If it's the best telecommunications system on earth, why on earth change it?

If you've ever tried to make a telephone call anyplace else on earth, you know what you've got in America. The best telecommunications system in the world.

But now you've heard the Bell System is on the verge of major changes. Changes in how we're organized. Changes in the way you can choose to do business with us.

Why change something that works?

There's a very good reason. The telecommunications business itself has changed.

For most of our history, the Bell System has had one overriding goal: universal service. Dependable telephone service at reasonable rates for everyone who wanted it.

Bolstering that goal were government policies determining that telephone companies would operate differently from most American companies. Within many areas of the country, we were to be the exclusive supplier of telecommunications services. And since the Bell System didn't operate in a competitive market, its rates and profits were strictly regulated by the government. But today the goal of universal service has been achieved. Over 96% of American households have telephone service.

Now regulators and legislators in this country are looking more to the marketplace and competition, rather than to regulation, to decide who will provide competitive services and equipment and how they will be priced. In part, this stems from an increasing sentiment in this country for the deregulation of major industries.

But perhaps most important is the fact that technology has changed the future of telecommunications. We are about to enter a new era–the Information Age. The technology of communications gradually has merged with that of computers. The marriage of these two technologies offers the potential for an impressive array of new customer services. However, the blending of these two technologies has also blurred the boundaries between a traditionally regulated industry–communications–and the unregulated data-processing industry.

The combination of all these factors has led to a rethinking of public policies on telecommunications. These changes will require some changes in the Bell System. But we can assure you that your telephone service will still be the best telecommunications system on earth.

Along with your local Bell telephone company, we'll be telling you about any changes as they occur. In ads like this.

In each of these ads you'll find a telephone number. That number is an important part of our "Let's Talk" program.

This program has been set up by the Bell System to help you understand exactly what the changes at the Bell System will mean for you right now. And in the future.

Call us. At 1 800 555-5000.

There'll be somebody to talk to. Somebody to help you. To answer your questions. To get you information.

So call us. **Let's talk.**

Bell System

Regulation of the Broken-Up AT&T

AT&T and its largest long-distance competitor, MCI, both have proposed easing the Federal Communications Commission's regulation of AT&T's long-distance rates. It is unclear whether the FCC is disposed to go along with this proposal, involving as it does the major unresolved issue in the wake of the break-up of AT&T three years ago.

During the pendency of the government's anti-trust case against AT&T, two broad strategies were under consideration for the way in which the break-up should be structured. The vertical divestiture strategy would have left AT&T the monopoly provider of telephone services, both local and long-distance. The research and manufacturing arms of AT&T, Bell Laboratories and Western Electric, would have been split off into a separately owned manufacturing company. The theory of vertical divestiture was that AT&T's market power lay(?) primarily in its joint control of telephone service and the manufacture of telephone equipment. Their separation would create more competition in telecommunications equipment market and thereby more vitality in the development of cost reductions and new services. This vertical divestiture was sought unsuccessfully by the Department of Justice in its anti-trust action against AT&T in the 1950's.

The second strategy, that of horizontal divestiture, was the one chosen by AT&T and Justice when they agreed to settle the case in 1983. The result was the divestiture of the local telephone companies, leaving AT&T with its manufacturing and long-distance businesses. This horizontal divestiture was based on the theory that AT&T's market power lay in its nationwide control of the monopoly local telephone service. Both the long-distance service and the telecommunications equipment manufacturing businesses were seen to be competitive industries, and the separation of these local telephone monopolies from AT&T would promote such competition.

At the time of the divestiture agreement, AT&T had about __% of the long-distance market. Moreover, as a result of its prior integration of local and long-distance networks, AT&T enjoyed substantial advantages not shared with its competitors in the long-distance business. For example, customers of MCI, Sprint, and other long-distance companies had to dial as many as 17 digits to access the long-distance network in contrast to AT&T's one-digit access, and the quality of the local connection to their networks was often

very poor. Because of this historical advantage and dominance of the long-distance business by AT&T, the FCC decided to continue to regulate AT&T's long-distance rates while abstaining from regulating those of its competitors. The FCC also ordered the local telephone companies to provide "equal access" to allow the local telephone customer to choose any of the long-distance companies as their "dial-1" long-distance service provider. MCI and other long-distance competitors pushed hard for continued regulation of AT&T's rates, as did consumer advocates and the Department of Justice(?).

Now with four years experience competing with a divested and regulated AT&T, MCI suddenly has reversed field and called for the deregulation of AT&T's rates. AT&T immediately joined in telling the FCC that its rates no longer should be subject to direct regulatory control.

No one can fail to note that MCI's change of heart comes at a time of decreasing profit margins; the clear message is that MCI wants AT&T's rates to go up to provide a higher umbrella under which MCI can raise its own rates. And AT&T's proposal comes after a disappointing record post-divestiture of profitability, a loss of market share, and a fourth-quarter 1986 write-off of $3.5 billion. There is a temptation to dismiss these proposals as self-serving to the detriment of the long-distance consumer. Consumer advocates see a devious play to bilk the consumer; and one FCC official thought it "far from clear that this would benefit the public interest." In fact both companies have made a perfectly valid point about public policy.

In the four years since the structure of the AT&T breakup was set, the long-distance business has changed dramatically. MCI is no longer a provider of second-rate service at discount prices. MCI, U.S. Sprint, Allnet and other smaller companies have spent huge sums of capital to install the new equipment needed to achieve the equal-access status mandated by the FCC across the country. They have watched the access charges they pay the local telephone companies increase their costs for a typical long-distance call by xx%. And they have watched the FCC cut AT&T's rates by 30%.

Heaven (alone) knows how all the competing approaches to competition in the telecommunitions industry should or will sort out as the FCC, the states, Justice, Judge Green and the industry players continue to grapple with many genuinely difficult issues of technology economies, and

public policy. However, most of these issues now revolve around the seven regional telephone companies and their monopoly over local telephone service.

The fact is that long-distance service is now a truly competitive business despite AT&T's large market share. AT&T now has about ____% of total long-distance market revenues, but only ____% of subscribers. There has been no barrier to open entry into this business for some time. Likewise, with the conversion of all telephone exchanges to equal access, AT&T no longer enjoys any meaningful advantage in connections to the local telephone networks. All telephone customers can choose freely among several long-distance service providers.

In such circumstances there is no longer any way for AT&T to use its market share to engage in monopoly pricing of its long-distance services. AT&T's competitors have invested billions of dollars to build high quality networks with equal access and to attract customers away from AT&T. Should AT&T raise prices to unreasonable levels there would be an exodus of customers to competitive carriers.

There are two factors that can indicate a need for governmental regulation of prices: barriers to entry of new competitors or technological economies of scale leading to a natural monopoly. Neither of these factors is present in today's long-distance telecommunications business. While building a nationwide network costs billions of dollars and is not easily undertaken, so far at least two companies have done so: MCI and US Sprint. Moreover, there are literally hundreds of small regional long-distance carriers that lease large numbers of circuits wholesale and compete in a variety of ways; profit margins are thin, but entry (& exit) is relatively easy. Nor does the technology of long-distance networks show any signs of large economies of scale. Electronic trends are toward increasing computational and communications power in smaller and cheaper units. Multiple microwave, satellite, fiber optics networks serve all regions and all major cities.

In the absence of a theoretical rationale or of any evidence of overpricing, there simply is no reason for the FCC to continue to regulate long-distance prices and no reason to believe the FCC knows better than the marketplace what long-distance rates should be. Indeed, the need for all the long-distance companies to balance changing technologies, large investments in network facilities, new services, and long-term profitability, there is every

reason to believe that continued FCC regulation of AT&T's rates will distort the market and stifle competition.

There are only two reasons why the FCC feels any duty to maintain its intervention in the long-distance market: First, they've always done it that way; Second, the arithmetic of traditional rate-of-return regulation in today's climate of low interest rates suggests very low prices--if AT&T were a monopolist in a static industry. In fact AT&T is just one of many suppliers in a dynamic industry. The public interest requires the FCC to finish the job of deregulation and free up AT&T's rates so that a truly free market can exist.

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Competition in Local Telecommunications Markets: The U.S. and Japan

Satoshi Shinoda

Executive Summary

- The traditional view saw the local telecommunications market as a de facto "natural monopoly." But some local competition certainly exists in the U.S. and Japan today and is likely to increase in the future. The multi-vendor local market environment in both countries is made possible by technological innovation and development, blessed by pro-competitive regulatory policy decisions. Underlying this pluralism, however, are the motives of large business users to decrease their costs and to increase their efficiency and network control.

- As competition increases, both traditional companies and new competitors have had to invent suitable costing methods -- "cost-based pricing" -- to compete effectively and to secure an "equal footing" in all markets. Traditional companies have had to dismantle monopolistic rate structures, while competitors have claimed that anti-competitive cross-subsidies persist from monopoly services to competitive ones. Price decreases in competitive services have not come from economic theories but rather from political, social, and market realities in both countries.

- The local network has become basic to the information infrastructures of both nations, and politically sensitive local services have become essential to everyday life and business activities. The underlying issue of who should pay the costs of the traditional local network is likely to remain fundamental.

- What is local telecommunications service? Defining boundaries for local service is very difficult because values and standards vary considerably among customers, telecommunications companies, and regulators in both countries. The introduction of competition has complicated matters even more.

- The most drastic change in the U.S. telecommunications market structure was the 1984 divestiture of the Bell System, but symptoms of market changes could be seen as early as the late 1950s. In Japan, a more abrupt reform covering all telecommunications markets was made in 1985, a result of changing market demand and of government attempts to create an "information society".

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- The 1982 MFJ was the outcome of the antitrust case against AT&T. It prohibited the newly separated BOCs from entering interLATA markets; however, the MFJ never prohibited the new AT&T and the OCCs from entering intraLATA markets. Pre-divestiture, interexchange access was not a service but an intracompany transaction within the Bell System; divestiture turned this internal transaction into external intercompany business. This externalization of interexchange access services also focused attention on the access charge issue regarding who should pay traditionally subsidized local loop NTS costs.

- U.S. intraLATA toll competition is increasingly perceived as inevitable for several reasons.

  First, increased interLATA long-distance market competition has pressured state regulators and LECs to decrease intraLATA toll service rates. Second, business users see the absence of intraLATA competition as responsible not only for differences among prices but also for a dearth of opportunities to use innovative services. Some state regulatory agencies consider non-competition in intraLATA markets as potentially preempting information industry development in their states. Finally, rapid development of private networks owned by large business users has caused serious impacts on the LECs' local network operation. These private networks could expand beyond federal and state regulatory jurisdictions.

- In the U.S. local market, the LECs are competing against their customers, in particular against large business users. Large users are trying to bypass local network facilities by using their own facilities or by leasing "pipelines" from LECs or non-LECs. LECs also face direct competition from IXCs, many resellers, private carriers, and teleport providers. Shared tenant service providers can also be seen as local exchange competitors, and T-1 and LAN manufacturers compete indirectly with LECs. While the extent of competition in local telecommunications markets varies widely, (1) competition has been expanding from interexchange access markets to intraLATA and local markets, (2) large business demand is changing from switched services to flat-rate services, and (3) competition is also coming from private carriers such as teleport providers with their own local loops.

- In Japan, more than 500 companies have entered the telecommunications business since 1985. The three major carriers among five new regional competitors are subsidiaries of electric power companies which have been constructing their own vast optical

fiber networks. These new competitors provide primarily regional private-line services.

- In support of Japan's telecommunications reform, which is aimed at providing better services at lower prices by invigorating the Japanese telecom industry, the Ministry of Posts and Telecommunications (MPT) wants the market to become competitive as soon as possible. However, the resulting decisions may cause critical problems for NTT, whose local exchange service call rate has been frozen for more than a decade. The MPT may believe that achieving fair competition in the long-distance market would be difficult as long as NTT controls nationwide local facilities.

- In this environment, TTNet, a regional carrier, started end-to-end telephone service in the most lucrative Tokyo area without using NTT's network, mainly targeting large business users. Furthermore, TTNet is asking to have its network interconnected with NTT's local facilities in order to expand its telephone market. How to -- indeed, whether to -- maintain traditional nationwide local services at the same averaged prices may become a central issue.

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Alternatives to Rate Base/Rate of Return Regulation of Local Exchange Carriers: An Analysis of Stakeholder Positions

Jeffrey A. Masoner

Executive Summary

- There is little disagreement among telecommunications stakeholders on the historical justifications for local exchange carrier regulation: the existence of a natural monopoly industry structure, the essential nature of the service provided, and the potential for pricing and production abuses. Key goals cited generally comport with those provided in the Communications Act of 1934, and include the universal provision of high-quality service at just and reasonable, non-discriminatory rates, and the balancing of ratepayer and investor interests. Many stakeholders add that regulation should serve as a substitute for competition in markets where competition does not exist.

- Technological, legal, and regulatory changes have radically altered the telecommunications industry since World War II. The result of these changes has been an increasingly blurred distinction between regulated, monopoly-franchised markets served by local exchange carriers, and competitive markets. Stakeholders differ in their perceptions about the nature and viability of competition in various markets and consequently about both the ability of rate base/rate of return regulation to meet its goals and the necessity of introducing alternatives to it.

- With barriers crumbling for those who seek entry into selected lucrative markets, local exchange carriers (LECs) are seeking freedom from burdensome regulatory procedures designed for a monopoly industry that they say no longer exists. LECs assert that the original regulatory "social contract" between regulators and carriers has been violated as regulators can no longer provide franchise protection and existing regulatory procedures favor competitors' ability to intervene in and delay carrier pricing and service proposals. In response to a more competitive environment, many LECs have proposed or supported alternatives to rate base/rate of return regulation.

- Alternatives to rate base/rate of return regulation of local exchange carriers have been proposed as promoting rate stability and predictability, providing carriers with proper incentives for innovation and efficiency, reducing direct and indirect costs of regulation, and reflecting more accurately the competitive market outcome. The most commonly proposed alternatives -- social con-

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tract, price caps, and incentive regulation -- aim at providing some form of basic service rate stability and pricing and earnings freedom for competitive services.

- Interexchange carriers (IXCs) have focused on the impact regulatory alternatives would have on local exchange carrier prices for monopoly inputs, especially where the LEC provides a competitive service utilizing the same inputs. Central to IXC opposition to many regulatory alternatives are their perceptions that effective competition is lacking for the majority of local exchange carrier services, and that the potential exists for abuses in the limited markets where competition is developing.

- Industry organizations, representing both large users of local exchange services and local exchange carrier competitors, have also focused on what they allege would be possible service and pricing abuses under regulatory alternatives. Like those of the IXCs, industry organizations' concerns in proceedings have centered on the perceived continuation of LEC monopoly power.

- Consumer organizations also consider safeguards, including the public input process, as necessary for protecting monopoly ratepayers from potential service and pricing abuses. They assert the need for stricter cost allocation rules under existing rate of return regulation in order to protect monopoly ratepayers from subsidizing competitive LEC ventures.

- Regulators are concerned with statutory obligations, such as those identified as the historical goals of regulation. Cognizant of unique jurisdictional conditions and regulatory proposals, final decisions frequently entail a mixture of regulatory techniques and continued involvement of rate base/rate of return methods.

- Central to many proposals and plans for regulatory alternatives are the definitions of competitive/non-competitive service categories and the extent to which rate of return is divorced from rate base.

- Stakeholders often see regulatory compromises as temporary transitional measures during the evolution to fully competitive markets. As technological, legal, and regulatory barriers to entry continue to fall, further proposals for regulatory alternatives can be expected.

HOW SHOULD WE REGULATE ATT?

It is now going on four years since ATT was broken up as a result of the government's anti-trust action, spinning off the local telephone companies and leaving ATT in the manufacturing and long-distance business. But even after four years, the FCC continues to regulate ATT's rates for long-distance service in much the same way as before.

The reductions in ATT's long-distance rates over the past four years have been due largely to reductions in the rates ATT pays to the local telephone companies for completing long-distance calls. Apart from these pass-through effects, the FCC continues to regulate ATT's rates as though it were still a classical regulated monopoly, specifying rates in detail and allowing ATT to earn a rate of return prescribed by the Commission.

Recently, however, ATT and its two largest competitors in the long-distance business, MCI and US Sprint, asked the FCC to relax its tight regulation of the rates ATT charges for long-distance calls. FCC Chairman Dennis Patrick has indicated some disposition in that direction, but there have been objections from consumer and business groups and from Congress. This raises an importantly overdue question: Just how should we regulate ATT now that the divestiture is complete?

Certainly ATT continues to have an overwhelming share of the long-distance business with more than 75% of homes and businesses using ATT rather than its competitors. And certainly there has been enough confusion in the public's mind about what is going on in telecommunications regulation, what with increases in local phone rates, the need to choose a long-distance company, and telephones bought at the hardware store rather than supplied by the phone company.

However, the FCC can readily cut through the confusion and simplify its regulatory process. The key lies in a little history.

When the government was considering whether to open the anti-trust case against ATT in the early 1970's, there were two competing schools of thought as to how the break-up should be structured. The debate as to which strategy should be pursued is largely lost in the documents and discussions internal to the government in the early seventies, but the background of that earlier debate carries important lessons for the current debate.

The classical anti-trust school accepted the ATT claim that telephone service was a natural monopoly. They argued that the separating the research and manufacturing side of ATT from the telephone service side would promote competition and innovation in telecommunications equipment manufacturing.

This "vertical divestiture" strategy would have left ATT the monopoly provider of all telephone service, both local and long-distance. The research and manufacturing arms of ATT would have been split off into a separately-owned manufacturing company. The theory of vertical divestiture was that ATT's market power came primarily from its joint control of telephone service and telephone equipment manufacturing. This vertical divestiture was sought unsuccessfully by the Department of Justice in its anti-trust action against ATT in the 1950's.

The other school did not accept ATT's claim, asserting that only the local telephone service was a natural monopoly and that ATT's monopoly power lay in its control of the local telephone companies. According to this view, there was ample room for competition in equipment manufacturing and in long-distance service; separating the local monopolies from the rest of ATT would best promote competition and innovation throughout the industry.

This strategy of "horizontal divestiture" was the one chosen by ATT and Justice when they agreed to settle the case in 1983. The result was the spin-off of the local telephone monopolies, leaving ATT in the competitive businesses of manufacturing and long-distance service.

At the time of the divestiture agreement, ATT had about __% of the long-distance market. Moreover, as a result of its prior integration of local and long-distance networks, ATT enjoyed substantial advantages not shared with its competitors in the long-distance business. Customers of MCI, Sprint, and other long-distance companies had to dial as many as 17 digits to access the long-distance network in contrast to ATT's one-digit access, and the quality of the local connection to their networks was often very poor. Because of this historical advantage and dominance of the long-distance business by ATT, the FCC decided to continue to regulate ATT's long-distance rates while abstaining from regulating the rates of its competitors. The FCC also ordered the local telephone companies to provide "equal access" to allow the local telephone customer to choose any of the long-distance companies as their "dial-1" long-

distance service provider. MCI, Sprint, and the other long-distance competitors pushed hard for continued regulation of ATT's rates, as did consumer advocates and the Department of Justice (?).

Now with four years of experience in competing with a divested and regulated ATT, MCI and Sprint suddenly have reversed field and called for the deregulation of ATT's rates. ATT immediately joined in telling the FCC that its rates no longer should be subject to direct regulatory control.

No one can fail to note that this change of heart comes at a time of decreasing profit margins; the clear message is that MCI and Sprint want ATT's rates to go up to provide a higher umbrella under which they can raise their own rates. And ATT's proposal comes after a disappointing record post-divestiture of profitability, a loss of market share, and a fourth quarter 1986 write-off of $3.5 billion.

There is a temptation to dismiss these as self-serving proposals that would work to the detriment of the long-distance consumer. Consumer advocates see a devious play to bilk the consumer; and one FCC official thought it "far from clear that this would benefit the public interest." In fact, the companies have made a perfectly valid point about public policy.

They telephone business has changed dramatically since the ATT breakup. MCI and Sprint have invested billions of dollars to build modern high quality networks with advanced service features. They have spent millions of dollars in advertising to inform consumers that there are alternatives to ATT. They have watched the access charges they pay the local telephone companies increase their costs by 20%. And they have watched the FCC cut ATT's rates by 30%.

MCI and Sprint no longer are providers of second-rate service at discount prices. ATT now has about ____% of total long-distance market revenues, but only ___% of subscribers. There has been no barrier to open entry into this business for some time. Likewise, with the conversion of all telephone exchanges to equal access, ATT no longer enjoys any meaningful advantage in connections to the local telephone networks, and telephone customers can choose freely among several long-distance service providers. The fact is that long-distance is now a truly competitive business despite ATT's large market share.

In such circumstances it is no longer possible for ATT to sustain excessively high long-distance rates. If ATT attempted raise prices to unreasonable levels there would be a mass exodus of customers to the competition. A greater worry is that ATT might set prices below its costs to drive its competitors out of business. But there is little reason to suspect that ATT has the profits to support engage in this practice or would want to see itself return to the anti-trust courts.

There are two factors that can indicate a need for governmental regulation of prices in any industry: barriers preventing the entry of new competitors or technological economies of scale leading to a natural monopoly. Neither of these factors is present in today's long-distance telecommunications business. While building a nationwide network to competer with ATT costs billions of dollars and is not easily undertaken, so far at least two companies have done so: MCI and Sprint. Moreover, there are literally hundreds of small regional long-distance carriers that lease large numbers of circuits wholesale and compete in a variety of ways; profit margins are thin, but entry (& exit) is relatively easy. Nor does the technology of long-distance networks show any signs of large economies of scale. Electronic trends are toward increasing computational and communications power in smaller and cheaper units, and all regions of the country are now served by multiple microwave, satellite, and fiber optics circuits.

In the absence of a theoretical rationale or of any evidence of overpricing, no reason to believe the FCC knows better than the marketplace what long-distance rates should be. In short, there simply is no reason for the FCC to continue to regulate the prices of long-distance telephone calls.

Indeed, given the need for all the long-distance companies to balance changing technologies, large investments in network facilities, new services, and long-term profitability, there is every reason to believe that continued FCC regulation of ATT's rates will distort the market, stifle competition and curtail the further construction of new network facilities. It would be ironic indeed if regulatory ceilings on long-distance prices kept the public from reaping the benefit of the competition that was so recently achieved.

The public interest requires the FCC to finish the job of deregulation and free up ATT's rates so that a truly free market can exist. Public policy in the

regulation of business is a heavy-handed, macroscopic tool. Government can claim to know that a monopoly ought to exist or ought not to exist. But having done its job in bringing about about the breakup of the ATT monopoly, public policy should admit it knows nothing about how to set prices in a competitive long-distance market.

In accepting the divestiture of its local telephone companies, ATT agreed to break off over half its corporate empire and accept competition rather than regulated monopoly. Its competitors have spent huge sums to build networks to compete with ATT. Both now deserve to be allowed to set their prices in a free market.

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It was 60 years ago that Theodore Vail at ATT established the public policy theory that nationwide telephone service was a natural monopoly and that competition should not be allowed. It has been almost 20 years since Bill McGowan started working at MCI to prove that the telephone business is not the natural monopoly that ATT and the conventional wisdom held it to be.

Regulation of the Broken-Up ATT

ATT and its largest long-distance competitor, MCI, both have proposed easing the Federal Communications Commission's regulation of ATT's long-distance rates. With its chairmanship recently changed, it is unclear whether the FCC is disposed to go along with this proposal. However, the Commission can readily find the correct course of action in the history of the break-up of ATT.

During the pendency of the government's anti-trust case against ATT, two broad strategies were under consideration for the way in which the break-up should be structured. The vertical divestiture strategy would have left ATT the monopoly provider of telephone services, both local and long-distance. The research and manufacturing arms of ATT, Bell Laboratories and Western Electric, would have been split off into a separately-owned manufacturing company. The theory of vertical divestiture was that ATT's market power lay primarily in its joint control of telephone service and the manufacture of telephone equipment. Their separation would create more competition in the telecommunications equipment market and thereby more vitality in the development of cost reductions and new services. This vertical divestiture was sought unsuccessfully by the Department of Justice in its anti-trust action against ATT in the 1950's.

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Heaven (alone) knows how all the competing approaches to competition in the telecommunications industry should or will sort out as the FCC, the state, Justice,

Judge Green and the industry players continue to grapple with many genuinely difficult issues of technology economies, and public policy. However, most of these issues now revolve around the seven regional telephone companies and their monopoly over local telephone service. The fact is that long-distance service is now a truly competitive business despite ATT's large market share. ATT now has about ____% of total long-distance market revenues, but only ___% of subscribers. There has been no barrier to open entry into this business for some time. Likewise, with the conversion of all telephone exchanges to equal access, ATT no longer enjoys any meaningful advantage in connections to the local telephone networks. All telephone customers can choose freely among several long-distance service providers. In such circumstances there is no longer any way for ATT to use its market share to engage in monopoly pricing of its long-distance services. ATT's competitors have invested billions of dollars to build high quality networks with equal access and to attract customers away from ATT. Should ATT raise prices to unreasonable levels there would be an exodus of customers to competitive carriers.

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distort the market and stifle competition. There are only two reasons why the FCC feels any duty to maintain its intervention in the long-distance market: First, they've always done it that way. Second, the arithmetic of traditional rate-of-return regulation in today's climate of low interest rates suggests very low prices -- if ATT were a monopolist in a static industry. In fact ATT is just one of many suppliers in a dynamic industry. The public interest requires the FCC to finish the job of deregulation and free up ATT's rates so that a truly free market can exist. Public policy in the regulation of business is a heavy-handed, macroscopic tool. Government can claim to know that a monopoly ought to exist or ought not to exist. But having brought about the breakup of the ATT monopoly, public policy knows nothing about how to set prices in a free market.

MCI has worked hard for almost 20 years to prove that the telephone business is not the natural monopoly that ATT and the conventional wisdom held it to be. Four years ago, ATT agreed to break off over half its corporate empire and accept competition rather than regulated monopoly. Both now deserve to be allowed to compete in a free market.

HOW SHOULD WE REGULATE ATT?

It has now been almost five years since ATT and the Department of Justice announced their settlement of the government's anti-trust case against ATT -- and almost three years since the breakup of ATT was implemented. During this time, the Federal Communications Commission has struggled to find new a way to regulate long-distance service that fits the new industry structure that was created by the breakup.

When the government was considering re-opening the ATT anti-trust case in the early 1970's, there was a basic decision to be made about the solution the government should seek to the problem of the ATT telephone monopoly. There were two schools of thought. The classical anti-trust school accepted the ATT arguments that telephone service was a natural monopoly and argued that the research and manufacturing arms of ATT should be broken off from the telephone service company on the theory that this would promote competition in telecommunications equipment manufacturing.

The opposing view did not accept ATT's claim that telephone service was a natural monopoly nationwide, but only locally. According to that view, there already was ample room fo competition in equipment manufacturing and in long-distance telephone service, and

applied the
same rate-of-return regulation to ATT as was employed before the breakup.

Recently, both ATT and its largest competitor, MCI, asked the FCC to relax its tight regulation of the rates ATT charges for long-distance calls.

MCI's Stance Eases on AT&T Deregulation

Company Said to Recognize It Can't Easily Endure More Severe Price Cuts

By Francine Schwadel
Staff Reporter of The Wall Street Journal

MCI Communications Corp., the nation's second-largest long-distance company, is adopting a more conciliatory stance toward the deregulation of its rival, American Telephone & Telegraph Co.

The change of heart reflects a growing recognition among MCI executives that the Washington-based telecommunications concern will have trouble withstanding several more rounds of drastic price cuts. Over the past two years, MCI has seen its profit crushed by industrywide price cuts prompted by the Federal Communications Commission's regulation of AT&T.

MCI, which got its start by suing AT&T, has insisted publicly that giving AT&T more freedom to set its own prices for its services would be premature. But now, MCI officials believe that giving AT&T more flexibility might stem the tide of price cuts. Indeed, AT&T executives have said that under deregulation they may not have to fully reflect cost reductions in price cuts.

MCI's change in thinking also is significant because it could pave the way for the FCC to loosen its grip on the regulation of AT&T. "Clearly what's restraining the commission more than anything else now is fear of repercussions from Congress," said Harry Shooshan, a telecommunications consultant in Washington. "But if MCI were to indicate that it has rethought its position, it could change the equation."

Dennis Patrick, an FCC commissioner who is expected to succeed Mark Fowler as chairman this spring, already has said the agency should consider scrapping its current approach, in favor of giving AT&T more flexibility by setting a ceiling on the prices it can charge customers. The agency currently dictates the company's profit margin on long-distance service.

In the past, MCI has objected to giving AT&T more freedom to set its own prices, arguing that the company has continued to dominate the long-distance industry with roughly an 80% market share.

But in recent months, with its profit margins under pressure, MCI has been reexamining that view. While MCI executives still consider AT&T a powerful force, one MCI insider said, "It may be in our own self-interest to support their deregulation."

Giving AT&T more freedom to set its prices, based on market conditions, "would make the industry more orderly," the MCI insider said. "We think the commission is doing more to mess up the industry than AT&T would given their own free rein."

AT&T's prices currently are determined largely by the rate of return the FCC sets. The company has slashed its rates about 30% over the past three years, in response to FCC actions.

The result has been several waves of industrywide price cuts that have bloodied MCI and other long-distance companies. In 1986, MCI had a loss of $448.4 million, compared with net income of $113.3 million, or 48 cents a share, the year earlier. US Sprint Communications Co., a Kansas City, Mo., joint venture between GTE Corp. and United Telecommunications Inc., also has been posting huge losses.

AT&T also is having problems. Largely because of restructuring charges, the company earned a slim $139 million, or five cents a share, on revenue of $34.09 billion in 1986.

The year earlier, the company had net of $1.55 billion, or $1.37 a share, on revenue of $34.4 billion. And AT&T officials are generally gloomy about the outlook for 1987. They also are aggressively lobbying the FCC to free the company from rate-of-return-based regulation that limits its earnings for long-distance service.

MCI officials and some analysts believe that had AT&T been given the choice, it wouldn't have cut rates as much as it has.

Indeed, MCI President Bert C. Roberts Jr. recently told a few participants at a securities analysts meeting in New York that he would rather "cast the company's fate to compete with AT&T, no matter how rough they are going to be, than to compete with Mark Fowler, which is what we have been doing for the last two years."

The situation is particularly frustrating for MCI executives, who believe that without so many price cuts, their own company would have met most of the objectives it set for itself three years ago when the Bell System was dismantled.

At an industry conference last week, the AT&T executive in charge of the company's relations with regulators said that if AT&T was freed from rate-of-return regulation, it would refrain from cutting rates to the same extent that its costs to connect to local companies are reduced. Most of AT&T's rate cuts since divestiture have occurred because the FCC has required it to cut rates to fully reflect reductions in connection costs.

Keeping some of those cost reductions for itself would give AT&T's profit a sorely needed boost. Though its long-distance operations have been very profitable, its overall earnings have been hurt by huge losses from operations that sell phone and computer equipment to consumers and businesses.

Because some deregulation probably would reduce pressure on AT&T to cut rates, AT&T has long expressed puzzlement over MCI's opposition to lifting rate-of-return regulation. As the leading long-distance company, AT&T's rates set a price ceiling for the industry. As AT&T rates have come down, it has forced the rates of its competitors down, thus hurting practically every company's profits.

MCI isn't likely to call for total deregulation of AT&T, however. One fear, according to the company insider, is that an unfettered AT&T might price its services below cost as a way to win customers.

MCI Urges Deregulation For Phone Rival AT&T

By Elizabeth Tucker
Washington Post Staff Writer

MCI Communications Corp. yesterday took the surprise step of urging federal officials to drop most regulatory restraints on the long-distance communications giant AT&T, MCI's arch-rival inside and outside the courtroom.

The proposal, made at a press conference here, would allow the marketplace to set long-distance rates instead of regulators—a complete reversal for the company that laid the groundwork for the breakup of AT&T by filing an antitrust suit against it in the 1970s.

"It's time to let the market manage AT&T and have the Federal Communications Commission redirect its resources to regulating the true monopolies in this industry—the local telephone companies," said Bert C. Roberts Jr., president and chief operating officer of MCI.

AT&T yesterday called the proposal "right on target." US Sprint maintained silence on the subject.

But consumer advocates and analysts said the proposal could serve to fatten MCI's profit margins. They noted that MCI has been forced to cut its long-distance rates because federal regulators forced AT&T to lower its rates, reducing its profits. Without regulation, the analysts said, rates and profits could rise.

"This really is a devious ploy in the name of competition," said Gene Kimmelman, legislative director of the Consumer Federation of America, which represents hundreds of consumer groups across the country. "What they are saying is as costs go down, rather than have AT&T regulated and forced to reduce rates, we'd rather have AT&T pocket the profits."

An FCC official said yesterday, "One potential result of this could be merely that prices go up to all consumers . . . . It is far from clear that would benefit the public interest."

Long-distance rates to consumers have dropped by about 30 percent since the Bell System breakup but the downward trend has trimmed the profits of the phone companies.

MCI lost $448.4 million in 1986, compared with net income of $133.3 million the year before. Competitors aren't faring much better, with US Sprint continuing to lose money and AT&T battered by competition in the computer and equipment manufacturing ends of its business. AT&T scraped together profits of $139 million in 1986, compared with profits of $1.6 billion the year before.

MCI's Roberts maintained that competition would benefit consumers. He said it was time to deregulate AT&T because the FCC had mishandled supervision of the telecommunications industry by deregulating AT&T services in a piecemeal fashion while not properly policing the regional Bell companies that provide local connections to MCI.

The Justice Department has recommended that the companies be allowed to offer computerized services and long-distance service outside their regions and to make communications equipment. But the FCC has paid little heed to MCI complaints that the regional companies are paying too little attention to the business of providing reasonably priced connections to long-distance companies, said Roberts.

Instead, the companies have been raising rates for some connections that are not equal to AT&T's and price-gouging for installing connections, he said. This has caused a profit squeeze as MCI tries to match AT&T price cuts, he said.

Bell Atlantic Corp. said yesterday that unless regional companies are allowed to compete in the long-distance market, AT&T will use its 80 percent share of the market to underprice services and crush competition.

"By calling for its major competitor's deregulation, MCI is really hoping that AT&T will raise its prices so it too can follow suit," said Philip A. Campbell, president of Bell Atlantic Network Services Inc. "This will not bring about competition," he said.

SEARCH ABOVE

Friday 3/6/87

ALERT: MCI, in Filing with FCC, Calls for AT&T Deregulation (MCI NR) - P64839

SO: MCI Communications Newsrelease Mar 6, 87 2 pages

MCI has called for the immediate deregulation of AT&T, and said that it would make a filing with the FCC today to that effect. Bert C. Roberts, President and CEO, said that the FCC should direct its resources to regulating the "true monopolies...the local telephone companies." MCI rejects what it calls the piecemeal deregulation approach to AT&T, saying it is time to make a move to full deregulation in the long distance industry. Addressing potential consumer protection concerns that might result from such deregulation, Roberts noted an alternative proposed by FCC Commissioner Dennis Patrick for a "price-cap" to replace traditional regulation. In its filing, MCI says the increasing availability of equal access and the rapid growth in alternative transmission systems will allow MCI, and companies like it, to compete on an equal basis with AT&T.

MCIC	RATE SETTING
OCC CORPORATE STRATEGIES	OCCS
EQUAL ACCESS IMPLEMENATION	BOCS

Order # * P64839

AT&T Asks FCC To End Regulation Limiting Its Profit

By Janet Guyon
Staff Reporter of The Wall Street Journal

WASHINGTON—American Telephone & Telegraph Co. asked federal regulators to eliminate regulation that limits profits on its interstate long-distance business.

AT&T's proposals, which were expected, follow those of one of its major competitors, MCI Communications Corp., which filed a proposal with the Federal Communications Commission last week that also would ease restrictions on AT&T. The MCI proposal was widely seen as an effort by that company to halt FCC-mandated price cuts that have forced AT&T and its competitors to cut prices, thus eroding profits throughout the industry.

The requests by New York-based AT&T and Washington-based MCI are in response to an FCC proposal to sharply reduce regulation of certain parts of AT&T's long-distance business. Albert Halprin, chief of the FCC's common carrier bureau, said he didn't know whether the commission could act on AT&T's request to lift profit regulation on all its long-distance business under the current FCC proceeding.

But the FCC could probably consider as early as this summer an alternative AT&T proposal that would replace profit regulation with price controls on AT&T's basic long-distance service, Mr. Halprin said.

AT&T proposed that in addition to lifting profit regulation, the FCC allow new rates to go into effect in 14 days instead of the current 45 days and that competitors be required to show AT&T's rates are unreasonable instead of placing the burden of proof on AT&T. The company also called for a reduction in the amount of documentation it must file each time it proposes a new rate or service. Larry Garfinkel, an AT&T vice president, said the company envisions that its proposals for reduced regulation will last three years before it becomes fully deregulated.

In return for the reduction in regulation, AT&T said that for three years it would refrain from charging more for calls placed to regions that are more costly to service. Consumer groups have feared that if deregulated, AT&T would charge more to call small towns than to call between cities.

AT&T also said it would maintain basic long-distance service nationwide. In addition, Mr. Garfinkel said AT&T would continue to reduce rates by the same amount that its costs to connect to local phone companies fall, assuming those connection costs continue to fall.

Because Mr. Garfinkel said AT&T would continue to cut prices as its connection costs fall, deregulating AT&T might not stem the tide of AT&T price cuts that have forced competitors to cut prices and incur losses, analysts said. The bulk of the 30% drop in AT&T's long-distance rates in the past three years has resulted from reduced connection costs. In the past, AT&T executives have said the company might keep some connection cost cuts for itself. Analysts said that if profits were deregulated, AT&T might simply not cut prices as much as it has in the past three years.

Although AT&T's incentive would be to maximize long-distance profits to offset losses in its computer and phone equipment business, "if it looked like there was collusion among carriers" to maintain or even increase prices, "the FCC would step in and reimpose regulations, or they would push" to let the Bell operating companies into the long-distance business to increase competition, said Jack Grubman, an analyst with PaineWebber Inc. AT&T, MCI and other long-distance companies have vehemently opposed allowing Bell concerns into the long-distance business, fearing that the Bells would unfairly use their monopoly of local service to sell long-distance service.

* * *

Big Board's Strict Interpretation of Rule Causes Furor at London Stock Exchange

By Steve Swartz and Gary Putka
Staff Reporters of The Wall Street Journal

The New York Stock Exchange roiled the London financial community with a strict interpretation of one of its most important rules.

Confirming a report in the Financial Times of London, Big Board President Robert J. Birnbaum said that during the hours the Big Board is open, its member firms would be barred from making markets on London's Stock Exchange in some 200 U.S. stocks listed on both exchanges.

Mr. Birnbaum said the Big Board is responding to the London exchange's announcement last week that it would close its floor to stock trading, probably next year, in favor of an automated trading system.

The Big Board measure in question is Rule 390, which states that while the exchange is open, members can't make markets in Big Board-listed stocks anywhere but on a stock exchange. The rule is designed to make sure the bulk of members' trading volume goes to the Big Board.

Mr. Birnbaum said London's move away from a trading floor system "would raise questions about" whether London qualifies as an exchange under Big Board rules.

"Clearly we would not allow people to do something in Europe that we wouldn't allow them to do in the U.S.," he said.

Mr. Birnbaum said the interpretation wouldn't apply to foreign stocks, some of which are listed on the New York exchange as American depositary receipts.

The Big Board's position set off shockwaves in London.

The London exchange said in a statement that the Big Board's rule interpretation was "extremely difficult to understand. Markets are now electronically based, and as ably demonstrated by London, do not need a trading floor."

A London exchange spokesman added that the Big Board's position is based upon a "time when the stock exchange existed without a telephone, and the brokers rode to work in a coach and horses."

Mr. Birnbaum said he was sure the chairman of the London exchange "would like to slit my throat."

Some London-based officials of major Wall Street firms said they worried that the Big Board's rule could place them at a disadvantage in trading some major U.S. stocks in London. Among the stocks they

U.S. Sets Limit Of $75 Billion On Freddie Mac

By Michel McQueen
Staff Reporter of The Wall Street Journal

WASHINGTON — The Federal Home Loan Bank Board has sent a letter to the Federal Home Loan Mortgage Corp. instructing Freddie Mac to develop a plan for buying a maximum of $75 billion in mortgages this year.

The move apparently represents the first time in Freddie Mac's 16-year history that the Bank Board, which serves as Freddie Mac's board, has set a limit on the corporation's ability to purchase loans.

While Freddie Mac suggested the $75 [illegible] level as part of its budget request, [illegible] cap would be the first [illegible] administra- [illegible]l govern- [illegible]f mort-

UNNATURAL MONOPOLY: CRITICAL MOMENTS IN THE DEVELOPMENT OF THE BELL SYSTEM MONOPOLY

Adam D. Thierer

Congress finally began the long-needed process of comprehensive telecommunication deregulation in 1994, exactly 60 years after their last major legislative effort, the Communications Act of 1934, was enacted. Legislators appear to finally realize what has been evident to many industry leaders and analysts for years--regulation is impeding the growth of new technologies, jobs, and exports, while simultaneously denying consumers the benefits of competition. Unfortunately, in an attempt to remedy the inefficiencies created by nearly a century's worth of regulation, Congress crafted a reform package that was anything but deregulatory. Both the House and Senate bills were over 200 pages long, contained 50 new regulatory powers, and included protectionist manufacturing requirements. Largely as a result of this pro-regulatory baggage, the bill finally died in the Senate in mid-September of 1994.

Before Congress makes any rash decisions on how to manage competition within the industry, legislators should review how the old Bell monopoly developed. Most legislators, academics, and many others believe the telephone industry is a natural monopoly that was privately monopolized by the aggressive actions of the American Telegraph and Telephone Company (AT&T). That was hardly the case. Although AT&T undoubtedly encouraged the monopolization of the industry, it was the actions of regulators and federal and state legislators that eventually led to the creation of a nationwide telephone monopoly.

In this paper I shall argue that the reason competition did not arise within the industry earlier this century is because it was not allowed to. Specifically, three forces drove the monopolization process:

1. The intentional elimination of what was considered wasteful or duplicative competition through exclusionary licensing policies, misguided interconnection edicts, protected monopoly status for dominant carriers, and guaranteed revenues for those regulated utilities;

2. The mandated social policy of universal telephone entitlement, which implicitly called for a single provider to easily carry out regulatory orders; and

3. The regulation of rates (through rate averaging and cross-subsidization) to achieve the social policy objective of universal service.

The combined effect of those policies was enough to kill telephone competition just as it was gaining momentum. Hopefully, by understanding exactly how those policies encouraged the growth of a telephone monopoly, policymakers can craft more pro-competitive legislation in the future.

The Bogus Natural Monopoly Model

For many decades, economic textbooks have held up the telecommunications industry as the ideal model of natural monopoly. A natural monopoly is said to exist when a single firm is able to control most, if not all, output and prices in a given market due to the enormous entry barriers and economies of scale associated with the industry. More specifically, a market is said to be naturally monopolistic when one firm can serve consumers at lower costs than two or more firms (Spulber 1995: 31). For example, telephone service traditionally has required laying an extensive cable network, constructing numerous call switching stations, and creating a variety of support services, before service could actually be initiated. Obviously, with such high entry costs, new firms can find it difficult to gain a toehold in the industry. Those problems are compounded by the fact that once a single firm overcomes the initial costs, their average cost of doing business drops rapidly relative to newcomers.

The telephone monopoly, however, has been anything but natural. Overlooked in the textbooks is the extent to which federal and state governmental actions throughout this century helped build the AT&T or "Bell system" monopoly. As Robert Crandall (1991: 41) noted, "Despite the popular belief that the telephone network is a natural monopoly, the AT&T monopoly survived until the 1980s not because of its naturalness but because of overt government policy."

Indeed, a chronological review of the industry's development produces an indisputable conclusion--at no time during the development of the Bell monopoly did government not play a role in fostering a monopolistic system. Adherents to the old school of thought correctly point out that AT&T attempted to restrict competition throughout this century. Yet, this fact is irrelevant. Every business logically tries its hardest to exclude competitors. What is more important, and widely ignored, is exactly how federal and state government actions encouraged the Bell monopoly to develop during the early years of this century. Once the government allowed this monopoly to develop with its assistance, AT&T's strength could not be matched by any competitor, resulting in a monopolistic market structure that survived well into the 1980's.

AT&T's Patent Monopoly, 1876-94

When Alexander Graham Bell patented the telephone on March 7, 1876, few people realized just how important his new invention would become for American commerce and society in general. America was still in love with the telegraph and saw little immediate use for the telephone. Mark Twain even likened investment in the new technology to "wildcat speculation." Western Union, the most powerful telegraph company of the era, actually passed up the opportunity to buy the Bell patents for $100,000 believing the device was nothing more than a passing novelty.

Unfortunately for Western Union, the telephone turned out to be anything but a passing fad. Use of the device slowly gained acceptance, primarily among business users. Yet, compared to later decades, this Bell patent monopoly era was characterized by limited growth of service. From 1880 to 1895, average daily calls per 1,000 of population rose from only 4.8 to 37. Contrasting this 15-year patent monopoly period with the competitive period that followed the expiration of the Bell patents in 1894, average daily calls per 1,000 people jumped from 37 in 1895 to 391.4 in 1910. The number of telephones per 1,000 people also showed much more dramatic expansion during the competitive period after patent expiration than before. Telephones per 1,000 people rose from only 1.1 in 1880 to 4.8 in 1895, but skyrocketed to 82 by 1910. (See Table 1.)

Clearly, the Bell patent monopoly period was not as beneficial for the extension of service as the competitive period that would follow. Yet, by the end of its patent monopoly period, the Bell System had grown large enough to pose a formidable challenge to Western Union, the same company that had failed to buy up the original patents just 20 years earlier. But, with the expiration of their crucial patents between 1893-94, the Bell system faced an uncertain future. Although Bell had filed over 600 patent infringement suits to defend its 900-plus patents during this period, the company had no choice but to try its hardest to fend off the many new firms that were waiting for a chance to gain access to this lucrative new market. The Bell monopoly was, at least temporarily, dead.

Table 1

Spread of Telephone Service, 1880-1920

Year	Average Daily Calls Per 1,000 Population	Telephones Per 1,000 of Population
1880	4.8	1.1
1885	13.3	2.7
1890	23.0	3.7
1895	37.0	4.8
1900	103.6	17.6
1905	258.7	48.8
1910	391.4	82.0
1915	446.0	103.9
1920	486.5	123.9

SOURCE: Hyman, Toole, and Avellis (1987: 93).

The Development of Competition, 1894-1913

Despite AT&T's rapid rise to market dominance, independent competitors began springing up shortly after the original patents expired in 1893 and 1894. These competitors grew by servicing areas not served by the Bell System, but then quickly began invading AT&T's turf, especially areas where Bell service was poor. According to industry historian Gerald W. Brock (1981: 112), by the end of 1894 over 80 new independent competitors had already grabbed 5 percent of total market share. The number of independent firms continued to rise dramatically such that just after the turn of the century, over 3,000 competitors existed. Illinois, Indiana, Iowa, Missouri, and Ohio each had over 200 telephone companies competing within their borders (Brock 1981: 111). By 1907, non-Bell firms continued to develop and were operating 51 percent of the telephone businesses in local markets. Prices were driven down as many urban subscribers were able to choose among competing providers. AT&T's profits and prices during this period began to shrink due to increased competition. Whereas AT&T had earned an average return on investment of 46 percent in the late 1800s, by 1906 their return had dropped to 8 percent (Hyman et al.

1987: 78). As Brock (1981: 122) noted, this competitive period brought gains unimaginable just a few years earlier,

After seventeen years of monopoly, the United States had a limited telephone system of 270,000 phones concentrated in the centers of the cities, with service generally unavailable in the outlying areas. After thirteen years of competition, the United States had an extensive system of six million telephones, almost evenly divided between Bell and the independents, with service available practically anywhere in the country.

Industry historians Leonard S. Hyman, Richard C. Toole, and Rosemary M. Avellis (1987: 90) summarize the overall effect of this period by saying, "It seems competition helped to expand the market, bring down costs, and lower prices to consumers."

The rapid ascendancy of competition casts doubt on the natural monopoly model of this industry. It appears AT&T's only claim to monopoly power prior to this period could be attributed to their numerous patents, not superior economies of scale as the natural monopoly theorists believed. In fact, as J. Maurice Clark concluded in his famous 1923 *Studies in the Economics of Overhead Costs*, "Telephone companies . . . show no signs of economy with increased size, but rather the opposite" (1923: 321). Hence, the most important justification for regulation of the telephone industry--that it was a natural monopoly with rapidly declining costs as its size increased--was not present during this era. Yet, as we shall see later, that fact would not stop AT&T and government regulators from arguing to the contrary.

Economies of scale constitute only part of the natural monopoly equation; high barriers to market entry constitute the other half. Yet, despite the large costs associated with telephone service initiation, new competitors were entering the market easily during this period. Hence, the barriers to entry were not so high as to exclude immediately new competitors. To explain the rapid demise of competition that would take place over the next few years, some other type of entry barrier had to develop. That new impediment would take the form of both subtle and blatant government intervention throughout the next decade.

Theodore Vail, Nationalization, and the End of Competition, 1913-21

Before examining exactly how the legal barriers to competition developed within the telephone industry, it is important to review the significance of a single man--Theodore Newton Vail. On April 30, 1907, Vail returned to AT&T as president,[1] marking the beginning of [cl12.25]the end of telephone competition. His return to the firm changed its fundamental focus from competition to consolidation. Vail's most important goals upon taking over AT&T were the elimination of competitors, the befriending of policymakers and regulators, and the expansion of telephone service to the general public. Reflecting Vail's belief in the superiority of a single telephone system, AT&T adopted a new corporate slogan as part of an extensive advertising campaign: "One Policy, One System, Universal Service." In AT&T's 1910 Annual Report, Vail summarized his belief in a single system saying, "Effective, aggressive competition, and regulation and control are inconsistent with each other, and cannot be had at the same time." To achieve this vision, Vail began acquiring a number of independent telephone competitors, as well

as telegraph giant Western Union. However, the government made it known quickly that such activity was suspect under existing antitrust statutes.

Wisely realizing the government was considering action to break up the growing firm, Vail decided to enter an agreement that would appease governmental concerns while providing AT&T a firm grasp on the industry. On December 19, 1913, the "Kingsbury Commitment" was reached. Named after AT&T Vice President Nathan C. Kingsbury, who helped negotiate the terms, the agreement outlined a plan whereby AT&T would sell off its $30 million in Western Union stock, agree not to acquire any other independent companies, and allow other competitors to interconnect with the Bell System.

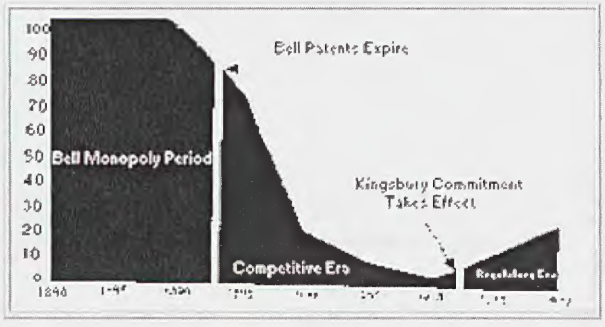
The Kingsbury Commitment was thought to be pro-competitive. Yet, this was hardly an altruistic action on AT&T's part. The agreement was not interpreted by regulators so as to restrict AT&T from acquiring any new telephone systems, but only to require that an equal number be sold to an independent buyer for each system AT&T purchased. Hence, the Kingsbury Commitment contained a built-in incentive for monopoly-swapping rather than continued competition. Brock (1981: 156) noted, "This provision allowed Bell and the independents to exchange telephones in order to give each other geographical monopolies. So long as only one company served a given geographical area there was little reason to expect price competition to take place."

Ironically, the move toward interconnection, while appearing in the independents' favor, actually allowed AT&T to gain greater control over the industry. Brock (1981: 156) found that "interconnection reduced the Bell's ability to drive the independents out of business but also eliminated the independents' incentive to establish a competitive long-distance system." Michael K. Kellogg, John Thorne, and Peter W. Huber (1992: 16-17) concluded:

The government solution, in short, was not the steamy, unsettling cohabitation that marks competition but rather a sort of competitive apartheid, characterized by segregation and quarantine. Markets were carefully carved up: one for the monopoly telegraph company; one for each of the established monopoly local telephone exchanges; one for the Bell's monopoly long-distance operations. Bell might not own everything, but some monopolist or other would dominate each discrete market. The Kingsbury Commitment could be viewed as a solution only by a government bookkeeper, who counted several separate monopolies as an advance over a single monopoly, even absent any trace of competition among them.

Hence, AT&T's short-term deal to steer clear of government regulation, would have long-term gains exactly the opposite of those the government supposedly desired. This was the beginning of the end for telephone competition (see Figure 1). Although it is impossible to say exactly what would have happened if AT&T had not been pressured into the Kingsbury Commitment, it is not outrageous to hypothesize that competition would have continued to flourish.

Figure 1
Percentage of Telephones Owned by Bell, 1800-1920



At this point, more explicit government actions began to have a deleterious impact on the industry. Despite the fears of many public officials that AT&T could become a ruthless monopolist, a contradictory notion began to develop that monopoly was inherently "natural" within this industry. Numerous federal and state officials began arguing quite openly that the telephone industry would function most efficiently if unified as one system. Legislators began referring to competition in the same terms as Vail--"duplicative," "destructive," and "wasteful." A Senate Commerce Committee hearing in 1921 stated that "telephoning is a natural monopoly." And a House of Representative committee report noted, "There is nothing to be gained by local competition in the telephone business" (quoted in Loeb 1978: 14). A Michigan Public Utilities Commission report (1921: 315) from that same year also illustrates this prevailing sentiment, "Competition resulted in duplication of investment. . . . The policy of the state was to eliminate this by eliminating as far as possible, duplication." Many state regulatory agencies began refusing requests by telephone companies to construct new lines in areas already served by another carrier and continued to encourage monopoly swapping and consolidation in the name of "efficient service" (Lavey 1987: 184-85). Kellogg, Thorne, and Huber (1992: 17) sum up the prevailing sentiment: "To judge by actions, then, rather than words, government officials had no strong objection to monopoly telephone service. This was especially true for state regulators. For them, a local telephone monopoly was both welcome and convenient."

Not surprisingly, Vail's vision of "one system" that would provide "universal service" to everyone, began looking more attractive to many in public office. Richard H.K. Vietor (1994: 172) of Harvard University argues, "Vail chose at this time to put AT&T squarely behind government regulation, as the quid pro quo for avoiding competition. This was the only politically acceptable way for AT&T to monopolize telephony. . . . It seemed a necessary trade-off for the attainment of universal service." As AT&T's 1917 Annual Report noted, "A combination of like activities under proper control and regulation, the service to the public would be better, more progressive, efficient, and economical than competitive systems."

Industry historian Robert W. Garnet (1985: 130) provides further support for Vietor's findings:

Regulation played a crucial role in Vail's plans. Astute enough to realize that the kind of system he proposed--universal integrated monopoly--would stand little chance of gaining public approval without some form of public control, he embraced state regulation. In doing so, he broke with the company's long-standing opposition to what [AT&T] management had traditionally regarded as an unwarranted intrusion on its prerogatives. But after years of unfettered competition, during which the firm's financial strengths had been sapped and its efforts to build an integrated system had been dangerously undermined, regulation became a

much-preferred alternative. Thus, Vail obviously saw government regulation as the way to eliminate competitors: the one-way ticket, not only to universal service, but also to monopoly profits.

World War I and Nationalization

The stage was then set for the complete monopolization of the industry by AT&T. The regulatory treatment AT&T received was facilitating their take-over of the industry while, at the same time, allowing them to state publicly that they were under strict government control. Yet, despite the fact that the tables were certainly tilted in AT&T's favor in most areas, competition persisted in some regions. It was World War I, the nation's first global crisis, that would provide the government with a convenient excuse to forcefully gain control over communications and forever change the structure of the telephone industry. On August 1, 1918, in the midst of World War I, the federal government nationalized the entire telecommunications industry for national security reasons.

At first, AT&T executives became nervous when it was announced that Postmaster General Albert S. Burleson, a long-time advocate of nationalizing the telegraph and telephone industries, would assume control of the market. But, once the benefits of nationalization where made evident to Vail, his anxieties disappeared. Industry historian George P. Oslin (1992: 278) notes when Vail expressed concern over the plan to Western Union President and close personal friend Newcom Carlton, Carlton reassured Vail that the plan was in his interest: "It's your salvation. The government will be able to raise your rates and get you new money." As Oslin (252) argues, "That was what happened. Burleson appointed Vail, rated by Carlton as a genius, to manage the telephone, and Carlton to operate the telegraph."

Noobar R. Danielian (1939: 248) concurs: "There is evidence that Vail appreciated the advantages of Federal control . . . he was not in much of a hurry in the early part of 1919 to have his System back from nominal government control." This attitude should not be at all surprising since shortly after the industry was nationalized, AT&T's proposed contract establishing the terms of government ownership and compensation was accepted by the postmaster general. Danielian (1992: 252) summarizes the deal as follows:

The federal government . . . agreed to pay to AT&T 4 1/2 percent of the gross operating revenues of the telephone companies as a service fee; to make provisions for depreciation and obsolescence at the high rate of 5.72 percent per plant; to make provision for the amortization of intangible capital; to disburse all interest and dividend requirements; and in addition, to keep the properties in as good a condition as before. Finally, AT&T was given the power to keep a constant watch on the government's performance, to see that all went well with government operation, by providing that the books of the Postmaster General would be at all times open for inspection. One might well wonder where the real control was lodged. Needless to say, the contract was eminently satisfactory to the Bell System.

In addition, once the nationalized system was in place, AT&T wasted no time applying for immediate and sizable rate increases. High service connection charges were put into place for the first time. AT&T also began to realize it could use the backing of the federal government to coax

state commissions into raising rates. Vail personally sent Postmaster General Burleson studies that displayed the need to raise rates. By January 21, 1919, just 5 1/2 months after nationalization, long-distance rates had increased by 20 percent. In addition to being much greater than returns earned during more competitive years, the rates established by the postmaster during the year of nationalization remained in force many years after privatization. Consequently, AT&T's generous long distance returns continued to average near or above 20 percent during the 1920s.

By the time the industry was returned to private control on August 1, 1919, the regulatory route to competition elimination had paid off handsomely for Vail and AT&T. Of the estimated $50 million in rate increases approved by the postmaster general during nationalization, approximately $42 million, or 84 percent went to AT&T. Additionally, the government cut AT&T a $13 million dollar check at the end of the period to cover any losses they may have incurred, despite the fact that none were evident.

The Importance of Rate Regulation

The year of government nationalization was the nail in the coffin of competition. However, the favorable regulatory treatment AT&T received during government ownership was only partially to blame for the death of competition. Of much greater importance, according to Hyman, Toole, and Avellis (1987: 81), was the initiation of extensive rate regulation:

During this period of government ownership, the decision was made to set standard long-distance rates throughout the country, based on average costs. In other words, subscribers calling from large cities would pay above costs in order to provide a subsidy to those in rural areas. So, early in the century cross-subsidization began, embraced by the industry, which rarely question the premise behind [fn5]the arrangement that the ability to communicate with subsidized subscribers was of value to the subsidizing subscribers. As long as the telephone industry had a monopoly and regulators approved of the arrangement, it did not matter what subscribers wanted. They had no choice.

The intention of this action was obvious--Vail's vision of a single, universal service provider was being adopted and implemented by the government through discriminatory rate structuring.

The decision to initiate rate averaging is vitally important to understanding exactly how the telephone monopoly developed for three reasons. First, rate regulation in the pursuit of universal service objectives virtually demands a single monopolistic provider in order to be truly effective. Few firms would ever have the ability to adequately fulfill universal service obligations unless they were already sufficiently large to use revenues from one segment of their business to subsidize the extension of service to citizens that policymakers wanted covered. In addition, regulators favor monopolies or cartels to carry out such social polices since they find it easier to control their actions rather than the actions of multiple competitors. Hence, in the quest to achieve social policy goals, regulatory commissions end up depending upon one, or a handful of firms to provide all industry output. Consequently, competition is made difficult, if not impossible. In the words of regulatory economist Alfred E. Kahn (1971: 12),

When a commission is responsible for the performance of an industry, it is under never completely escapable pressure to protect the health of the companies it regulates, to assure a desirable performance by relying on those monopolistic chosen instruments and its own controls rather than on the unplanned and unplannable forces of competition.

Second, the initiation of extensive federal rate regulation is important because it propelled state regulatory commissions to follow suit by greatly extending the scope of their authority. By 1922, 40 of 48 states were regulating telephone rates (Noll 1991: 180). The public utility commissions at the state level immediately began to mimic federal policies established during World War I. Businesses and urban subscribers were charged more than rural customers to help extend service to distant locations. Likewise, long-distance rates were averaged to ensure a company could not charge more for toll calls of the same distance. Robert Garnet (1985: 152) describes this state-based rate regulation: "Statewide rate averaging would eventually become a distinguishing feature of Bell System subscriber charges and would be embraced by regulators as a strategy for promoting the extension of telephone service to areas of marginal earnings potential." And that is exactly what happened. By 1925 not only had virtually every state established strict rate regulation guidelines, but local telephone competition was either discouraged or explicitly prohibited within many of those jurisdictions. [2]

Third, by averaging rates geographically to artificially suppress rural rates, policymakers and regulators created a serious disincentive to local telephone competition. Few firms, after all, will seek to enter a market and offer service if they realize it is difficult, if not impossible, to undercut the subsidized service of the incumbent carrier.

After reflecting on the overall impact of the introduction of regulation during this period, Brock (1981: 159-61) maintained,

The combination of state and federal regulation stabilized the industry and ended the rate wars that had occurred during the early period of competition. Regulation increased the difficulty of new entry. . . . By accepting regulation voluntarily, Bell reduced the risk that unfavorable regulation would be imposed. The system of competing federal and state regulation, together with the complex Bell structure, prevented real regulatory control while providing the protection and legitimacy of a regulated utility. . . . The acceptance of regulation was a risk-reducing decision. It substituted a limited but guaranteed return on capital and management freedom for the uncertainty of the marketplace. It gave the Bell system a powerful weapon to exclude competitors and justification for seeking a monopoly, as well as reducing the chances of outright nationalization or serious antitrust action.

Hence, universal service, the final element of AT&T's strategy to eliminate competition, was in place thanks to the explicit actions of both federal and state legislators and regulators. Once AT&T's motto was adopted as the nation's *de facto* regulatory policy, no other firm was in a position to adequately extend service in accordance with the new federal and state mandated social policy. The Bell monopoly was here to stay.

The FCC and Telephone Entitlement

A few years later, this new unwritten law of the land was codified as the raison d'etre of the Federal Communications Commission (FCC) with the passage of the Communications Act of 1934. The commission was created, "for the purpose of regulating interstate and foreign commerce in communication by wire and radio so as to make available, so far as possible, to all the people of the United States a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges."

In effect, every American was henceforth found to be entitled to the right to telephone service, specifically cheap telephone service. To carry out this difficult policy objective, the FCC was given sweeping powers. Beside its powers to regulate rates to ensure they were "just and reasonable," the FCC was also given the power to restrict entry into the marketplace. Potential competitors were, and still are required to obtain from the FCC a "certificate of public convenience and necessity." The intent of the licensing process was again to prevent "wasteful duplication" and "unneeded competition." In reality, it served as a front to guard the interests of the regulated monopoly and the FCC's social agenda.

The overall hostility to competition by the FCC and the drafters of the legislation that gave birth to it is best illustrated by a 1988 Department of Commerce report on the development of the telecommunications industry. The report notes, "The chief focus of the Communications Act of 1934 was on the regulation of telecommunications, not necessarily its maximum development and promotion. [T]he drafters of the legislation saw the talents and resources of the industry presenting more of a challenge to the public interest than an opportunity for national progress" (164).

Over time the FCC would come to see the Bell System simply as the implementor of its agenda. Consequently, it would continue to use its power in favor of AT&T when potential competitors threatened the firm's hegemony. Their bureaucratic mismanagement of the radio spectrum (which was nationalized under the Radio Act of 1927) meant the most capable competitor of the era would never be given a chance to compete. Despite the fact that wireless technologies would be greatly developed in the near future, the possibility of serious wireless competition rising up to meet the Bell challenge in the first half of this century became less likely once government forces, instead of market forces, controlled how the spectrum was allocated. Just as the wireline technologies where subject to blatant political manipulation, the wireless spectrum became the tool of regulatory and special interests; competition was again dealt a severe blow.

Thomas Hazlett (1990) has proven that the nationalization of the radio spectrum was a special interest fiasco that was totally unnecessary. Property rights within the spectrum were developing and could have become the norm if not for the intervention of federal regulators at the request of industry leaders. Kellogg, Thorne, and Huber (1992: 19-20) have also pointed out the anti-competitive nature of the 1927 Radio Act:

A gentlemanly agreement, reached under political pressure, had once again replaced competition with complementary monopolies. It reaffirmed the general prohibition on "monopoly" of the airwaves--meaning that competition over the airwaves was prohibited, at least if it came from Bell. The Act forbade cross-ownership of telephone companies and broadcasting stations, and flatly rejected the operation of radio stations as `common carriers.' None of this could have

concerned top officials at RCA or Bell very much. Congress merely cemented and strengthened a division of markets and territories that the parties had already voluntarily embraced.

Likewise, when the cable industry appeared on the scene several years later, it was restrained from entering other market segments. Finally, as mentioned, in those intrastate markets the FCC did not have jurisdiction over, state commissions protected local monopolies by restricting entry and guaranteeing their revenues.

Needless to say, by World War II, the communications industry had become a good old boy network. Regulators and the regulatees realized they had something to gain by allying in opposition to the forces of competition. Alfred Kahn (1971: 46) recognized the cozy nature of the regulator-regulatee relationship: "Responsible for the continued provision and improvement of service, [the regulatory commission] comes increasingly and understandably to identify the interest of the public with that of the existing companies on whom it must rely to deliver goods."

Hence, owing to a federal policy that placed higher value on immediate universal service than competition, the Bell monopoly was solidified.

The Lessons for Today's Legislators

The belief that government intervention substantially decreased competitive opportunities within the telecommunications industry is borne out by the historical record. The actions of legislators and regulators, both deliberate and accidental, led to the creation of the Bell monopoly. The demise of competition within the industry was brought about by three primary forces:

1. The removal of "wasteful" or "duplicative" competition through exclusionary licensing policies, misguided interconnection edicts, protected monopoly status for dominant carriers, and guaranteed revenues for those regulated utilities;

2. The mandated social policy of universal telephone entitlement, which called for a single provider to easily carry out regulatory orders; and

3. regulation of rates (through averaging and cross-subsidization) to achieve the social policy objective of universal service.[3]

The combination of these government-induced policies, which were introduced in rapid succession, was enough to kill telephone competition just as it was gaining momentum.

Despite this evidence, many economists still argue that in the absence of government control, a monopoly would have developed and consumers would have been exploited to a greater extent in the process. Such an outcome is questionable. Even if the assumption is granted, it is arguable that such an outcome would have proven as disastrous as the monopoly theorists believe. Such a suboptimal market setting would have invited entrepreneurial solutions to the monopolistic practices, encouraging the development of competitive technologies to satisfy consumer demands. [4] This entrepreneurial activity might have taken place much sooner had government

not erected legal barriers to competition throughout the industry. Once the government rigged the rules of the game to favor one firm over all others, competition was virtually impossible.

A review of the historical record of American telephony, considered to be the prime example of a natural monopoly industry, serves as an excellent starting point for a fundamental reassessment of the validity of natural monopoly theory. Some economists have challenged the notion that monopolies are in any sense natural. James R. Nelson (1966: 3) claimed:

One of the most unfortunate phrases ever introduced into law or economics was the phrase "natural monopoly." Every monopoly is a product of public policy. No present monopoly, public or private, can be traced back through history in a pure form. "Natural monopolies" in fact originated in response to a belief that some goal, or goals, of public policy would be advanced by encouraging or permitting a monopoly to be formed, and discouraging or forbidding future competition with this monopoly.

Hazlett (1985: 21) has also weighed in by refuting many of the obsolete notions upon which natural monopoly theory is based:

> The economists' analysis of the inefficiency of unregulated natural monopoly markets did not spring from a scientific or particularly scholarly research program but in response to "a growing clamor for more government." Indeed many of the early natural monopoly writers had attacked the problem because of personal ideological agendas; their politics preceded their studies.

Finally, economists with allegiance to the Austrian School of economics, such as Dominick T. Armentano (1990), F.A. Hayek (1948), and Israel M. Kirzner (1973), believe that not only are answers to the questions about natural monopoly wrong, the questions themselves are improperly formulated. Competition, these scholars insist, is a dynamic process of constant entrepreneurial adjustment to market signals. The market is never at rest; today's monopoly could be tomorrow's competitive market. A truly competitive marketplace, therefore, will be free of any artificial restraints or barriers to entry that interrupt this dynamic adjustment process. Hence, when examining the development of the telephone market through an Austrian paradigm, it should be obvious that the only "failure" was not of the market, but of legislators and regulators who failed to allow entrepreneurial solutions to develop.

The most important lesson legislators can draw from this study is that government intervention need not be explicit or massive to have serious long-term and deleterious effects on competition within an industry. In the case of telecommunications, the government's simple stipulation that rates be artificially set to reflect certain social policy objectives was the crucial factor that led to the creation of the AT&T monopoly. Other factors, such as interconnection requirements, also illustrate how good intentions can often have disastrous results. In this case, interconnectivity provided a disincentive to built competing systems, tilting the market in AT&T's favor.

Still, legislators demand specific answers for many difficult questions. First, there is the question already addressed briefly above--would not a free market for telecommunications be privately monopolized or oligopolized anyway? To answer this more succinctly, there is no doubt that all businesses would like to capture an entire market for themselves and receive exorbitant profits

from the goods and services they produce. But, the beauty of the free market is that it tames such tendencies through competition and entrepreneurship. Every time a producer ignores the needs of consumers, entrepreneurs see the opportunity to step in and fill the market's need. General Motors and IBM can both attest to the truth of this phenomenon. At one time they both sat atop their respective markets, only to find their perfect worlds shattered by innovative competitors. Ironically, both GM and IBM were once targets of federal antitrust investigations. Would the automobile or computer industry be any more competitive today had the government broken up either of these companies? Likewise, would consumers have been better off if either firm was granted the status of a government-regulated monopolist? It would be hard to argue that that would be the case--both industries are now vigorously competitive precisely because the market was allowed to work; consumer power took precedence over arbitrary regulatory power.

But what about universal service? Would a telecommunications free market have guaranteed everyone access to a telephone? At first, definitely not. Competition would have taken time to develop to the point were everyone was provided access. But, just as virtually every American gained access to a radio and television (and many to a video cassette recorder) through free-market competition, telephones would have eventually become ubiquitous without government mandates. The demand for telephone service is too inelastic to image the opposite being the case. Quite likely, innovative products would first have been introduced into lucrative business markets and then slowly spread out to rural, residential areas as consumer demand grew. Thus, the extension of telephone service probably would have progressed much as television and computers have. Competitors would have eventually formulated appropriate interconnection charges to ensure that a spontaneous universal system developed. It would have become virtually impossible for a firm to survive if it did not agree to interconnect with others. As for those citizens in far-off rural areas that legislators most fear would be forgotten, wireless systems would have eventually arisen to accommodate their needs. Although such service would not have been cheap initially, it would have been available.

Yet, instead of patiently allowing competition to develop within the telecommunications industry, arrogant legislators thought they better understood how to order the marketplace, and intervened to conduct their experiment. Their hastiness allowed AT&T to monopolize one of the most important industries in existence. Their mistakes should make us question the validity of any statements by today's legislators that they better understand how to make the marketplace competitive.

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Notes

[1] He had previously served as president from 1885-87.

[2] Many such prohibitions and restrictions still exist today. According to the National Association of Regulatory Utility Commissioners' Summary of Competitive Status by Population, 19 states still have substantial legal barriers to competition, and another 20 only

allow partial competition. When population is taken into account, roughly 70 percent of Americans live in a state that either allows only partial or no competition.

[3] This list closely resembles Warren G. Lavey's outline of the "five major public policies which accounted for much of the transition to regulated monopolies." His list is as follows: "(1) efficient supply of services; (2) reasonable revenues; (3) extension of service to remote areas; (4) averaged rate structures; and (5) below-cost pricing for residential services" (Lavey 1987: 171).

[4] This is exactly what began to happen under the government-regulated market anyway as new wireless and computerized inventions gradually eroded the Bell System's technological advantages. Yet, various bureaucratic gaffes and outright regulatory prohibitions continued to limit the extent to which new technologies could have a substantial impact on industry-wide competition. The result was minor gains for rivals in new market segments, such as microwave communications and resale, but little else in the way of a serious challenge to AT&T's hegemony.

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