The fine line between “regulation of rates” and “regulation of terms and conditions” is particularly difficult to find when one recognizes, as has the U.S. Supreme Court, that “[r]ates . . . do not exist in isolation. They have meaning only when one knows the services to which they are attached”; thus, a prohibition on ‘discrimination in charges’ must include non-price features, otherwise a carrier could defeat the broad purpose of the statute by the simple expedient of providing an additional benefit at no additional charge.¹⁷⁰ By the same logic, a prohibition on “regulation of charges” must include non-price features, otherwise the broad purpose of the statute could be defeated by the simple expedient of requiring additional benefits or services at no additional charge. Accordingly, state regulatory commissions cannot be permitted to require broadband CMRS carriers to offer particular benefits or services, consistent with the prohibition on regulation of rates contained in section 332. What this leaves within the authority to regulate “other terms and conditions” is difficult to see.

Additional ambiguity is created by the interstate/intrastate distinction contained in section 2(b) of the Communications Act, as well as the use of the concepts “local exchange” and “interexchange” services. With respect to the interstate/intrastate issue, section 2(b) provides that nothing in the Act shall be deemed to apply or to give the FCC jurisdiction over “charges, classifications, practices, services, facilities, or regulations for or in connection with intrastate communication service by wire or radio of any carrier.”¹⁷¹ As another commentator has noted, this arrangement is an antiquated arrangement, “rooted in

¹⁶⁶ H.R. Rep. No. 103-111, at 260 (1993), *reprinted in* 1993 U.S.C.C.A.N. 378, 587.

¹⁶⁷ Congress had somewhat of a head start, in that it had initially preempted state regulation of rates or entry with respect to “private land mobile service” in 1982, *see* H.R. Rep. No. 97-765, at 54 (1982), and the 1993 revisions were intended to bring parity to the regulation of competing private and public land mobile services through the new category of CMRS.

¹⁶⁸ H.R. Rep. No. 103-111, at 261 (1993), *reprinted in* 1993 U.S.C.C.A.N. 378, 588.

¹⁶⁹ *See, e.g., California Wireless Resellers Ass’n v. Los Angeles*

Cellular Tel. Co., No. 98-06-055 (Calif. Pub. Util. Comm’n Nov. 5, 1998). *See also Nova Cellular West v. AirTouch Cellular*, No. 98-02-036 (Calif. Pub. Util. Comm’n Sept. 3, 1998) (reseller complaint alleging discriminatory service provision dismissed due to lack of jurisdiction because injunction against CMRS carrier’s charges and award of rate refund by state commission is not permitted under section 332).

¹⁷⁰ *American Tel. and Tel. v. Central Office Tel., Inc.*, 118 S. Ct. 1956, 1963 (1998) (citing *Competitive Telecomm. Ass’n v. FCC*, 998 F.2d 1058, 1062 (D.C. Cir. 1993)).

¹⁷¹ 47 U.S.C. §152(b).

the monopolistic origins of landline telephony."¹⁷²

The traditional test of whether a service is interstate or intrastate in nature is to compare the end points of the call. Even services routed through out-of-state switches, for example, are intrastate if the call originates and terminates within the state. But broadband CMRS carriers do not sell individualized services capable of this type of analysis. First, broadband CMRS coverage areas do not recognize state boundaries. Second, because the service permits mobile communications, an individual call may begin as intrastate, become interstate and either terminate or become intrastate again. Such occurrences are far from unusual, particularly in areas such as New York City/New Jersey, Kansas City, Mo., and Kansas City, Kan., and Cincinnati, Ohio, and Kentucky.

Thus, requirements permitting states to regulate intrastate services while reserving interstate broadband CMRS services to the FCC are inherently unworkable even on a call-by-call basis. For example, in implementing section 332, the FCC elected to utilize that section's forbearance authority to forbear from section 203 of the Communications Act and other related sections related to tariffing. In fact, the FCC determined that even permitting the filing of tariffs, in the case of competitive carriers, is not in the public interest and should be prohibited.¹⁷³ At the same time, however, the FCC addressed its prohibition only to tariffs for interstate CMRS services. The FCC provided that "States may require CMRS providers to file terms and conditions for their intrastate services."¹⁷⁴

As a result, some states such as Kentucky continue to require cellular carriers to file tariffs setting forth the terms and conditions of their service. Of course, these terms and conditions legally govern only "intrastate" cellular services. Interstate cellular services are governed not by tariff, but by the terms and conditions of the contract with the subscriber.¹⁷⁵ Thus, apparently, a cellular customer leaving their home in Kentucky on the way to work in Ohio calling to a party also

in Kentucky begins their call subject to the legal terms and conditions in the tariff, but as they cross the bridge into Ohio, their call then becomes subject to the terms and conditions of the contract. The possibility for consumer confusion and dissatisfaction in these absurd conditions is high, while the consumer benefit of state regulation of the terms and conditions is extremely low.

That local competition, including competition from wireless, involves reform of jurisdictional boundaries based on the interstate/intrastate nature of telecommunications traffic was made clear in the Supreme Court's most recent discussion of section 2(b) and the 1996 Telecommunications Act.¹⁷⁶ There, the Court found that the 1996 Act fundamentally restructures local telephone markets and gives the FCC authority over local competition, even to the extent that it involves intrastate service. That, coupled with the fact that CMRS operators must obtain federal licenses to use their assigned radio spectrum, suggests that an exclusively federal arrangement for wireless regulation is appropriate.

Certainly broadband CMRS carriers expect to observe state commercial regulations applicable to any business selling service in a given state or, for example, to pay state sales taxes for sales made within the state. But states must recognize that broadband CMRS carriers are not like, cannot be regulated like and should not be expected to operate like, wireline LECs. The problem with uncertainty regarding state jurisdiction is not so much that a state commission would over-regulate broadband CMRS, although that is the case in some states. Most states have fully detariffed broadband CMRS services and employ only generally applicable trade practices regulation. Rather, the point is that there is significant regulatory uncertainty created about whether broadband CMRS will somehow change its regulatory status should it begin to win primary access line subscriptions away from ILECs in any significant number.

Accordingly, the way forward regarding state authority over CMRS need not eliminate the abil-

¹⁷² See Kennedy & Purcell, *supra* note 27, at 560.

¹⁷³ See *CMRS Second Report and Order*, 9 FCC Rcd. at 1479-80, para. 178. The FCC also concluded that the voluntary filing of tariffs is an "unreasonable practice under section 201(b) of the Act." *Id.*

¹⁷⁴ *Id.* at para. 179.

¹⁷⁵ Customary legal doctrine holds that where a com-

mon carrier's terms and conditions are filed in a public tariff, those terms and conditions supersede any terms in a contract for the same services, even if the terms and conditions of the contract were individually negotiated. See *Central Office*, 118 S. Ct. at 1962-63.

¹⁷⁶ See *AT&T v. Iowa Utils. Bd.*, 119 S. Ct. 721, 729-30 (1999).

ity of states to monitor commercial transactions within their borders. But it must recognize that broadband CMRS do not operate with regard to those borders and that they are not to be subjected to new, more burdensome regulations, as a consequence of attempting to develop business through competition with wireline LECs. Wireline regulation is a consequence of their market power, while broadband CMRS are provided in a competitive market, regardless of whether they are competing directly with LECs and other carriers for line subscriptions or only indirectly for minutes. As new competitors, CMRS carriers will not have such market power and need not be subject to parallel regulation.

In order to grow, CMRS will offer a wide variety of service options and innovations; their services will look and operate like wireline local exchange services only to the extent that consumers demand similar features. To the extent that customers seek to substitute broadband CMRS for traditional wireline services, it will be up to broadband CMRS carriers, *not* regulators, to see that those consumer demands are met. In time, of course, the same will be true for wireline LECs and the appropriate action at that juncture will be to eliminate any unnecessary regulation of those carriers that remains.

Congress should eliminate the confusing distinction between “rates and entry” and “other terms and conditions.” Service rates and service terms and conditions are too closely related—two sides of the same coin, in the Supreme Court’s words—to serve as a meaningful distinction. In *Central Office*, Justice Scalia noted that section 203 of the Communications Act avoids confusion between rates and services by prohibiting not merely discrimination in “rates,” or even “charges,” but “also ‘the classifications, practices, and regulations affecting such charges.’”¹⁷⁷ Congress could better further the intent of the 1993 revisions and clarify the scope of state regulations by utilizing this more traditional language to describe the scope of state preemption.

While state commissions should not be regulating any aspect of broadband CMRS, this is not to say states must be completely powerless with respect to broadband CMRS carriers. CMRS carriers as *companies* do have a recognizable jurisdictional *situs*. A broadband CMRS carrier who chooses to

make service subscriptions available to the public in a given state would likely, for example, have sufficient “contacts” with that state to be amenable to civil suits in that state’s courts. States need not be left powerless to address legitimate concerns under generally applicable commercial and consumer protection provisions of state law. Wireless carriers have in fact offered such an approach to state authorities in Ohio, although it has yet to be acted upon. Specifically, CMRS carriers have proposed that they be subject to the Ohio uniform commercial practices code, enforced by the state Attorney General, rather than the Public Utilities Commission. This is a step in the right direction.

Finally, the concepts of “exchange” services and “interexchange” services are also problematic for wireless carriers. The Commission has traditionally considered CMRS as providing primarily local exchange services, and as potential competitors to traditional local exchange carriers in a market for substitutable services, it might seem rational to classify such broadband CMRS as local exchange services. Furthermore, the Communications Act provides that CMRS carriers are not to be considered “local exchange carriers” unless and until the FCC makes an affirmative finding that they should be so treated—implicitly suggesting that CMRS carriers should be so classified should they begin to win line subscriptions away from traditional LECs in any serious numbers.

But classifying broadband CMRS carriers in this fashion would be problematic. First and foremost, it would be largely impossible to apply the traditional terms “exchange” and “interexchange” services in a consistent manner. The term “exchange” services is no doubt derived from Theodore Vail’s wireline Bell System, constructed as an interconnected set of local switches, each serving a defined geographic area and corresponding to a defined portion of the telephone numbering system. Wireless services are provided over a wide variety of geographic areas: local, regional, and even national, with a wide variety in pricing and in what is considered “local” and what is “long-distance” or “toll” service.

The 1934 Communications Act also embodies the exchange/interexchange distinction as not only one of geography, but as one of pricing. Those services for which an extra charge applies,

¹⁷⁷ *Central Office*, 118 S. Ct. at 1963 (citing 47 U.S.C.

§203(a)).

in addition to the monthly line rental, are known as "toll" services.¹⁷⁸ Other services for which the price is covered by the monthly line rental are "telephone exchange service."¹⁷⁹ These distinctions are difficult to apply to CMRS because its carriers are not licensed nor do they operate on an exchange-by-exchange basis. A CMRS carrier, for example, might have the entire nation as a "local calling area" covered by a fixed monthly charge. The term "interexchange service" is not defined in the Act.

For a variety of reasons, the FCC has described cellular service as "exchange telephone" service,¹⁸⁰ although it has also found that CMRS can provide "interexchange telecommunications service."¹⁸¹ The determination that CMRS provides "exchange service" derives from the fact that the Act provides that any service "comparable" to traditional telephone exchange service also qualifies as "exchange service" for purposes of the Act. As the FCC explained, neither the arguments that CMRS traffic flows differ, that termination costs differ, that CMRS have different service areas, nor the fact that CMRS are not LECs, changes the fact that certain broadband CMRS carriers provide "telephone exchange service" through the "comparability" provision of the Act's definition of that service.¹⁸²

The FCC's analysis is correct as far as it goes. But the FCC's conclusion that services are "comparable" is based on the fact that CMRS also provide "local, two-way switched voice service as a principal part of their business."¹⁸³ Not only does

this beg the question of what is "local," it provides no coherent or logical basis for the predictable application of the "exchange/interexchange" distinction to CMRS. One of the most attractive service offerings developed by CMRS carriers is the single per-minute rate for wide area—even nationwide—calling. This type of service is likely to be one of the arrangements that proves most successful in winning line subscriptions from wireline carriers, because it offers a competitive substitute for both wireline local and long-distance subscriptions. More to the point, to the extent that broadband CMRS carriers offer such a plan, their services are equally "comparable" to wireline interexchange long-distance services as to local telephone services.

The FCC's motivation here may have been well-intentioned: by classifying CMRS as "exchange" service providers, comparable to LECs, the FCC could then require LECs to offer the same reciprocal compensation arrangements they offer to wireline CLECs and CMRS carriers, at least for the same categories of traffic.¹⁸⁴ But the fact remains that the exchange/interexchange definition cannot be applied in any predictable way. The only predictable conceptual model is based on the assumption that CMRS services are priced as LEC services are priced: "local" calls covered by a monthly line rental with calls outside the "local" area subject to an extra charge. But that assumption is entirely incorrect in the case of the broadband CMRS pricing plans most likely to capture line subscriptions from LECs.

¹⁷⁸ See 47 U.S.C. §153(48) ("The term 'telephone toll service' means telephone service between stations in different exchange areas for which there is made a separate charge not included in contracts with subscribers for exchange service.").

¹⁷⁹ See 47 U.S.C. §153(47).

¹⁸⁰ See, e.g., *In re the Need to Promote Competition and Efficient Use of Spectrum For Radio Common Carrier Services*, Memorandum Opinion and Order, 59 Rad. Reg. 2d (P&F) 1275 (1986).

¹⁸¹ See, e.g., *In re Policy and Rules Concerning the Interstate, Interexchange Marketplace, Implementation of Section 254(g) of the Communications Act of 1934, as amended*, Report and Order, 11 FCC Rcd. 9564, 9566 (1996) [hereinafter *Section 254(g) Order*].

¹⁸² See *Local Competition Order*, 11 FCC Rcd. at 16,000, para. 1015.

¹⁸³ *Id.* at 15,999, para. 1013.

¹⁸⁴ See *id.* at 16,018, para 1045. Of course, this was unnecessary because the Act does not require that telecommunications traffic be classified as local for purposes of reciprocal compensation. Under section 251(b)(5) of the

Communications Act, a LEC has the duty "to establish reciprocal compensation arrangements for the transport and termination of telecommunications." See 47 U.S.C. §251(b)(5). The FCC recast this phrase to apply only to "transport and termination of local exchange service." See *Local Competition Order*, 11 FCC Rcd. at 16,018, para. 1045. For the purposes of reciprocal compensation, the FCC selected the largest licensing area, the MTA, as the "local service area" for CMRS traffic to avoid artificial distinctions between CMRS providers. See *id.* at 16,014, para. 1036. This re-reading of the statute was necessary to preserve the distinction between local traffic, subject to reciprocal compensation, and "long-distance" traffic, subject to access charges. Preserving the distinction was, of course necessary because the access charges continue to include a number of implicit subsidies to local service prices. The FCC's claim that the distinction is preserved in the Act is not entirely honest. But at least, as an economic matter, the FCC recognizes that the rates for transport and termination of local and long distance services should ultimately converge (because they involve the same network functions). See *id.* at 16,012-13, para. 1033.

This problem is not so serious an obstacle to CMRS' evolution into a LEC competitor as some of the other issues, *e.g.*, subsidies and pricing distortions. But regulatory uncertainty does chill business innovations and can often lead to distracting and costly litigation. Consumers would benefit from the absence of continued uncertainty. Moreover, as wireline carriers begin to provide both "local" and "long-distance" services, combine the charges on a single bill and possibly develop nationwide rate plans, the distinction will lose its meaning for those carriers as well, making the time for reform particularly appropriate.¹⁸⁵

At a minimum, policymakers—Congress if necessary—should clarify that CMRS services are neither exchange nor interexchange, but simply telecommunications services. To the extent this requires clarification, the FCC should provide that CMRS carriers are not subject to LEC access charges. The only utility of the exchange/interexchange distinction is to identify those services for which an interconnecting carrier pays the LEC through regulated access charges, rather than negotiated interconnection arrangements. As the FCC has recognized, the long term policy goal should be to align LEC-interexchange carrier interconnection arrangements with the arrangements through which LECs interconnect and exchange traffic with all types of other carriers. Inter-carrier arrangements should be commercially negotiated among the parties, with regulatory oversight to the extent that LECs retain market power through control of bottleneck facilities. Accordingly, reform directed at encouraging competition from CMRS carriers can be seen as a first step toward a fuller program of deregulatory reform. There is no need to perpetuate the exchange/interexchange services distinction for anyone once access charge reform is completed.

C. Forswear Investment Mandates

As noted above, one important feature of the

traditional, regulated model for telecommunications is that it enhanced the ability of regulators to "steer" investment decisions by the regulated entities, either to further infrastructure growth in general or to reward politically favored constituencies. In a pro-competitive, deregulated market, of course, such decisions would be left to the business judgment of individual carriers. High-speed, broadband services are certainly attractive for many purposes, but their deployment will proceed most efficiently where the resources needed follow market demand

More directly, broadband CMRS carriers, as noted above, likely have little interest in competing for such subscriptions where it is necessary to win away subsidies as well in order to be price-competitive. But even if a CMRS carrier is interested in competing in a subsidized environment, it will likely not find it sound business strategy to develop service packages that win away line substitutions from LECs if they are required by regulators to invest in a particular level of service in order to do so.

Some state commissions have recently attempted to both claim that they are introducing competition while simultaneously retaining control over investment decisions through the eligibility requirements for state universal service funds; this would extend such control to wireless carriers who seek to obtain eligibility status. The Kansas state legislature, for example, passed a statute in 1996 that requires each local exchange carrier to file a network infrastructure plan with the state regulatory commission (the Kansas Corporation Commission or "KCC"), explaining how it will deploy "enhanced universal service" by July 1, 2003.¹⁸⁶ "Enhanced universal service," as presently defined by the KCC, requires the deployment of additional capabilities beyond basic telephone service, *e.g.*, Signaling System 7 with CLASS,¹⁸⁷ basic and primary rate ISDN,¹⁸⁸ full-fiber interconnectivity between central offices and the provision of broadband services upon request

¹⁸⁵ The FCC is presently wrestling with application of the rate integration provisions of the Communications Act to the "interstate, interexchange" services of CMRS carriers, and finding that determining which CMRS services constitute "interexchange" CMRS services is largely impossible. *See, e.g., In re Implementation of Section 254(g) of the Communications Act of 1934, Further Notice of Proposed Rulemaking*, CC Docket 96-61, FCC 99-43 (April 21, 1999).

¹⁸⁶ *See* Kan. Stat. Ann. §§66-2002(k), 66-2005 (Supp. 1998).

¹⁸⁷ Signaling System 7 is a technical protocol for out-of-band network signaling. Out-of-band network signaling, as opposed to "in-band" signaling, uses as separate data network rather than the regular phone lines to transmit call set-up and other information. "CLASS" refers to "Custom Local Area Signaling Services," such as Caller ID, that are facilitated by SS7 but require additional software upgrades.

¹⁸⁸ "ISDN" stands for Integrated Services Digital Network. ISDN equipment permits a regular copper phone line to be used for simultaneous multi-channel communications,

to qualifying hospitals, libraries and state and local government facilities.¹⁸⁹

Similarly, the State of Washington proposes to require that any carrier eligible to receive funds from the state universal service fund provide the capability to send data at 28.8 kb/s on any access line—data speeds far above what ordinary telephone lines (or cellular radio channels) can efficiently provide.¹⁹⁰ The purpose of these “enhanced” universal service requirements appears to be to preserve the government’s ability to dictate investment in telecommunications infrastructure. Legislatures and regulators understandably find that this ability to exercise command and control over the equipment, investment levels and capabilities of the LEC rate base is a particularly attractive feature of the regulated monopoly environment.

In a competitive environment, however, this becomes less plausible as a variety of carriers seek to compete by differentiating themselves by varieties of technology deployed, service quality and available services. Wireless carriers, for example, can offer the premium feature of mobility, a feature which involves a considerable level of additional network expense to provide. It is unfair for government to also direct that wireless carriers must offer, for example, very high data speeds or other features in order to be considered eligible for the subsidies presently enjoyed by their competitors. The facts of market competition are that if customer demand is such that a carrier who does not offer certain enhanced services cannot attract customers, that carrier will not succeed in the marketplace. Government edicts to provide a minimum level of advanced service capability, particularly where it requires up to \$100 million dollars in costs,¹⁹¹ merely stifle competition and reduces customer choice.

Carriers who do not have the \$100 million to spend on such technology will be automatically regulated out of the marketplace. Some carriers will, of course, choose to target certain customer segments by offering high-capacity broadband services. But these competitive carriers must ap-

parently pay into the Kansas universal service fund in order to support advanced technologies deployed *by their competitors*, while at the same time funding their own investments in advanced technology *without receiving subsidies*. A more anti-competitive arrangement is hard to imagine.

And the FCC is still, in its syntactically tangled way, “addressing issues related to public service obligations for CMRS providers that wireline carriers are required to provide.”¹⁹² It is unclear what specific public service obligations the FCC has in mind. Providing consumers with effective access to emergency services, or ensuring that persons with disabilities are served in a reasonable way are perhaps “public interest” obligations, but they are also obligations imposed by the competitive market. Extensive regulatory mandates in these areas would be unnecessary.

To the extent that the FCC is referring to capabilities and investments *beyond* those warranted by consumer demand, it is regressing to the 19th century model of compelled infrastructure investment mandates attendant to a monopoly environment. That type of approach is highly likely to both discourage CMRS carriers from positioning themselves to compete more effectively with wireline LECs and to reduce the ability of CMRS carriers to price services in a manner that permits any such competition in the first place. At least one FCC Commissioner, quoted earlier, is in favor of movement “toward a world in which the market, rather than bureaucracy, determines how communications resources should be utilized.”¹⁹³ In this view, the only role for regulation is to address instances in which the market fails to work effectively *as a market*, not simply where the market does not yield the results bureaucracy—or, more politely, government—desires.

D. Do Not Subject Competitive Carriers to Rules Intended to Address ILEC Market Power

As a general matter, if competitive pressure on wireline ILECs is to come from broadband CMRS

including both voice and data.

¹⁸⁹ See Kan. Stat. Ann. §66-1,187(q) (Supp. 1998) (definition of enhanced universal service).

¹⁹⁰ See 98/11/23 UT-980311(r) Universal Service Proposed Rulemaking, Dkt. No. UT-980311(r) (W.U.T.C. Nov. 23, 1998).

¹⁹¹ See *In re* A General Investigation into Competition

Within the Telecommunications Industry in the State of Kansas, *Order Addressing Comments Relating to Universal Service and Requesting Additional Comments*, Dkt. No. 190,492-U, 94-GIMT-478-GIT, para. 5 (Kan. St. Corp. Comm’n 1998) (citing Comments of Sprint).

¹⁹² See *supra* note 5.

¹⁹³ See Powell, *supra* note 41, at 534.

carriers (or others who are not themselves wireline LECs), regulation will have to recognize that pure regulatory parity will neither be necessary nor will it be possible until the facilities-based carriers in a given market no longer enjoy market power. There are a number of regulations presently applied to wireline LECs, some of which are not yet vestiges of the regulated environment and may need to continue for the time being. The long-term goal should be a deregulated telecommunications marketplace with no carrier enjoying market power over the "last mile" connection to a home or, as in the case of wireless, to an individual. For the short term, if regulators want to encourage broadband CMRS carriers to develop service packages that compete for line subscriptions, those carriers need to be assured that they are not inadvertently setting themselves up for additional unnecessary regulation.

The 1996 Act generally follows the correct approach in identifying where regulation of broadband CMRS and wireline LECs should be the same and where it should be different based on differences in market power. The 1996 Act ended what had become a bruising debate at the FCC over LEC/CMRS interconnection.¹⁹⁴ Although the FCC had long ago required LECs to compensate CMRS carriers for terminating calls originated on the landline network, LECs had not done so in practice.

Some state commissions, moreover, opposed mutual compensation or "co-carrier" status between LECs and CMRS carriers, reasoning that any such mutual compensation would increase the cost of basic telephone service for the provision of "discretionary" cellular service.¹⁹⁵ The

1996 Act made it clear that CMRS carriers were to be afforded mutual compensation for terminating LEC-originated calls;¹⁹⁶ the FCC's implementation of these requirements was upheld on appeal.¹⁹⁷ Thus, CMRS carriers would finally receive fair compensation for LEC use of CMRS networks.

Congress also effectively terminated an FCC docket examining whether CMRS carriers should be subject to the same "equal access" rules for access to long-distance carriers imposed on the BOCs through the antitrust consent decree and later on all LECs.¹⁹⁸ Cellular carriers affiliated with BOCs were subject to these requirements through the decree but others were not; the FCC was examining how to eliminate this disparity between competing CMRS carriers.

The 1996 Act, recognizing that broadband CMRS carriers do not control bottleneck facilities, makes clear that no CMRS carrier shall be required to provide such equal access for long-distance carriers.¹⁹⁹ This provision is no small matter; it has effectively paved the way for CMRS carriers to offer full telecommunications packages of services and greatly enhanced CMRS' ability to compete in the local exchange market. This Congressional direction is one that should be borne in mind when considering whether CMRS carriers should be brought under the wireline LEC regulatory scheme.

CONCLUSION

The tangled web of contemporary telecommunications policy seriously needs a jackhammer dose of honesty and candor to resolve whether we

¹⁹⁴ See, e.g., *In re Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, Notice of Proposed Rulemaking, 11 FCC Rcd. 5020 (1996).

¹⁹⁵ See, e.g., Investigation on the Commission's own motion into the regulation of cellular radiotelephone utilities; and Related Matters, *Interim Opinion*, 36 C.P.U.C. 2d 464, 99-100 (Cal. Pub. Util. Comm'n June 6, 1990). See also *Local Competition Order*, 11 FCC Rcd. at 15,925-26, paras. 856-857 (describing instances of state commission discrimination regarding LEC/CMRS interconnection).

¹⁹⁶ See 47 U.S.C. §§251(b)(5), 252(d)(2)(A)(i). These sections by their terms apply only to "local exchange carriers," and the FCC has correctly concluded that, as non-LECs, CMRS carriers are not required by these sections to offer reciprocal compensation to other carriers, but may request such arrangements from LECs. See *Local Competition Order*, 11 FCC Rcd. at 15,996, para. 1006. Importantly, the FCC rejected the request of some state commissions that a CMRS provider be

classified as a LEC if it seeks to compete directly with a wireline LEC. *Id.* at para. 1005.

¹⁹⁷ See *Local Competition Order*, 11 FCC Rcd. at 16,016-19, paras. 1043-45; *Iowa Utilities Board*, 120 F.3d at 800 n.21; *AT&T v. Iowa Utilities Board*, 119 S. Ct. 721 (1999). See also *In re Motion to Lift Stay of AirTouch*, *Order Lifting Stay in Part*, Nos. 96-3321 *et. al.* (8th Cir. Nov. 1, 1996).

¹⁹⁸ *In re Equal Access and Interconnection Obligations Pertaining to Commercial Mobile Radio Services*, Notice of Proposed Rulemaking and Notice of Inquiry, 9 FCC Rcd. 5408 (1994). See *United States v. AT&T*, 552 F. Supp. 131, 225, 227 (Modification of Final Judgment section II (A)); *In re MTS and WATS Market Structure*, Phase III, 100 F.C.C. 2d 860 (1985) (ordering all LECs to offer equal access for interexchange carriers).

¹⁹⁹ See Telecommunications Act of 1996, Pub. L. No. 104-104, §705, codified at 47 U.S.C. §332(c)(8).

truly want a "pro-competitive, deregulatory" market for local telephone services. So far, we have answered the question with only an extremely qualified yes. Before policymakers can implement the types of policy changes that would encourage broadband CMRS to compete for local access lines, we need an honest debate about whether we have reached an acceptable level of political comfort about the concept. Too many of the reforms require letting go of comfortable old policy habits and there is unlikely to be any meaningful movement in the pro-competitive direction unless the direction forward is discussed openly and agreed upon with a full understanding of what it means.

Broadband CMRS carriers, too, will evolve in unpredictable ways. The next generation of wireless telephones may very well incorporate palm-top computer interfaces and internet capabilities, as well as improved performance in call clarity and battery life. They will begin to capture a larger share of telecommunications minutes and a higher percentage of both local and long-distance calling. And wireless phones will become more affordable, be fully accessible to the disabled and

meet law enforcement and emergency services' needs.

Now, will wireless phone companies offer live operators, unlimited flat-rate monthly calling, or provide high-speed broadband data? Maybe, if consumer demand requires it. But what they will not do, at the end of this evolution, is look like wireline LECs without the wires. Rather, wireless companies will look like competitive service providers, delivering voice and data as network technology and business discretion suggests.

One may hope they will do so in a regulatory environment more like that governing bicycle couriers, overnight delivery services, internet access providers and other competitive businesses that offer messaging, telecommunications and information services. There will be no government subsidies, no government investment mandates and only the usual backdrop of health and safety regulation. Perhaps incumbent wireline LECs, too, will someday face competition from wireless and other firms such that the last vestiges of the monopoly environment can be filed away in the telecommunications policy museum. That would be a revolution of which we can all be proud.